ABSTRACT

Title of dissertation: AN EXPLORATION OF THE IMPORTANCE OF

GENERAL EDUCATION IN CAREER AND

TECHNICAL EDUCATION PROGRAMS AT A

COMMUNITY COLLEGE IN ALABAMA

Angela Nicole Bell, Doctor of Education, May 2019

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According to Wonacott (2003), formal vocational education, now known as career and technical education, began in the United States early in the 20th century. It has evolved in response to the needs and changes of society and business and industry. Wonacott (2003) asserted that, "Career and technical education goes far beyond the specific technical knowledge and skills required for an occupation" (p. 3). Now, general education is much a part of career and technical education programs.

The purpose of this qualitative study was to explore students' perceptions of the importance of general education courses in career and technical education programs in the community college setting at Higher Hill Community College, a fictitious institution, in Alabama. General education was defined as "integrated learning experiences structured across subject disciplines to provide the set of skills and knowledge needed to function in society" (Sternberg & Williams, 2002, p. 152).

The students in this study strengthened the notion that general education courses are important to help individuals be successful in the workforce as they help develop core skills. The literature review supports that general education courses develop individuals' ability to think critically, become problem solvers, and communicate in a professional manner. This study has also shown that integration of general education and career and technical education curricula keeps students engaged in learning that promotes success in the classroom and in the workforce.

AN EXPLORATION OF THE IMPORTANCE OF GENERAL EDUCATION IN

CAREER AND TECHNICAL EDUCATION PROGRAMS AT A COMMUNITY

COLLEGE IN ALABAMA

by

Angela Nicole Bell

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DEDICATION

This dissertation is dedicated first to my Lord and Savior Jesus Christ for without him this journey would not have been possible. Secondly, I dedicate this work to my daughter, Ja'Heidi Bell. Always know that you can do anything you set your mind to. I hope I am an example for you to always reach for the moon. If you miss the moon, you will land among the stars. I love you with all my heart. To my bonus daughters, Brianna and Brittany, I love you both and hope that you continue to strive to be the best you that you can be. To my parents, you have always inspired your children to strive for greatness. Because of you, you now can add a Doctoral Degree to your repertoire. Thank you for inspiring me. You two are the best! To my brothers and sisters, I love you all so much and thanks for always being there for me. To my nieces and nephews, always strive to do your best and the rest will follow you. Love you all. Carolyn and Anthony, you two have always been an inspiration to me, and I love you both. Thank you. Lastly, thank you to all my mentors, friends, and family for helping me get through this journey. The support was needed and appreciated.

This has not been an easy journey, but it has been great and rewarding. I've learned a lot and have matured mentally since the beginning of this journey. All the long nights and tears that no one knew I cried, was all worth it! I am so grateful!

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I would like to recognize the students of Higher Hill Community College for donating your time to me to help fulfill my dream. It could not have done it without you.

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A Reflection of the American Community College

Beginning in 1851 and continuing until 1869, it was proposed by university leaders Henry Tapan, William Mitchell, and William Folwell, respectively, that universities relinquish providing general education courses to freshmen and sophomores, and relegate the role to new institutions named junior colleges (Cohen, Brawer, & Kisker, 2014). In addition, other university educators and leaders, William Rainey Harper, Edmund James, David Starr Jordan, and Alexis Lange, also felt that universities should be responsible for high-order courses, while the proposed junior colleges provide general education and vocational education (Cohen, Brawer, & Kisker, 2014). Therefore, with the persuasion of these university elites, the first American community college, Joliet Junior College, was founded in 1901, which focused on liberal arts for transfer to universities (Drury, 2003). According to Cohen, Brawer, and Kisker (2014), junior colleges, such as Joliet, offered vocational education to help unskilled individuals prepare for industry, and many did not charge tuition (Tollefson, 2009).

Junior colleges did not grow very quickly in their inception. By 1910, there were three public junior colleges, and by 1914 there were 14 public junior colleges and 32 private junior colleges (Drury, 2003). During the earlier years, junior colleges were extensions of high schools. Cohen, Brawer, and Kisker (2014) stated, "There was much discussion in the 1920s and 1930s on whether junior colleges were extensions of secondary schools or truncated colleges" (p.12). This discussion helped to birth the 6-4-4 plan. The plan had three types

of institutions: elementary school, grades 1-6; junior high, grades 7-10; and junior college, grades 11-14. According to Kisker (2006), the 6-4-4 plan was mutually incompatible to most community college laws because legislators intended for community colleges to be governed and funded as institutions of higher education and separate from high schools.

One major era in the community college history was during the Truman Commission of 1947.   Drury (2003) noted that, "The President's Commission called for the establishment of a network of public community colleges that would charge little or no tuition, provide cultural centers, serve the local areas in which they served, and offer a comprehensive curriculum" (p. 5). It called for the opportunity for anyone who desired the pursuit of higher education to be able to receive it regardless of race, creed or nationality. The Commission called for equality for all.   It was also stated, within the President's Commission, that community colleges become community based to meet the needs of the community that they served (President's Commission, 1947). "In 1988, *the Report of the Commission on the Future of Community Colleges* defined the term "community" not only as geographical location but also a climate for learning" (Drury, 2003, p. 5).

According to Cohen, Brawer, and Kisker (2014), fifty years after the President's Commission of 1947, President Clinton (1998) provided the context for the importance of making higher education as universal as a high school diploma to those in grades 13 and 14. President Obama (2009) asserted the need for an additional five million community college degrees and certificates and

asked every American to commit to at least one year of career training or higher education (Cohen, Brawer, & Kisker, 2014). The President's Commission of 1947 had a lasting appeal that carried over to other presidencies.

Enrollment at community colleges began to increase after the Truman Commission. In the 1960s, an enrollment surge occurred and the community colleges grew more rapidly than any other segment in higher education (Drury, 2003). Expansion of community colleges grew at a rate of one new college per week. The colleges continued to grow during the 1970s; however, the university transfer student enrollment began to decline, and more students began to enroll in vocational programs (Drury, 2003). During the 1980s, the community college began to change in its mission. Specialized training, customized training, and highly vocational-oriented programs began to be offered at community colleges (Drury, 2003). Additionally, by 2010, there were eighteen states approved to offer baccalaureate degrees in community colleges (Cohen, Brawer, & Kisker, 2014).

There are almost 1200 community colleges in America today (Cohen & Brawer, 2008). The community college enrolls almost half of undergraduate students and almost half of minority students, who enroll primarily due to their open door policy, accessibility, and the focus on students and teaching (Drury, 2003). Since their inception, community colleges have become a gateway to education, and essentially, the American dream, for those who may not have otherwise had the opportunity.

One of the missions of the community college is preparing students for the workforce. Occupational education has been the educational pipeline for preparation of industry for students. The mission of the community college is to provide education and skills training for individuals and to serve the community as a whole, which includes the needs of business and industry (American Community College, 2010). To achieve a high quality, better prepared workforce, community colleges must continue to develop partnerships with business and industry (Orr, 2001).

According to O'Rear (2011), "A competitive advantage for business and industry is grounded in training and retaining a skilled and innovative workforce" (p. 3). The American economy depends on the occupational education and skills of workers. Community colleges have developed many training programs to address business and industry needs. They have always had occupational programs to meet their mission of serving industry; however, they broadened the workforce mission.

Community colleges in the last two decades have greatly broadened their economic development role to include contract training, small-business development, and local economic planning (Dougherty & Bakia, 2000). The mission of workforce is two-fold for community colleges as they prepare students academically, while meeting the business and industry needs for skilled workers. According to Cohen, Brawer, and Kisker (2014), "In 2010-11, occupationally oriented degrees accounted for 58% of awards conferred by higher education, and national data show 50% of degrees awarded for the past 40 years were in

areas of direct employment" (p. 315). Jacobs & Dougherty (2006) concluded the following:

> Community colleges have become a significant factor in local workforce development by taking advantage of institutional strengths that include organizational flexibility, close proximity to private sector enterprises, low cost, technical expertise, and experience in teaching adult learners. (p.53)

This confirms the continual need of community colleges to offer training for business and industry to support the workforce of today.

Background of the Study

According to Wonacott (2003), formal vocational education, now known as career and technical education, began in the United States early in the 20th century. It has evolved in response to the needs and changes of society and business and industry. Wonacott (2003) asserted that, "Career and technical education goes far beyond the specific technical knowledge and skills required for an occupation" (p. 3). Now, general education is much a part of career and technical education programs. Career and technical education encompasses not only technical skills preparation, but also a sound academic foundation (Wonacott, 2003). This academic foundation is taught in general education courses, which gives individuals a stronger foundation in critical thinking, ethical reasoning, and other core skills needed for the nation's workforce.

Career and technical education (CTE) students need both CTE and general education courses in their specific areas of study in order to function successfully in society and in the workforce. According to Cohen, Brawer, and

Kisker (2014), community colleges have designed some courses so that both general education and career and technical education elements are incorporated. Community colleges have made it their mission to educate for workforce training as well as for core skills, through general education (Cohen, Brawer, & Kisker, 2014).

Career and technical education prepares individuals for today's workforce. According to Davis (2008), community colleges serve as the primary provider of career and technical education. They have maintained their status by offering rigorous course work in career and technical education programs to strengthen the relationship between institutions and industry partners in an effort to provide workers for today's technology driven workforce. Bailey (2006) stated that community colleges play an essential role in preparation for many occupations. By design, they work closely with industry partners to organize customized training within the career and technical education programs.

Career and technical education was once perceived as a separate component from general education. But, as society and the need for skilled workers have changed, so has that rationale. The economy has changed, which contributes to the need of workers that can think, make decisions, and learn new skills (Clark, 1999). Fanelli (2013) suggested that community colleges recognize the value that general education brings to career and technical programs. A solid foundation in the arts, humanities, and sciences helps an individual participate in sound decisions with good judgment (Austin, 2011). These skills are foundations needed for the workforce. Together, career and technical education and general

education can engage students through relevant learning to prepare them for career success.

General education courses help individuals learn how to apply real-life situations in the workplace. According to Gordon, Dagget, McCaslin, Parks, and Castro (2002), "The workplace requires, for most workers, strong academics, especially in English, language arts, mathematics, and science, as well as computer skills" (p. 47). According to Gordon, et al. (2002), research has shown that employers are finding it difficult to employ and retain individuals who do not have good work ethics and appropriate social behaviors.

General education courses may be important for the success of a career and technical education student, but the rate of success of general education courses is significantly low. This is an issue for students who want to complete their certificates or degrees and begin a career. National figures show the following:

> If students withdraw from or fail even one of their first five course attempts, their chance of graduating is cut in half. If they fail or withdraw from two classes, those chances are cut in half again. (Westervelt, 2016, para 10)

According to data extracted, (Appendix D) from the Alabama Community College database, students are failing most general education courses at Higher Hill Community College at an alarming rate (Data Access and Exchange, 2018). Career and technical education programs make up 80% of Higher Hills academic programs; therefore, the vast number of students failing general education courses are in career and technical education programs. Career and technical

students at Higher Hill Community College take general education courses to satisfy their requirement for their program completion. However, the data show a large number of students are failing general education courses. While general education courses add value to career and technical education programs (Gordon, et al., 2002), there are limited studies on the importance of general education in career and technical education programs or how important they may be to students.

Theoretical Framework

A theoretical framework includes terms, concepts, models, thoughts, and ideas as well as references to specific theories (Merriam & Tisdell, 2015, p. 89). A theoretical framework is an underlying structure for all research, which consists of concepts, or theories that inform the study of the researcher (Maxwell, 2013). Anfara and Mertz (2015) propose that, "A theoretical framework is a lens to study phenomena" (p. xv.). According to Merriam and Tisdell (2015), the theoretical framework affects every aspect of the study.

General education has been and is today the core curriculum for community colleges. According to Erie (2013), general education helps shape individuals to become professionals, producers, and consumers. One way that community colleges can ensure that students are obtaining these skills is through student engagement. The failing rate of CTE students in general education courses shows that students are not engaged in their general education courses. According to Trowler (2010),

Student engagement is concerned with the interaction between the time,

effort and other relevant resources invested by both students and their

institutions intended to optimize the student experience and enhance the

learning outcomes and development of students and the performance,

and reputation of the institution. (p. 3)

Kuh (2009) stated the following:

The engagement premise is straightforward and easily understood: the

more students study a subject, the more they know about it, and the more

students practice and get feedback from faculty and staff members on

their writing and collaborative problem solving, the deeper they come to

understand what they are learning and the more adept they become at

managing complexity, tolerating ambiguity, and working with people from

different backgrounds or with different views. (pp. 5-20)

The theory that undergirded this qualitative study is Kuh's student

engagement theory. It provided the lens through which this researcher views

students' perceptions about the role of general education courses. Kuh's student

engagement theory provided the understanding of how general education can

provide knowledge based skills for career and technical education students to

prepare them for the workforce. Kuh describes student engagement as "the time

and energy that students devote to educationally sound activities inside and

outside of the classroom, and the policies and practices that institutions use to

induce students to take part in these activities" (Kuh, 2003, p. 25). Kuh believes

that students become more adept in education when they study and practice

more within a given subject. His theory conveys, for this study, that if students are more engaged, by community colleges, in both their general education and program courses, they will ultimately be successful.

It was noted by Kuh (2003) that students will go beyond what they think they can do under certain conditions, especially when their mentors expect, challenge, and support them to do so. The researcher believes that if students are engaged in general education courses while in career and technical programs, they will be more successful.

One way that community colleges can ensure that students are obtaining the skills necessary for society and the workforce is through student engagement. Student engagement represents the quality of effort and level of involvement in undergraduate studies (Kuh, 2009).   Aper (1996) suggested that students must have the necessary tools to be able to engage in their roles in society. The relevance of subject matter and integrated learning can be a vital part of student engagement.

Relevance of General Education

Kuh (2009) believes that students are more adept in education when they study and practice the subject matter more. When general education is made relevant to students, they tend to be more successful in their studies. Trowler (2010) noted that student engagement in curriculum can be strengthened through curriculum relevance. Learners of today would much rather have their learning applied to real-life scenarios (Taylor & Parsons, 2011). This in turn

keeps the learner engaged in the subject matter and can be the deciding factor in passing and failing the subject matter.

Taylor and Parsons (2011) asserted that there is a common prerequisite for student engagement, and it is relevancy. When learning is relevant, it builds a sense of purpose to the learning experience (Claxton, 2007). Learning should be worthy of the time and attention that students have to and need to give to the subject matter. Relevant learning is effective and promotes student engagement.

It is important to the success of students to make learning relevant. When students have relevant courses, they tend to be more engaged, which in turn can promote success. Kuh (2009) believes that student engagement helps student go beyond what they think they can do. Having relevant learning adds to this premise.

Integrated Learning

When students are motivated, their quality of work increases (Kuh, 2009). Motivation to learn can be linked to the integration of general education and career and technical education curricula. When learning is integrated to what a student loves to do, it keeps the student engaged.

Hoachlander and Steinhauser (2015) stated that success in today's economy depends largely on high levels of academic proficiency. This is essential for our workforce. "The ability to problem-solve, think critically, communicate, collaborate, design and innovate is essential in our globalized economy" (Hoachlander & Steinhauser, 2015, para 2). Joining together career

and technical education with academic courses will help students understand what professionalism is while they apply their skills knowledge in the workforce.

Rigorous coursework, along with relevant experiences, is provided to students when integrated curricula are involved. Integration of curricula is to prepare students for high-skill, high-wage, high demand careers (ACTE, 2015). It is noted by Gentry, Peters, & Mann (2007) that students who are in an integrated CTE and academic model have increased engagement, an increase in overall academic abilities, and increased achievement in postsecondary school.

Integration of career and technical education and general education curricula also addresses the academic success of students. Students are able to understand academic courses when the course material is relevant.

It has also been determined that the integration of the two curricula helps students remain engaged in learning. When integrated, the curricula produce relevance in learning, which promotes student engagement. Self-sufficiency and student engagement develop in students because of integrated curricula (Brewer, 2004). If student engagement, according to Kuh (2009), can help a student be successful, then possibly general education courses in career and technical programs could enhance student engagement.

Carini, Kuh, and Klein (2006) have stated that the "premise of student engagement is perhaps self-evident; the more students study or practice a subject, the more they tend to learn about it" (p. 2). Students who are engaged in the learning process are more likely to retain the knowledge of the given subject. Moreover, students are motivated when they are engaged.

Purpose Statement

The purpose of this study was to explore the perceptions of career and technical education students at Higher Hill Community College regarding the relevance of their general education courses and their perceptions of the possibility of integrating those courses in career and technical programs. General education was defined as "integrated learning experiences structured across subject disciplines to provide the set of skills and knowledge needed to function in society" (Sternberg & Williams, 2002, p. 152). This definition establishes the need for general education in career and technical programs.

Research Questions

Using a qualitative case study to explore the importance of general education as it is perceived by career and technical education students, the researcher will address the following overarching research question: How do students describe their general education experience, and what is the perception of students regarding the integration of general education courses within career and technical education programs?

Significance of the Study

General education is important to career and technical education. Here are some examples of importance. One outstanding example is cosmetology, a career and technical education program offered in the Alabama Community College System. Within the cosmetology program, students are taught to formulate color, for which they need chemistry; they cut and shape hair in different lines and angles for which they need geometry; they create designs,

which require art; and they develop business plans that require math, English and reading skills. The need for general education in career and technical programs is essential.

This study was significant because there were no studies on the students' perception of general education courses in career and technical programs. A study such as this one, which explored how career and technical students perceive general education courses and how they would like it applied to their skills learned, can benefit Alabama Community College System administrators. It can help administrators understand and take a closer look at how general education courses can be applied to career and technical programs. It can also be useful to Alabama Community College System administrators who are concerned with retention, completion, and graduation rates for these students. This study addresses the gap in literature of how career and technical education students perceive general education courses.

Limitations

The setting for the collection of data was a two-year community college in a metropolitan city in the Appalachian region of Northern Alabama in the United States. The student population is small, with approximately 780 students enrolled. Students were selected from the many career and technical programs that are offered at the college. There were data collected from in person, in-depth, semi-structured interviews. These interviews were limited to referrals from career and technical program coordinators or division chairs.

This study is not representative of all the career and technical programs at the chosen community college; however, there was representation from eight programs offered at the chosen college. Additionally, the potentially varied perceptions, beliefs, attitudes, and opinions of the research participants may not lead to findings that are generalizable.

Definition of Terms

Career and Technical Education is an educational program funded mostly by Carl Perkins that gives individuals a chance to train for the workforce with the necessary skills to obtain certifications or degrees. It can begin in high school with articulation to community colleges.

General Education is the group of broad, entry-level classes to satisfy an institution's standard for creating a diverse, well-rounded student body.

Conclusion

Chapter one provided the background and context for this qualitative study, exploring the perceptions of career and technical education students as they pertain to general education. The theoretical framework used to undergird this study is Kuh's (2009) student engagement theory. Research questions, definition of key terms, and study limitations were provided to help clarify the research study. The researcher discussed the importance of general education in career and technical programs. A brief history of the community college, career and technical education, and general education was given.

As previously noted, career and technical education was once perceived as a separate component from general education. Because of the evolution of

technology and the workforce, a need for workers that have skills such as critical thinking, ethical reasoning, and decision making is imperative (Clark, 1999). The community college has recognized the importance of general education in career and technical education programs (Fanelli 2013). Having a solid foundation in the arts, humanities, and sciences constitutes core skills needed in career and technical education (Austin, 2011). These skills are foundations needed for the workforce, and community colleges must help students recognize the importance of those skills in relation to their careers and futures.

Chapter two will discuss literature relevant to understanding career and technical education and general education. It will also discuss the past researchers and their thoughts on career and technical education.

Chapter 2: Literature Review

The literature review served many purposes. For this study, it provided a framework for establishing the importance of the study (Creswell, 2009). As noted by Creswell (2009), researchers completing a qualitative study "use the literature in a manner consistent with the assumptions of learning from the participant, not prescribing the questions that need to be answered from the researcher's standpoint" (p. 26).   The study was exploratory, which is a reason one would conduct a qualitative study. This means that not much has been written about the topic or the population that is being studied (Creswell, 2009). This also helps the researcher listen to the participants to build an understanding about what they have heard and gathered (Creswell, 2009).

The purpose of this study was to explore the perceptions of students in career and technical education programs in regards to the relevance of general education courses and their perceptions of integrating the two curricula. To provide an appropriate context for this study, the literature review presents an overview of general education, career and technical education, the importance of general education in career and technical programs, students' perceptions of general education, the impact on community colleges, and major researchers of career and technical education and general education.

General Education

General education requirements comprise, on average, approximately 30% of the undergraduate curriculum, and therefore, represent an important feature of the student academic experience in American colleges and universities

(Brint, Proctor, Murphy, Turk-Bicakci, & Hanneman, 2009). According to Brint et al. (2009), general education originated in the early twentieth century. Liberal education focused on the study of the heritage of western civilization, and its purpose was to contribute to students' intellectual development and cultural appreciation (Brint et al., 2009). General education focused on the integration of knowledge for purposes of engagement with the problems of contemporary civilization (Jencks & Riesman, 1968; Miller, 1988).

General education is comprised of a grouping of courses in the liberal arts (Vander Schee, 2011). "They represent various disciplines in the arts and humanities, social sciences, natural sciences, quantitative reasoning, and sometimes foreign language" (Vander Schee, 2011, p. 382).   Warner and Koeppel (2009) noted that some institutions have a set of prescribed general education courses more focused on skills development, while others have a selection of elective courses from each area designed to broaden perspectives.

General Education was at the forefront of innovative programs in American community colleges in the 1960s (O'Banion, 2016). According to O'Banion (2016), a program was designed by every community college, which was a common core of courses for the common person. It was so popular, it was included as one of the required components of a comprehensive community college, along with university transfer, vocational and occupational programs, remedial education, and community service programs (O'Banion, 2016).

At one time, most college students received a broad, general education that pushed their frontiers of knowledge and thinking ability far past those who

had only a high school education (Leef, 2003). Today, however, many students graduate from college with less knowledge about the world and fewer useful skills than high schoolers of fifty years ago (Leef, 2003). For reasons such as that, general education is an important aspect for individuals because it promotes critical thinking. Austin (2011) suggested a need for critical thinking and reasoning in career and technical education. According to Robinson (2011), the role of general education is to prepare students with skills, knowledge, and abilities that will enhance education beyond their major, their position in the workforce, and as citizens.

Career and Technical Education

According to Brewer (2011), in one form or another, career and technical education programs have been in existence for hundreds of years. Career and technical education began with parents teaching important survival skills to children before the nation was even founded (Evans, 1971; Keller, 1948). Career and technical education, also known as vocational education, began in the USA as apprenticeships. The apprenticeships were formed in an effort to ensure that community work was efficiently and effectively completed (Brewer, Campbell, & Petty, 2000). The push for career and technical education has grown and become about more than apprenticeships. It is now driven by the needs of the nation's workforce and by technological changes in the USA.

Career and technical education is characterized by teaching a skill or skills to students that will prepare them for the workforce (Brewer, 2011). Career and technical education, as it is known today, has its roots in the founding of the

United States. From the start, a strong knowledge base and skill set for citizens were considered important (Association for Career and Technical Education (ACTE), 2016, para 1).   Career and technical education has adapted over time to stay abreast to the needs of America's workforce. A key organization responsible for recognizing the current trends in career and technical education is the Association of Career and Technical Education or ACTE.

ACTE, formally known as the American Vocational Association, was founded in 1926 (Lee, 2002). It is the largest national education association dedicated to the advancement of education that prepares youth and adults for careers (ACTE, 2016). ACTE has been committed to enhancing job performance, and increasing public awareness and appreciation of career and technical education (ACTE, 2016). It has also worked with legislatures and government leaders to assure funding for career and technical programs (Lee, 2002). One funding attainment source is through the Carl Perkins Act, which provides funding for career and technical education programs. ACTE's commitment in providing opportunities for success for the nation's students has never wavered throughout its long history (Lee, 2002).

Accordingly, ACTE had defined four distinct eras that are significant to career and technical education. Those eras are; The Awakening, Independent Action, The Vocational Education Age, and the Coming of Age.

The Awakening era was from 1776-1826 (ACTE, 2016). Because there was a need to educate future leaders, free public education was stressed in the United States. Apprenticeships were becoming obsolete and were giving way to

formal schooling in certain trades (ACTE, 2016). ACTE (2016) noted that during

the awakening period of career and technical education, which was the first 50

years of the United States, public education was largely limited to boys.

However, girls began to enter schools to prepare for teaching in the early 1800s.

     As outlined by ACTE (2016), the Independent Action era is categorized as

the period from 1826-1876. The workforce and public education system began

to work together in the early 19th century to prepare skilled workers for different

jobs (ACTE, 2016).   Schools began to open their doors to train students in

certain areas of the workforce. This created the basic framework for career and

technical education (ACTE, 2016). The idea began to spread to women's

colleges in the 1840s (ACTE, 2016). The beginning of public high schools was

being explored to continue to educate citizens for workforce training (ACTE,

2016).

     The Vocational Education Age emerged in 1876 and continued throughout

1926. In 1879, the first manual training school was established in St. Louis,

Missouri (ACTE, 2016). This set the foundation for modern career and technical

education. The school combined hands-on learning with theoretical classroom

learning (ACTE, 2016). The first trade school opened in New York in 1881. Bills

were passed to support career and technical education (ACTE, 2016).

     The Coming of Age era began in 1926 and lasted until 1976 (ACTE,

2016). According to ACTE (2016), the first mass acceptance of career and

technical education came after World War I. It continued years after the war.

Career and technical education grew to include adult education and retraining

citizens to reenter the workforce (ACTE, 2016). World War II caused an outpour in career and technical education, as technical skills were needed for defense purposes.

Today career and technical education continues to change in order to adapt to the needs of the workforce. According to Brewer (2011), "With so many technological advancements, vocational education must adapt to such changes in order to be considered essential in the nation's society" (p. 14). Even with computers and modern machines replacing workers, skills have to be learned in order to operate those computers and machines. Thus, it is imperative for career and technical education to be abreast of new technologies and skills needed to compete in the international market (Brewer, 2011). Schanker (2011) suggested that globalization is changing the way students prepare for careers. The Association of American Colleges and Universities (2007) reported that the world is being reshaped by scientific and technological innovations, global interdependence, cross-cultural encounters, and changes in the balance of economic and political power.

The Importance of General Education in Career and Technical Education

A solid foundation in the arts, humanities, and sciences helps an individual participate in sound decisions with good judgment (Austin, 2011). These skills are foundations needed for the workforce. They are taught mostly in general education courses with some emphasis given in career and technical education. General education can also help with globalization and the preparation of skilled workers.

Brewer (2011) discussed the important issue of general education requirements as well as occupational preparedness in order for students to be ready for the workforce. ACTE (2002) and Calhoun and Finch (1976) noted that general education should be included in career and technical education programs in order for career and technical students to be successful. Wonacott (2003) stated that it is apparent that advanced mathematics and science courses are mandatory educational fields necessary to keep up with the ever-changing world of technology in our nation's society. It is irrelevant now to teach only career and technical students single skills, and not general education, and expect students to survive in society (Wonacott, 2003).

Students' Perception of General Education

There have been few studies that considered student attitudes or perceptions toward general education. As noted, general education is important to career and technical education programs; however, career and technical education students have obstacles that they face when having to take general education courses. Schroder (2011) discussed obstacles that pertained to general education courses and career and technical education. The students who were studied felt that general education courses were irrelevant to their major or area of interest, so the motivation and excitement of college life was diminished (Schroder, 2011). Later in the study, students gave remedies for the obstacles that were mentioned. The remedy for general education was to refine it to give students more flexibility and options to courses that are applicable to their major or in line with their interest (Schroder, 2011). General education courses

could be integrated into the career and technical program curriculum. That integration could make a difference in how students feel about having to take general education courses and likely increase interest. When students are presented with options that better represent their interests and career goals, they become motivated to learn.

Students often view general education courses as unnecessary or not related to their major (Gump, 2007). They fail to connect the relevance of general education course requirements to their major, which can cause students to underperform. This in turn makes it difficult to understand the subject matter in general education courses.

A survey was completed to measure student preferences of general education, and it was concluded that general education courses did not meet the expectations of many students that completed the survey (Gaff & Davis, 1981). It was noted by Boyer and Levine (1981) that the general education curriculum was confusing, perplexing, and deceptive to some students and even to faculty. Students feel that general education courses are just a requirement and not a necessity for the workforce. Nuss (1997) noted that students tend to use the phrases "had to take" or "get them out of the way" when speaking about general education courses. Students perceive general education courses as a stumbling block instead of a stepping stone. Nuss (1997) also noted that some students did what they needed to do to keep a decent GPA to complete their major. The purpose for these students is to get through the general education courses as they know that failing the general education courses can cause them to be

unsuccessful in completing their program of study. Students' perceptions of general education courses can sometimes cause students to be unsuccessful in their studies. Engaging students and making their learning relevant can help change the negative perception of general education.

Impact on Community Colleges

There has been significant change in career and technical education in the State of Alabama over the last decade (Key, 2008). There are more technology driven programs in the high wage, high skill, and high demand occupational areas. This is reducing the stigma associated with career technical education (National Association of State Directors of Career Technical Education, 2001). One of the primary objectives of career and technical education was to train special needs populations, and this has been an objective for over 30 years (Baldwin, 2011). There is still a focus on meeting the needs of special populations; however, there is a greater focus on meeting the needs of industry and supplying an educated workforce (Baldwin, 2011). To accomplish this task, more emphasis is being placed on rigorous academic preparation through career technical education programs that provide the relevance associated between education and occupational education (Daggett, 2010; Merlot, 2010).

The American Association of Junior Colleges (AAJC) (1964) stated that, "The two-year college offers unparalleled promise for expanding educational opportunity through the provision of comprehensive programs embracing job training as well as traditional liberal arts and general education" (p. 14). Career and technical education had an impact on community colleges from the

beginning. Community colleges grew because advocates recognized the need for semiprofessionals (Cohen, Brawer, & Kisker, 2014). However, general education has also had an impact on community colleges because of core skills needed in the workforce.

It has been noted that pleas were made to reduce the separation between vocational education and general studies (Cohen, A. M., Brawer, F. B., & Kisker, C.B. 2014). Both are important to the success of career and technical education students. According to Solomon (1977), former students were surveyed and wished that they had been better prepared in general education courses and in ways of understanding interpersonal relations. Cohen, Brawer, and Kisker (2014) asserted that employers also expect higher levels of competency. This competency need is in writing, mathematics, thinking, computer literacy, leadership abilities, and interpersonal relationships (Cohen, Brawer, & Kisker, 2014). Most of these competencies can only be acquired through general education. According to Salzman, Moss, and Tilly (1998), one of the reasons community colleges seem to be an ideal candidate for training students for the workforce is their dual educational mission, which is to train for the workforce through occupational educational and general education.

Community colleges have been offering career and technical education for decades and have also focused on the core skills necessary for the workforce. Occupational education usually fails if it is focused narrowly on job skills (Cohen, Brawer, & Kisker, 2014). Business and industry are counting on community colleges to train for the workforce, not only for skills, but also for the ability to find

capital, understand the marketplace, and the knowledge of how to run a business. It was recommended in 1988, by the American Association for Community and Junior Colleges (AACJC), that community colleges focus on job skills and soft skills of students. They asserted, "Through lack of attention to general education, community colleges often exacerbate this tendency toward narrowness. . .we recommend that the core curriculum be integrated into technical and career programs" (AACJC, 1988, pp. 17-19). Community colleges have made it their mission to do just that.

Major Researchers

The early foundation, which set the course of career and technical education for centuries, was documented by researchers Snedden, Prosser, Dewey, Miller, and Keller as noted here. They gave their opinion of career and technical education in their works. They all had an interest in vocational education and how it affected individuals in the U.S.

David Snedden

Snedden was the Commissioner of Education for Massachusetts. He wrote in context his version of vocational education in his book entitled *The Problem of Vocational Education.* In his book, Snedden (1910) discussed the demise of institutions such as homes, farms and apprenticeships. He then discussed the rise of public education providing three broad types of education for different purposes (Snedden, 1910). The three types of educational purposes he discussed were physical education, vocational education and liberal education. The two that are of concern are vocational and liberal education.

Snedden (1910), stated that vocational education was intended to promote the capacity to earn a living or the capacity to do one's share of the productive work of the world. Liberal arts were intended to improve the social life of individuals and to develop personal culture (Snedden, 1910). He felt that its capacity was to develop intellectually and aesthetically with subjects such as art, math, reading, and writing. Although Snedden drew a clear distinction between vocational education and liberal education, he felt that liberal education made an indirect contribution to vocational education (Snedden, 1910).

Charles Prosser

Prosser had much the same viewpoint as Snedden. Prosser (1925) felt that successful vocational education required combining two elements, which were 1) practice and thinking about the practice and 2) doing and thinking about the doing. He believed that practice and theory must go hand in hand. The more intimately they are related to each other, the more the school will contribute to the learner's immediate success (Prosser, 1925). It was important to Snedden and Prosser that the productive experience be as much like the actual workplace as possible. In addition, Prosser's view on liberal education was the same. It was an indirect contribution to vocational education.

John Dewey

Dewey (1916) viewed occupations as central to educational activity. He did express concern about vocational education. His concern was that vocational education would continue for those who could afford it while giving the masses a narrow education for specialized occupations under the control of industry

(Dewey 1916). He believed that education needed change and that vocational education could be the means to induce changes that would improve it. Dewey also felt that vocational studies would best prepare students to understand the science of tools and the processes used to work, develop appreciation for evolution of industry, and instill favorable group dynamics of shared discovery and communal problem solving (Dewey, 1916).

Melvin Miller

Miller (1985) believed that career and technical education was an alternative for students who left high school. It would give them an opportunity to learn a skill set and also extend general education. According to Miller (1985), there were benefits that career and technical education afforded many individuals including making education more meaningful and relevant and increasing the wage earning. He believed that students who did not respond to book instruction could be reached through hands-on-instruction.

Franklin Keller

F. J. Keller was a notable historian of career and technical education. Keller not only believed that career and technical education was a practical method of educating individuals, he also believed that it was a way of living (Keller, 1948). Keller believed that career and technical education taught specific skills to students as well as taught individuals how to be successful in society using core skills (Keller, 1948). Keller saw a need for skill sets that are taught in career and technical education programs as well as core skills that are taught in general education courses.

Conclusion

In chapter two, the researcher discussed both the literature reviewed for this study and why it was chosen. The literature reflects how general education is needed to prepare students in career and technical programs. The review of relative literature provided a foundation of general education, career and technical education and the importance of general education in career and technical education programs. It also focused on obstacles of career and technical students in general education courses and how they perceive general education.

It also built an understanding of what was missing from the literature and what needed to be studied. The researcher focused on students in career and technical education programs and their perceptions of general education. The literature helped the researcher decide on questions that helped to guide the study. The literature also gave the researcher a better understanding of general education and its importance to career and technical education programs.

Chapter three will discuss the research design selected for this study of the perception of career and technical education students in general education courses. It will also provide an explanation of educational research, the participants, the procedure, data analysis, research questions, validity and reliability, and the role of the researcher.

Chapter 3: Methodology

This chapter will provide a discussion on the research design selected for this study of the perception of career and technical education students in general education courses. It will also sample the population, the procedure, data analysis, research questions, validity and reliability, the role of the researcher and the conclusion.

Research Question

Using a qualitative case study to explore the importance of general education as it is perceived by career and technical education students, the researcher addressed the following overarching research question:

How do students describe their general education experience and its benefits, and what is the perception of students regarding the integration of general education courses within career and technical education programs?

Educational Research

Research is important to the educational process. As such, Creswell (2012) provides three reasons for this truth. Research adds to the knowledge of an educator; it improves practice and makes educators more effective; and it also provides information to policy makers for debate and research of educational topics (Creswell, 2009). There are six steps in the research process. The steps consist of identifying a research problem, reviewing the literature, specifying a purpose for research, collecting data, analyzing and interpreting the data, and reporting and evaluating research (Creswell, 2009). Likewise, the three

approaches for conducting, analyzing, and interpreting research are quantitative, qualitative and mixed methods. This study will employ qualitative methods.

Qualitative Research

When conducting a qualitative research study, the interest of the researcher is to "understand how people interpret their experiences, how they construct their words, and what meaning they attribute to their experiences" (Merriam & Tisdell, 2015, p. 27). Qualitative researchers want to hear the voice of the participants that they study. According to Braun and Clarke (2013), qualitative research is collected in many ways and words are used as data. Additionally, as reiterated by Merriam and Tisdell (2015), the main objective of a qualitative study is to understand the participants' perspectives, not that of the researcher.

Qualitative research is used to describe a number of different methods of inquiry. Merriam and Tisdell (2015) explain that there are six common qualitative research designs discussed and commonly found in social science and applied fields of practice. Creswell (2009) discussed five of the research designs in his work. The six common qualitative research designs are: basic qualitative research (not discussed in Creswell); phenomenology; grounded theory; ethnography; narrative analysis; and qualitative case study. All of these research designs have attributes that are common, which is why they fall under qualitative; however, there is a slight difference in the focus, variation in how the research question is asked, sample selection, data collection and analysis, and write-up (Merriam & Tisdell, 2015).

Methodology

When the nature of research questions requires exploration, a qualitative approach is warranted (Stake, 1995). The goal of this study was to explore the importance of general education in career and technical education programs as it is perceived by career and technical education students. A qualitative method was used in this study, which is particularly beneficial in discovering the meaning that people give to events they experience (Bogdan & Biklen, 2003; Denzin & Lincoln, 2005). It was more beneficial for the researcher to conduct a qualitative approach as it allows for an in-depth look at the phenomenon. It gives the participants a voice in the study, and the researcher is able to use words as data instead of numbers.

Research Design

This case study research design included one-on-one interviews in gathering data. For this study, the phenomenon under investigation was the importance of general education courses in career and technical education programs as perceived by career and technical education students. This case study was bound to a specific place, specific groups, and a specific time. The specific place was a community college in the state of Alabama. The specific groups were students of the community college. The specific time, in which the case study took place, was the spring semester of 2018.

Participants

The participants for this study were career and technical education students at Higher Hill Community College in Huntsville, AL. Ten students participated in this study. In order to reach the students, obtaining access to individuals and sites required receiving permission from individuals that are in charge of sites (Creswell & Plano Clark, 2011). Permission for this study was obtained from the president of Higher Hill Community College in the Alabama Community College System through the Institutional Review Board (IRB), which reviews and approves research that involves human subjects. Ten study participants were selected to participate in the case study based on the following criteria:

1. Students were at least 18 years of age.

2. Students were enrolled in a career and technical education program.

3. Students had taken a minimum of three general education courses.

4. Students were enrolled full-time or part-time at the college for at least one year (three semesters).

Each participant that was referred by a program coordinator was given an explanation of the purpose of the study. They were informed of their rights, which included: termination of the study when they deem necessary, privacy of interview, and confidentiality of their identity. The participants were also required

to sign a consent form to participate in the study. The consent form and oral

explanation of the study included the following:

1. The reason for the invitation to participate.

2. The amount of time for the interview.

3. The location for the interviews to take place.

4. The potential benefits of the interview.

5. The objective of the study.

Procedure

According to Stake (1995), a case study design is used for collecting and

analyzing qualitative data. The primary technique for this study was conducting

in-depth, semi-structured, one-on-one interviews with ten career and technical

education students. Permission of the participants, approval from Morgan State

University's Institutional Review Board (IRB) and the two-year institution's IRB

Committee was pursued by the researcher to conduct the in-person, in-depth

interviews.

A Case Study Protocol (CSP) (Appendix A) was used in this study. A

CSP is a set of guidelines that can be used to structure and govern a case

research project (Yin, 2011). The case study protocol helped to facilitate the

semi-structured interviews. The CSP consisted of an overview of the case study,

the research questions, data collection procedures, and data collection

questions. The interviews consisted of open-ended questions that explored and

answered common research themes. Academic transcripts were used to

authenticate the information obtained during the interviews. Student records were also used for student demographics.

The students in the study were referred by career and technical education program coordinators. The researcher then identified and confirmed the participants' names, telephone numbers and email addresses. Each participant received an invitation to participate in the case study by the researcher. A consent form was also sent to each participant (Appendix B). The consent form expressed the purpose of the research study. Documented evidence of the participants' intent to partake in the study was provided on the consent form, and they had an option to withdraw from the case study at any time they deem necessary.

After receiving referrals from program coordinators, the researcher began the case study. The participants had one-on-one, in-depth interviews that took place at a time that did not interfere with their course schedules. The interviews were scheduled to take place in a secluded area at the approved institution. Interviews were conducted during the spring 2018 semester.

Data Collection

When conducting qualitative research, the researcher is the primary instrument. During the interviews, the researcher asked opened ended questions to ten male and female participants in a discussion of their perception of general education courses as career and technical students. The researcher guided the interviews to ensure that the discussion stayed on course and was relevant to the study. The researcher ensured that the participants understood

each questions and when asked about a questions, the researcher gave clarity. The researcher took notes, recorded, transcribed, and coded all interviews. The researcher then analyzed and synthesized the findings of the interviews after they were completed. The researcher summarized each response of the interviewees, and this helped the researcher to categorize the responses into themes and patterns.

The transcribed interviews were emailed to the participants for their approval. They were encouraged to review the transcripts for accuracy and for any errors that may have transpired during the transcribing stage. The participants were allotted two weeks to review and respond to the researcher with any concern of inconsistencies, errors or further explanations.

Data Analysis

As suggested by Creswell (2007), the one-on-one interviews for the 10 chosen participants were audio taped and transcribed verbatim. The steps in the qualitative analysis included exploring the qualitative data by reading through transcripts, coding and dividing the data, and grouping the codes into themes.

A manual qualitative analysis using Microsoft Word was conducted by the researcher. The researcher began the analysis process with a method called anchor coding. Anchor coding is done to help organize codes under their respective research questions or guiding questions, which is a label assigned to a research question or guiding question (Adu, 2017). After the researcher completed the process of anchor coding, the second step was to conduct the analyzation of data collected using in vivo coding. This process was to analyze

the interview transcripts. In vivo coding is the use of the exact words used by participants as codes in data analysis (Creswell, 2007). Once the in vivo codes were identified, the researcher then organized and grouped the participants' responses into categories that were aligned to the research question. The analysis included reviewing transcripts multiple times in search of common phrases, themes, and subthemes. While reviewing notes and summaries electronically, the researcher used Microsoft Word to highlight in different colors, common words and themes.

Trustworthiness

Gibbs (2007) stated that, "Qualitative validity means that the researcher checks for the accuracy of the findings by employing certain procedures, while qualitative reliability indicates that the researcher's approach is consistent across different researchers and different projects (p.190). Researchers should document the procedures that are used in their case studies to be sure that as many steps as possible are documented for reliability and consistency (Yin, 2003). Regardless of the type of research, validity and reliability are concerns that can be approached through careful attention to a study's conceptualization and the way in which the data are collected, analyzed, and interpreted, and the way in which findings are presented (Merriam, 2009, p. 210). Conducting one-on-one interviews that were audio taped, allowing the participants to reread the transcripts, and member checking ensured that the students' responses within the case study were credible, valid, and reliable.

The Role of the Researcher

One role of a qualitative researcher is to become the primary instrument for data collection and analysis. Merriam and Tisdell (2015) asserted, "Since understanding is the goal of qualitative research, the human instrument, which is able to be immediately responsive and adaptive, would seem to be the ideal means of collecting and analyzing data" (p. 36). The role cannot be fully understood and discussed until the reader knows the problem chosen to study.

The problem that the researcher wanted to address was the limited study of how students perceive general education in career and technical education programs. The researcher wanted to explore career and technical students' thoughts on whether they feel that general education is important, integration of the two curricula, and whether general education was needed for them to be successful in the workforce.

There have been studies conducted on how general education can prepare individuals with skills such as critical thinking and ethical reasoning to be more successful in society (Gordon, Dagget, McCaslin, Parks, & Castro, 2002). Career and technical education prepares students with the technical skills needed for the workforce; however, in today's workforce, individuals must be prepared for a career with the required abilities beyond career specific skills (Raftopoulos, Coetzee, & Visser, 2009; Stumpf, 2007). Therefore, the researcher studied the perceptions of students and their understanding of why such skills are important.

Despite critiques of the method, the researcher collected and analyzed data through a qualitative case study, as it was most appropriate. The case study was conducted through interviews. The data collection methods were designed to garner information regarding participants' attitudes, beliefs, feelings, knowledge, and experiences regarding general education in career and technical programs. What the researcher wanted to learn about the problem is whether general education is important through the perceptions of career and technical students. It was also beneficial to discuss with the participants their thoughts of integrating general education into career and technical education, and whether they found it to be a mechanism to prepare them for the workforce.

Conclusion

This case study was conducted using a select sample of career and technical education students at Higher Hill Community College. Before addressing the research design, educational research was highlighted. This chapter discussed the research design that was used in the study, which was a qualitative case study. Students were interviewed and asked questions to determine their perceptions of general education in career and technical education. The researcher hoped to fill the gap in literature by addressing career and technical students' perceptions of general education, and their importance in Alabama.

Chapter 4: Findings

The findings of this qualitative study, *The Exploration of the Importance of General Education in Career and Technical Education Programs at a Community and Technical College in Alabama,* offer insight from students enrolled in career and technical programs. The findings are presented referencing the students' perceptions of general education courses and whether general education is influential or not on preparedness for the workforce. Also presented in the findings is an exploration of the integration of general education courses within career and technical courses.

Ten career and technical education students from different Career and Technical Education (CTE) programs at Higher Hill Community College in Huntsville, AL, were recruited through program coordinator referrals to participate in this qualitative case study. The participants were invited to participate in this study because they met the criteria below:

1. Students were at least 18 years of age.

2. Students were enrolled in a career and technical education program.

3. Students had taken a general education course.

4. Students were enrolled full-time or part-time at the college for at least one year (three semesters).

Participants were contacted via telephone, and a meeting was set up with each person to discuss the study in its entirety. Each participant was given an overview of the study, details of the interview format, and signed a written consent form (Appendix B) to participate in the study. Over the course of two

months, one-on-one interviews were conducted by the researcher. All interviews were conducted on the campus of Higher Hill Community College. Each interview was recorded, transcribed, and sent to each participant through email to ensure that the data were collected through the interview gave an accurate account of what was shared with the researcher. The participants were asked to review the transcript and give any additional feedback for the study.

Demographic Overview of Participants

The ten CTE students who agreed to participate in this study are all current students at Higher Hill Community College. The table below shows the demographic breakdown of each student.

Table 1. Participant Demographics

Participants	Ethnicity	Age Group	CTE Program	Semesters Enrolled
Sarah	Caucasian	18-25	Welding	3rd
Tabitha	African American	36-45	Culinary Arts	6th
Terrance	African American	36-45	Culinary Arts	3rd
Perry	African American	over 45	Barbering	4th
Michael	Asian	26-35	Air Conditioning and Refrigeration	4th
Seth	Caucasian/Hispanic	18-25	Electrical Technology	6th
Danta	Caucasian	36-45	Cosmetology	4th
Matthew	Caucasian	18-25	Automotive Technology	5th
Joshua	African American	26-25	Machine Tool	6th
Deborah	Caucasian	36-45	Engineering Graphics	3rd

The researcher posed a question regarding the general education experience for the participants before the actual interview process began. Even though the foresight does not tell the complete story, it gave the researcher an understanding of the participants and their experience with general education. The researcher asked all participants if they had failed, withdrawn or avoided taken general education courses. According to the response, the majority of the participants have failed or withdrawn from a general education course. Below are the results.

Table 3. Participants' Success in General Education Courses

Participants	Failed	Withdrawn	Avoided
Sarah	No	No	No
Tabitha	Yes	Yes	Yes
Terrance	No	Yes	No
Perry	Yes	Yes	Yes
Michael	No	No	No
Seth	Yes	No	No
Danta	Yes	Yes	No
Matthew	Yes	No	No
Joshua	Yes	Yes	Yes
Deborah	Yes	Yes	Yes

The Case Study

To answer the overarching question, the researcher conducted semi-structured, one-on-one interviews with ten students, male and female, at Higher Hill Community, that are enrolled in career and technical programs. Ten Interviews were conducted at the college in a secluded area during a time that did not conflict with the students' schedules. The interviews were audio taped, transcribed and sent to each participant via email. The participants of the study were given two weeks to read the transcripts and respond with any corrections or modifications, if needed. The researcher did not receive any changes for the transcripts by any of the participants. The researcher then reviewed the transcripts and notes taken, and conducted in vivo and descriptive coding in search of themes to support the study. The researcher found that additional interviews were not warranted due to the responses that indicated the participants had reached a point of saturation during the analysis phase.

Analysis of Interview Questions

Overarching Research Question: How do students describe their general education experience, and what is the perception of students regarding the integration of general education courses within career and technical education programs?

This case study was to explore the importance of general education as it was perceived by career and technical education students. The researcher addressed the overarching research question with five interview questions. The interview questions are below.

1. Do you consider general education to be an important component of your CTE program of study? Why or why not?

2. What has been your experience as a CTE student enrolled in required general education courses?

3. What do you hope will be gained from the knowledge attained from general education in your career?

4. If there were a general education component added to your CTE program of study that was applied to what you are learning in your program area, would you understand the content better than you would as a stand-alone course? Why or why not?

5. Do you believe the general education courses you are required to take are preparing you for the workforce? Why or why not?

Interview Question 1

Do you consider general education to be an important component of your CTE program of study? Why or why not?

Most participants of the study felt that the general education was an important component to their CTE program of study as it is a foundation for their studies. They felt that it helps to promote critical thinking and problem solving skills. Others felt that it was not important and they do not see the reason for having to enroll in general education courses. The responses received from the first interview question included the courses being relevant and time wasters.

Course Relevancy

One concern that the majority of the participants shared was that the general education courses were not relevant to their program of study. Matthew stated that "I do believe some courses are needed; however, art and music appreciation, not as much. Why would you need that for a degree in automotive, welding, or even machining?" Danta and Sarah did not understand how general education courses benefit what they are studying in their CTE programs. According to Danta,

"If it were set up to benefit me in my end goal, then I would appreciate it. Taking an art class or music class has nothing to do with my end goal and is not an important aspect to me. If you could throw a business class in there or an accounting class or something that will help me take that business to the next level that is a general education course, I can appreciate it.

English, math, and computer courses were the top three courses that were mentioned by the majority of the participants as general education courses that are needed and relevant in the participants CTE course of study. Tabitha stated the following: "English and CIS is very important because I need to be able to converse with you educational wise to get the message across of what I want to say." She felt that knowing how to communicate and converse with others in the workplace is very important and taking an English course can help with that. Three participants that were automotive, welding, electrical, and machine tool majors all saw the need for math in their program of study. They

believed that due to the measurements, problem-solving, and equations that are used in their majors, math is very important. Deborah stated that "Having math as a requirement, I can see. I see the need."

Not knowing how the general education courses relate to their CTE program of study was the most frustrating for the participants. "It should coincide with something." "There should be some type of direction." or "They need to be relevant." were statements made by participants trying to understand why general education courses were required, while knowing that they were important. Most participants felt that general education courses were important to their overall educational experience; however, they felt that there is a disconnect with both curricula. The lack of relevancy of general education courses made the students less engaged, which links back to Kuh's (2009) Theory of student engagement.

Time Wasters

All participants showed frustration during their interview because they felt that some of the general education course requirements were a waste of time. They believed that the courses they deemed "unnecessary" kept them from completing their degree earlier and getting to work faster. The frustration was due to the majority of the students having the opportunity to be hired or receive raises, but they needed the degree to advance. They believed that the "unnecessary" general education courses were holding them back from progressing into the workforce.

Joshua feels that the courses "just clash with each other, which in turns may hold me back from progressing to the next course." His concern was because he felt that they "clash" he never gets an understanding of the subject matter, which is a waste of his time and money. Additionally, Deborah noted the following.

> "I welcome them, gen ed courses, but you think about some of the things that are required, you know, why do I need English for engineering graphics? I don't need English for engineering graphics."

Perry believed that "Having to take these courses are keeping me from getting into the workforce sooner. It's a waste of time for me." Michael believed that the "unnecessary" general education courses were" taking important time away from what I'm doing in my technical classes" Having to take classes that the participants considered unimportant was more a burden and due to this, some failed and/or withdrew from these courses.

Interview Question 2

What has been your experience as a CTE student enrolled in required general education courses?

There were both positive and negative views about the participants' experiences of general education. General Education faculty were discussed in some interviews and their impact on the success of students. Finally, some participants feel that is just a requirement. They believed that the college was only requiring general education courses for more money going towards tuition

payments, that is the responsibility of the student to pay. They also felt that the requirements prolonged there time in their respective programs.

Positive Experiences

Even though the majority of the participants feel that some of the general education courses are "unnecessary" they have had a positive experience as a CTE student enrolled in general education courses. Seth, Tabitha, Matthew, Sarah and Michael all stated that the experience of taking general education courses have been "good". Despite how they felt about the offerings of general education courses, they have still managed to have a good experience. Seth stated that "my experience has been good because I am really good in math and English." Sarah said, "I'm not going to say it has been perfect, but it has been good." The majority of the students that had a good experience in general education, seemed to have a better appreciation for general education courses during their interviews.

Negative Experiences

Danta, Perry, Terrance, Joshua, and Deborah have experienced setbacks when taking general education courses.   Some felt that the courses taken were annoying and frustrating. In fact, Deborah stated that "It has all been a frustrating and annoying situation for me." When asked why, she said that it was due to the lack of interest she had for the courses and also the relevancy of the courses to her major. Danta stated that "I am taking classes that have nothing to do with my major, and when I'm done with the course, I won't use any of it." Perry and Terrance felt overwhelmed due to them coming back to college after

so many years and felt that there was not a transition in place for older students.

Joshua has an anxiety when taking English courses and he stated that "I'm terrible in English, and it shows in my grades. I can't get over that. I'm better in my machine tool courses." The majority of these students, along with Tabitha have failed or withdrawn from general education courses.

General Education Faculty

When speaking with some of the participants during their interviews, the general education faculty were mentioned. At Higher Hill Community College there are only six full-time faculty members and approximately 25 part-time instructors. The full-time number is very small; however, the students felt they were there for them and cared about their well-being as well as the adjunct instructors. All of the discussions were positive of general education faculty and how they have been mentors and have helped students through times of difficulty in their general education courses.

During Seth's interview, he stated the following:

"I like all of my instructors. They all do a good job. They all make sure the students are taken care of. They all make sure we do our work and get it turned in on time."

Seth believed that he was successful in his classes due to the concern that the general education instructors had for him and him completing understanding the content presented. Additionally, Joshua, having so much anxiety with English, felt that an instructor of the course helped him get through it. He stated, "Mr. Wynn, he was really interactive with us and I think I benefitted from that." Having an

instructor that is interactive and communicates with students help to create a better outcome for students.

Interview Question 3

What do you hope will be gained from the knowledge attained from general education in your career?

The participants were all on one accord when asked about the knowledge they hope to gain from general education courses in their career. What they all hoped to gain were skills for the workforce. Some of the general education skills that the participants hoped to gain were skills such as, "Having computer system skills" "Communicating professionally with co-workers" "Creating and writing documents" "Problem solving", and "Understanding the business aspect of technical fields."

Perry made an interesting point in stating that, "If one doesn't speak correctly, how can he be taken seriously on the job in front of professionals?" Math has been one of the courses that the participants feel is most important for skills set for them to have in the workforce. Danta stated the following: "For the career that I'm seeking in barbering, I would say the math part would help me if I decide to own a business. If you can't get the math together, then that's going to be your biggest and first problem with owning a business." Deborah noted that, "I have to work with some government contractors and write reports or do some technical writing, so those skills I will need in the workforce."

In a nutshell, the participants do want to gain core skills such as, critical thinking, problem solving, writing, and communication skills from general education courses taken. They know the value that it brings to the workforce. The

participants stressed that all general education courses are not necessary for these skills.

Interview Question 4

If there were a general education component added to your CTE program of study that was applied to what you are learning in your program area, would you understand the content better than you would as a stand-alone course? Why or why not?

There was an overwhelming yes when the participants were asked about integrating the two curricula. Additionally, it seemed as if they were relieved to even be asked this question. The participants mentioned two important points: integrating the two curricula would facilitate learning, and adding general education courses to technical education programs would simplify learning.

Curricula Integration and Practical Application

It was astounding to see the smiles and listen to the responses on integrating general education and career and technical education curricula. In earlier interview questions, the participants discussed how they felt that some general education courses were not relevant to their program major, how difficult some courses were, and also how some of these courses are time wasters. Therefore, to integrate the two curricula could help with these concerns.

When the question was asked of integrating curricula, the participants began to give examples as to how it would benefit them. Tabitha stated,

"Yes, ma'am. Because it's easier to see 1/8 by 1/8 by 2 in physical form instead of paper. It's a different effect. We put those fractions into object vs. words on paper."

The students believed that if math were applied to what they were learning in their technical majors, then they would understand the concept better. It makes learning math easier. Additionally, Matthew stated the following:

"Yes, I would because there are certain classes such as emission controls where you have to know some chemistry, braking you have to know a little bit of physics, electrical you have to know basic algebra skills. It's more of an applied mathematics."

Seth, an electrical major, compared his major to basic algebra. He believed that integrating would be beneficial to students. He stated:

"In my electrical class, we have a whole table of finding whether it's current or voltage or power, it's all basic algebra, and we need that. I will help simply math."

Danta mentioned that it would be a great idea if the requirements were relevant. Relevancy plays a huge factor. What she presented is understandable especially for students that do not have time or money to waste. She stated the following:

"Instead of humanities, if I were allotted a business course or an entrepreneur course or something along those lines that actually would be

beneficial and I can understand the mesh and how they would be incorporated together."

The point that Danta wanted to make was that if general education courses are required, make them relevant.

All of the participants enjoy hands-on, practical labs. They have enrolled to be trained and certified in a workforce skill that will allow them to be productive citizens. The practical labs give them a real-world life experience. The participants believe that adding general education to that experience, instead of the courses being separate, can only add value. Joshua said it best.

"Instead of thinking why do I need this gen ed course" I would know that I actually do need it and I understand it and I understand how it's applied so I would understand it a little easier."

Many participants stated that general education courses would be better understood if they were applied to what they enjoy doing. Some of the participants felt that their grades would improve and even their college experience would improve if the two curricula were integrated.

Interview Question 5

Do you believe the general education courses you are required to take are preparing you for the workforce? Why or why not?

Workforce Preparedness

When asked if students felt that the required general education courses were preparing them for the workforce, the majority answered saying some are,

but not all. Math and English were the two courses that the majority felt were needed due to problem solving, calculation, equation solving, and critical thinking aspects. Michael stated, "I do believe that math and English are necessary to an extent, but art and music, I don't think that has to be required." Matthew also stated, "The English is definitely preparing me for writing emails. The mathematics skills, like I said that helps me in my day-to-day life with budgeting." Some of the participants felt that general education courses do prepare for the workforce because the skills taught in those courses are needed every day in the work place. "I do because every job will require those skills that you need," said Tabitha. Terrance believes that his program requirements, including general education courses, separate him from being a chef and not a cook. He stated, "It's the knowledge I will gain that will make well-rounded."

Two felt that the courses are not preparing them due to the courses not benefiting them in their program areas. They felt that the general education courses were "too general". An example was given by Danta about biology. "Do I really need to know everything I'm taught in that class, or the course be specific to my major?"

The students believed that general education is an important part of their studies and they need it for the workforce. However, they do feel that some skills can be obtained without general education including speaking, critical thinking, and problem solving. Some feel that these skills can be obtained in their program of study. However, they do feel that there is a need for some general education content in their programs of study for workforce preparedness.

Table 4. Response Comparisons

Interview Questions	Common Reponses
1. Do you consider general education to be an important component of your CTE program of study? Why or why not?	A. Course Relevancy B. Time Wasters C. Needed Courses D. Core Skills
2. What has been your experience as a CTE student enrolled in required general education courses? Why or why not?	A. Positive Experience B. Negative Experiences C. Faculty D. Prolonging of Degree Completion
3. What do you hope will be gained from the knowledge attained from general education in your career?	A. Communication B. Skills for the Workforce C. Basic Life Skills
4. If there were a general education component added to your CTE program of study that was applied to what you are learning in your program area, would you understand the content better than you would as a stand-alone course? Why or why not?	A. Integration of the Two Curricula B. Practical Application
5. Do you believe the general education courses you are required to take are preparing you for the workforce?	A. Workforce Preparation B. Distraction

Conclusion

The researcher found that the majority of the participants in the CTE programs, who were interviewed, believe that general education is needed to prepare for the workforce. However, they feel that not all courses that they are

required to complete in general education are needed. There was a consensus that math, English and computer information are needed courses. However, the other general education courses are a waste of time, which can be frustrating to the student. They believe that if general education courses were integrated into CTE programs, they would have a better understanding of the courses. Additionally, they believe that if they apply general education concepts to a daily routine of learning in their program areas, it would give them an opportunity to be more successful to complete the courses and the program.

The students feel that added courses are just prolonging their time to become credentialed in what they love to do. The interviews with the participants allowed the researcher to give some recommendations and solutions that may be helpful in fulfilling the needs of all students, who are required to enroll in general education courses, in CTE programs.

Chapter 5: Discussion, Conclusions, Implications, and Recommendations

According to Raftopoulos et al. (2007), students preparing for careers need abilities beyond career specific skills. Accounts from ten students enrolled in career and technical education programs, who participated in this case study, supported this premise. Career and technical education prepares students for the workforce with skills taught to a specific job or career. This has been the outcome for career and technical programs. However, general education, whether it is referred to as basic studies, liberal arts, academics or core skills, plays a role in developing students to think critically, use ethnical reasoning, and problem solving.

This qualitative study compared the perspectives of students enrolled in career and technical education programs who are required to take general education courses to prepare for the workforce. Although the participants in the study have different career paths, most of their perceptions of general education were very similar. The overarching question that guided this research was as follows: How do students describe their general education experience, and what is the perception of students regarding the integration of general education courses within career and technical education programs?

This qualitative study explored the importance of general education as it was perceived by career and technical education students. The researcher addressed the overarching research question with five interview questions:

1. Do you consider general education to be an important component of your CTE program of study? Why or why not?

2. What has been your experience as a CTE student enrolled in required general education courses?

3. What do you hope will be gained from the knowledge attained from general education in your career?

4. If there were a general education component added to your CTE program of study that was applied to what you are learning in your program area, would you understand the content better than you would as a stand-alone course? Why or why not?

5. Do you believe the general education courses you are required to take are preparing you for the workforce? Why or why not?

Background and Context

Qualitative research is designed "to make the world visible consisting of a set of interpretive, material practices" (Denzin, N. K., & Lincoln, Y. S., 2005, p. 3). This qualitative study was designed as a case study that contributed to a deeper understanding of the central phenomenon: the importance of general education courses in career and technical programs. Ten career and technical education students from Higher Hill Community College were invited to be human subjects for this qualitative study. Data was collected by completing interviews with each participant. Aspects for the case study included the following: (1) students' general education experience; (2) the integration of general education courses in career and technical programs; and (3) general education preparation for the workforce.

Higher Hill Community College was chosen as the site for this qualitative study. The institution is small, and there were approximately 780 students enrolled at the beginning of this study and 850 at the conclusion of this study. The college provides certificate and associate degree offerings intended to prepare students for the workforce and also for university transfer.

Higher Hill Community College is a public community college located in a metropolitan city in the Appalachian region of Northern Alabama in the United States. Two-year public institutions awarded 53% of all career and technical credentials in 2015 (NCES, 2017). Higher Hill offers 80% of its programs in career and technical education, while 20% of its programs are university transfers (Higher Hill, n. d.). The career technical credentials offered at the college include Short Certificate (STC), Long Certificate (CER), and the Associate in Applied Science (AAS). As mentioned, the college also offers university transfer associate degrees, including the Associate in Arts (AA) and the Associate in Science (AS).

The participants selected for this study were students enrolled in career and technical education programs and were of different ethnicities. They were enrolled in career and technical programs such as barbering, cosmetology, machine tool, electrical technology, welding, engineering design, heating and air conditioning, automotive services, and culinary arts. They are seeking to complete STCs, CERs and AAS degrees. The students had completed at least three (3) semesters in the program. The researcher chose to include only students who had completed three (3) semesters to ensure that the students had

taken at least three (3) or more general education courses. This qualitative study is significant because it added to the literature base on the experiences of students enrolled in career and technical education programs taking general education courses as a requirement for program completion.

Discussion

The students participated in one-on-one interviews completed by the researcher. The purpose of this qualitative study was to determine student perceptions of required general education courses while enrolled in career and technical programs to satisfy the completion of the program. The findings presented in Chapter 4 produced three themes that aided in the understanding of the perceptions of career and technical education students enrolled in general education course, which were general education experiences, integrating general education courses in career and technical programs, preparing individuals for the workforce.

General Education Experiences

According to Brint et al. (2009), general education requirements comprise, on average, approximately 30% of the undergraduate curriculum and therefore represent an important feature of the student academic experience in American colleges and universities. Additionally, Cohen, and Brawer (2003) noted that general education in the United State has a greater emphasis in postsecondary education than in other parts of the world. This is mostly due to the United States' stance on general education being important to help develop individuals for society.

The career and technical education students that participated in this study were asked to define their general education experience. Two topics emerged from the findings. The students believed that their experiences in general education had given them a foundation needed for the workforce and helped them to communicate effectively.

Foundation

General education serves as a foundation for all career and technical education programs and prepares students for the workforce as well. Skills that are taught in general education prepare individuals for advancing steadily in a chosen career of field (Tilus, 2012). General education will help individuals stand out amongst job seekers. When completing general education courses, the following skills help to build a foundation for individuals in their careers:

Critical thinking, which is the ability to evaluate a problem with the information given and determine an appropriate course of action; written and oral communication, which is the ability to convey information effectively to others; problem solving, which is being able to identify problems and determine appropriate solutions; and global awareness, which is a proper amount of knowledge of global issues, cultures and perspectives. (Tilus, para 5)

Levine (1980) stated, "Education should not just be vocational preparedness but should include the teaching of basic skills, concern with world problems, and an emphasis on values and ethics" (pp. 131-132). It is the foundation needed to shape the lives of individuals. "It could be said that the aim

of all general education throughout history has been to form character and produce good citizens" (Arthur, 2005, p. 240).

Communication

Communication is defined as "a life skill that pervades all other dimensions of human development" (Educational Policies Board, 2017, p. 3). It is an important skill that is needed in the workforce. According to Educational Policies Board (2017) for academic, professional, and social experiences, communication is the foundation. General education has an area of courses that focuses specifically on communication.

It is noted that communication courses are the ideal context for teaching and assessing skills such as ethical reasoning, critical thinking, inquiry and analysis, and creative thinking (Morreale, Valenzano, & Bauer, 2017). In these courses, students learn to construct and articulate their message, while they critically evaluate the arguments of others. In communication courses, students learn to organize ideas, which help them in society. These courses sharpen communication skills, and communication skills enhance the professional development of students. According to Educational Policies Board (2017), "In communication courses, students learn how to present themselves as communicators and thus create positive first impressions in a job interview" (p. 4). Additionally, communication prepares individuals for the workforce.

Integrating the Two Curricula

The students who participated in this study were asked what general education courses were required for their specific program of study. All of the

students had a requirement of English, math, science and humanities. Some programs had a heavier concentration in math. Some students either withdrew from courses due to the lack of understanding and a few failed. The students were then asked if the required general education courses were integrated in their career and technical education course, would they understand the content or relate to it better. There was on overwhelming response of yes.

The integration of career and technical education with general education or academic curricula was written into the federal Carl Perkins Acts of 1990, 1998, and 2006 (Gordon, 2008). Although the integration of these two curricula was written into the Perkins Acts, there has been limited support for integration. According to Gullet (2010), literature does exist on this subject; however, it is very limited. Additionally, insufficient tools to help instructors create and implement integrated curricula have been limited (Gullet, 2010).

Academic courses and career and technical courses have been separated on the premise that not everyone can achieve success in academic courses. Career and technical education was an alternative for students who would not find success at a university and were more successful with technical skills. This thought process has caused a "grave disservice to students who don't attend college and for the ones who do" (Hoachlander & Steinhauser, 2015, para 1).

Integration of career and technical education and general education curricula also addresses the academic success of students. Students are able to understand academic courses when they are applied to what they believe is relevant. The students in this case study believed that if their general education

courses were integrated into their career and technical education courses, they would be more successful in their studies. In research conducted by Tews (2011), the researcher found that when general education courses such as English and math were integrated with career and technical education courses, students showed significant improvement in formative and summative assessments.

It has been determined that the integration of the two curricula helps students remain engaged in learning. When integrated, the curricula produce relevance in learning which promotes student engagement. Self-sufficiency and student engagement are what is developed in students because of integrated curricula (Brewer, 2004). The students in this case study felt that the general education courses would be of more interest if integrated with their career and technical education courses. In turn, it would keep them engaged and the courses required relevant.

General Education and Preparation for the Workforce

When career and technical education students enroll in a program, they envision completing the technical skills needed for the workforce. Some students cannot fathom why taking general education is important for preparation of a career. Students concentrate on the career and technical education major, overlooking the problem solving, critical thinking, communication and analyzation skills that are also needed in the real world. It was noted by Hanstedt (2012) that general education prepares students for not only the world now, but also the world as it will be in five to ten years. The added skills learned in general

education are just as important as technical skills. Many technical skills learned

are half of what is done in the workforce as the other half is dealing with issues

and situations that rely heavily on skills taught in general education courses.

The primary goal of general education courses is to provide the core skills

that can be used in an individual's career. The students in this study were asked

if they believed that the required general education courses were preparing them

for the workforce. The majority of the responses were yes. The majority of the

students believed that math and English were the most important. The students

believed that math helped them to problem solve and think critically, which is

needed in the career fields for which they will be hired. As for English, the

consensus was that having good writing skills is needed due to the paperwork

and presentations that are mandated for some of the careers they will be

seeking.

The students also believed that the broad skillset learned in general

education courses will keep them well-rounded and employable. A well-rounded

education, including general education courses and career and technical

education courses, gives students the tools to think critically and creatively, adapt

to any situation and work effectively with others. These skills are needed in any

career. The Association of American Colleges and Universities (AACU)

conducted a survey in 2013, and it found that 93% of employers believed that "a

demonstrated capacity to think critically, communicate clearly, and solve complex

problems is more important than a candidate's undergraduate major" (AACU,

2015, para 3). Additionally, AACU stated that employers recommended that

educational institutions require students to "a) conduct research and use evidence-based analysis; b) gain in-depth knowledge in the major and analytic, problem solving, and communication skills; and c) apply their learning in real-world settings" (para 3). General education courses are not requirements that have been set to fulfil a degree completion. They are required to ensure that individuals have the necessary skills needed for the workforce.

Conclusions and Implications

The majority of the career and technical education students who participated in this qualitative study had positive outlooks on the requirement of general education courses in their program of study. The majority agreed that general education courses do prepare for the workforce. They also believed that not all general education courses are needed and hoped that one day general education requirements would be more relevant to their programs of study. These findings of the students suggest conclusions and implications for the Alabama Community College System administrators.

Conclusion

The career and technical education students who participated in this study believe their general education experiences were positive. They consider general education courses to be the foundation they need for the workforce. They also believe that general education courses help with effective communication skills. These skills, along with others, help to make students well rounded and employable.

The integration of general education courses into career and technical programs was of interest to the majority of the students in this study. Integration of these two curricula are not common; however, it has been proven to be successful Hoachlander & Steinhauser, 2015). General education courses are better understood when they are applied to what an individual is studying in the program area. Having relevant learning keeps students engaged and increases retention and completion rates. The separation of general education and career and technical education curricula can sometimes decrease the success rate of students, and it also causes a lack of core skills, which are needed for the workforce, in individuals.

One problem that arises with students is the concentration that they give to career and technical program areas rather than focusing on why general education is just as important. When students complete general education courses, they are being prepared for the world as we know it now and as it will transform in years to come. Having well rounded individuals in the workforce helps to stabilize the economy due to employees having the knowledge of a technical skills set but also the core skills to stay marketable.

Employers are also becoming a voice for the importance of skills such as critical thinking, ethical reasoning, and communication, which are taught in general education courses. They are wanting more employees who can think for themselves, make life-changing decisions, be an effective team member, and articulate effectively. Having these skills taught while in college, as a

requirement through general education, gives individuals the upper hand on being employed.

Implications

The students in this study strengthened the notion that general education courses are important to help individuals be successful in the workforce as they help develop core skills. The literature review supports that general education courses develop individuals to think critically, become problem solvers, and communicate in a professional manner. This study has also proven that integration of general education and career and technical education curricula keeps students engaged in learning that promotes success in the classroom and in the workforce.

Developing an integrated curriculum can be beneficial to instructors and students. According to Pierce (2013), "Integrative environments can improve teacher job satisfaction and self-efficacy through the establishment of collegial professional learning communities and subject-area understanding, both within and across disciplines" (pp. 140-141). Research also shows that students who are enrolled in integrated curricula have advantageous benefits such as interpersonal support, career planning, and contextual understanding (Fletcher & Cox, 2012).

Integration of curricula can be a positive change. However, there can be issues that should be addressed. Instructors are an important aspect of integrated curriculums; therefore, they need knowledge beyond their disciplines. Quinn (2013) stated that instructors need to understand how academics can be

implemented in career and technical education in order for the integrated

curricula to be successful. It is important that career and technical education

students feel that the learning they are receiving is relevant. Instructors need to

know how to make learning student-centered and having integrated curricula can

promote this idea.

<div align="center">**Recommendations**</div>

The conclusion and implications of the study suggest three

recommendations for the Alabama Community College to consider to help

implement engaged learning for students. These recommendations are a focus

on access and student success and an alignment with the needs of industry as

discussed by Boggs (2008). The recommendations are for policy, professional

development, and business and industry involvement.

Policy

Policy should be written and implemented to integrate general education

and career and technical education curricula in every Alabama Community

College, beginning with a pilot at Higher Hill Community College. This policy

should be supported by research that supports integration of curricula, retention

and completion rates, and promotes success in the workforce. There should be

special emphasis placed on curriculum development and teaching and learning

methods. Evaluations of the integrated curricula should be enforced to ensure

that improvements are made. In order to ensure that the integrated curricula are

sound and valid, it should be approved by The Southern Association of Schools

and Colleges Commission on Colleges (SACSCOC).

Professional Development

Integration of general education and career and technical education

curricula has not been implemented as directed by the Perkins ACT (Gordon,

2008). It has been very limited and has not been used to increase engagement

and relevance of learning for students. Because of the limitation, instructors

have not been given the tools necessary to be successful in integrated curricula.

Therefore, offering professional development to academic and career and

technical education instructors to understand how to teach an integrated course

is recommended. This professional development is important as it keeps pace

with the demands on integrated curricula (Schanker, 2011). Additionally, it helps

instructors to stay abreast of the different learning and teaching methods needed

to help make learning relevant. Having a well-developed professional

development program for integrated curricula keeps instructors engaged and

supports faculty to develop and implement new ideas that will make integrated

curricula of general education and career and technical education successful

(Schanker, 2011).

Business and Industry Involvement

Developing curriculum can be crucial to business and industry. There is a

recommendation to the Alabama Community College System administrators to

engage with business and industry when developing integrated curricula.

Schanker (2011) stated, "By working with administrators, employers can ensure

that the general education content offered in the programs will meet their current

needs" (p. 135). This also can help administrators determine what delivery

methods are needed for the integrated curricula. It has become an important role for employers to show an interest and become more engaged in the design, delivery, and assessments of career and technical education programs (Hall & David, 2008). Being involved in curriculum development, employers are able to construct what core skills are needed, which in turn helps administrators determine what general education courses should be integrated into career and technical programs.

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Appendix A

Case Study Protocol for Understanding the Perception of Career and

Technical Students enrolled in General Education Courses

Overview of the Case Study

The purpose case study is to explore how career and technical students feel about general education courses. The theoretical framework for the study is Kuh's Student Engagement Theory.

The Overarching Research Question

How do students describe their general education experience, and what is the perception of students regarding the integration of general education courses within career and technical education programs?

Data Collection Procedures

Procedures that will be used to collect data for the case study are outlined below. The following information will be shared and the following procedures will be implemented to uphold the protection of human subjects.

Interviews

1. Once participants are identified, the program coordinator(s) will e-mail the students' contact information to the researcher.

2. Each interested participant will be contacted by telephone, and the researcher will introduce herself and discuss the study in more detail to include time commitment and the benefits associated with being a participant in the study.

3. Letter and consent forms will be mailed to career and technical students selected as participants.

4. Interviews will be scheduled with students at time and location convenient to them.

5. Each designated participant will be provided with a "Human Subjects Consent to Participate" form, and the researcher will review it with each participant. The consent form will include a confidentiality statement, description of potential risks for participants, study purpose, time commitment, and right to not participate in the study at any time during the process.

6. The researcher will request that a copy of the consent form be sent, for review, prior to interview.

7. The interviews will take place in a comfortable room at the research site or a mutually agreed upon location.

8. To protect the participants' confidentiality and identity, the participants will select pseudonyms.

9. After initial interviews with all participants, a follow up interview will be scheduled, if needed, to ask modified or additional research questions.

10. An overview of the data collection and analysis process, which includes audio-taping, transcriptions, and field notes will be discussed with the participants.

Participation is voluntary. If a participant chooses to cease participation at any point during the interview, the recording will be erased, any electronic documents will be deleted, and any handwritten field notes will be shredded.

Review of Documentation (if applicable)

1. Identify documentation relevant to case study.

2. If documentation is publicly available, review for corroboration with interviewees' statements.

3. If documentation is not publicly available, seek permission from appropriate individual or organization to review the documentation, to review for corroboration with interviewees' statements.

Data Collection Questions

Interview Questions

This case study was to explore the importance of general education as it was perceived by career and technical education students. The researcher addressed the overarching research question with 5 interview questions.

1. Do you consider general education to be an important component of your CTE program of study? Why or why not?

2. What has been your experience as a CTE student enrolled in required general education courses?

3. What do you hope will be gained from the knowledge attained from general education in your career?

4. If there were a general education component added to your CTE program of study that was applied to what you are learning in your

program area, would you understand the content better than you would as a stand-alone course? Why or why not?

5. Do you believe the general education courses you are required to take are preparing you for the workforce? Why or why not?

Outline of Case Study Report

Analysis of interviews to identify themes

Compare themes to those found in other studies found in literature review

Examination of themes to fit to Kuh's Student Engagement Theory

Discussion of implications of findings

Appendix B

Invitation and Informed Consent Form

You are invited to participate in a study of the perceptions of career and technical education students in general education courses. We hope to learn and understand the perceptions of career and technical education students in general education courses. The study will be conducted by Angela Bell of Morgan State University. You were selected as a possible participant in this study because you were referred by your career and technical education program coordinator, and you also fit the demographic prerequisites for the study to be conducted.

If you decide to participate, we will:

1. You will be provided with a "Human Subjects Consent to Participate" form and Ms. Bell will review it with you and each participant. The consent form will include a confidentiality statement, study purpose, time commitment, and right to not participate in the study at any time during the process.

2. The interviews will take place in a comfortable room at the research site or mutually agreed upon location.

3. Each interview will last at least one hour.

4. An overview of the data collection and analysis process, which includes audiotaping, transcriptions, and field notes, will be discussed with you.

5. To protect your confidentiality and identity, you will be given an opportunity to select a pseudonym.

Any information that is obtained in connection with this study and that can be identified with you will remain confidential (your pseudonym name will be used at all times and will be disclosed only in case of future articles and books are written).

Your decision whether or not to participate will not prejudice your future relation with Morgan State University or Higher Hill Community College. If you decide to participate, you are free to discontinue participation at any time without prejudice.

If you have any questions, please do not hesitate to contact me. If you have any additional questions later about the study, please contact Angela Bell at anbel13@drakestate.edu who will be happy to answer your questions. If you have further administrative questions, you may contact the MSU IRB Administrator, Dr. Edet Isuk, at 443-885-3447.You will be offered a copy of this form to keep.

_____   _____

Signature   Date

You are making a decision whether or not to participate. Your signature indicates that you have read the information provided above and have decided to participate. You may withdraw at any time without penalty or loss of any benefits to which you may be entitled after signing this form should you choose to discontinue participation.

Appendix C

Relationship between Guiding and Interview Questions

Overarching Research Question	Interview Questions
How do students describe their general education experience, and what is the perception of students regarding the integration of general education courses within career and technical education programs?	1. Do you consider general education to be an important component of your CTE program of study? Why or why not? 2. What has been your experience as a CTE student enrolled in required general education courses? 3. What do you hope will be gained from the knowledge attained from general education in your career? 4. If there were a general education component added to your CTE program of study that was applied to what you are learning in your program area, would you understand the content better than you would

| | as a stand-alone course? Why or why not? |
| | 5. Do you believe the general education courses you are required to take are preparing you for the workforce? Why or why not? |

Appendix D

Grade Trend Report by Course

Course: ART-100	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	6 (33%)	1 (5%)	14 (26%)	4 (15%)	9 (19%)
B	3 (17%)	3 (14%)	8 (15%)	6 (23%)	5 (10%)
C	0 (0%)	2 (9%)	7 (13%)	6 (23%)	8 (17%)
D	2 (11%)	2 (9%)	5 (9%)	0 (0%)	3 (6%)
P	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Passing **	11 (61%)	8 (36%)	34 (63%)	16 (62%)	25 (52%)
F	4 (22%)	9 (41%)	12 (22%)	10 (38%)	14 (29%)
I	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
W	3 (17%)	5 (23%)	8 (15%)	0 (0%)	9 (19%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Non-Passing **	7 (39%)	14 (64%)	20 (37%)	10 (38%)	23 (48%)
*** Grand Total ***	18	22	54	26	48
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: BIO-103	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	1 (7%)	15 (33%)	7 (16%)	10 (36%)	6 (13%)
B	6 (40%)	10 (22%)	8 (19%)	6 (21%)	8 (18%)
C	2 (13%)	9 (20%)	7 (16%)	7 (25%)	10 (22%)
D	2 (13%)	4 (9%)	5 (12%)	1 (4%)	6 (13%)
P	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Passing **	11 (73%)	38 (84%)	27 (63%)	24 (86%)	30 (67%)
F	4 (27%)	3 (7%)	11 (26%)	3 (11%)	10 (22%)
I	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
W	0 (0%)	4 (9%)	5 (12%)	1 (4%)	5 (11%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Non-Passing **	4 (27%)	7 (16%)	16 (37%)	4 (14%)	15 (33%)
*** Grand Total ***	15	45	43	28	45
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: BIO-120	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	6 (55%)	8 (44%)	2 (11%)	0	1 (7%)
B	2 (18%)	4 (22%)	6 (32%)	0	5 (36%)
C	2 (18%)	3 (17%)	4 (21%)	0	4 (29%)
D	0 (0%)	1 (6%)	1 (5%)	0	2 (14%)
P	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
** Total Passing **	10 (91%)	16 (89%)	13 (68%)	0	12 (86%)
F	1 (9%)	2 (11%)	4 (21%)	0	2 (14%)
I	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
W	0 (0%)	0 (0%)	2 (11%)	0	0 (0%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
** Total Non-Passing **	1 (9%)	2 (11%)	6 (32%)	0	2 (14%)
*** Grand Total ***	11	18	19	0	14
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: BIO-201	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	0 (0%)	3 (15%)	4 (13%)	4 (18%)	4 (14%)
B	4 (22%)	2 (10%)	11 (37%)	3 (14%)	6 (21%)
C	9 (50%)	4 (20%)	1 (3%)	6 (27%)	3 (11%)
D	1 (6%)	2 (10%)	2 (7%)	2 (9%)	2 (7%)
P	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Passing **	14 (78%)	11 (55%)	18 (60%)	15 (68%)	15 (54%)
F	2 (11%)	4 (20%)	8 (27%)	5 (23%)	7 (25%)
I	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
W	2 (11%)	5 (25%)	4 (13%)	2 (9%)	6 (21%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Non-Passing **	4 (22%)	9 (45%)	12 (40%)	7 (32%)	13 (46%)
*** Grand Total ***	18	20	30	22	28
AU/WA (excluded from totals and %)	0	0	0	0	0

Source: dax.accs.edu   DAXREG-012L

Grade Trend Report by Course

Course: BIO-202	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	2 (40%)	5 (25%)	7 (29%)	1 (11%)	6 (25%)
B	3 (60%)	5 (25%)	6 (25%)	4 (44%)	10 (42%)
C	0 (0%)	5 (25%)	5 (21%)	1 (11%)	2 (8%)
D	0 (0%)	3 (15%)	2 (8%)	0 (0%)	3 (13%)
P	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Passing **	5 (100%)	18 (90%)	20 (83%)	6 (67%)	21 (88%)
F	0 (0%)	1 (5%)	1 (4%)	2 (22%)	3 (13%)
I	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
W	0 (0%)	1 (5%)	3 (13%)	1 (11%)	0 (0%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Non-Passing **	0 (0%)	2 (10%)	4 (17%)	3 (33%)	3 (13%)
*** Grand Total ***	5	20	24	9	24
AU/WA (excluded from totals and %)	0	0	0	0	0

Source: dax.accs.edu   DAXREG-012L

Grade Trend Report by Course

Course: BIO-220	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	1 (6%)	2 (10%)	2 (9%)	0	0 (0%)
B	7 (41%)	8 (40%)	4 (18%)	0	8 (73%)
C	4 (24%)	3 (15%)	12 (55%)	0	2 (18%)
D	2 (12%)	1 (5%)	2 (9%)	0	0 (0%)
P	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
** Total Passing **	14 (82%)	14 (70%)	20 (91%)	0	10 (91%)
F	2 (12%)	2 (10%)	0 (0%)	0	1 (9%)
I	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
W	1 (6%)	4 (20%)	2 (9%)	0	0 (0%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
** Total Non-Passing **	3 (18%)	6 (30%)	2 (9%)	0	1 (9%)
*** Grand Total ***	17	20	22	0	11
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: ECO-231	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	2 (14%)	2 (17%)	1 (10%)	4 (24%)	3 (13%)
B	6 (43%)	1 (8%)	1 (10%)	3 (18%)	5 (22%)
C	5 (36%)	4 (33%)	1 (10%)	4 (24%)	3 (13%)
D	0 (0%)	1 (8%)	2 (20%)	1 (6%)	4 (17%)
P	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Passing **	13 (93%)	8 (67%)	5 (50%)	12 (71%)	15 (65%)
F	1 (7%)	4 (33%)	5 (50%)	4 (24%)	5 (22%)
I	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
W	0 (0%)	0 (0%)	0 (0%)	1 (6%)	3 (13%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Non-Passing **	1 (7%)	4 (33%)	5 (50%)	5 (29%)	8 (35%)
*** Grand Total ***	14	12	10	17	23
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: ECO-232	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	0	0	5 (31%)	0	0
B	0	0	4 (25%)	0	0
C	0	0	4 (25%)	0	0
D	0	0	1 (6%)	0	0
P	0	0	0 (0%)	0	0
S	0	0	0 (0%)	0	0
** Total Passing **	**0**	**0**	**14** (88%)	**0**	**0**
F	0	0	1 (6%)	0	0
I	0	0	0 (0%)	0	0
IP	0	0	0 (0%)	0	0
U	0	0	0 (0%)	0	0
W	0	0	1 (6%)	0	0
WP/WS	0	0	0 (0%)	0	0
WF/WU	0	0	0 (0%)	0	0
** Total Non-Passing **	**0**	**0**	**2** (13%)	**0**	**0**
*** Grand Total ***	**0**	**0**	**16**	**0**	**0**
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: ENG-093	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	24 (69%)	25 (54%)	43 (50%)	0 (0%)	0 (0%)
B	1 (3%)	3 (7%)	4 (5%)	0 (0%)	0 (0%)
C	4 (11%)	3 (7%)	4 (5%)	0 (0%)	0 (0%)
D	0 (0%)	1 (2%)	1 (1%)	0 (0%)	0 (0%)
P	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	6 (43%)	26 (59%)
** Total Passing **	29 (83%)	32 (70%)	52 (60%)	6 (43%)	26 (59%)
F	5 (14%)	8 (17%)	30 (35%)	0 (0%)	0 (0%)
I	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	8 (57%)	17 (39%)
W	1 (3%)	6 (13%)	4 (5%)	0 (0%)	1 (2%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Non-Passing **	6 (17%)	14 (30%)	34 (40%)	8 (57%)	18 (41%)
*** Grand Total ***	35	46	86	14	44
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: ENG-101	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	12 (39%)	12 (17%)	16 (17%)	5 (20%)	15 (17%)
B	9 (29%)	15 (21%)	26 (28%)	4 (16%)	16 (18%)
C	3 (10%)	20 (29%)	25 (27%)	2 (8%)	25 (29%)
D	2 (6%)	6 (9%)	2 (2%)	1 (4%)	5 (6%)
P	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Passing **	26 (84%)	53 (76%)	69 (74%)	12 (48%)	61 (70%)
F	5 (16%)	13 (19%)	19 (20%)	11 (44%)	19 (22%)
I	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
W	0 (0%)	4 (6%)	5 (5%)	2 (8%)	7 (8%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Non-Passing **	5 (16%)	17 (24%)	24 (26%)	13 (52%)	26 (30%)
*** Grand Total ***	31	70	93	25	87
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: ENG-102	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	8 (50%)	5 (9%)	9 (21%)	5 (28%)	8 (19%)
B	4 (25%)	19 (36%)	10 (24%)	1 (6%)	11 (26%)
C	3 (19%)	21 (40%)	10 (24%)	2 (11%)	9 (21%)
D	1 (6%)	1 (2%)	1 (2%)	2 (11%)	4 (9%)
P	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Passing **	16 (100%)	46 (87%)	30 (71%)	10 (56%)	32 (74%)
F	0 (0%)	5 (9%)	7 (17%)	6 (33%)	6 (14%)
I	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
W	0 (0%)	2 (4%)	5 (12%)	2 (11%)	5 (12%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Non-Passing **	0 (0%)	7 (13%)	12 (29%)	8 (44%)	11 (26%)
*** Grand Total ***	16	53	42	18	43
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: ENG-271	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	0	0	4 (24%)	0	0
B	0	0	6 (35%)	0	0
C	0	0	4 (24%)	0	0
D	0	0	0 (0%)	0	0
P	0	0	0 (0%)	0	0
S	0	0	0 (0%)	0	0
** Total Passing **	**0**	**0**	**14** (82%)	**0**	**0**
F	0	0	1 (6%)	0	0
I	0	0	0 (0%)	0	0
IP	0	0	0 (0%)	0	0
U	0	0	0 (0%)	0	0
W	0	0	2 (12%)	0	0
WP/WS	0	0	0 (0%)	0	0
WF/WU	0	0	0 (0%)	0	0
** Total Non-Passing **	**0**	**0**	**3** (18%)	**0**	**0**
*** Grand Total ***	**0**	**0**	**17**	**0**	**0**
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: ENG-272	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	0	3 (33%)	0	0	5 (45%)
B	0	2 (22%)	0	0	1 (9%)
C	0	3 (33%)	0	0	5 (45%)
D	0	0 (0%)	0	0	0 (0%)
P	0	0 (0%)	0	0	0 (0%)
S	0	0 (0%)	0	0	0 (0%)
** Total Passing **	0	8 (89%)	0	0	11 (100%)
F	0	1 (11%)	0	0	0 (0%)
I	0	0 (0%)	0	0	0 (0%)
IP	0	0 (0%)	0	0	0 (0%)
U	0	0 (0%)	0	0	0 (0%)
W	0	0 (0%)	0	0	0 (0%)
WP/WS	0	0 (0%)	0	0	0 (0%)
WF/WU	0	0 (0%)	0	0	0 (0%)
** Total Non-Passing **	0	1 (11%)	0	0	0 (0%)
*** Grand Total ***	0	9	0	0	11
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: HIS-121	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	6 (30%)	7 (29%)	5 (21%)	8 (44%)	0
B	4 (20%)	12 (50%)	6 (25%)	3 (17%)	0
C	2 (10%)	1 (4%)	3 (13%)	0 (0%)	0
D	2 (10%)	1 (4%)	4 (17%)	0 (0%)	0
P	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0
S	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0
** Total Passing **	14 (70%)	21 (88%)	18 (75%)	11 (61%)	0
F	3 (15%)	2 (8%)	4 (17%)	6 (33%)	0
I	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0
IP	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0
U	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0
W	3 (15%)	1 (4%)	2 (8%)	1 (6%)	0
WP/WS	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0
WF/WU	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0
** Total Non-Passing **	6 (30%)	3 (13%)	6 (25%)	7 (39%)	0
*** Grand Total ***	20	24	24	18	0
AU/WA (excluded from totals and %)	0	0	0	0	0

Source: dax.accs.edu   DAXREG-012L

Grade Trend Report by Course

Course: HIS-122	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	0	1 (9%)	4 (80%)	0	4 (17%)
B	0	5 (45%)	1 (20%)	0	8 (33%)
C	0	2 (18%)	0 (0%)	0	3 (13%)
D	0	1 (9%)	0 (0%)	0	1 (4%)
P	0	0 (0%)	0 (0%)	0	0 (0%)
S	0	0 (0%)	0 (0%)	0	0 (0%)
** Total Passing **	0	9 (82%)	5 (100%)	0	16 (67%)
F	0	0 (0%)	0 (0%)	0	6 (25%)
I	0	0 (0%)	0 (0%)	0	0 (0%)
IP	0	0 (0%)	0 (0%)	0	0 (0%)
U	0	0 (0%)	0 (0%)	0	0 (0%)
W	0	2 (18%)	0 (0%)	0	2 (8%)
WP/WS	0	0 (0%)	0 (0%)	0	0 (0%)
WF/WU	0	0 (0%)	0 (0%)	0	0 (0%)
** Total Non-Passing **	0	2 (18%)	0 (0%)	0	8 (33%)
*** Grand Total ***	0	11	5	0	24
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: MTH-090	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	4 (7%)	11 (12%)	7 (7%)	0 (0%)	0 (0%)
B	2 (4%)	3 (3%)	5 (5%)	0 (0%)	0 (0%)
C	0 (0%)	0 (0%)	1 (1%)	0 (0%)	0 (0%)
D	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
P	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	3 (9%)	5 (6%)
** Total Passing **	6 (11%)	14 (16%)	13 (12%)	3 (9%)	5 (6%)
F	45 (83%)	59 (66%)	69 (64%)	0 (0%)	0 (0%)
I	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
U	0 (0%)	0 (0%)	1 (1%)	32 (91%)	65 (83%)
W	3 (6%)	16 (18%)	24 (22%)	0 (0%)	8 (10%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Non-Passing **	48 (89%)	75 (84%)	94 (88%)	32 (91%)	73 (94%)
*** Grand Total ***	54	89	107	35	78
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: MTH-098	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	0 (0%)	4 (8%)	7 (10%)	0 (0%)	0 (0%)
B	5 (19%)	8 (17%)	20 (28%)	0 (0%)	0 (0%)
C	1 (4%)	1 (2%)	2 (3%)	0 (0%)	0 (0%)
D	2 (8%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
P	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	8 (28%)	21 (32%)
** Total Passing **	8 (31%)	13 (27%)	29 (40%)	8 (28%)	21 (32%)
F	14 (54%)	27 (56%)	31 (43%)	0 (0%)	0 (0%)
I	0 (0%)	1 (2%)	0 (0%)	0 (0%)	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	19 (66%)	40 (61%)
W	4 (15%)	7 (15%)	12 (17%)	2 (7%)	5 (8%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Non-Passing **	18 (69%)	35 (73%)	43 (60%)	21 (72%)	45 (68%)
*** Grand Total ***	26	48	72	29	66
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: MTH-100	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	4 (14%)	7 (13%)	10 (24%)	1 (6%)	8 (16%)
B	8 (29%)	14 (26%)	10 (24%)	7 (39%)	8 (16%)
C	4 (14%)	8 (15%)	7 (17%)	2 (11%)	13 (27%)
D	4 (14%)	11 (20%)	4 (10%)	6 (33%)	9 (18%)
P	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Passing **	20 (71%)	40 (74%)	31 (74%)	16 (89%)	38 (78%)
F	7 (25%)	12 (22%)	9 (21%)	1 (6%)	7 (14%)
I	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
W	1 (4%)	2 (4%)	2 (5%)	1 (6%)	4 (8%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Non-Passing **	8 (29%)	14 (26%)	11 (26%)	2 (11%)	11 (22%)
*** Grand Total ***	28	54	42	18	49
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: MTH-112	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	0	4 (29%)	1 (7%)	0	1 (9%)
B	0	0 (0%)	6 (40%)	0	3 (27%)
C	0	3 (21%)	3 (20%)	0	3 (27%)
D	0	2 (14%)	0 (0%)	0	1 (9%)
P	0	0 (0%)	0 (0%)	0	0 (0%)
S	0	0 (0%)	0 (0%)	0	0 (0%)
** Total Passing **	**0**	**9** (64%)	**10** (67%)	**0**	**8** (73%)
F	0	1 (7%)	1 (7%)	0	0 (0%)
I	0	0 (0%)	0 (0%)	0	0 (0%)
IP	0	0 (0%)	0 (0%)	0	0 (0%)
U	0	0 (0%)	0 (0%)	0	0 (0%)
W	0	4 (29%)	4 (27%)	0	3 (27%)
WP/WS	0	0 (0%)	0 (0%)	0	0 (0%)
WF/WU	0	0 (0%)	0 (0%)	0	0 (0%)
** Total Non-Passing **	**0**	**5** (36%)	**5** (33%)	**0**	**3** (27%)
*** Grand Total ***	**0**	**14**	**15**	**0**	**11**
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: MTH-116	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	2 (18%)	2 (14%)	4 (40%)	3 (38%)	2 (8%)
B	2 (18%)	1 (7%)	0 (0%)	2 (25%)	1 (4%)
C	3 (27%)	1 (7%)	3 (30%)	1 (13%)	10 (42%)
D	0 (0%)	4 (29%)	1 (10%)	0 (0%)	5 (21%)
P	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Passing **	7 (64%)	8 (57%)	8 (80%)	6 (75%)	18 (75%)
F	2 (18%)	5 (36%)	2 (20%)	2 (25%)	3 (13%)
I	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
W	2 (18%)	1 (7%)	0 (0%)	0 (0%)	3 (13%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Non-Passing **	4 (36%)	6 (43%)	2 (20%)	2 (25%)	6 (25%)
*** Grand Total ***	11	14	10	8	24
AU/WA (excluded from totals and %)	0	0	0	0	0

Source: dax.accs.edu   DAXREG-012L

Grade Trend Report by Course

Course: MUS-101	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	8 (73%)	16 (44%)	11 (26%)	6 (46%)	15 (34%)
B	3 (27%)	6 (17%)	9 (21%)	1 (8%)	13 (30%)
C	0 (0%)	2 (6%)	5 (12%)	0 (0%)	4 (9%)
D	0 (0%)	0 (0%)	5 (12%)	3 (23%)	1 (2%)
P	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Passing **	11 (100%)	24 (67%)	30 (71%)	10 (77%)	33 (75%)
F	0 (0%)	10 (28%)	11 (26%)	3 (23%)	9 (20%)
I	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
W	0 (0%)	2 (6%)	1 (2%)	0 (0%)	2 (5%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Non-Passing **	0 (0%)	12 (33%)	12 (29%)	3 (23%)	11 (25%)
*** Grand Total ***	11	36	42	13	44
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: PHL-206	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	5 (45%)	5 (29%)	4 (13%)	1 (8%)	3 (19%)
B	1 (9%)	5 (29%)	10 (33%)	4 (31%)	1 (6%)
C	3 (27%)	2 (12%)	7 (23%)	2 (15%)	3 (19%)
D	0 (0%)	2 (12%)	1 (3%)	0 (0%)	1 (6%)
P	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Passing **	9 (82%)	14 (82%)	22 (73%)	7 (54%)	8 (50%)
F	1 (9%)	2 (12%)	8 (27%)	6 (46%)	6 (38%)
I	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
W	1 (9%)	1 (6%)	0 (0%)	0 (0%)	2 (13%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Non-Passing **	2 (18%)	3 (18%)	8 (27%)	6 (46%)	8 (50%)
*** Grand Total ***	11	17	30	13	16
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: PSY-200	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	8 (62%)	4 (12%)	2 (6%)	2 (18%)	3 (12%)
B	2 (15%)	8 (24%)	10 (29%)	1 (9%)	5 (19%)
C	2 (15%)	8 (24%)	9 (26%)	0 (0%)	2 (8%)
D	0 (0%)	6 (18%)	3 (9%)	1 (9%)	1 (4%)
P	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Passing **	12 (92%)	26 (79%)	24 (69%)	4 (36%)	11 (42%)
F	1 (8%)	5 (15%)	6 (17%)	7 (64%)	7 (27%)
I	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
W	0 (0%)	2 (6%)	5 (14%)	0 (0%)	8 (31%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Non-Passing **	1 (8%)	7 (21%)	11 (31%)	7 (64%)	15 (58%)
*** Grand Total ***	13	33	35	11	26
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: BIO-103	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	1 (7%)	15 (33%)	7 (16%)	10 (36%)	6 (13%)
B	6 (40%)	10 (22%)	8 (19%)	6 (21%)	8 (18%)
C	2 (13%)	9 (20%)	7 (16%)	7 (25%)	10 (22%)
D	2 (13%)	4 (9%)	5 (12%)	1 (4%)	6 (13%)
P	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Passing **	11 (73%)	38 (84%)	27 (63%)	24 (86%)	30 (67%)
F	4 (27%)	3 (7%)	11 (26%)	3 (11%)	10 (22%)
I	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
W	0 (0%)	4 (9%)	5 (12%)	1 (4%)	5 (11%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Non-Passing **	4 (27%)	7 (16%)	16 (37%)	4 (14%)	15 (33%)
*** Grand Total ***	15	45	43	28	45
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: SPH-107	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	7 (41%)	20 (50%)	12 (27%)	2 (9%)	5 (9%)
B	3 (18%)	7 (18%)	9 (20%)	6 (26%)	16 (30%)
C	4 (24%)	1 (3%)	4 (9%)	7 (30%)	9 (17%)
D	0 (0%)	0 (0%)	3 (7%)	1 (4%)	5 (9%)
P	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Passing **	14 (82%)	28 (70%)	28 (64%)	16 (70%)	35 (66%)
F	2 (12%)	8 (20%)	12 (27%)	7 (30%)	13 (25%)
I	0 (0%)	0 (0%)	1 (2%)	0 (0%)	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
W	1 (6%)	4 (10%)	3 (7%)	0 (0%)	5 (9%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Non-Passing **	3 (18%)	12 (30%)	16 (36%)	7 (30%)	18 (34%)
*** Grand Total ***	17	40	44	23	53
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: RDG-114	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	3 (14%)	2 (33%)	1 (11%)	0	1 (9%)
B	10 (45%)	2 (33%)	3 (33%)	0	2 (18%)
C	3 (14%)	1 (17%)	1 (11%)	0	1 (9%)
D	1 (5%)	0 (0%)	1 (11%)	0	1 (9%)
P	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
S	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
** Total Passing **	17 (77%)	5 (83%)	6 (67%)	0	5 (45%)
F	4 (18%)	1 (17%)	3 (33%)	0	3 (27%)
I	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
IP	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
U	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
W	1 (5%)	0 (0%)	0 (0%)	0	3 (27%)
WP/WS	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
WF/WU	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)
** Total Non-Passing **	5 (23%)	1 (17%)	3 (33%)	0	6 (55%)
*** Grand Total ***	22	6	9	0	11
AU/WA (excluded from totals and %)	0	0	0	0	0

Grade Trend Report by Course

Course: RDG-085	Summer 2018	Spring 2018	Fall 2017	Summer 2017	Spring 2017
A	0	1 (5%)	0 (0%)	0 (0%)	0 (0%)
B	0	7 (33%)	6 (17%)	0 (0%)	0 (0%)
C	0	6 (29%)	8 (23%)	0 (0%)	0 (0%)
D	0	0 (0%)	4 (11%)	0 (0%)	0 (0%)
P	0	0 (0%)	0 (0%)	0 (0%)	0 (0%)
S	0	0 (0%)	0 (0%)	3 (60%)	7 (32%)
** Total Passing **	0	14 (67%)	18 (51%)	3 (60%)	7 (32%)
F	0	6 (29%)	11 (31%)	0 (0%)	0 (0%)
I	0	0 (0%)	0 (0%)	0 (0%)	0 (0%)
IP	0	0 (0%)	0 (0%)	0 (0%)	0 (0%)
U	0	0 (0%)	0 (0%)	2 (40%)	14 (64%)
W	0	1 (5%)	6 (17%)	0 (0%)	1 (5%)
WP/WS	0	0 (0%)	0 (0%)	0 (0%)	0 (0%)
WF/WU	0	0 (0%)	0 (0%)	0 (0%)	0 (0%)
** Total Non-Passing **	0	7 (33%)	17 (49%)	2 (40%)	15 (68%)
*** Grand Total ***	0	21	35	5	22
AU/WA (excluded from totals and %)	0	0	0	0	0