SECONDARY WORK-BASED LEARNING STUDENTS' PERCEPTIONS OF THEIR COURSE AND WORK AND CAREER-RELATED ISSUES

by

YVETTE TERESA DUPREE

(Under the Direction of Elaine Adams)

ABSTRACT

This descriptive survey study examined the influence of gender, race/ethnicity, and Career and Technical Student Organization (CTSO) membership on secondary work-based learning students' perceptions of their course and work and career-related issues. The *Student Perceptions of Work-based Learning Questionnaire* was used to examine student perceptions. The survey consisted of 14 demographic questions, and 36 Likert-type questions, 14 related to student perceptions of their work-based learning course and 22 questions concerning work and career-related issues. The Chronbach calculated was 81.7, suggesting strong internal reliability. Secondary work-based learning students within two Georgia school districts served as the sample. A total of 135 students participated in completing the online questionnaire, for a response rate of 34%.

Descriptive and inferential statistics were utilized to determine student characteristics and perceptions. Demographic data describing the sample in more detail was captured using descriptive statistics. One-way analyses of variance (ANOVA) were used to compare students based on gender, ethnicity, and CTSO membership. No

significant differences were found for student perceptions of their course or work and career-related issues.

Students believed that their work-based learning course was valuable. Their perceptions were positive overall concerning their educational experience and work and career-related issues. This study provides valuable insight into the beliefs of secondary students toward their work-based learning course and work and career-related issues.

INDEX WORDS: Work-based Learning, Work-related Learning, Work-oriented Learning, Work Experience Programs, Youth Apprenticeship, Cooperative Education, Career and Technical Education, Perceptions, Gender, Race/ethnicity, Career and Technical Student Organizations, Work, Career, Secondary Students, School-to-Work

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# DEDICATION

To my family, you inspire me. I love you. Thank you for always being there for me. Mom and Dad you have been the most instrumental part of this process. Thank you for your encouragement, support, and love.

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# CHAPTER 1

# SECONDARY WORK-BASED LEARNING STUDENTS' PERCEPTIONS OF THEIR COURSE AND WORK AND CAREER-RELATED ISSUES

## INTRODUCTION

During the last decade, billions of federal and state tax dollars have been funneled into preparing America's students for success after high school. The *American Recovery and Reinvestment Act* of 2009, a landmark act enacted to stimulate the economy, create jobs, and save American businesses, invested 84 billion dollars (as of May 2010) into educational programs across the country (U.S. Department of Education, 2010). Education is a top priority for the United States (U.S.) government (The White House, 2010), yet, there is a growing consensus that today's secondary schools are failing to equip students with the skills they will need to be successful after graduation (Symonds & Gonzales, 2009). Educators have become increasingly concerned about the large number of students that leave school unprepared for employment (Association for Career and Technical Education, National Association of State Directors of Career Technical Education Consortium, & Partnership for 21st Century Skills, 2010; Evanciew, Jones, & Womble, 2001; Rhoder & French, 1999). Many students do not attend post-secondary schools after graduation from high school and these students must be prepared to contribute immediately to the workforce. All too often students graduate or leave high school without the skills they need to become productive citizens (Association for Career and Technical Education, National Association of State Directors of Career Technical

Education Consortium, & Partnership for 21st Century Skills, 2010). America's future is built upon the strength of its students (Smith, Hall, Jones, Cory, & Ethridge, 1998). Existing and past policies have not been enough to insure that many young people grow up and enter the workplace with the skills necessary to earn a good living (Lerman, 2008).

During the last five years, the U.S. has suffered a severe economic downturn that has affected many businesses and industries, causing serious hardships. As a result of a struggling economy, many businesses and industries are undergoing restructuring. Organizations are realizing that learning in the context of work is critical for their success (Cunningham, Dawes, & Bennett, 2004). Many U.S. politicians and educators have linked economic growth and schooling (Lau, Nicholls, Thorkildsen, & Patashnick, 2000), and in today's economy, education is more critical than ever to economic success (U.S. Department of Education, 2012a; Symonds & Gonzales, 2009). The challenge for policymakers during the next decade is how best to improve the preparation of youth for success in the workplace (Lerman, 2008).

Career and technical education (CTE) programs have traditionally responded to the needs of business and industry (Scott & Sarkees-Wircenski, 2008). Because of the link between schools and business and industry, CTE programs such as work-based learning (WBL) offer opportunities for businesses that have reorganized in response to economic challenges (Davis & Snyder, 2009) Middle school, high school, and post-secondary students are prepared for occupations through participation in CTE courses (Gordon, 2008). CTE refers to organized educational activities that include sequenced courses and prerequisites that provide students with relevant and rigorous content that

prepares them for secondary and post-secondary education and careers. Students enrolled in these programs have opportunities to participate in work preparation in conjunction with their CTE courses. CTE activities provide students with the opportunity to learn technical skills and earn a credential, certificate, or associate's degree (Carl D. Perkins Career and Technical Education Improvement Act, 2006).

Work-based learning is an important component of CTE programs across the United States. "Work-based learning is a contextual teaching and learning approach in which the workplace provides a practical setting for structured work-based learning experiences" (Chadd & Anderson, 2005, p. 25). Defined by the School-to-Work Opportunities Act (1994), work-based learning includes: (a) work experience in conjunction with (b) a planned program of job training that helps students to progressively gain pre-employment and employment skills which are coordinated with school-based learning, and are relevant to student career majors leading to skill certificates (c) worksite mentoring (d) general workplace instruction, including learning work attitudes, employability and other soft skills; and (e) instruction about all aspects of an industry. WBL programs often provide students with supervised work experiences at local businesses that allow students to gain course credit (Davis & Snyder, 2009). This type of applied learning prepares students for future employment by providing students with classroom and on-the-job training. Work-based learning is important for secondary students because it provides a link between school and work (Symonds & Gonzales, 2009), and offers students a context to learn specific workplace competencies while they attend school.

Because CTE courses, such as WBL provide a link between schools and business and industry, an examination of WBL courses is critical especially considering America's current economic downturn. Policymakers, administrators, and educators should understand how students perceive the knowledge and skills they are learning in their WBL courses. Courses and programs must respond to the needs of student learners and increase their motivation, interest, and awareness in order to be effective (Womble, Jones, & Ruff, 1995). Student perceptions are often the basis for decisions about learning (Rovai & Barnum, 2003). For urban students, the knowledge of students' perceptions of work and career-related issues inform educators and aids in the modification of programs to enhance employment readiness (Womble, 1995a). Student input can be used to change the curriculum and contribute to the design and implementation of measures for school reform (McCuthcheon, 1988; Evanciew et al., 2001).

Many research studies (Bailey, 2009; Burke, Marks-Maran, Ooms, Webb, & Cooper, 2009; Cameron-Jones & O'Hara, 1999; Freestone, Williams, Thompson, & Trembath, 2007; Stanislawski & Haltinner, 2009; Ting, Wong & Thang, 2009) have been conducted that examine the perceptions and aspects of post-secondary/higher education work-based programs. Research studies have been conducted about WBL programs that focus on classroom teachers (Yan, Goubeaud, & Fry, 2004), vocational educators and human resources professionals (Zirkle, 1998), and high school WBL teachers/coordinators, and worksite mentors/supervisors (Chadd & Anderson, 2005). A variety of research studies about secondary and post-secondary work-based learning programs have been conducted in countries outside of the United States: (a) United Kingdom (Garnett, Costley, Workman, 2009; Hopkins, 2008), (b) Scotland (Cameron-

Jones & O'Hara, 1999), (c) Malaysia (Ting et al., 2009), (d) Australia (Freestone et al., 2007), (e) Germany (Harnish & Wilke-Schnaufer, 1999), and (f) the Netherlands (Jong, Wierstra, & Hermanussen, 2006). These programs vary from country to country and operate differently from U.S. programs. Programs abroad were not established in accordance with the School-to-Work Opportunities Act (1994) which governed and still guides most U.S. work-based programs. In recent years, a small number of research studies (Bennett, 2007; Hughes, Moore, & Bailey, 1999; Ryken, 2006; Stasz & Brewer, 1998; and Swail & Kampits, 2004) have been conducted on perceptions of students enrolled in work-based learning or similar programs in secondary schools in the United States.

An extensive literature review was conducted in preparation for this study and descriptive quantitative studies that explored secondary students' perceptions of WBL and work and career-related issues in the United States are minimal. There seems to be "a preference for the qualitative means of inquiry" (Freestone et al., 2007, p. 348) when addressing perceptions of work-based experiences (Harnish & Wilke-Schnaufer, 1999; Hopkins, 2008; Keen & Howard, 2002; Rhoder & French, 1999). Quantitative-type studies are lacking in the professional literature.

The United States has experienced extreme demographic changes and the workforce has become increasingly diverse (James, 2006; Maldonado, 2004). Demographic characteristics such as gender and race/ethnicity have been found to effect student perceptions of their learning experience. Student demographic characteristics such as gender and race/ethnicity may affect a student's access to career information, encouragement, and motivation to pursue certain occupations. Demographics may also

effect student's orientations toward occupational engagement (Bennett, 2007). Subgroups are likely to form different beliefs and background factors (demographics) such as race/ethnicity and gender can explain differences in beliefs (Fishbein & Ajzen, 2010).

Many occupations that students are prepared for in CTE have been divided based on gender (Gordon, 2008; Sheng, Hall, & Rojewski, 1996). Female and male students do not consider certain careers because they are not traditionally pursued by persons of their gender; this is often referred to as gender stereotyping. Gender stereotyping is harmful because it narrows the range of occupational opportunities considered by students (Gray, 2009). Female students also may face gender bias, segregation, and discrimination (Gordon, 2008; Wonacott, 2002a). Career and technical education provides a direct link between school and work, which gives it a unique position from which to prepare women for a variety of occupations (Sheng et al., 1996). Research on male and female students' perceptions can provide pertinent information about the different ways in which students view their course and work and career-related issues. This can present educators with a basis from which to make changes that best serve their students. Work-based learning and other CTE courses allow male and female students to receive education and work-based training as they attend secondary school. These courses give all students regardless of gender, the opportunity to gain skills that will assist them in the future (Gordon, 2008).

Obtaining an adequate education has been a struggle for non-Whites in the U.S. for decades. For over a century, non-White children received minimal formal education and they learned work skills through on-the-job training. When non-Whites were finally allowed to receive a public education, they attended poorly funded and segregated

schools (Scott & Sarkees-Wircenski, 2008). Non-White students often face discrimination, stereotyping, prejudice, and lack of support as they navigate their educational program. In addition to this, the U.S. workforce is changing and racial/ethnic minority groups, especially Hispanics and Asian Americans are growing at an unprecedented rate. However, all minority groups are still often underrepresented in professional careers (Gordon, 2008). Considering U.S. history as it relates to education and training of non-Whites and changing the demographics of the workforce, examining the differences in the perceptions of non-White students and White students is necessary for understanding how to serve these groups through work-based learning.

Career and technical education student organizations (CTSOs) are co-curricular student organizations created for students enrolled in CTE programs. These programs provide members with opportunities to engage in activities related to their CTE subject area (Carl D. Perkins Career and Technical Education Improvement Act, 2006). CTSOs are an integral component of CTE programs and are intended to create increased student involvement in CTE subject areas (Alfeld, Hansen, Aragon, & Stone, 2006). CTE students have the opportunity to join CTSOs voluntarily. The content students learn as a part of their CTE course, and the skills and experiences gained through participation in CTSOs greatly contribute to the development of workplace knowledge and competencies (Alfeld et al., 2006). Career and technical student organizations provide students with opportunities to develop leadership, social, problem-solving, communication, and occupational skills. CTSO membership may also enhance the educational program of CTE students because these organizations can give students social, recreational, and occupational outlets for learning and fun. Participation in CTSOs produces benefits for

students and leads to greater satisfaction with the educational process (Alfeld et al., 2006; Scott & Sarkees-Wircenski, 2008). Alfeld et al. (2006) found that the more a student participated in co-curricular activities related to a CTSO, the higher their academic engagement, motivation, grades, and post-secondary (college) aspirations. Craddock (2011) found differences in Future Business Leaders of America (FBLA, a CTSO for business education students) member's motivational need for achievement and their need for power (McClelland, 1987), when compared with nonmembers. Research has been conducted on participation in extra-curricular activities but there is limited research that investigates co-curricular participation. Differences between the perceptions of CTSO members and nonmembers toward work-based learning and work and career-related issues have not been investigated. Examining the perceptions of CTSO members and nonmembers was investigated in this study to determine if differences exist between these two groups.

Teachers, counselors, and administrators can work collectively to improve programs once they are aware of student perceptions of their course and work and career-related issues. Students can provide information on the perceived value and impact of CTE courses and programs (Womble, 1995a). Gender, race/ethnicity (White or non-White), and career and technical student organization (CTSO) membership could potentially affect student perceptions and therefore, were issues examined in this study. These independent variables were chosen to compare student perceptions of their course and work and career-related issues. With this information, school officials can more effectively aid students in making a successful transition from high school to the workforce or to post-secondary institutions. Determining student perceptions of their

CTE courses is one way to assist students in making the transition into the workforce after high school (Jones et al., 1997). Knowledge of student perceptions of work and career-related issues can be used to develop a better-educated and more highly skilled U.S. workforce (Jones & Womble, 1997). Because work and career-related issues are intertwined with work-based learning, student beliefs can be clarified through a study of perceptions.

## Purpose

The purpose of this descriptive survey study was to determine the perceptions of secondary work-based learning students toward their course and work and career-related issues. Student perceptions of their WBL course are comprised of three underlying factors: personal relevance, educational value, and life skills (Adams, Womble, & Jones, 2000; Jones et al., 1997; Womble, et al., 1995). Personal relevance is defined as a student's satisfaction with his or her course, meanwhile educational value refers to how students personally value and describe their course, course content, and methodology (Womble et al., 1995). Life skills are proficiencies all employees must possess to be successful in the workplace regardless of the type of employment they choose (Adams et al., 2000). Work and career-related issues encompass students' career knowledge and work expectations, work awareness, and career choice limitations (Jones & Womble, 1998; Womble, 1995a; Womble, 1995b). Career knowledge and work expectation examines education's relationship to future career success, information sources students utilize to find out about careers, as well as students expectations of the workplace (Jones & Womble, 1997; Womble, 1995a; Womble, 1995b). Work awareness includes generalizations about the world of work and how students identify and relate to school

(Jones & Womble, 1997; Womble et al., 1995a). Career choice limitations refers to students' career choices and the limitations they may face that relate to issues such as gender and ethnicity (Womble & Jones, 1996). High school students enrolled in Georgia work-based learning programs were surveyed in order to determine their perceptions. Gender (male or female), race/ethnicity (White or non-White), and career and technical education student organization (CTSO) membership were identified as independent variables that may affect student perceptions and were examined in this study.

## Research Questions

Secondary students' perceptions of work-based learning were assessed in order to ascertain students' perceptions of their course and work and career-related issues (Adams, et al., 2000; Jones & Womble, 1997; Jones et al., 1997; Ruff, 1993; Womble & Jones, 1996; Womble, 1995a; Womble, 1995b). In order to better understand the perceptions of Georgia work-based learning students, this study addressed the following research questions:

1. What are the perceptions of secondary work-based learning students toward their course and work and career-related issues?
2. Is there a statistically significant difference in the perceptions of secondary work-based learning students toward their course based on gender (male and female)?
3. Is there a statistically significant difference in the perceptions of secondary work-based learning students toward their course based on race/ethnicity (White or non-White)?

4. Is there a statistically significant difference in the perceptions of secondary work-based learning students toward their course based on CTSO (Career and Technical Student Organization) membership?

5. Is there a statistically significant difference in the perceptions of secondary work-based learning students toward work and career-related issues based on gender (male and female)?

6. Is there a statistically significant difference in the perceptions of secondary work-based learning students' toward work and career-related issues based on race/ethnicity (White and non-White)?

7. Is there a statistically significant difference in the perceptions of secondary work-based learning students perceptions toward work and career-related issues based on CTSO (Career and Technical Student Organization) membership?

## Instrument

Perception was measured using the *Student Perceptions of Work-based Learning* questionnaire (see Appendix A). The instrument was formed from the combination of two perception questionnaires created by Ruff, Womble, and Jones and revised by Jones and Womble (1994) and Womble and Jones (1994). The questions from the instrument can be directly linked to Fishbein and Ajzen's (1975, 2010) theory of reasoned action (TRA) which is used to understand perceptions. The instrument is a 3 part-self report questionnaire consisting of multiple choice, short answer, and Likert-type questions. The questionnaires have been used in several perception-based studies of students enrolled in career and technical education courses (Adams et al., 2000; Jones & Womble, 1997; Jones et al., 1997; Ruff, 1993; Womble & Jones, 1996; Womble, 1995a; Womble,

1995b). The dependent variable in this study is students' perceptions (beliefs). TRA links intentions, perceptions (beliefs), attitudes, and behavior (Fishbein & Ajzen, 1975), it can be used to examine work-based learning students' perceptions about their course and work and career-related issues.

## Theoretical Framework

To determine student perceptions of work-based learning, theories of the concept of attitude were examined. The theoretical framework for this study was based on Fishbein and Ajzen's (1975, 2010) theory of reasoned action which asserts that beliefs (perceptions) are a precursor to attitudes. The terms beliefs, opinions, and perceptions are used interchangeably in social psychology (I. Ajzen, personal communication, March 23, 2011). Because attitude is a building block of perception, it was acceptable to use TRA to study WBL students' perceptions toward their course and work and career-related issues. This theory originates from social psychology and has been studied continually since it was first outlined in 1975 (Fishbein & Ajzen, 2010; Pryor & Pryor, 2005). The theory of reasoned action seeks to understand attitudes. It affects behavior and it helps to explain how perceptions can be changed. Beliefs (perceptions), attitudes, and behavior are linked using TRA (Fishbein & Ajzen, 1975). The dependent variable in this study was perceptions of work-based learning students. Fishbein and Ajzen (1975, 2010) have conducted extensive investigation in the area of beliefs, attitudes, intentions, and behaviors in an effort to understand human behavior.

The theory of reasoned action states that behavior is ultimately determined by beliefs, and to understand behavior certain beliefs must be identified (Ajzen & Fishbein, 1980). According to Fishbein and Ajzen's (1975, 2010) theory of reasoned action,

perception is an indicator of a person's attitude toward something, and "attitudes are a function of beliefs" (Ajzen & Fishbein, 1980, p. 7). According to the theory of reasoned action, attitudes are a result of or a manifestation of a belief and are subjective probabilities (Fishbein & Ajzen, 2010). A person's behavior is explained by his or her beliefs, and beliefs represent the information a person has about the world whether it is correct of incorrect (Ajzen & Fishbein, 1980). Therefore, if we know a person's perceptions it gives us an indication of their attitude.

Beliefs form the basis for attitudes (Fishbein & Ajzen, 2010). Attitudes are learned and reflect a predisposition towards something (Fishbein & Ajzen, 1975). Attitudes are more deeply ingrained than perceptions, which can be changed more easily. People make judgments about themselves, others, events, and sometimes objects on a daily basis, and their life experiences lead them to continuously form different beliefs about objects, actions, and events (Fishbein & Ajzen, 2010). Perceptions inform a person's attitudes, which in turn affect behavior. Positive or negative judgments of any concept reflects an individual's perceptions; respondents may judge a concept, enjoyable (strongly agree) or unenjoyable (strongly disagree), pleasant or unpleasant, and desirable or undesirable (Fishbein & Ajzen, 2010). A Likert-type scale was used to collect data on perceptions (strongly disagree to strongly agree). Fishbein and Ajzen's (1975, 2010) theory of reasoned action supports the use of Likert scaling procedures in determining an individual's attitude toward objects such as perceptions toward course and career-related issues.

Attitude is the amount of affect for or against an object (Fishbein & Ajzen, 1975). Attitudes are usually difficult to assess and change, which informs the decision to

look at perceptions instead of attitudes. A link to behavior must be established when studying attitudes because attitude is defined as "a latent or underlying variable that is assumed to guide or influence behavior" (Fishbein & Ajzen, 1975, p. 8). However, a link to behavior is not necessary when studying perceptions because perceptions are a precursor to attitudes. Studying perceptions can offer clues about an individual's attitudes and behaviors, albeit indirectly.

Widely cited and employed by many educational researchers, TRA has been used across many disciplines (Baxter, 2011; Burak, 2004; Garg & Garg, 2007; Fishbein & Ajzen, 2010; Pryor & Pryor, 2009). The theory has been found to have strong predictive value (Sheppard, Hartwick, & Warshaw, 1998). Generalizable to a number of areas of study; TRA has been used in over 1000 published journal articles (Fishbein & Ajzen, 2010). The reasoned action approach has been used to examine numerous topics including career choice, organizational behavior, voting behavior, weight loss, HIV/AIDS prevention, and discriminatory behavior (Ajzen & Fishbein, 1980, Fishbein & Ajzen, 2010).

Information from this study can be used to inform and potentially improve WBL programs. When studying perceptions, Fishbein and Ajzen's (1975, 2010) research provides a theoretical base that has been continually developed, tested, and refined. In this study, the TRA was used to examine how gender, race/ethnicity (White or non-White), and CTSO membership affect WBL students perceptions toward their course and work and career-related issues. Of the theories that focus on perceptions, Ajzen and Fishbein's work is at the forefront.

## Importance of the Study

A study of secondary students' perceptions of work-based leaning (WBL) is important for several reasons. First, it is imperative that educators understand how WBL students perceive their learning experiences. Teaching practices and processes must be continually reviewed; the knowledge gained from perception-based studies could improve teaching and ultimately student learning (Stanislawski & Haltinner, 2009). If necessary, the WBL curriculum can be reviewed and revised to better focus on learner needs. Being aware of the kinds of learning experiences that students value may help instructors develop courses that provide congruence between instructional goals and preferences of students (Canfield, 1992). For work-based learning programs to be successful, teacher/coordinators must create classroom activities that will aid students in developing skills they will need for the workplace and the worksite supervisor/mentor must be able to reinforce and build on those skills in the work setting (Chadd & Anderson, 2005). Determining student perceptions can aid educators in determining whether students believe that they are learning the skills they will need and use in the future. "Students must see [the] relevance of the program to their lives" (Smith et al., 1998, p. 15). For educational reform to take place, key decision makers must be aware of students' views of their education (Hopkins, 2008). Knowledge of student perceptions can tell educators if the courses, experiences, and/or activities need to be changed.

Second, school personnel must be aware of students' perceptions of their courses, to effectively market programs (such as work-based learning) to increase enrollment. Enrollment numbers provide a justification for many educational programs. "Today's school climate is saturated with accountability mandates at every level" (Roberts,

Dooley, Harlin, & Murphrey, 2007, p. 6). With the current economic climate, teachers are continually asked to justify their programs. CTE funding has been drastically cut in recent years. Teachers and other stakeholders are being urged to make a case for career and technical education programs (U.S. Department of Education, 2011). Many factors influence students' enrollment decisions and the marketing of CTE programs can work to influence student enrollment decisions (Palmer & Gaunt, 2007). This is critical for CTE educators because courses are elective and students must choose to enroll in these courses (Palmer & Gaunt, 2007). Educators, counselors, and administrators often recommend courses and understanding student perceptions can help to make changes that can create buy-in from faculty members and students. CTE courses are optional and because students are not required to enroll in these courses, they must be convinced of the merits of these courses. Buy-in is essential because faculty members design, implement, and evaluate the success of school initiatives (Athavale, Davis & Myring, 2008). To ensure that career and technical education programs will remain an option at the high school level educators must seek ways to maintain and increase enrollment (Palmer & Gaunt, 2007).

Third, program quality can be addressed once an understanding of student perceptions is gained. "Quality education should be the goal of any program whether academic or vocational" (Gentry, Rizza, Peters, & Hu, 2005). Educators, counselors, administrators, and policymakers must access students' opinions of their courses in order to find out if students believe they are gaining knowledge that will be beneficial to them in the future. Students are a source of information about their courses. Student perceptions offer critical information that should be considered when assessing and

defining quality and determining quality is more important than ever (Jackson & Helms, 2008). By examining student perceptions of their WBL course and work and career-related issues, educators can determine whether students believe they are prepared for work.

A study of WBL will aid in the improvement of high school WBL programs as well as teaching practices in these programs. Current education reform demands academic rigor, successful transition into post-secondary education and jobs, and closing of the achievement gap for a culturally diverse population of young people (Stanislawski & Haltinner, 2009). Once the effectiveness of a program (and its components) is determined, making appropriate changes can enhance learning and program success (Adams et al., 2000). "Student enrollment and participation are important to the success of any program" (Smith et al., 1998, p. 15) and enrollment numbers could increase because of improved program quality. Researchers have studied WBL, but they have rarely studied secondary student perceptions of the program as well as work and career-related issues. Students' perceptions of other CTE course and work and career-related issues have been found to be valuable (Adams et al., 2000; Jones & Womble, 1997; Jones, Womble, Searcy, 1997; Ruff, 1993; Womble & Jones, 1996; Womble, 1995b). This study determined high school students' perceptions of their work-based learning course and work and career-related issues.

# CHAPTER 2

# REVIEW OF LITERATURE

This study examined the perceptions of students enrolled in secondary work-based learning (WBL) programs, toward their WBL course and work and career-related issues in an effort to extend the literature related to these programs and provide student perspectives on their learning experience in these programs. A review of literature was conducted to provide a foundation for this study. This chapter presents a review and synthesis of the literature related to the following concepts: (a) career and technical education, (b) work-based learning, (c) career and technical education in Georgia, (d) work-based learning research, (e) Fishbein and Ajzen's (1975) theory of reasoned action, (f) related attitude theories, and a (g) discussion of the variables that may influence WBL student perceptions.

## Career and Technical Education

In 1917, the Smith-Hughes Vocational Education Act provided federal funds for the creation of career and technical education (Gordon, 2008). Career and technical education (CTE) formerly vocational education was created to prepare students for entry-level employment and independent living upon graduation (Scott & Sarkees-Wircenski, 2008). These programs were also created in response to economic issues (Stanislawski & Haltinner, 2009). There has been a shift from vocational education to career and technical education, which encompasses academic skills and student preparation for post-secondary education and work (Gordon, 2008). Despite the shift, the goal of CTE

remains unchanged, that students be prepared for their chosen careers upon high school or college graduation (Gentry, Peter, & Mann, 2007, p. 372). The curriculum in CTE caters to a diverse group of students that includes male and female students from all ability levels and racial/ethnic backgrounds. Most high school students enroll and earn credit in at least one career and technical education course during their high school experience (Georgia Department of Education [GADOE], 2011; Scott & Sarkees-Wircenski, 2008).

Career and technical education is defined by the Carl D. Perkins Career and Technical Education Improvement Act of 2006 (Perkins IV) as structured educational activities that offer a sequence of courses, which may include prerequisites that provide students with coherent and rigorous coursework aligned with challenging academic standards, technical knowledge, and the skills students will need to prepare for post-secondary education and careers. Career and technical education also includes applied learning which is competency based. Perkins IV was created to ensure that students who enroll in CTE programs gain the academic and technical skills they need in order to compete in a global economy. Perkins IV is the primary source of federal funding for career and technical programs. Perkins IV was passed to increase accountability, achievement, and links to post-secondary education. According to Perkins IV, career and technical education programs should offer students opportunities to learn academic and technical content that will allow them to successfully transition to the workplace and post-secondary schools. State and local governments must create challenging academic and technical standards that link high school and post-secondary institutions (Carl D. Perkins Career and Technical Education Improvement Act, 2006).

CTE courses focus on developing skills and workplace competencies that are required for each occupational area or program concentration (Scott & Sarkees-Wircenski, 2008). There are eight commonly recognized areas of career and technical education: (a) agricultural education, (b) business education, (c) marketing education, (d) family and consumer sciences education, (e) health occupations, (f) technical education, (g) technology education, and (h) trade and industrial education (Gordon, 2008; Scott & Sarkees-Wircenski, 2008). Sixteen broad career clusters have been identified by the U.S. Department of Education (2012b). The federal career clusters as shown in Table 1 represent related occupational program areas grouped together based on the knowledge and skills students acquire. Career clusters represent occupational areas or program concentrations that outline the knowledge, skills, and aptitudes essential for students to realize success at work and at post-secondary institutions. The eight major areas of career and technical education encompass the cluster areas identified by the federal government.

Table 1

*Federal Career Clusters*

| Career Clusters | Definition |
|---|---|
| Agriculture, food, & natural resources | All aspects of the flow of agricultural commodities, resources, horticulture, plants and other animal products |
| Architecture & construction | Planning, designing, maintaining, managing and building the physical world |
| Business, management, & administration | Essential functions of operating in business |
| Education & training | Planning, managing, and providing education and training in the areas of administration, teaching, training, and support services |
| Finance | Finance related careers, such as banking, insurance, and business |

| | |
|---|---|
| Government & public administration | Government functions including governance, national security, foreign service, budgeting, taxation, revenue creation, and regulatory issues |
| Health science | Therapeutic services, diagnostics, health information, and biotechnology research and development |
| Hospitality & tourism | Restaurants, food/beverage services, lodging, travel and tourism, recreation, amusement, and entertainment |
| Human services | Human needs such as counseling, mental health services, family and community services, personal care, and consumer services |
| Information technology | Preparation for entry-level, technical, and professional careers related to the design, development, support and management of hardware, software, and multimedia |
| Law, public safety, corrections, & security | Preparation for careers in law, public safety, protective services, homeland security, and the related support services |
| Manufacturing | Processing of materials into final and intermediate products, this includes activities such as production planning, control, maintenance, and engineering |
| Marketing, sales, & service | Marketing functions related to achieving organizational objectives, may include brand management, professional sales, merchandising, marketing communication, and market research |
| Science, technology, engineering, & mathematics | Physical science, social science, engineering as well as laboratory and testing services, research, and development |
| Transportation, distribution & logistics | Movement of people, materials, and goods by ground, pipeline, air, rail, and water and services such as transportation infrastructure planning and management, logistics services, and facility maintenance |

Each career and technical education program provides students with opportunities to explore their career area of interest and introduces the employment prospects in the field. Agricultural education programs educate students in the science, technology, and business of plants, animals, natural resources, and the environment (National Council for Agricultural Education, 2011). Business education prepares students to contribute to the business community as an employee, employer, or consumer. Students can gain general

and specific business knowledge, skills, and understanding necessary to conduct business in the "real world" (Scott & Sarkees-Wircenski, 2008). Marketing education prepares students to contribute to the flow of goods and services from the producer to final user through education in all of the functions of marketing (Association for Career and Technical Education, 2012). Family and consumer sciences courses introduce students to issues related to managing life, specifically family and work. Health occupations education explores careers in healthcare and the knowledge, skills, and attitude's necessary for success in a wide range of health related specialties. Technical education prepares students for technical occupations, which are those that require high levels of science, math, and technology. Students are prepared to occupy positions such as technical workers and technicians; these programs are found primarily at the post-secondary level (Scott & Sarkees-Wircenski, 2008). Technology education prepares students to use, manage, and understand that which has been created by engineers, inventors, and scientists (International Technology Education Association, 2011). This area of study includes the processes, and technology used in the areas of construction, transportation, and communication (Gordon, 2008). Trade and industrial (T & I) education prepares students for positions in the industrial and service sectors of the U.S. economy (Scott & Sarkees-Wircenski, 2008). T & I includes carpentry, metalwork, automotive, cosmetology, and graphic arts (Gordon, 2008).

Career and technical education provides students with formal work preparation through programs that allow students to learn in the workplace. There are several types of work preparation programs created to help students gain competencies for the workplace, including work-based learning, tech prep, apprenticeships, cooperative

education, internships, practicums, school-based enterprises, job shadowing, dual enrollment, and career academies (Scott & Sarkees-Wircenski, 2008). Work-based learning is defined as learning experiences in a work setting directly linked to school based learning.

Through work-based learning, students may participate in tech prep programs, apprenticeships, cooperative education, internships, and school-based enterprises (Hoerner & Wehrley, 1995). Tech prep programs provide preparation in certain career fields through high school and in post-secondary schools. Apprenticeship is structured as on-the-job learning under the supervision of a journeyman. Youth apprenticeship is usually long term and student participants earn an industry-recognized credential upon completion of the program (Hamilton & Hamilton, 1994). Cooperative education is a planned program that includes school (classroom instruction and activities) and paid career-related work experiences in a chosen occupation. Internships and practicums are prearranged placements that allow students to observe and interact with adults in order to learn all aspects of the chosen industry. These work preparatory experiences are usually unpaid. Students are monitored by a worksite mentor and students perform tasks of the particular job function to develop their skill set. Practicums and internships are usually capstone experiences that allow students to apply the concepts they have learned in school in the workplace (Scott & Sarkees-Wircenski, 2008).

There are also several other work-based learning educational activities that augment students' educational program such as running a school based enterprise or job shadow. School based enterprises (SBE) are student-operated businesses within a CTE program. These businesses are operated on the high school campus; students sell goods

or provide services to their peers and the public (e.g. operating a school store or restaurant). Job shadowing requires students to serve as observers as they follow employed professionals in their daily work setting. Students observe the tasks that are performed by the employed individual in order to learn the expectations, behaviors, and norms for the position (Gray & Herr, 1998).

Dual enrollment allows students to earn credits and/or a credential, certificate, diploma, or degree at local post-secondary institutions as they complete their high school coursework. Students take college courses in addition to their high school coursework, and post-secondary courses count for high school and college credit (Scott & Sarkees-Wircenski, 2008). Career academies integrate career and technical education and academic curriculum around a career theme; these academies are growing in popularity and there are two commonly used models. The first model is that of a standalone career academy. Students attend these career academies and the programs prepare students in a specific career major. Career academies can also exist as a school within a school that offers students a small learning community with a career theme (National Center for Education Statistics, 2011; Scott & Sarkees-Wircenski, 2008).

## Work-based Learning

Work-based learning is defined by the School-to-Work Opportunities Act (STWOA) of 1994 as "job training and work experiences aimed at developing pre-employment and employment skills, attitudes, and knowledge" (Harnish & Wilke-Schnaufer, 1999, p. 22). The School-to-Work Opportunities Act was enacted during a time of U.S. educational reform and technological and global changes. Many American youth were not adequately prepared to meet the demands of an increasingly competitive

and ever-changing work force (Rojewski, 2002). The STWOA did not create mandates for new programs rather it was enacted to help states and local communities build and improve the programs that already existed (Sarkees-Wircenski & Scott, 2003). This act successfully accomplished a number of tasks including the "development of school to work transition systems that coordinate career orientation, academic and occupational education, high school and postsecondary schooling, work-based learning, and skill credentialing" (Gray & Herr, 1998, p. 204). The STWOA defined career major as a sequence of courses that prepares a student for work. Passage of the STWOA improved the transition from school to work for high school students and aided the United States in economic development (Hamilton & Hamilton, 1994). The STWOA also fostered collaboration among schools, employers, and other stakeholders (Gray & Herr, 1998).

STWOA was linked to GOALS 2000: Educate America Act (1994), which was created to ensure that all students were able to reach a high level of academic achievement (Scott & Sarkees-Wircenski, 2008). GOALS 2000 legislation passed in 1994, established national goals to help students meet higher standards in education, and launched the development of state and local improvement plans. This legislation was also enacted in order to create partnerships to benefit students in the United States. "The Goals 2000: Educate America Act was a blueprint for improving the nation's schools through establishing national goals and standards and assisting state and local agencies in helping every child meet these standards" (Scott & Sarkees-Wircenski, 2008, p. 278).

The STWOA (1994) underscored the preparation of students with knowledge, skills, abilities, and information about the labor market and careers in the hopes that this would aid them in making the transition from school to employment following high

school graduation (Scott & Sarkees-Wircenski, 2008). According to Gray and Herr (1998), "Work-based learning integrates academic and vocational skills" (p. 202). The key features of the STWOA are school-based learning (related to a specific career concentration), work-based learning, and connecting activities (Hamilton & Hamilton, 1994). WBL provides students with organized on-the-job training linked directly to the curriculum and their career pathway while attending high school in preparation for work or post-secondary schooling. The work-based learning component is learning that takes place in the workplace and is monitored and coordinated by the WBL coordinator and the workplace supervisor. Students are mentored and trained on the job by the work-site mentor or supervisor (GADOE, 2012b)

Work-based learning gives students opportunities to gain specific technical skills while earning a high school diploma and in some cases additional certifications. Students need several skills to be successful after high school. Success will depend primarily on workers having specific technical skills, academic credentials, and general occupational skills that often vary by occupation (North & Worth, 2004). The Secretary of Labor appointed a commission, referred to as the Secretary's Commission on Achieving Necessary Skills (SCANS) (1991), to report the skills students need in order to be successful in the workplace. The commission's report (1991) provided a framework for workforce development and career and technical education and emphasized skills necessary for workplace success. The competencies identified in the SCANS report most accurately represent the foundational workplace skills that students must learn. The SCANS report has been one of the most influential documents in the creation of CTE programs and work-based learning programs in the United States (Scott & Sarkees-

Wircenski, 2008). SCANS includes the competencies that students must learn in work-based learning programs (Gray & Herr, 1998). SCANS continues to be relevant when preparing students for work and postsecondary education in the twenty-first century (Lerman, 2008; North & Worth, 2004). Occupational competencies delineated in the SCANS report are enduring (Packer & Pines, 1998). SCANS outlines basic skills (e.g. reading, writing, & arithmetic), higher order skills (e.g. creative thinking, problem solving, reasoning), and personal qualities (e.g. honesty, integrity, and social skills) that students must be taught in career and technical education and work preparatory programs (Gray & Herr, 1998). Skills such as reading, writing, arithmetic, creativity, and soft skills are still needed by today's students. There has not been a document to date on student skills as comprehensive as the SCANS report (Scott & Sarkees-Wircenski, 2008) . The report created a common language that can be understood and demonstrated in schools and in the workplace (Secretary's Commission on Achieving Necessary Skills, 1991).

Work-based learning gives students opportunities to develop and apply the knowledge and skills they learn in high school in a work setting. Participation in WBL can aid educators and students in establishing a link between the classroom and the real world. "In school-based leaning students tend to be removed from the settings in which they will ultimately practice the knowledge and skills they learn" (Gray & Herr, 1998, p. 203). In work-based learning students experience authentic assessments as they are supervised and work with others, while adhering to "adult work role norms and expectations" (p. 203), in an actual work environment, using the tools of the occupation (Gray & Herr, 1998). WBL "provides an environment by which students can really test their knowledge, skills, attitudes, and habits as they interact with adult workers,

organizational demands, equipment, work procedures, and work cultures" (Gray & Herr, 1998, p. 203). This allows students to connect abstract knowledge (learned in the classroom) with hands-on activities (gained and practiced in the workplace) to prepare them for the transition from school to work upon graduation (Gray & Herr, 1998).

Schools' ability to prepare students for the workplace has been in question for many years. Better, more efficient ways need to be found for students to acquire the knowledge and skills that will be necessary for success in the workplace (Rhoder & French, 1999). All students will face the transition from school to work and can benefit from WBL. All high school students, college bound or not, need to learn transferable skills that can use in the workplace (Rhoder & French, 1999).

Work-based learning has been identified as one way to keep students in school. Students are more interested in school when they can easily see the link to work. Learning by doing has been found to be one of the best ways to educate all learners (Sarkees-Wircenski & Scott, 2003). Ideally, through participation in work-based learning, students are provided with on-the-job learning that is better than learning that takes place in a classroom (Chadd & Anderson, 2005). Integration of academic and occupational subject matter is needed in order for work-based learning experiences to be meaningful (Chadd & Anderson, 2005). Students who participate in work-based learning are able to realize through real world experiences the utility of their course.

Work-based learning was created to serve all learners and it continues to address these issues. According to the STWOA, students who benefit from work-based learning are defined as:

> Male and female students from a broad range of backgrounds and circumstances, including disadvantaged students, students with racial, ethnic, or cultural backgrounds…students with disabilities, students with limited English proficiency, migrant children, school dropouts, and academically talented students (School-to-Work Opportunities Act, 1994).

Accommodations are made at the work site and in school for those students that need assistance. Employers are required to adhere to the legalities set forth in the Americans with Disabilities Act (1990). In work-based learning all educators involved in students high school progression are required to work together to deliver effective school and work-based learning.

There are many advantages to participating in work-based learning programs. Programs that fall under work-based learning have the potential to lead to major increases in the employability skills of high school graduates and inspire mastery of higher-level academic and career-related skills (Lerman, 2008). Work-based learning has been credited as a way to engage students in their education. It helps students become more committed to their coursework and provides incentives to continue learning beyond secondary school (Davis & Snyder, 2009). Work-based learning provides students with an understanding of the jobs available at different experience levels as well as the requirements for postsecondary education for a specific career field (Lerman, 2008).

## Career and Technical Education in Georgia

Career and technical education programs are offered at most middle and high schools in Georgia to prepare students in an occupational area (also known as a program

concentration or career pathway) of their choosing (GADOE, 2012a). There are 17 Georgia program clusters/pathways as shown in Table 2.

Table 2

*Georgia Career Clusters*

| Georgia Career Clusters | |
|---|---|
| Architecture & Construction | Energy Systems |
| Agriculture, Food & Natural Resources | Health Science |
| Arts, Audio/Video Technology & Communications | Finance |
| Business Management & Administration | Human Services |
| Government & Public Administration | Hospitality & Tourism |
| Law, Public Safety, Corrections & Security | Education & Training |
| Science, Technology, Engineering & Mathematics | Manufacturing |
| Transportation, Distribution & Logistics | Marketing |
| Information Technology | |

Georgia program clusters overlap with the career clusters recognized by the federal government. In all Georgia career pathways students have the opportunity to participate in classroom/laboratory experiences, WBL, and CTSOs (GADOE, 2012a).

**Career Pathways**

The GADOE (2012a) defines career pathways as concentrated subject areas for students involved in career and technical education. In recent years, legislation such as the Carl D. Perkins Career and Technical Education Improvement Act (2006) has emphasized the need for CTE program pathway completion for students in grades K-12. Career pathways, also called Georgia program concentrations include the following occupational areas: business and computer science; marketing, sales, and service;

engineering and technology; government and public safety; education; family and consumer sciences; architecture, construction, communication, and transportation; culinary arts; healthcare science; arts and humanities; and agriculture. Career pathways are also aligned with the federal career clusters. All high school students in Georgia are encouraged to select a career pathway in which they must complete the required coursework (GADOE, 2012a).

**Work-based Learning in Georgia**

There is no set structure for work-based learning in the United States. Individual states have the freedom to structure their programs, as they deem appropriate (School-to-Work Opportunities Act, 1994). Most programs are structured in accordance with the STWOA. Work-based learning has continued throughout the United States after funding for the School-to-Work Opportunities Act ended in 2001 (School-to-Work Opportunities Act, 1994; Yan, Goubeaud, & Fry, 2004).

In Georgia, student work preparatory programs fall under the umbrella of work-based learning (WBL). Work-based learning has been an important component of career and technical education concentrations (or career pathways) in Georgia secondary schools for many years (GADOE, 2012b). Work-based learning provides formal on-the-job training with job opportunities that are designed to match career and technical education courses and pathways (GADOE, 2012b). Students career goals, course work, and job experiences are the three common denominators when determining student work placements. Georgia WBL programs can include internship/practicum, cooperative education, employability skill development, and youth apprenticeship (GADOE, 2012b). The availability and type of work-based learning opportunities available to students vary

according to school district. Work-based learning courses provide supervised learning at an approved work-site placement. Each school district offers a variety of CTE program concentrations that are linked to the type of WBL program students can participate in at the secondary level (GADOE, 2012b).

Georgia work-based learning is outlined in the GADOE's (2012b) Career Related Education Manual, which includes Georgia standards and guidelines for work-based learning. In 2006, the reengineering of Georgia's WBL programs started and as a result, many school systems in Georgia began using a new model for the structure of work-based learning programs. After an evaluation of the status of work-based learning, it became clear to administrators that change was needed. The status of Georgia WBL was determined from discussions with teachers, WBL coordinators, school administrators, reports, records, surveys, and system reviews (GADOE, 2012b). A focus group was formed to investigate the issues in work-based learning. Prior to 2006, work-based learning was coordinated by the teacher of each specific program area. For example, marketing teachers coordinated work-based learning for their students including assisting students with job placement, work-site visits, and education agreements. Now, a majority of schools employ one work-based learning coordinator that coordinates the placements for all students from all program areas within a school. This was thought to be a more effective way to coordinate work-based learning. This format allows CTE instructors to focus on teaching and WBL coordinators schedules are more flexible to allow for the management of school-to-work activities (GADOE, 2012b).

Only juniors and seniors are allowed to enroll in work-based leaning programs at the high school level in Georgia. In most programs in Georgia, students must apply for

the WBL program and are typically required to complete an application packet. Students are not required to be employed at the beginning of the program in order to participate. Unemployed students must search for jobs, complete applications, and interview for positions. Grades, attendance, and discipline issues are taken into consideration when making selection decisions for admittance into Georgia work-based learning programs. Teacher recommendations and interviews are commonly used to determine if students should be admitted into WBL programs. These standards help to ensure that work-based learning students are good candidates for employment (although students are not guaranteed jobs). However, may limit the types of students who are eligible to participate in Georgia's work-based learning programs. Students with behavior issues or poor academic performance are not typically allowed to participate in WBL programs in Georgia (GADOE, 2012b).

In 2011, there were 20,928 students enrolled in Georgia WBL programs (GADOE, 2012c). All WBL students in Georgia must be working towards completion of a career pathway. To be considered a program completer, students must successfully complete three courses within a pathway. Students select a career pathway and their WBL course and work experience should be aligned with that pathway. The pathway and program concentration that students choose determines the type of work-based learning they participate in (GADOE, 2012b).

## Work-based Learning Research

In recent years, there is a deficiency in the literature on secondary students' perceptions of work-based learning in the United States although students throughout the country participate in these types of programs. Bennett (2007), and Hughes et al. (1999),

Ryken, (2006), Stasz and Brewer (1998), and Swail and Kampits (2004) have examined aspects of secondary work-based learning programs. Bailey (2009), Burke et al. (2009), and Cameron-Jones and O'Hara (1999) conducted a study that examined the perceptions of post-secondary work-based learning students. Research studies that investigate work-based learning in other countries outside the United States have been conducted: (a) United Kingdom (Garnett et al., 2009; Hopkins, 2008), (b) Scotland (Cameron-Jones & O'Hara, 1999), (c) Germany (Harnish & Wilke-Schnaufer, 1999), and (d) the Netherlands (Jong et al., 2006). There are research studies that focus on classroom teachers (Yan et al., 2004), high school teacher/coordinators, and worksite mentor/ supervisors (Chadd & Anderson, 2005). Qualitative research has often been used to address experiences of work-based students (Hopkins, 2008; Keen & Howard, 2002; Rhoder & French, 1999).

Swail and Kampits (2004) surveyed first year students at four-year institutions about their high school work-based learning experiences. A majority of the students believed they learned better through hands on activities as opposed to traditional classroom learning. They found that WBL students who attended four-year post-secondary institutions after graduating from high school performed as well or better than those who did not participate in work-based learning (Swail & Kampits, 2004). Swail and Kampits (2004) concluded that these findings should encourage college admissions to consider including participation in work-based learning experiences in admission decisions.

Stasz and Brewer (1998) conducted a mixed methods study on two types of work-based learning programs, an unpaid internship and a one semester paid work

experience program. Student surveys, interviews of program staff, and case studies were utilized to examine students in work-based learning programs in the same large metropolitan school district. For both WBL programs, students felt that program administrators had difficulty establishing a link between school and work. The researchers also found that some work-based learning participants experienced conflicts as they struggled to manage their school commitment and their work commitment. Work experience students experienced negative consequences on their school performance such as less time to complete homework and increased likelihood to drop out of school. Internship and work-based participants perceived the quality of the program similarly. Overall, most of the work-based learning students believed they had learned valuable skills and work-related attitudes (Stasz & Brewer, 1998).

Hughes et al. (1999) attempted to determine if work-based learning improved student academic performance. They researched five programs that included work-based learning and found no statistical link to improved academic performance. Some evidence for the reinforcement of academic knowledge was found. However, Hughes et al. (1999) concluded that there were other, non-academic but equally important forms of learning that came from work experience and that these other experiences provided support for work-based learning. Students were able to make the connection between school and work and apply their academic knowledge. Academic knowledge was also reinforced as students participated in their WBL placements. Work-based learning activities (at the workplace) can be used for students to gain a better understanding of knowledge, skills, and attitudes being taught in the classroom (Hughes et al., 1999).

Ryken (2006) conducted a qualitative study of a CTE program in California that provided WBL experiences. This study included 256 biotechnology students studied over 7 years. Of the population, 53% were African American, 21.6 % Hispanic, 16.5% Asian, and 8.1% Caucasian. An equal amount of males and females were used in this study. Case studies were used to determine how students perceived their CTE program, and to examine their education, career decision-making, and development. The study examined students' perceptions of high school, college, and work. Ryken (2006) found that students needed support and that they must be active in setting and achieving goals for their future. Students must evaluate and reflect on their learning experiences in order to improve them (Ryken, 2006). Teachers, employers, and student collaboration is critical to effectively assist students in reaching their educational goals.

Bennett (2007) examined high school seniors in a school district in the Midwestern United States. The study examined the efficacy of an internship program and the influence of relationships on students' occupational engagement orientations. Bennett used a survey to determine how demographics affected occupational engagement orientation, the influences on student participation, and social support. He found that students viewed adults in the workplace as valuable sources of career information (Bennett, 2007). This study supported the claims made by Bailey, Hughes, and Moore (2004) that social support affects the success of work-based learning programs. Bennett (2007) recommended that researchers, administrators, policy makers, and teachers further examine the role of social support for high school students, especially those from socially and economically disadvantaged backgrounds. For secondary students in large urban

school districts, social support throughout the entire work-based learning process enhanced students' future occupational engagement orientations (Bennett, 2007).

Yan et al. (2004) conducted a quantitative survey of teachers' integration of school and work-based activities involved in a school-to-work (STW) partnership in Southwestern Pennsylvania. The STW partnership included school-based, work-based, and connecting activities as outlined in the School-to-Work Opportunities Act (1994). Teacher attitudes toward the school-to-work initiative were also examined; overall, teachers had positive attitudes toward school-to-work. School-based activities were more easily implemented by the classroom teachers surveyed; career-related and work-based activities were more difficult to integrate into the curriculum. Senior teachers implemented more school-based and work-based learning activities than those that taught juniors. The positive attitudes of the classroom teachers involved in the study suggested that teachers' perceptions of the STW partnership were not a barrier to the implementation of school-based and work-based activities (Yan et al., 2004).

Chadd and Anderson (2005) surveyed high school teacher/coordinators and worksite mentor/supervisors that participated in work-based learning in Chicago, Illinois through a self-report survey. This descriptive survey study examined perceptions. It was discovered that integration of academic and occupational content was vital in making WBL experiences meaningful (Chadd & Anderson, 2005). Students should be provided with work-based learning experiences at the worksite equivalent or superior to learning in a classroom setting (Chadd & Anderson, 2005). In their recommendations, Chadd and Anderson (2005) asserted that research regarding WBL students' perceptions about their

worksite mentor/supervisor abilities to teach the skills students need to learn should be conducted.

A qualitative research approach has also been used to address work-based students' experiences (Hopkins, 2008; Keen & Howard, 2002; Rhoder & French, 1999). Qualitative studies help to understand the experiences of students and their understanding of the experience (Gall, Gall, & Borg, 2007).

Hopkins (2008) examined students in the United Kingdom to determine their perceptions of the benefits of work-related (work-based) learning. He used a form of group interview to investigate students' perceptions. Students felt that work-related programs were beneficial and participation in these programs had an impact on their attitudes about themselves, school, and their skills. Programs were also believed to increase students' knowledge of the qualifications and skills employers required (Hopkins, 2008).

Keen and Howard (2002) conducted in-depth interviews with students concerning their cooperative education experiences and other school related issues. Gifted juniors and seniors at Antioch College were used to determine the benefits of experiential learning for gifted students. Work-related experiences required students to grow and step outside of traditional ways of learning. Keen and Howard (2002) asserted that all students should be given the opportunity to experience experiential learning.

Rhoder and French (1999) conducted a qualitative case study that examined high school students in the United States. The research report used a survey of businesses to support the rationale for their study. The focus of the research was specifically the connection between the workplace and academics. The survey found that businesses felt

that students were not being adequately prepared for work by schools. Rhoder and French (1999) indicated that schools ability to prepare students for the workplace has been in question for many years. Secondary schools need to find better ways to ensure that all students, whether they will attend college or not, acquire the transferable knowledge, skills, and aptitudes necessary for success in the workplace (Rhoder & French, 1999). Rhoder and French (1999) found that students were most successful when they understood the reason for the WBL program and the reasons for their participation. According to Rhoder and French (1999), the following issues need to be considered when developing work-based learning programs: thinking skills, seminars for students during the WBL experience, scheduling, assessment, and areas of teacher responsibility.

Lerman (2008) examined the role of nonacademic skills on students' success in the workplace. Lerman (2008) asserted that students need skills that go beyond academics. In today's schools many skills which are not commonly used in the workforce are required for high school graduation but other skills that are necessary for success in the workplace are rarely measured, taught, or evaluated (Lerman, 2008). Work-based learning programs have the potential to lead to major increases in the employability skills of high school graduates. These programs also encourage many students to become inspired to study and reach higher-level academic skills, particularly those related to careers. Broadening the range of skills emphasized in high schools will likely encourage students to stay in school. Students who could potentially dropout of school can see the advantages of staying in school and they have the opportunity to learn skills that are relevant to their current jobs and their future careers (Lerman, 2008).

## Attitude Related Theories

Explaining human attitudes and behavior is extremely difficult. Therefore, several theories of attitude change and development were examined in order to select a theory that accurately described the concept of perception. The theory of planned behavior (TPB) introduced by Ajzen (1985, 1991), is an extension of the theory of reasoned action. Two major theories that examine perceptions are Festinger's (1957) cognitive dissonance theory and Bem's (1972) self-perception theory. Although examined, none of these theories were found to be appropriate for use as the theoretical framework for this study.

### Theory of Planned Behavior

The theory of planned behavior (TPB) is an extension of the theory of reasoned action (Ajzen, 1985; Ajzen, 1991, Sharma & Kanekar, 2007). The original theory was limited because it did not deal with those behaviors for which people have "incomplete volitional control" (Ajzen, 1991, p. 181). "The theory of planned behavior traces attitudes, subjective norms, and perceived behavioral control to an underlying foundation of beliefs about behavior" (Ajzen, 1991, p. 206). This theory was not appropriate to use as the theoretical framework for this study because TPB focuses on explaining and predicting behavior; therefore, its use is more appropriate when examining behavior (Ajzen, 1991; Fishbein & Ajzen, 2010).

TPB originated to address the limitations in TRA in dealing with certain behaviors. TPB focuses on a person's intention to perform a behavior (Ajzen, 1991). "Intentions are assumed to capture the motivational factors that influence behavior, they are indications of how hard people are willing to try or how much of an effort they are

planning to exert in order to perform a behavior" (Ajzen, 1991, p. 181). Ajzen defined intention in terms of trying to perform a behavior instead of in relation to actually performing the behavior. Actual performance was easier to work with and has been used more often by researchers (Ajzen, 1991). Intention is now defined in relation to performing a given behavior (Ajzen, 1991).

TPB attempts to predict behavior by examining intentions and behavioral control (Ajzen, 1991). Using a regression analysis, it was found that intentions and perceived behavioral control are correlated (Ajzen, 1991). Intentions were also found to be the most important predictor of behavior. According to TPB, there are three determinants of intention: (a) attitude toward a behavior, (b) subjective norm, and (c) degree of perceived behavioral control (Ajzen, 1991). The importance of these three factors varies depending on the behavior and the situation. The contribution of each factor is independent (Ajzen, 1991). The more favorable the attitude and subjective norm (as it relates to behavior), and the greater the perceived behavioral control, the stronger an individual's intention to perform a behavior (Ajzen, 1991). "Intention, perception of behavioral control, attitude toward the behavior, and subjective norm each reveals a different aspect of the behavior, and each can serve as a point of attack in attempts to change it" (Ajzen 1991, p. 206).

Background factors that must be considered in investigations using the theory of planned behavior are individual, social, and information factors (Ajzen, 1985). Individual factors include personality, emotions, intelligence, values, stereotypes, and experience. Social factors are related to education, age, gender, income, race/ethnicity, and culture. Information factors in TPB are knowledge, media, and interventions (Ajzen 1991).

Fishbein and Ajzen's (1975, 2010) research on beliefs undergirds this study. Because TPB focuses on intentions and behavior, and although it is an extension of the theory of reasoned action it is not appropriate to use as the theoretical framework for this study and is not necessary for understanding an individual's perceptions. TRA defines beliefs and creates a link between beliefs intentions, attitudes, and behavior.

**Cognitive Dissonance Theory**

Cognitive dissonance was studied and proposed by Festinger in 1957. The current phenomenology of the individual is one the characteristics emphasized in dissonance theory (Bem, 1967). Cognitive dissonance asserts that dissonance is generated because of inconsistency in an individual's cognitions. Individuals will seek to lessen the effect of dissonance and create consonance (Festinger, 1957). In situations where dissonance is present, people will make different decisions and intentionally avoid situations so that they can decrease dissonance. The state of dissonance is a motivating factor. Dissonance is "the existence of non-fitting relations among cognitions" (Festinger, 1957, p. 3). Cognition is knowledge, opinions, or beliefs that an individual has about themselves, their environment, and their behavior (Festinger, 1957).

The cognitive dissonance theory asserts that people attempt to create consistency between their beliefs, attitudes, and behaviors. The theory also hinges on the fact that beliefs can be changed. When there is inconsistency in these three constructs, cognitive dissonance occurs. When people participate in behaviors that are incongruent with their beliefs, they will change their beliefs to line up with their behaviors. People are motivated to ensure that there is congruence between their beliefs and behaviors (Festinger, 1957).

In most cognitive dissonance studies an individual's self- descriptive statements of their attitude or beliefs is the dependent variable (Bem, 1972). Research studies have focused on an individual's response when cognitive dissonance occurs (Buckmaster & McKenzie, 2009; Kaish, 1967). Cognitive dissonance theory has been used to examine a variety of subjects (such as marketing (Kaish, 1967)) since its proposal, and has been studied extensively. Cognitive dissonance theory has been used recently to determine students' opinions on the invasion and occupation of Iraq (Buckmaster & McKenzie, 2009). In the past, it has been used to investigate topics such as consumer behavior (Kaish, 1967).

Issues with cognitive dissonance theory include difficulty researchers found in preventing their subjects from reducing dissonance by means other than the predicted changes on a cognitive dependent measure" (Greenwald, 1975, p. 496). Researchers also found it difficult to specify whether certain conditions would result in dissonance. Additionally, if dissonance is produced researchers could not determine how much would be produced (Greenwald, 1975). Festinger (1957) intended for the cognitive dissonance theory to "be a source of conceptually disconfirmable predictions of cognitive effects of experimental manipulations" (Greenwald, 1975, p. 496).

Festinger's (1957) cognitive dissonance theory has been utilized by a many researchers (Greenwald, 1975). However, cognitive dissonance has its critics, those with issues ranging from mild to more serious (Bem, 1972). There have been a number of opponents of cognitive dissonance including Bem (1967). Several researchers tried to explain the difficulties with cognitive dissonance theory; a theoretical alternative was not proposed until 10 years later. Bem (1967) proposed a theory that would support

predications that could not be made with the dissonance theory. Cognitive dissonance theory is not appropriate for this study of work-based learning. The self-perception theory is seldom used by researchers today because other theories such as TRA have been found to be more valuable. This theory like the theory of planned behavior has a behavior focus.

**Theory of Self-perception**

Bem's (1972) theory of self-perception is a popular perception theory. It was created as an alternate to the cognitive dissonance theory proposed by Festinger (1957). Self-perception is a reinterpretation of the cognitive dissonance theory (Greenwald, 1975). Self-perception theory was inspired by a position attributed to Skinner's (1945) "radical behaviorism" (Bem, 1967, 1972). Therefore, self-perception is considered to be a behaviorist's theory (Bem, 1972).

Self- perception is an individual's ability to respond to his or her behavior and its controlling variables (Bem, 1967). Self-perception theory asserts that people analyze their behavior to determine the reasons they are motivated to perform certain behaviors. People analyze their behavior and rationalize their beliefs. In studying perceptions using self-perception theory, researchers are trying to determine an individual's judgments about themselves. Descriptive verbal statements about one 's self are the most common responses that reflect self-perception (Bem, 1967). For example, in order for children to identify parts of their environment and differentiate between objects and events, someone else must name and provide descriptions of the involved items and experiences (Bem, 1972).

Self-perception theory does not explain how attitudes are formed. One of the major issues with the self-perception theories is that it contrasts with other behavior theorists who assert that beliefs and attitudes are developed before any action (behavior) is taken (Bem, 1967). Bem's (1967) self-perception theory is also a very dated theory, and is no longer commonly used.

It should also be noted that cognitive dissonance theory and self-perception have been shown to make competing predictions, although Bem and McConnell (1970) and Greenwald (1975) provide evidence for the fallacy of this argument. Bem and McConnell (1970) assert that the choice between selection of one of the two theories is "a matter of loyalty or aesthetics" (p.30). The theories are seen as yielding virtually the same results.

The theory of planned behavior, cognitive dissonance, and self-perception were not deemed appropriate to use as the foundation for this study of secondary WBL students' perceptions of their course and work-related issues.

## Theoretical Framework

The theoretical framework used for this study was Fishbein and Ajzen's (1975) theory of reasoned action. The theory of reasoned action links beliefs, attitudes, intentions, and behaviors (Fishbein & Ajzen, 1975). This theory asserts that perceptions (or beliefs) are a precursor to attitudes. In understanding the theory of reasoned action, it is important to recognize that the terms perceptions, beliefs, and opinions are used interchangeably in social psychology (I. Ajzen, personal communication, March 23, 2011). According to the theory, beliefs are an indicator of a person's attitude toward something. People make judgments about themselves, others, events, and sometimes

objects. Perceptions can offer clues and give an idea about attitudes and behaviors, albeit indirectly. The theory of reasoned action seeks to understand attitudes and how these affect behavior (Fishbein & Ajzen, 1975, 2010). The theory of reasoned action provides a strong theoretical base for a study of perceptions.

**Theory of Reasoned Action (TRA)**

Fishbein and Ajzen's (1975) theory of reasoned action has been studied continually since it was first outlined in 1975. The ultimate goal of the theory of reasoned action is to predict and understand behavior (Ajzen & Fishbein, 1980). This study will ascertain students' perceptions about their work-based learning course as well as work and career-related issues. Perceptions are a type of belief (Fishbein & Ajzen, 1975). Beliefs inform a person's attitude, which in turn affects behavior. When studying attitudes, a link to behavior must be established because attitudes are often described as an underlying (or latent) variable that guides or influences behavior (Fishbein & Ajzen, 1975). Attitudes cannot be directly observed but can be inferred based on a consistent pattern of behavior (Fishbein & Ajzen, 1975). Therefore, knowledge of behavior allows for the prediction of specific behaviors (Fishbein & Ajzen, 1975). Determining a person's opinions can indirectly offer clues about an individual's attitudes and behaviors.

Attitudes are usually difficult to assess and change. Attitudes are learned and they reflect a person's predisposition towards something (Fishbein & Ajzen, 1975). In the theory of reasoned action, attitude is defined as "a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object" (p. 10) and this definition of attitude is accepted by most researchers (Fishbein & Ajzen, 1975).

The theory of reasoned action was born out of Fishbein and Ajzen's (1975, 2010) investigation into attitude. In 1963, Fishbein proposed a model that outlined the relationship between beliefs and attitudes. Fishbein uncovered "the ways in which evaluative mediating responses combine to produce overall attitude" (Fishbein & Ajzen, 1975, p.27). "A given stimulus object may elicit a variety of responses that refer to the characteristics, attributes, or qualities of the object" (Fishbein & Ajzen, 1975, p. 28). The responses are a "habit-family hierarchy" (Fishbein & Ajzen, 1975, p. 28), each ordered according to the probability that an object will elicit a given response. A person's attitude toward an object is a function of the strength of his or her beliefs (Fishbein & Ajzen, 1975). According to Fishbein's (1963) model, a person's attitude toward some object (such as their work-based learning course) is a function of the strength of their beliefs (about their work-based learning course) and the evaluation of the different attributes related to their beliefs (Fishbein & Ajzen, 1975). Fishbein and Ajzen (1975) built on Fishbein's (1963) original model when proposing the framework for the theory of reasoned action.

"Beliefs about an object provide the basis for formation of attitude toward the object…and attitudes are usually measured by assessing a person's beliefs" (Fishbein & Ajzen, 1975, p.131). Beliefs are a person's understanding about themselves and their world and beliefs are subjective probability judgments (Fishbein & Ajzen, 1975). Beliefs may be formed through direct observation (observational beliefs), or indirect information accepted from relatives, friends, colleagues, books, magazines, the Internet, and other outside sources (informational beliefs). Many beliefs are accepted based on information from outside sources. Beliefs can also be inferred and self-generated (inferential beliefs),

and sometimes these inferences are formed based on direct observation (Fishbein & Ajzen, 2010). "Beliefs can persist over time" (p.96), be forgotten, and new beliefs are continually formed (Fishbein & Ajzen, 2010). No matter what the belief is based on, once formed, they provide the basis for attitudes (Fishbein & Ajzen, 2010).

In this study, the theory of reasoned action was used to examine how gender, race/ethnicity (White or non-White), and CTSO membership affected WBL participants' perceptions toward their WBL course and work and career-related issues. TRA is appropriate to use because perceptions (beliefs) are a "fundamental building block" (Fishbein & Ajzen, 1975, p.14) in the framework of the theory. "The totality of a person's beliefs serves as the informational base that ultimately determines his attitudes, intentions, and behaviors" (Fishbein & Ajzen, 1975, p. 14).

**Studies using the theory of reasoned action.** The theory of reasoned action is based on attitude research; it has been used in a multitude of studies concerning attitude and behavior (Martinez, Toral, Barrero & Gaklardo, 2007). This theory is applicable to a number of areas of study. The theory has been found to have strong predictive quality (Sheppard et al., 1988).

TRA is widely cited and has been employed by many educational researchers (Baxter, 2011; Burak, 2004; Chen & Chen, 2006, Garg & Garg, 2007; Lu, 2010; Martinez et al., 2007; Natan, Beyil, & Neta, 2009; Papadopoulos, Vlouhou, & Terzoglou, 2008; Pryor & Pryor, 2009; Ranz-Smith, 2007; Sperber, Fishbein & Ajzen, 1980; Vincent, Peplau, & Hill, 1998). Baxter (2011) examined teachers' perceptions about the integration of academic and career and technical education curriculum . Support for a link between teacher confidence and their behaviors when integrating curriculum was

found (Baxter, 2011). The theory was used to examine student attitudes toward their course (Garg & Garg, 2007), teacher attitudes toward teaching online (Chen & Chen, 2006), recreational reading (attitudes, intentions, and behaviors) (Burak, 2004), and parental participation (Pryor & Pryor, 2009). Chen and Chen (2006) examined the attitudes of human resources faculty in Taiwan using the theory of reasoned action. They found that faculty members held positive attitudes towards teaching online. Pryor and Pryor (2009) used two questionnaires to determine behaviors teachers could undertake to increase parental involvement. Teachers of students in kindergarten through 12th grade rated their beliefs, attitudes, and intentions. In this study, teachers were found to base their behavior on attitude. According to Pryor and Pryor (2009), an understanding of the contribution, positive or negative, a belief adds to attitude development provides valuable information for influencing that attitude. TRA provided a useful model for investigating increasing parental participation. Martinez et al. (2007) used TRA to research factors that contributed to learning in classroom laboratory instruction. Interactivity and motivating factors were found to play an important role in leaning in a laboratory. Ranz-Smith (2007) conducted a qualitative study to examine teacher perceptions of play using TRA as a framework for understanding teacher decisions.

The reasoned action approach has been used to examine numerous topics outside of education including, organizational behavior, voting behavior, weight loss, HIV/AIDS prevention, and discriminatory behavior (Fishbein & Ajzen, 2010). It has been used to study career-related issues such as women's occupational orientations and their career behaviors (Sperber et al., 1980; Vincent et al., 1998). Nurses' attitudes towards care of drug addicts, women's career behavior (Sperber et al., 1980; Vincent et al., 1998), and

the promotion of sports programs were investigated using TRA (Natan et al., 2009; Papadopoulos et al., 2008). TRA was also used in a study of attitude barriers to employment (Lu, 2010).

**Selection of the theory of reasoned action.** The theory of reasoned action has been refined, tested, and improved for over forty years (Fishbein & Ajzen, 2010). This theory has been used in several perception-based studies that elicit people's opinions on a variety of subjects. Fishbein and Ajzen (1975, 2010) have conducted extensive research on attitudes in social psychology. TRA is continually cited, and over 1,000 empirical reports have been published in professional journals using the reasoned action approach (Fishbein & Ajzen, 2010).

**The theory of reasoned action links to study's instrument.** The *Student Perceptions of Work-based Learning* questionnaire (see Appendix A) was used to collect information on students' beliefs about their course and work and career-related issues. Attitude is a construct, which is used to define beliefs. Attitude is generally accepted to be "a person's disposition to respond favorably or unfavorably with respect to a psychological object" (Fishbein & Ajzen, 2010, p.77). Because attitude is a building block of perceptions, it was acceptable to use TRA to study WBL students' perceptions toward their course and work and career-related issues. The dependent variable in this study was perceptions of work-based learning students. Perception is defined by the theory of reasoned action as an individual's subjective judgments about themselves and their world (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 2010).

Positive or negative judgments of any concept reflects an individual's perceptions; respondents may judge a concept, enjoyable (strongly agree) or unenjoyable

(strongly disagree), pleasant or unpleasant, and desirable or undesirable (Fishbein & Ajzen, 2010). For example, students were asked to respond to the statement, "Talking to my parents about career plans is helpful." Students responded using a Likert scale: 1-strongly disagree, 2-disagree, 3-agree, 4-strongly agree.

Fishbein and Ajzen's (1975, 2010) theory of reasoned action supports the use of Likert scaling procedures in determining an individual's attitude toward objects such as perceptions toward course and career-related issues. Likert scaling procedures are used often to test the theory of reasoned action. "Likert scaling is a "standard attitude scaling method" (Fishbein & Ajzen, 2010, p. 93). The use of Likert scaling procedures result in a score that represents the degree of favor or disfavor or disagreement or agreement toward an object, (e.g. "I am glad I enrolled in this course).) (Ajzen & Fishbein, 1980). The use of Likert scaling determines the strength and direction of students' perceptions about their work-based learning course and work and career-related issues.

The theory of reasoned action also supports the instrument. The instrument's questions coincide with the tenants of the theory. This theory is useful to many areas of study. When studying perceptions Fishbein and Ajzen's (1975, 2010) research provides a theoretical base that has been continually developed, tested, and refined. "The Theory of Reasoned Action (TRA) model illustrates that human behaviors can be predicted from behavioral intention, attitude, and the influence of subjective social norms" (Garg & Garg, 2007, p.258). An individual's perceptions can be affected by several factors. Perceptions, attitudes, and behaviors can be changed. The results of this study can be used to better understand students' perceptions about their WBL course and work-related issues.

Humans form beliefs every day (Fishbein & Ajzen, 2010). Beliefs are the "subjective probabilities that an object has a certain attribute" (p.96), and both objects and attributes are distinguishable features of our world (Fishbein & Ajzen, 2010). Objects and attributes make up our world and each person views the things that make up their world differently based on their experiences. Beliefs, opinions, and perceptions about an object can be viewed as "expressions of attitude toward the object" (Fishbein & Ajzen, 2010, p. 85). Beliefs are expressed in statements in the instrument such as "I believe I will be successful after I graduate from high school." Also, "I believe I have been pushed into low-level, non-academic types of classes by teachers or guidance counselors." is another example.

Demographic questions such as, "What do you plan to do immediately upon graduation from high school?" presents information on students' intentions. Questions such as, "This class is boring." represent personal relevance, which is a student's satisfaction with his or her course. Students could answer this question favorably or unfavorably by selecting their agreement or disagreement with the statement. Educational value referred to how students value and describe their course, its content, and methodology (Womble et al., 1995). Educational value is evidenced in statements such as; "This course prepares me for education after high school." Life skills are the skills all employees must possess to be successful in the workplace (Adams et al., 2000). Statements such as, "This course improves my ability to get along with other people, especially in the workplace". "This course prepares me to make good career choices." Career knowledge and work expectation examine the relationship education has to a student's future career success, students expectations of the workplace as well as

information sources students utilize to find out about careers (Jones & Womble, 1997; Womble, Jones, & Ruff, 1995; Womble, 1995b). This is evidenced by students' agreement or disagreement with statements such as, "I expect to make a good income when I complete my education." Work awareness includes generalizations about work and how students identify and relate to school (Jones & Womble, 1998; Womble, Jones, & Ruff, 1995). Career choice includes the limitations students may face because of their gender and race/ethnicity and are evidenced in belief statements (e.g. "I believe I have been pushed into low-level, non-academic types of classes by teachers or guidance counselors.") (Womble & Jones, 1996).

The theory of reasoned action links perceptions (beliefs), attitudes, intentions, and behaviors (Fishbein & Ajzen, 1975). "No matter how beliefs associated with a given behavior are acquired, they serve to guide the decision to perform or not perform the behavior in question" (Fishbein & Ajzen, 2010, p. 20). Students' perceptions about their work-based learning course and career and work-related issues

**Theory of reasoned action in relation to dependent variables.** Although TRA does not identify specific factors that must be considered when studying perceptions or beliefs, it does suggest the inclusion or consideration of background factors. Background factors should be considered if they could result in different learning experiences causing students to form different beliefs (Fishbein & Ajzen, 2010). The types of experiences people have may vary as a function of many background factors. Background factors can include cultural factors such as gender, race/ethnicity, and social factors, which may include participation in certain activities (Fishbein & Ajzen, 2010). The theory of reasoned action has been used to examine variables such as gender and race/ethnicity,

and research has shown that beliefs can be influenced by these factors (Fishbein & Ajzen, 2010). Demographic factors such as gender and race/ethnicity influence beliefs and indirectly influence intentions and behaviors (Fishbein & Ajzen, 2010). Participation in a CTSO should be considered part of the social environment because it is intertwined with CTE school programs (Alfeld et al., 2006).

## Variables Affecting Perception

Demographic characteristics of students such as gender and race/ethnicity may affect access to information concerning careers (Stitt-Gohdes, 1997). These characteristics may affect participants' encouragement and motivation to pursue certain occupational pathways and influence their orientations toward engagement in the career planning process (Bennett, 2007). Gender and race/ethnicity may also constrain individual career options (Stitt-Gohdes, 1997). "When demographic differences are found, they can stimulate the exploration of possible reasons for the observed differences" (Fishbein & Ajzen, 2010, p. 225). Also, of concern is the fact that all too often those individuals, be it educators, counselors, or administrators, who are in the position of most influence when it comes to helping students investigate, examine, and transition into careers, are often those that may (sometimes unconsciously) impose barriers to career choice based on demographic variables (Gordon, 2008; Stitt-Gohdes, 1997). Therefore, a study of work-based learning students' perceptions about their course and work and career-related issues comparing demographic variables was warranted. Gender, race/ethnicity (White or non-White), and CTSO membership were examined in this study to determine if there were differences in work-based learning students' perceptions toward their course and work and career-related issues.

**Gender**

Many occupations that students are prepared for in CTE have been divided based on gender (Sheng et al., 1996; Wonacott, 2002a). Some female and male students do not consider certain careers because they are not traditionally pursued by persons of their gender; this is often referred to as gender stereotyping. Gender stereotyping is harmful because it narrows the range of occupational opportunities considered by teens (Gray, 2009). Issues such as sexism and discrimination limit occupational choices for young women (Domenico & Jones, 2006). Issues of gender bias, gender stereotyping, and gender discrimination still exists and affect access to opportunities for students (Wonacott, 2002a). During the last three decades, women have entered the workforce in record numbers (Gordon, 2008).Career and technical education provides a direct link between school and work, which gives it a unique position from which to prepare women for a variety of occupations (Sheng et al., 1996).

Although, career choice and aspirations for women have evolved over time, women still face a discrepancy in income and are unable to enter certain careers (Domenico & Jones, 2006). Women have been historically viewed as caretakers and the role of women has been in the home caring for the family (Domenico & Jones, 2006; Sheng et al., 1996; Sperber, et al., 1980). In the past, interest female students had in certain vocational preparation were seen as temporary (Sperber et al., 1980). Women still face stereotyping and differences in society's expectations based on gender. The combination of society's expectations for women, and women's knowledge that they will be expected to be the primary caretaker of their home and children, may lead women to enter certain fields (Frome, Alfeld, Eccles, & Barber, 2006). These fields may be

"perceived to be more flexible and "disposable" for the sake of family" (Frome et al., 2006, p. 362).

Wonacott (2002a) found that CTE is often described as gender biased against young women. CTE programs can be characterized as gender biased in areas such as program enrollment and course quality. There are also salary inequities for female graduates when compared with males (Domenico & Jones, 2006). Educators can effect student participation in certain educational programs, career pathways, workplace choices, and careers. CTE educators can intentionally or unintentionally transmit gender bias to students that could limit their access and entry to certain programs by using gender-biased (and stereotypical) examples, guidance, activities, and assessments (Gordon, 2008).

Work-based learning and other CTE courses allow male and female students to receive education and training in secondary schools. These courses give each student the opportunity to gain skills that will assist them in the future (Gordon, 2008). Research on male and female students' perceptions of their courses can provide pertinent information about the different ways in which students view their courses. This can present educators with a basis from which they can make changes to best serve the population.

**Race/ethnicity (White/Non-White)**

Students' perceptions of their WBL course and work and career-related issues were examined in relation to students' race/ethnicity. Career choice implies that students have choices regardless of their race/ethnicity. However, for non-White students (minorities) limitations may still exist (Stitt-Gohdes, 1997). "Recognizing individual and group differences when working with racial and ethnic minorities is critical to successful

career development" (Stitt-Gohdes, 1997, p. 33). Educators, administrators, and others who participate in career guidance for students must be aware of issues such as racial and ethnic differences in career aspirations, occupational stereotyping, and parental factors that relate to the career development of young people (Stitt-Gohdes, 1997).

Students were grouped based on race/ethnicity, White or non-White group membership. Minorities included any group of students that is not White (Caucasian). In some school districts and schools, a minority may not be non-White students. Students were grouped this way because historically they have been classified as belonging to a racial or ethnic minority group. Non-White students have been limited access to certain programs, schools, and work opportunities (Scott & Sarkees-Wircenski, 2008). Obtaining an adequate education has been a struggle for non-Whites in our society for decades. For over a century, non-White children received minimal formal education and they learned work skills through on-the-job training. When non-Whites were finally allowed to receive a public education, they attended poorly funded and segregated schools (Scott & Sarkees-Wircenski, 2008).

Blustein et al. (2010) found that students in minority groups typically believed that society holds low expectations for them based on their ethnic and racial background. According to these same researchers, students also recognized biases based on their race/ethnicity (Blustein et al., 2010). Careful attention must be paid to issues related to race/ethnicity in career related education programs (Blustein et al., 2010). Considering U.S. history as it relates to the education and training of non-Whites, examining the differences in the perceptions of non-White students and White students is necessary for understanding how to best serve these groups through work-based learning.

**Career and Technical Student Organization (CTSO) Membership**

Career and Technical Student Organizations (CTSOs) are co-curricular student organizations created to help meet CTE program outcomes (Alfeld et al. 2006; Stanislawski & Haltinner, 2009). CTSOs are organizations for students enrolled in CTE courses. Students participate in educational activities as an integral aspect of the instructional program of each CTE area. CTSOs provide students at the secondary and post-secondary level with career development, leadership opportunities, awards, and recognition for achievement (Scott & Sarkees-Wircenski, 2008). Most CTE programs include opportunities to participate in a co-curricular student organization (CTSO).

There are 10 nationally recognized CTSOs for students to participate in on the secondary and post-secondary levels (Scott & Sarkees-Wircenski, 2008). There are national, state, and local (school level) CTSOs for each program area (e.g. marketing education and DECA (formerly Distributive Education Clubs of America), business education and Future Business Leaders of America, (FBLA). These student organizations align with curriculum objectives and the functions support the subject that is taught (Alfeld et al., 2006). CTSOs provide students with leadership and professional development, a competitive events program, and opportunities for community service (Alfeld et al., 2006). Students are able to utilize and put in to practice the information, skills, and competencies they learn in their course (Alfeld et al., 2006). Ideally, CTSO activities are designed to reinforce student learning experiences and contribute to student development (Scott & Sarkees-Wircenski, 2008). Georgia high school CTSOs coincide with the Georgia program concentrations. CTSOs were created as a way to enhance the high school experience of vocational (career and technical education) students

(Stanislawski & Haltinner, 2009). A list of the CTSOs in Georgia and the program areas they correspond with are shown in Table 3.

Table 3

*Secondary Career and Technical Student Organizations in Georgia*

| Program area | Career and Technical Student Organization | Acronym |
|---|---|---|
| Marketing, sales, & service | formerly Distributive Education Clubs of America | DECA |
| Business & computer science | Future Business Leaders of America | FBLA |
| Engineering & technology | Technology Students of America | TSA |
| Family & consumer science | Family, Career, and Community Leaders of America | FCCLA |
| Government & public safety | formerly Vocational Industrial Clubs of America Skills (USA-VICA) | SkillsUSA |
| Culinary arts | Family, Career, and Community Leaders of America | FCCLA |
| Healthcare science | Health Occupations Students of America | HOSA |
| Agriculture | formerly Future Farmers of America | FFA |
| CTE students with disabilities | Career and Technical Instruction | CTI |
| Architecture, construction, communication, & transportation | formerly Vocational Industrial Clubs of America Skills (USA-VICA) | SkillsUSA |

CTSOs are intended to create increased student involvement in CTE subject areas (Alfeld et al., 2006). CTE students have the opportunity to voluntarily join these organizations. According to Alfeld et al. (2006), the content students learn as a part of their CTE course and the skills and experiences gained through participation in CTSOs greatly contribute to the development of workplace knowledge and competencies. These organizations provide students with opportunities to develop social, problem-solving,

communication, leadership, and occupational skills. CTSO membership also may enhance the educational program of CTE students because these programs can give students social, recreational, and occupational outlets for learning and fun. CTSOs have been found to have tremendous benefits for students and lead to satisfaction with the educational process (Alfeld et al., 2006; Scott & Sarkees-Wircenski, 2008). Turner (1996) found that students who were members of the Future Farmers of America (FFA) CTSO had a higher need for achievement, power, and affiliation than non-CTSO members. Alfeld et al. (2006) found that the more students participated in CTSO activities, the higher their motivation for academic success, school engagement, grade point average, career self-efficacy, college aspirations, and employability skills. In a study of FFA members, Croom and Flowers (2000) found that student perceptions of the effectiveness of services and programs offered by FFA influenced their decision to join. The challenge for educational leaders is making CTSO membership and participation accessible and attractive for all students (Scott & Sarkees-Wircenski, 2008). Studies that compare the perceptions of CTSO members with those who are not members of CTSOs can provide educators with important insight into the differences between the two groups.

## Summary

Chapter 2 provided a review of the literature related to this study, specifically (a) career and technical education, (b) work-based learning, (c) career and technical education in Georgia, (d) work-based learning research, (e) Fishbein and Ajzen's (1975) theory of reasoned action, (f) related attitude theories, and a (g) discussion of the variables that may influence WBL student perceptions. Understanding these concepts is

vital to accurately determine students' perceptions of their course and work and career-related issues.

# CHAPTER 3

# METHOD

This chapter outlines the research method that was used to determine secondary work-based learning students' perceptions about their course and work and career-related issues. The topics included in this chapter are: (a) purpose of study, (b) research questions, (c) design, (d) participants, (e) instrumentation, (f) data collection procedures, and (g) data analysis.

## Purpose

The purpose of this descriptive survey study was to determine perceptions of secondary WBL students toward their course and work and career-related issues. Student perceptions of their WBL course are comprised of three underlying factors: personal relevance, educational value, and life skills (Adams, Womble, & Jones, 2000; Jones et al., 1997; Womble, et al., 1995b). Personal relevance is defined as a student's satisfaction with his or her course, meanwhile educational value of course refers to how students personally value and describe their course, course content, and methodology (Womble et al., 1995b). Life skills are proficiencies all employees must possess to be successful in the workplace regardless of the type of employment they choose (Adams et al., 2000). Work and career-related issues encompass students' career knowledge and work expectations, work awareness, and future career choice (Jones & Womble, 1998; Womble, 1995a; Womble, 1995b). Career knowledge and work expectation examines education's relationship to future career success, information sources students utilize to

find out about careers, as well as students expectations of the workplace (Jones & Womble, 1997; Womble, 1995a; Womble, 1995b). Work awareness includes generalizations about the world of work and how students identify and relate to school (Jones & Womble, 1997; Womble et al., 1995a). Career choice refers to students' career choices and the limitations they may face that relate to issues such as gender and ethnicity (Womble & Jones, 1996). High school students enrolled in Georgia WBL programs were surveyed in order to determine their perceptions about their course and work and career-related issues. Gender (male or female), race/ethnicity (White or non-White), and career and technical education student organization (CTSO) membership were identified as independent variables that may affect student perceptions and were examined in this study.

## Research Questions

Secondary WBL students' perceptions toward their course and work and career-related issues was assessed using the student perceptions of WBL questionnaire (Adams et al., 2000; Jones & Womble, 1997; Jones & Womble, 1998; Jones et al., 1997; Ruff, 1993; Womble & Jones, 1996; Womble, 1995a; Womble, 1995b). This study addressed the following research questions:

1. What are the perceptions of secondary work-based learning students toward their course and work and career-related issues?
2. Is there a statistically significant difference in the perceptions of secondary work-based learning students toward their course based on gender (male and female)?

3. Is there a statistically significant difference in the perceptions of secondary work-based learning students toward their course based on race/ethnicity (White or non-White)?

4. Is there a statistically significant difference in the perceptions of secondary work-based learning students toward their course based on CTSO (Career and Technical Student Organization) membership?

5. Is there a statistically significant difference in the perceptions of secondary work-based learning students toward work and career-related issues based on gender (male and female)?

6. Is there a statistically significant difference in the perceptions of secondary work-based learning students' toward work and career-related issues based on race/ethnicity (White and non-White)?

7. Is there a statistically significant difference in the perceptions of secondary work-based learning students perceptions toward work and career-related issues based on CTSO (Career and Technical Student Organization) membership?

## Design

The research design for this study was survey research. Issues such as confidentiality and anonymity, accessibility, cost and time, were weighed before selecting a research design. Survey research has contributed a wealth of valuable knowledge about perceptions, attitudes, and practices (Gall et al., 2007, p. 301). Knowledge gained through surveys has helped improve educational conditions by shaping educational policy and initiatives (Gall et al., 2007). Survey research may include the administration of a questionnaire to study a phenomenon of interest.

This study was conducted using a three-part self-report student perceptions online questionnaire. Surveys administered online are an economical way to collect data from a geographically dispersed group of any size (Sue & Ritter, 2007). Online questionnaires can be used to evaluate programs and to measure satisfaction (Massat, McKay, & Moses, 2009). The use of an online questionnaire allowed students to answer truthfully and confidentially about their learning experiences in their WBL course. An online survey provided a convenient way for students to participate in the research study without interrupting instructional time (Dillman, Smyth, Christian, 2009).

Questionnaires are often used to elicit feedback on perceptions (Gall et al., 2007). Students can answer anonymously and provide confidential information (Hill 2001; Sue & Ritter, 2007). Also, when there are issues of accessibility, such as school systems that do not allow researchers to have direct contact with student participants, the use of surveys is a good choice. The cost of using surveys for research is low. Costs vary based on the constraints involved with acquiring and distributing of an instrument. Even when considering the most expensive surveying options, the cost are far less than many other research methods such as interviewing, observations, and other data collection techniques (Hill, 2001, Sue & Ritter, 2007). The use of a survey provides researchers with a manageable solution when collecting data for large samples (Hill, 2001). Some other research methods are extremely time-consuming especially when dealing with a large group. Surveys provide a faster more efficient method for collecting data.

One disadvantage of surveys is that they do not allow researchers to follow up on questions after data has been collected and analyzed (Hill, 2001). Finding answers to complex issues using a survey is difficult because there is a large amount of room for

error in interpretation. When given long complex surveys, accurate information may not be given by respondents. Preconceived attitudes toward surveys may also cause people to provide inaccurate information (Hill, 2001).

Surveys were selected due to the low cost of administration. Collection of surveys is an efficient and speedy way to collect data (Hill, 2001). The use of an online survey allows students to be surveyed without interrupting instructional time. WBL students could also answer questions without fear that their teacher would view their answers.

## Participants

Participants in this research study included secondary students enrolled in WBL programs in two school districts in Georgia. Students were surveyed during April of 2012. The school districts are referred to as County A and County B. Both counties are diverse, and the public schools service students from a variety of racial/ethnic backgrounds, abilities, and socioeconomic levels. According to the GADOE (2011), 32% of the students in County A identified themselves as White these students making up the largest racial/ethnic group. County B consisted of a large majority of White students consisting of 84% of the student enrollment, 16% of students were classified as non-White. There are 25 high schools within the two counties, 23 in County A (20 that offer WBL) and two in County B both offering WBL. Combined, these two school systems serve approximately 166, 251 students, County A has 46,291 high school students and County B has 1,963 high school students (GADOE, 2011).

All high schools within the two public school systems offer CTE courses and WBL opportunities. In County A, 36.6% of students are enrolled in a CTE course

compared to County B having 71.02% of students enrolled. Both school districts structure their WBL programs in accordance with the state of Georgia's WBL policies. All high schools offering WBL in these two systems were asked to participate in this study. Students enrolled in these programs were asked to participate by completing a perceptions questionnaire. Both WBL programs consisted of cooperative education, internship, and youth apprenticeship. Students in both counties are required to take related coursework as a part of their work-based leaning program. Grades, attendance, and discipline issues are considered by the WBL coordinators when making selection decisions for admittance into the programs.

High school students enrolled in WBL programs were surveyed to determine their perceptions. Students were an appropriate group to survey because they experience the program and are the primary stakeholders. Jackson and Helms (2008) asserted that students are customers and educational programs should meet their expectations. Measuring student's perceptions provides information on program quality and quality must be determined to ensure that student expectations are being met (Jackson & Helms, 2008).

Efforts were made to recruit a large sample size to give an accurate picture of WBL students' perceptions of their course and work and career-related issues. Several school systems were sought to participate in this research project but only a small number of school systems were willing to approve the project. Permission to include all of the work-based learning students within each school system was sought. The two county school systems that were used in this study gave permission for use of several schools within their respective districts (see Appendix B). After permission was granted by the

school system, individual school principals had to approve participation for their school. In the end, seven schools participated in this study, five from county A and two from county B. The five WBL programs in County A had a total of 310 WBL students and County B had a total of 85 WBL students.

Principals were contacted via email, phone, and fax in order to obtain written permission to survey their students (see Appendix C), after obtaining written permission, each WBL coordinator was contacted. There were two schools where WBL coordinators originally agreed to participate but their students did not have the opportunity to participate in this study. Schools varied in the number of WBL students enrolled. The totals for the high schools in County A were 45, 159, 28, 20, and 58. County B had 85 WBL students total; for a total of 395 students from both counties.

Students over the age of 18 were required to get permission from their parents. Many students did not return the parental permission forms and therefore were ineligible to participate in this study. A majority of the potential study participants were under the age of 18. WBL coordinators were also charged with distributing and collecting the parental permission and consent forms.

A total of 395 students from seven different high schools were approved for participation in this study by their respective principals and WBL coordinators, and 135 students completed the questionnaire online. This resulted in a final response rate of 34%. It should be noted that internet surveys usually yield response rates considerably lower than other modes, sometimes in the single digits (Dillman et al., 2009; Das, Ester, & Kaczmirek, 2011). The response rate was calculated by dividing the number of completed surveys by the number of students approved to participate in the survey.

A total of 89 females and 46 males responded to the survey. Seniors made up the majority of the study participants with 80% and 18.5% were juniors. Two students indicated their grade level as sophomores; although it is impossible to know for sure due to rules protecting the confidentiality of student records, these students probably have not been technically promoted to eleventh grade because only juniors and seniors are allowed to participate in WBL (GADOE, 2012b). White (Caucasian) students made up 57.7% of study participants. Non-White students participating in this study included the following: (a) 24.6% African American (Black) students; (b) 9.2% Asian students; (c), 8.5% Hispanic students; and (d) 1.5% students identified themselves as other.

Participants constituted a convenience sampling of students because the sample was non-randomized and school systems were specifically targeted for this research study. Convenience sampling is a type of nonprobability sampling where all participants are often used (Gall et al., 2007). All WBL participants at approved sites within the two school districts who received parental consent were included in the sample. In convenience sampling researchers often select samples based on availability and willingness to participate (Gravetter & Forzano, 2008). Although there are some problems with nonprobability sampling, it is used in 95 % of social science research (Gall et al., 2007). Consequently, with the use of this sampling method, the results will not be generalizable to similar populations because participants were not randomly selected. Researchers can use strategies to correct problems that result from using a convenience sample (Gravetter & Forzano, 2008). One strategy is to include a detailed description of the sample (Gall et al., 2007) for other researchers and readers to be able to infer to a population. A descriptive account of how the sample was obtained can also be included

(Gravetter & Forzano, 2008). A thorough description of the WBL sample and details about securing the sample are included in chapter 4.

## Instrumentation

To answer the research questions a combination of two previously developed questionnaires was administered to WBL survey participants. The questionnaire was created collaboratively by Ruff, Womble, and Jones and was revised by Jones and Womble (1994) and Womble and Jones (1994). After reviewing the literature this instrument was found to be an effective means of studying the research problem because it has been refined and used continually to determine student perceptions related to a variety of courses and programs (Adams et al., 2000; Evanciew et al., 2001; Jones & Womble, 1997; Jones & Womble, 1998; Jones et al., 1997; Mativo, Womble, & Jones, 2011; Ruff , 1993; Smith, 1997; Womble & Jones, 1996; Womble,1995a; Womble, 1995b).

The instrument is a combination of two self-report 2-part student perceptions questionnaires used to gauge student perceptions of their career and technical education courses, *Student Perceptions of Vocational Courses* (Jones & Womble, 1994) and student perceptions of work and career-related issues, *Student Perceptions Toward Work and Career-related Issues* (Womble & Jones, 1994). The questionnaires have been used in several perception-based studies of students enrolled in career and technical education courses. Several versions of this instrument have been used in studies by researchers including Adams et al. (2000), Jones and Womble (1998), Jones, Womble, and Searcy (1997), and Smith (1997) since its creation in 1993.

The first section of the questionnaire collects demographic information; the demographic section is the same for both instruments. Several career and technical education courses have been studied using the demographic questions (part I) and a section on student perceptions of their courses (section II). Courses examined include fashion marketing (Ruff, 1993), marketing (Adams et al., 2000), business education (Womble, 1995b), and trade and industrial (T & I) courses (Jones et al., 1997). Student perceptions of work and career-related issues were studied using the demographic section and a section on questions related to school, work, and career (section III). These issues were researched by Jones and Womble (1997), Jones and Womble (1998), Womble and Jones (1996), and Womble, Jones, et al. (1995). The new instrument *Student Perceptions of Work-based Learning* was used to gauge student perceptions of their WBL course and work and career-related issues.

The instrument was modified for this study to accurately measure student perceptions of WBL. It is common for researchers to continuously make modifications to measurement tools in order to accurately measure the construct of interest (Gall et al., 2007). Permission to make changes to the instrument to determine student perceptions of WBL was requested and granted from the authors of the instrument (see Appendix D). The survey has been administered to and written specifically for high school students. The authors used simple vocabulary and sentence structure. Items on the questionnaire are clearly written. According to Microsoft Word's 2010 readability statistics, the questionnaire is written on a grade level of 6.1. The University of Georgia's Institutional Review Board (UGA IRB) office required documents used in research studies be written below or as close as possible to the eighth grade reading level to ensure readability for all

groups. The original instrument used the terminology - *course* - in most questions (e.g. "This course prepares me for employment."); this wording; was changed to "*Work-based learning* prepares me for employment." This slight alteration helped to ensure that students were not confused when completing the questionnaire. In place of the term *vocational education, career and technical education (CTE)* was used to reflect terminology used to identify these types of education courses today (Carl D. Perkins Career and Technical Education Improvement Act, 2006).

Part I of the instrument assessed demographic information such as the gender and race/ethnicity. This section has multiple-choice questions and a few open-ended items (e.g. "What job would you like to have 10 years from now?").

The questions, "Do you have a job?" and "Is your job being used to earn credit for an internship or on-the-job training experience (coop.)?", from the original survey instrument were removed because all WBL students receive school credit and must be employed to participate in the WBL program. "Have you taken any other vocational [CTE] education courses?" also was eliminated because WBL students must take other CTE courses in order to be admitted into the WBL program. The questions "What is the educational level of your mother?" and "…father was removed for brevity because these items have been investigated in past studies and did not directly relate to the research questions in this study. School systems also expressed concern about the length of the questionnaire so it was evaluated to eliminate unnecessary questions that were unrelated to this study's objectives. Also deleted was "How long have you been enrolled in this course?" because although students can participate in WBL during their junior and senior

years most students participate for only one year and mostly as seniors due to Georgia's graduation rule requirements (GADOE, 2008).

A few questions were reworded to ensure reflection of information that needed to be collected for this study. "How did you *get* your job?" was changed to "How did you *find* your job?" because WBL students must find their own jobs with the help of their coordinator. Questions such as "If you have a job, what do you do?" were reworded to "Where do you work and what do you do?". "How many hours per week do you work? 1- 10 or less, 2- 11-20, 3- 21-30, 4- 31-40, 5- over 40", were changed to reflect the number of hours students typically work as a part of their WBL experience: (a) 10 or less, (b) 11-15, (c) 16-20, (d) 21-25, or (e) over 25.

In addition to the changes in section I, two questions were added to the questionnaire: "Is your current job related to your future career interest area?" and "Are you a member of a career and technical student organization (CTSO) (such as DECA, FBLA, TSA, etc.?)". The first added question was used for descriptive purposes. The second added question was used as the independent variable for categorizing students when answering research questions four and seven.

Part II of the instrument determined students' perceptions of their course (e.g. "This course prepares me for employment"). and includes 14 questions. The questions in part II were formatted using a Likert-type scale. The Likert-type scale-items were answered using the following options: (a) 1 = strongly disagree, (b) 2 = disagree, (c) 3 = agree, and (d) 4 = strongly agree. The original questionnaires coded the instrument in the reverse order (1= strongly agree, 2 = agree, 3 = disagree, and 4 = strongly disagree). Survey items where respondents may be reluctant to answer should not have answer

choices that allow for neutrality (Hill, 2001). Respondents are forced to choose between one of these four options since there is no option for "neither agree nor disagree". The use of a Likert scale results in a score that represents students strength of agreement or disagreement with the statement presented (Fishbein & Ajzen, 2010).

Part III of the instrument included 22 Likert-type questions about work and career-related issues (e.g. "Career choices are not limited by a person's ethnic background".). The section III heading was changed to school, work, and career. One question was removed, "Most jobs in our society are unpleasant."

Validity and reliability should be determined for new and pre-existing instruments (Hill, 2001). The specific procedures that must be used depend on the type of instrument that was used and the nature of the data that was collected. Researchers should report the validity and reliability of scores obtained in past studies that utilized the instrument. Investigators should also provide their own evidence of the validity and reliability scores obtained using the instrument (Huck 2008). Procedures used to establish reliability and validity should be reported (Hill, 2001).

Chronbach alpha was used to measure the internal consistency of items on attitude and Likert scales. Scores can range from 0 (low) to 1 (high) (Fishbein & Ajzen, 2010). A coefficient alpha value of 0.75 or higher is usually evidence of a satisfactory level of internal consistency (Fishbein & Ajzen, 2010). Previously reported Chronbach alphas for the perception instrument used in this study are reported in table 4. "Alpha can be used to estimate the internal consistency of items which are dichotomously scored or items which have a wide range of scoring weights, such as those on some attitude

inventories…" (Crocker & Algina, 2008, p.139). A Chronbach alpha reliability coefficient of .817 was calculated for this study of WBL.

Table 4

*Previously Reported Reliability Coefficients*

| Authors | Reliability Coefficient Chronbach alpha |
|---|---|
| Mativo et al. (2011) | .80 |
| Jones & Womble, (1998) | .70 |
| Jones & Womble (1997) | .80 |
| Jones, Womble, & Searcy (1997) | .80 |
| Womble & Jones (1996) | .80 |
| Womble, Jones, et al. (1995) | .80 |
| Womble, Ruff, et al. (1995) | .84 |
| Ruff (1993) | .94 |

Both reliability and validity are important, but validity is critical" (Gloeckner, Gliner, Tochterman, & Morgan, 2001, p. 224). Validity is the more important of the two measurements because if the measurement is not valid, reliability has no meaning (Gloeckner et al., 2001). The type of validity needed for an instrument varies based on the type of test (instrument) that is used. "Validity takes different forms because there are different ways in which scores can be accurate" (Huck, 2008, p. 89). Validation is the process by which a researcher who develops or uses a test collects evidence to support the inferences that can be drawn from test scores (Crocker & Algina, 2008). Construct, content, and criterion-related are most often recognized as the three major types of validity (Crocker & Algina, 2008; Huck, 2008).

For this study, content validity is of the most importance. Content validity answers the question, "Do the various items that make up an instrument (or test) cover

the material that it is supposed to?" (Crocker & Algina, 2008; Huck, 2008). This is often determined by a panel of experts on the subject of the test, those that have worked in the field, who determine whether or not the items on the test represent the information that is required and requested (Dillman, 1978). The expert opinions of the panel establish the content validity of the instrument. Content validity for this instrument was established in past studies using five career and technical (vocational) educators (Jones, Womble, Searcy, 1997; Jones & Womble, 1998); and four business educators (Womble, Jones, et al. 1995). Evanciew et al. (2001), and Jones and Womble (1998) used a graduate statistics class in addition to five vocational educators.

To provide evidence that the instrument would provide valid and reliable scores, an expert panel was assembled to determine instrument validity. Panel members were recruited based on their experience as WBL coordinators and CTE teachers. The panel was made up of three high school WBL coordinators with extensive knowledge of WBL (Lynn, 1986). Each member of the panel received a cover letter (see Appendix E), evaluation form (see Appendix F), and a copy of the instrument (see Appendix A). The cover letter outlined the purpose of this study, provided a brief description of the instrument and its use, and included directions for completing the instrument evaluation form (see Appendix F). The panel was instructed to determine if any of the items should be deleted or reworded for clarity. Participants were also asked to provide feedback on the clarity of each of the items on the questionnaire.

All of the panel members were current WBL coordinators with 7 years or more of experience in education. All teachers participating on the expert panel are certified CTE teachers with classroom experience. The participants were selected from two different

school districts not utilized in this study. The experts also have some industry experience outside of the field of education. Panel members have been recognized for their outstanding work in career and technical education including awards from national organizations.

Revisions were made to the instrument based on the feedback of the expert panel. Two new questions "What career pathway are you working on completing?" and "What type of work-based learning course are you enrolled in?" were originally added to section I of the questionnaire prior to review from the panel. However, these same questions were removed because panel members found these to be problematic. There was disagreement about the answer choices for career pathways because of the way these are described and defined in different school districts. In addition, one school district expressed concern that this question may narrow the sample unnecessarily. The expert panel also believed that some students may not know which pathway they were completing. This was also the argument regarding the question that asked students to indicate the type of WBL course in which they were enrolled. School systems used different names to refer to their WBL programs and students may not know which specific course they are actually enrolled (cooperative education, youth apprenticeship, internship, etc.). Panel members suggested this information would probably be more accurate if requested from the individual teachers. This information was not requested because there would be no way to link the type of WBL course with the appropriate student due to confidentiality measures employed during survey administration. The panel found the instrument to be unnecessarily lengthy and members expressed concern that students would not complete the questionnaire if it was not shortened (Dillman et al.,

2009). Abandonment of a survey is sometimes a problem with long questionnaires so 5 questions were eliminated from section II and 2 questions were removed from section III (Sue & Ritter, 2007).

## Data Collection Procedures

Permission from UGA's Institutional Review Board was granted to conduct this research study (see Appendix G). A set of procedures was set forth to ensure that there was consistency in completion of the questionnaire (Hill, 2001). The researcher communicated with WBL coordinators via phone and email to review directions and to address questions and concerns. Each WBL coordinator was given detailed instructions for survey administration (see Appendix H). The survey administrators were provided with survey packets that included permission forms, consent documents, and questionnaire directions.

Prior to survey administration, parents and students received the permission form (see Appendix I) and consent document (see Appendix J) explaining the study, the questionnaire, its purpose, and future use of the collected information. This provided the recommended first contact with survey respondents (Dillman, 1978; Dillman et al., 2009). Students under the age of 18 were required to obtain parental permission prior to completing the questionnaire (see Appendix H). Students 18 years old and above could provide their own permission to participate (see Appendix I). Only those students who submitted required completed permission and consent forms were allowed to participate in this study.

After returning permission and consent forms, students were given the survey link and a one-week window in which to complete the survey. Completed student consent

forms and permission forms were picked up from each school by the researcher and locked in a secure location. Completion of the questionnaire was estimated to take no more than 30 minutes. Students were asked to go online to a secure website to complete the questionnaire. Students were given directions for completion of the questionnaire before they began. The questionnaire allowed students the opportunity to change their mind at any time; skip questions, or end their participation at any time, as was required by UGA IRB (K, Fowler, personal communication, February 2012). WBL coordinators were sent a follow-up email (see Appendix K) asking them to remind eligible students to complete the survey if they had not done so already. UGA IRB only allowed for one follow-up contact email with the WBL coordinator (K, Fowler, personal communication, February 2012). WBL coordinator and students were thanked in advance for their participation to increase the benefits of participation (Dillman et al., 2009).

Survey results were collected using Survey Monkey. Survey Monkey was used by Mativo et al. (2011) to collect the data for a study of the perceptions of engineering students using the *Student Perception of Vocational Courses* questionnaire (Jones & Womble, 1994). An online questionnaire was selected because Georgia school districts would not approve research studies that use or interrupt instructional time. An online questionnaire was an appropriate option because it allowed students to complete it from a computer anytime, anywhere, at their convenience. Completion of the survey was not a WBL course requirement.

There were no expected discomforts or risks for participants in this research study. The online survey was used to eliminate student fears of retaliation from their teacher that may keep them from being completely truthful on the questionnaire. The

questionnaire was anonymous in order to ensure that students answered truthfully without fear of retribution (Phillips & Stawarski, 2008). Questionnaires were not linked to any student. Students were never asked to provide their name during completion of the survey. The survey was completed privately and students were instructed not to share their answers or the survey questions with any other students. Because internet communications can be insecure, there was a limit to the confidentiality that was guaranteed to participants due to the technology itself. Once the completed surveys were downloaded from the online survey host, firewall technology was used to protect the researcher's computer from unauthorized access. Hardware that stored the data was accessible only to authorized users with log-in privileges.

After a reasonable amount of time about 3- 6 years, all forms and survey information connected with the research study will be destroyed. The only people who will have access to the survey data are the primary researcher and the doctoral dissertation committee.

## Data Analysis

After completing the administration of the questionnaire, the results were quantified. Descriptive statistics were generated using the Statistical Package for the Social Sciences (SPSS) computer program version 19.0. A combination of descriptive and inferential statistics were used to answer the study's 7 research questions. Means and standard deviations are reported in chapter 4 to answer research question one. Six one-way analyses of variance (ANOVA)'s were run to answer research questions 2-7. Inferential statistics can be used to analyze information that is collected from convenience samples when the sample is conceptualized to represent a specific

population (Gall et al., 2007). "Where two groups are involved and their means are to be compared, a t-test or ANOVA could be employed as the appropriate statistical method" (Lewis, 2001, p. 188). T-tests, one and two-way ANOVA's focus on the means (Huck, 2008). Whether a researcher uses a t-test or ANOVA (F-test) the same conclusion is found (Keppel & Wickens, 2004). In order to determine which statistical procedure would be appropriate to use for this study of perceptions t-tests and ANOVA were examined. The ANOVA test was deemed the most appropriate.

**ANOVA**

In lieu of using many t-tests for inference, researchers can use analysis of variance (Gall et al., 2007), which can be used to compare two, three, or any other number of means (Huck, 2008). The ANOVA statistical procedure compares the amount of between groups variance in individual scores' with the total within-groups variation (Gall et al., 2007). As a statistical technique, analysis of variance is widely used in many different disciplines for inference (Huck, 2008). ANOVA can be used with continuous, categorical, interval and ratio data. The difference between the types of ANOVA (one-way or two-way) are related to the number of dependent and independent variables and whether the samples are independent or correlated (Huck, 2008). "In an ANOVA, changes in the dependent variable are presumed to result from changes in the independent variable" (Hwang, Zhang & Chen, 2001, p. 274). ANOVA is an effective technique to use to detect differences in a dependent variables (dependent variables represented in this study included WBL students' perceptions about their course and work and career-related issues) as a function of other independent variables (independent variables represented in this study included gender, race/ethnicity, and CTSO membership) (Hwang et al., 2001).

Analysis of variance was calculated using Statistical Package for the Social Sciences (SPSS) computer statistical software; p-values and the test statistic are reported (Moore, 2010). ANOVA uses the F statistic to test for statistical significance, which is determined by comparing a calculated F to the F critical value. The ANOVA F statistic is computed by dividing the variation among the sample means by the variation among individuals in the same sample (Moore, 2010). The F statistic is always greater than or equal to zero. An F statistic of zero is only found when the means of the entire sample are identical and they get larger as they move apart (Moore, 2010). Large F values, those that are greater than 1 present evidence against the null hypothesis. ANOVA does not determine which groups are different, if there are no differences, researchers should stop.

The underlying assumptions of a one-way ANOVA include independence, randomness, normality of the population, and homogeneity of variances (Huck, 2008; Moore, 2010). ANOVA is robust to violations so these assumptions can be violated to an extent without violating the validity of the test (Gall et al., 2007). ANOVA can be used when observations are independent of each other. Homogeneity of variances was tested using Levene's test to verify that variances are approximately equivalent across groups (Allen, Tisworth, & Hunt, 2009; Kerlinger & Lee, 2000). When comparing students perceptions of course based on gender sig = .120, race/ethnicity = .401, and for CTSO membership sig = .44. Significance level for the test of homogeneity of variances for student perceptions of work and career-related issues based on gender =.968, race/ethnicity =.078, and CTSO membership = .05.

Type I and type II errors must be considered when using a one-way ANOVA. The probability of a type I error is the same as the alpha level for a test (Keppel &

Wickens, 2004). It is common to use an alpha value level of significance of .05 (Keppel & Wickens, 2004; Moore, 2010). To control for type I error several procedures have been created. A Bonferroni adjustment can be used by dividing the alpha value by the number of tests run. Depending on the number of groups, other methods can be used to control for type I error, for 4 or more groups Tukey's test can be used, but with 3 groups Newman-Keuls or Fisher LSD are range tests that are often used. Dunnett's tests should be used, when making comparisons against a reference group. Because only 2 groups were compared at a time and there were no significant differences were found for the groups compared no adjustment procedure was necessary.

Use of one-way ANOVA was selected to determine if there were differences in the researched sample based on gender, race/ethnicity, and CTSO membership. One-way ANOVA examines the differences between the means of several groups; this makes it preferable to t-tests. A one-way ANOVA can analyze differences on one dependent variable. Another advantage of using ANOVA is greater power. One-way ANOVA's have been run for 6 of the 7 research questions, comparing students' perceptions on gender, race/ethnicity, and CTSO membership. A level of significance of .05 was used to analyze all statistical findings.

**Text Analysis**

Part I of the questionnaire collects demographic data and provides information related to the characteristics of all students to answer research question 1. Open-ended questions were analyzed using computer assisted text analysis to determine if a pattern emerged among the data related to student characteristics. Survey Monkey was used to collect student responses. It placed student responses into categories based on related

answers. Answers were examined in each category.. In some cases category names were slightly altered to align with Georgia program concentrations. Text analysis is used to classify text responses (Kleij & Muster, 2003) and gives researchers the ability to gain insight into attitude, behaviors, and concerns using open-ended questions. Words and phrases used most frequently are shown as part of the survey's data output and easily analyzed (Survey Monkey, 2012

**Estimating Effect Size**

For results that are statistically significant, it is necessary to look at a measure of effect size to determine if the difference is meaningful and of practical importance (Lewis, 2001). Cohen's *d* is the measure of effect size that is most useful. Effect size is the difference between two means divided by the pooled standard deviation for those means. By using Cohen's *d,* the results can be compared to analyses that have been conducted by other researchers because it is more commonly used than other measures of effect size. This is a good measure to use when there are two groups involved; when there are more than two groups omega squared can be used. Omega squared is preferred to eta squared because it does not overestimate the size of the relationship as it relates to the population. Social science guidelines for the interpretation of Cohen's *d* are a small effect size is d =.2, a medium effect size is d =.5, and a large effect size is d =.8. However, these are only general guidelines so the researcher is responsible for applying appropriate effect size interpretations based on a study's population, sample, and context. No significant differences were found in this study. Therefore, effect sizes were not calculated.

Table 5 outlines the specific data analysis procedures used for this study. The table includes the statistical analysis for each research question in relation to the dependent and independent variables.

Table 5

*Data Analysis Procedures*

| Research Question | Independent variables | Dependent variables | Statistical procedures |
|---|---|---|---|
| 1. What are the perceptions of secondary work-based learning students toward their course and work and career-related issues? | | | Mean standard deviation, percentages |
| 2. Is there a statistically significant difference in the perceptions of secondary work-based learning students toward their course based on gender (male and female)? | Gender: males = 1 females = 2 categorical | WBL Course | One-way ANOVA (.05), |
| 3. Is there a statistically significant difference in the perceptions of secondary work-based learning students toward their course based on race/ethnicity (White or non-White)? | Race/ethnicity: Non-White = 1 White = 2, categorical | WBL Course | One-way ANOVA (.05), |
| 4. Is there a statistically significant difference in the perceptions of secondary work-based learning students toward their course based on CTSO (Career and Technical Student Organization) membership? | CTSO membership: Member = 1 nonmember = 2 categorical | WBL Course | One-way ANOVA (.05), |
| 5. Is there a statistically significant difference in the perceptions of secondary work-based learning students toward work and career-related issues based on gender (male and female)? | Gender: Males=1 females=2 categorical | Work and career-related issues | One-way ANOVA (.05), |
| 6. Is there a statistically significant difference in the perceptions of secondary work-based learning students' toward work and career-related issues based on race/ethnicity (White and non-White)? | Race/ethnicity: Non-White = 1 White = 2 categorical | Work and career-related issues | One-way ANOVA (.05), |

| | | | |
|---|---|---|---|
| 7. Is there a statistically significant difference in the perceptions of secondary work-based learning students perceptions toward work and career-related issues based on CTSO (Career and Technical Student Organization) membership? | CTSO membership: Member = 1 nonmember = 2, categorical | Work and career-related issues | One-way ANOVA (.05), |

# CHAPTER 4

# RESULTS

Chapter 4 presents the results of the data analysis for each of the research questions for this study of WBL students' perceptions about their course and work and career-related issues. The research study used the *Student Perceptions of Work-based Learning Questionnaire* (see Appendix A) to collect data on student perceptions. The instrument was created by combining and refining two previously developed self-report questionnaires that have been used in studies of career and technical education course and work and career-related issues (Jones & Womble, 1994; Smith, 1997; Womble & Jones, 1994). Descriptive statistics and analyses of variance were calculated to answer the 7 research questions. Several separate comparative analyses were conducted to assess the effect each independent variable had on the dependent variable, using a level of significance of .05. A summary of descriptive statistics relating to secondary students perceptions toward their WBL course and work and career-related issues is presented to answer question 1. Also presented is an analysis of student perceptions of their course and work and career-related issues based on gender, race/ethnicity, and CTSO membership to answer research questions 2 through 7. The chapter concludes with a brief summary of the results.

## Purpose

The purpose of this descriptive survey study was to determine secondary WBL students' perceptions of their WBL course and work and career-related issues. A

secondary purpose was to explore the influence of gender, race/ethnicity, and CTSO membership on the perceptions of secondary WBL students toward their course and work and career-related issues. Students' perception toward their course and work and career-related issues were the two dependent variables. Information important to the analyses of these variables was collected using the *Student Perceptions of Work-based Learning Questionnaire* (see Appendix A). The independent variables were gender, race/ethnicity, and CTSO membership.

## Description of the Sample

Section I of the questionnaire collected data on the demographics of WBL students. One-hundred and thirty-five students started the questionnaire but only 125 students finished the entire questionnaire. There were 115 totally completed surveys where students answered every question. The reasons why participants do not complete all or portions of a survey is unknown. Participants may be tired, they may not understand a question, or students may have been uncomfortable answering a question (Peng, Harwell, Liou, Ehman, 2003). Students may have believed that answering a question would identify them. An issue with technology is another possible reason for incomplete surveys (Dillman et al., 2009; Peng et al., 2003). Participation was voluntary and students were not required to complete the survey. Students were allowed to skip questions and they were given the opportunity to discontinue the completion of the questionnaire at any time for any reason. This was required by UGA's IRB in order for the research study to be approved (K. Fowler, personal communication, February 2012).

Due to missing data from incomplete surveys, methods for handling this issue were examined. Missing data is a common problem for researchers (Langkamp, Lehman,

& Lemeshow, 2010; Peng et al., 2003; Raghunathan, 2004; Walton, 2009). Incomplete surveys cannot be avoided because participants are able to skip questions and leave questions unanswered (K, Fowler, personal communication, February 2012; Langkamp et al., 2010). There may be a bias when analyzing data from surveys where subjects with missing data are completely eliminated from the analysis (Langkamp et al., 2010; Peng et al., 2003). Individuals that did not complete the survey may be different from those that did introducing bias and conclusions may not accurately represent the population studied when subjects are deleted (Langkamp et al., 2010; Peng et al., 2003; Raghunathan, 2004; Walton, 2009).

One method for handling missing data is to leave data as is using pairwise deletion (Hwang et al., 2001; Langkamp et al., 2010). Pairwise deletion excludes cases analysis by analysis therefore all available data is included. This method results in different sample sizes for each analysis (Langkamp et al., 2010). This method is often used when sample size is small because this deletion method allows for use of more of the data. An alternative to pairwise deletion is listwise deletion which excludes cases listwise, eliminating all subjects with missing data from analysis. This may unnecessarily shrink the sample size and is most commonly used when a large number of subjects are included in the sample and deletion of complete cases would not affect the analysis (Hwang et al., 2001). For some analyses, SPSS will automatically perform listwise deletion of subjects especially with advanced statistical computations; and in these cases, researchers do not have a choice between the two methods (International Business Machines Corp., 2010). Pairwise and listwise deletion have both been found to be effective means of handling missing data (Hwang et al., 2001; Witta, 2000).

Efforts were made to prevent missing data prior to survey administration (Dillman et al., 2009). Use of electronic data collection tools such as Survey Monkey may help to decrease the likelihood of having missing data (Walton, 2009). Recommended procedures for online surveys were used to increase the response rate (Dillman, 2000; Dillman, et al., 2009). Making the questionnaire easy to respond to and asking questions that were easy to understand are some methods that were used to increase response (Dillman et al., 2009). WBL coordinators were also sent a follow-up email (see Appendix K) to increase participation (Dillman et al., 2009, Gillham, 2007). Allowing for late returns is another common method for increasing participation that was utilized in this study. The survey link was left active past the original deadline to allow students additional time to complete the survey (Gillham, 2007). All collected data were reported in aggregate form, and individual responses were not identified to eliminate fears related to participation (Hill, 2001).

Great pains were also taken to obtain a large sample size prior to survey administration. Students from several school districts were targeted to participate in this study. Approval was needed from each individual school system, school principals, and the local/school WBL coordinator. Once these approvals were granted, students under the age of 18 were required to obtain parental permission to participate as required by UGA IRB and the individual school systems.

Descriptive statistics for secondary WBL students are represented in Table 6. Pairwise deletion was used for all analyses unless otherwise indicated. Percentages and total n for each question is reported.

Table 6

*Demographics Characteristics of WBL Students*

| Characteristic | Complete Sample (n= 135) N | % |
|---|---|---|
| Gender (n=135) | | |
| Male | 46 | 34.1 |
| Female | 89 | 65.9 |
| Race/ethnicity (n=130) | | |
| African American (Black) | 33 | 26.9 |
| Asian | 12 | 9.2 |
| Caucasian (White) | 75 | 57.7 |
| Hispanic | 11 | 8.5 |
| Native American | 0 | 0 |
| Other | 2 | 1.5 |
| Grade Level (n=135) | | |
| 9th | 0 | 0 |
| 10th | 2 | 1.5 |
| 11th | 25 | 18.5 |
| 12th | 108 | 80.0 |
| Grade Point Average (n= 133) | | |
| Above 4.0 | 3 | 2.3 |
| 3.5-4.0 | 57 | 42.9 |
| 3.0-3.5 | 39 | 29.3 |
| 2.5- 3.0 | 22 | 16.5 |
| Below 2.5 | 7 | 5.3 |

| | | |
|---|---|---|
| Not sure | 5 | 3.8 |
| Hours per week worked (n=126) | | |
| 10 or less | 42 | 33.3 |
| 11-15 | 28 | 22.2 |
| 16-20 | 22 | 17.5 |
| 21-25 | 18 | 14.3 |
| Over 25 | 16 | 12.7 |
| Did you have a job before you started the work-based learning program? (n=124) | | |
| Yes | 66 | 53.2 |
| No | 58 | 46.8 |
| Is your current job related to your future career interest area? (n=126) | | |
| Yes | 51 | 40.5 |
| No | 62 | 49.2 |
| Not sure | 13 | 10.3 |
| Are you a member of a career and technical education student organization (CTSO) such as DECA, FBLA, SkillsUSA, TSA, etc.? (n=126) | | |
| Yes | 35 | 27.8 |
| No | 91 | 72.2 |
| How did you find your job? (n=109) | | |
| WBL coordinator/ teacher | 26 | 23.9 |
| Other teacher | 5 | 4.6 |
| School counselor | 6 | 5.5 |
| Friends or family | 64 | 58.7 |
| Internet website | 8 | 7.3 |
| Newspaper | 0 | 0 |

| | | |
|---|---|---|
| What was the most important reason for enrolling in this course? (n=120) | | |
| Thought it would help me get a job after high school | 12 | 10.0 |
| Thought it would help me in college | 29 | 24.2 |
| Liked the teacher | 3 | 2.5 |
| Thought it would be easy to pass or get a good grade | 6 | 5.0 |
| Needed the credits and nothing else was available or appealing | 4 | 3.3 |
| Friend recommended it to me | 4 | 3.3 |
| Guidance counselor recommended it to me | 10 | 8.3 |
| Wanted to get out of school early by enrolling in an internship/on the job training experience (WBL) | 25 | 20.8 |
| Interested in the subject | 27 | 22.5 |
| Where have you received the most information about careers? (n=125) | | |
| Parents | 26 | 20.8 |
| Work-based learning teacher/coordinator | 22 | 17.6 |
| Other teacher (s) | 10 | 8.0 |
| Other adult (s) | 12 | 9.6 |
| Friends | 6 | 4.8 |
| Guidance counselor | 10 | 8.0 |
| School career center | 5 | 4.0 |
| Books | 0 | 0.0 |
| Magazines, newspapers, or television | 2 | 1.6 |
| Internet | 32 | 25.6 |
| Other | 2 | 1.6 |

| What do you plan to do immediately upon graduation from high school? (n=126) | | |
|---|---|---|
| Work full-time | 6 | 4.8 |
| Attend a two-year college or vocational school | 22 | 17.5 |
| Attend a four-year college or university | 91 | 72.2 |
| Work full-time and attend school part-time | 3 | 2.4 |
| Military | 2 | 1.6 |
| Undecided | 2 | 1.6 |
| Other | 3 | 2.4 |

**Open-ended Demographic Question Responses**

Using computer assisted text analysis; a pattern emerged as to student's plans for ten years after graduation. Survey monkey placed student responses into categories based on related answers on their job preferences as indicated in table 7.

Table 7

*Job/Career 10 Years From Now*

| Categories (n=133) | Percent |
|---|---|
| Health Science | 37% |
| Human Services | 3% |
| Business and Computer Science | 9% |
| Education | 8% |
| Engineering and Technology | 6% |
| Marketing, Sales, and Service | 5% |
| Arts and Entertainment | 3% |
| Veterinary Sciences | 4% |

| | |
|---|---|
| Culinary/ Hospitality | 1% |
| Undecided | 11% |
| Other | 13% |

When possible, categories reflect occupational positions that correspond with Georgia program concentrations (see table 2/Chapter 2) and federal career clusters (see table 1/Chapter 2). The health science category includes medical personnel primarily medical doctors (M.D.), nurses, physical therapists, and dentists. Human services include psychological and social service positions such as psychologists, sociologists, and social workers. Business and computer sciences include entrepreneurship ventures. Marketing, sales, and service consists of marketing related positions and careers in advertising and communications. The other category includes answers by students that did not fit into other categories such as youth minister, cosmetologist, and automotive technician.

Text analysis was also conducted for the following question, "Where do you work and what do you do?". Students were asked to provide their place of employment and job position and/or department. Student jobs ranged from cashier to office worker. Most students indicated they currently worked as cashiers and the second largest group was assistants, primarily office, research, and teacher's assistants. A number of students worked as teacher assistants in daycare programs and schools servicing students in grades kindergarten thru twelfth grade. Many students were employed within their respective schools and or at nearby post-secondary educational institutions in a variety of positions. Other students worked in medical offices or hospitals in the surrounding area. A small number of students worked in physical therapists office, and a few students indicated working at veterinary offices. Several students worked for for-profit companies such as

the Kroger Corporation, Chuck E. Cheese's, and McDonalds. It is interesting to note that 40.5% of students indicated their current job was related to their future career interest and 10% were unsure.

## Analysis of Research Questions

*Research Question 1*

*What are the perceptions of secondary work-based learning students toward their course and work and career-related issues?*

Table 8 presents descriptive statistics for the WBL students who participated in this study of perception. Mean and standard deviation is reported for course and work and career-related issues. The mean and standard deviation provided does not reflect the but the total score. The total possible score for student perceptions of their WBL course was 56 conversely the total score for work and career-related issues was 85. Student answer choices ranged from 1 = strongly disagree to 4 = strongly agree on a 4 - point Likert-type scale.

Table 8

*Descriptive Statistics for Perceptions Toward Course and Work and Career-related Issues*

| | n | Maximum | Minimum | M | SD | Variance | Range |
|---|---|---|---|---|---|---|---|
| WBL course | 122 | 31.00 | 56.00 | 45.3279 | 5.42331 | 29.412 | 25.00 |
| Work and career-related Issues | 118 | 59.00 | 85.00 | 72.0932 | 5.78827 | 33.504 | 26.00 |

n=115 (listwise)

Descriptive statistics were run using SPSS for the individual items on the questionnaire. Table 9 presents students perceptions toward their WBL course. Each factor had an overall score ranging from 1 to 4. The questionnaire items had a mean

score of 2.2742 or higher for student perceptions toward their course, indicating that students had more favorable perceptions toward their WBL course. Means and standard deviations are reported in table 9.

Table 9

*Students' Perceptions Toward Work-based Learning Course*

| Statement | n | M | SD |
|---|---|---|---|
| Work-based learning prepares me for employment. | 125 | 3.4800 | .65501 |
| Work-based learning prepares me for education after high school. | 125 | 3.2560 | .62093 |
| Work-based learning informs me about where to get more education after high school. | 125 | 3.1440 | .68042 |
| Work-based learning teaches me to solve problems and make effective decisions. | 125 | 3.3280 | .60610 |
| Work-based learning teaches me how to communicate effectively (including both speaking and writing). | 125 | 3.3360 | .59492 |
| Work-based learning teaches me math skills needed by workers in the business world. | 123 | 2.7561 | .84292 |
| Work-based learning improves my ability to get along with other people, especially in the work place. | 125 | 3.4720 | .60343 |
| Work-based learning prepares me to make good career choices. | 125 | 3.4240 | .55741 |
| I am glad I enrolled in work-based learning. | 125 | 3.7200 | .46835 |
| *Other elective courses (such as art, chorus, band, etc.) are more beneficial to me than work-based learning. | 125 | 3.0800 | .74704 |
| Work-based learning is just as beneficial to me as the academic courses (such as English, math, history, etc.) that are required for all students. | 125 | 3.1360 | .76563 |
| The projects and assignments required as a part of work-based learning are challenging for me. | 124 | 2.2742 | .85861 |
| I would recommend work-based learning to my friends. | 125 | 3.6400 | .54477 |
| Work-based learning prepares me to effectively relate to people of various cultural and ethnic backgrounds in the work place. | 125 | 3.2320 | .64927 |

n = 115 (listwise)
*Note*. *Statement coding reversed

Table 10 presents WBL students' perceptions toward work and career-related issues. Mean and standard deviations are reported for each individual item statement on the total scale for work and career-related issues. The questionnaire items had a mean score of 2.5040 or higher for student perceptions toward work and career-related issues. Overall WBL students had positive perceptions toward work and career-related issues.

Table 10

*Student Perceptions Toward Work and Career-related Issues*

| Statement | n | M | SD |
|---|---|---|---|
| My parents want me to go to college. | 125 | 3.8720 | .33543 |
| Talking to my parents about my career plans is helpful. | 125 | 3.5120 | .57664 |
| I need to learn more about different careers in which I might be interested. | 125 | 3.2160 | .73599 |
| *I have thought about dropping out of school. | 125 | 3.5920 | .76302 |
| *I believe I have been pushed into low-level, non-academic classes by teachers or guidance counselors. | 125 | 3.3120 | .79733 |
| I expect to make a good income when I complete my education. | 124 | 3.5806 | .57164 |
| Talking to my friends about my career plans is helpful. | 125 | 3.0960 | .64036 |
| *Most jobs in our society require an unreasonable amount of work. | 124 | 2.8226 | .74406 |
| I understand how academic subjects such as math, science, and English are used in the workplace. | 124 | 3.2339 | .68798 |
| Career choices are not limited by a person's ethnic background. | 125 | 3.2640 | .75289 |
| Career choices are not limited by a person's gender (male/ female). | 125 | 3.2320 | .73106 |
| *It will be difficult for me to get a good job after I complete my education. | 125 | 3.1040 | .80145 |
| Spending time with an adult role model who shares my career interests is important for my career future. | 125 | 3.4320 | .58663 |
| I believe I will be successful after I graduate from high school. | 124 | 3.6452 | .48041 |
| *I believe going to college is not a good choice for me. | 125 | 3.4400 | 1.00322 |
| Getting a good job later in life depends on how well I do in school now. | 124 | 3.2177 | .80203 |
| I see the need to obtain education and job training throughout my lifetime. | 124 | 3.5565 | .61555 |
| *My teachers do not encourage me to go to college. | 124 | 3.4758 | .75937 |
| Talking to my teachers about my career plans is helpful. | 125 | 3.2320 | .63673 |
| I am concerned about being able to handle both a career and family/household responsibilities. | 125 | 2.5040 | .90361 |
| *I wish my parents would show more interest in my schoolwork. | 125 | 3.0000 | .76200 |
| If I decide not to go to college, high school is preparing me to locate permanent job opportunities. | 125 | 2.5600 | .84624 |

n = 115 (listwise)

*Note*. *Statement coding reversed

*Research Question 2*

*Is there a statistically significant difference in the perceptions of secondary work-based learning students toward their course based on gender (male and female)?*

Descriptive statistics were run for students perceptions toward course based on gender. The scores for the factors that comprise the variable of perception ranged from 1 to 4. Mean is based on the following responses: 1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree. The means and standard deviations for each category are shown in Table 11.

Table 11

*Descriptive Statistics for Course based on Gender*

| WBL Course | n | M | SD |
|---|---|---|---|
| Male | 42 | 46.0714 | 6.07431 |
| Female | 80 | 44.9375 | 5.04497 |
| Total | 122 | 45.3279 | 5.42331 |

A one-way ANOVA was conducted to examine the differences in student perceptions toward their WBL course based on gender. The independent variable gender included two categories male and female. Male and female students were compared to determine if there were differences in student perceptions. Data from the ANOVA is reported in Table 12. In this study, the independent variable, gender, compared male and female students to provide WBL students' perceptions of their course. Results from the ANOVA analysis, $F$ (1, 120) = 1.206, $p$ = .274, indicated that the differences were not significant at alpha = .05. Therefore, the null was not rejected revealing no significant mean difference between male and female students' perceptions toward their WBL course.

Table 12

*Results of ANOVA for Course based on Gender*

| | SS | Df | MS | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 35.412 | 1 | 35.412 | 1.206 | .274 |
| Within Groups | 3523.473 | 120 | 29.362 | | |
| Total | 3558.885 | 121 | | | |

*Note.* Sig. = significance

*Research Question 3*

*Is there a statistically significant difference in the perceptions of secondary work-based learning students toward their course based on race/ethnicity (White or non-White)?*

A one-way ANOVA was conducted to examine White and non-White student perceptions of their WBL course. The independent variable race/ethnicity included two categories (White students and non-White students). The category non-White students consisted of 26.9% African Americans (Blacks), 9.2% Asians, and 8.5% Hispanic students. White students were those that identified themselves as White (Caucasian) 57.7%. Means and standard deviations are reported in table 13 for each category.

Table 13

*Descriptive Statistics for Course based on Race/ethnicity*

| Race/ethnicity | n | M | SD |
|---|---|---|---|
| Non-White | 48 | 44.8958 | 5.54379 |
| White | 70 | 45.5429 | 5.29885 |
| Total | 118 | 45.2797 | 5.38578 |

Table 14 provides the ANOVA results for student perceptions of their WBL course based on race/ethnicity. The independent variable, race/ethnicity, compared non-White and White students to provide an overall picture of student perception to their WBL course. Results from the ANOVA analysis, $F$ (1, 116) = .409, $p$ = .524, indicated that the differences were not significant at alpha = .05. Therefore, there was no

significant difference between non-White and White students' perceptions of their WBL course.

Table 14

*Results of ANOVA for Course based on Race/ethnicity*

| | SS | Df | MS | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 11.921 | 1 | 11.921 | .409 | .524 |
| Within Groups | 3381.851 | 116 | 29.154 | | |
| Total | 3393.771 | 117 | | | |

*Note.* Sig. = significance

*Research Question 4*

*Is there a statistically significant difference in the perceptions of secondary work-based learning students toward their course based on CTSO (Career and Technical Student Organization) membership?*

A one-way ANOVA was conducted to examine if there are differences between CTSO members and nonmembers perceptions of their WBL course. The independent variable CTSO membership included two categories CTSO member (yes) and nonmember (no). Table 15 shows the means and standard deviations for each category.

Table 15

*Results of ANOVA for Course based on CTSO Membership*

| CTSO Membership | n | M | SD |
|---|---|---|---|
| Member | 34 | 46.1471 | 5.31511 |
| Nonmember | 88 | 45.0114 | 5.46145 |
| Total | 122 | 45.3279 | 5.42331 |

The ANOVA results for student perceptions of their WBL course based on CTSO membership are shown in table 16. Homogeneity of variances was met as evidenced by the Levene test statistic sig = .44. The independent variable, CTSO membership, compared CTSO members and nonmembers to provide a description of students'

perceptions to their WBL course. Results from the ANOVA analysis, $F$ (1, 120) = 1.076, $p$ = .302, indicated that the differences were not significant at alpha = .05. Therefore, there was no significant difference between perceptions of CTSO members and nonmembers.

Table 16

*Results of ANOVA for WBL Course based on CTSO Membership*

| | SS | df | MS | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 31.632 | 1 | 31.632 | 1.076 | .302 |
| Within Groups | 3527.253 | 120 | 29.394 | | |
| Total | 3558.885 | 121 | | | |

*Note.* Sig. = significance

*Research Question 5*

*Is there a statistically significant difference in the perceptions of secondary work-based learning students toward work and career-related issues based on gender (male and female)?*

A one-way ANOVA was conducted to examine male and female student perceptions of work and career-related issues. The independent variable gender included two categories: male and female. The descriptive statistics are reported in table 17. Means and standard deviations are reported for the analysis.

Table 17

*Descriptive Statistics for Work and Career-related Issues based on Gender*

| Gender | n | M | SD |
|---|---|---|---|
| Male | 44 | 72.1818 | 5.75982 |
| Female | 74 | 72.0405 | 5.84372 |
| Total | 118 | 72.0932 | 5.78827 |

The ANOVA results for students' perceptions of work and career-related issues are shown in table 18. The independent variable, gender, compared male and female

students to provide a description of students' perceptions of work and career-related issues. Results from the ANOVA analysis, $F$ (1, 116) =.016, $p$ = .899, indicated that the differences were not significant at alpha = .05.

Table 18

*Results of ANOVA for Work and Career-related Issues based on Gender*

| | SS | df | MS | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | .551 | 1 | .551 | .016 | .899 |
| Within Groups | 3919.424 | 116 | 33.788 | | |
| Total | 3919.975 | 117 | | | |

*Note.* Sig. = significance

*Research Question 6*

*Is there a statistically significant difference in the perceptions of secondary work-based learning students' toward work and career-related issues based on race/ethnicity (White and non-White)?*

A one-way ANOVA was conducted to examine WBL students' perceptions toward work and career-related issues based on race/ethnicity as shown in table 19. The independent variable race/ethnicity included two categories: White and non-White.

Table 19

*Descriptive Statistics for Work and Career-related Issues based on Race/ethnicity*

| Race/ethnicity | n | M | SD |
|---|---|---|---|
| Non-White | 48 | 72.5208 | 6.46098 |
| White | 67 | 71.6269 | 5.21895 |
| Total | 115 | 72.0000 | 5.75981 |

The ANOVA results for student perceptions of their course based on race/ethnicity is displayed in table 20. Homogeneity of variance was tested using Levene's test to verify that variances are equal across groups, sig =.401. The independent variable, race/ethnicity, compared White and non-White students to provide

a description of students' perceptions of work and career-related issues. Results from the ANOVA analysis, $F$ (1, 113) = .672, $p$ = .414, indicated that the differences were not significant at alpha = .05.

Table 20

*Results of ANOVA for Work and Career-related Issues based on Race/ethnicity*

| | SS | df | MS | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 22.349 | 1 | 22.349 | .672 | .414 |
| Within Groups | 3759.651 | 113 | 33.271 | | |
| Total | 3782.000 | 114 | | | |

*Note.* Sig = Significance

*Research Question 7*

*Is there a statistically significant difference in the perceptions of secondary work-based learning students perceptions toward work and career-related issues based on CTSO (Career and Technical Student Organization) membership?*

A one-way ANOVA was conducted to examine the perceptions of CTSO members and nonmembers toward work and career-related issues. The independent variable CTSO membership included two categories: members and nonmembers. The means and standard deviations for each group are reported in table 21.

Table 21

*Descriptive Statistics for Work and Career-related Issues based on CTSO Membership*

| | N | Mean | SD |
|---|---|---|---|
| Member | 33 | 72.6970 | 4.87651 |
| Nonmember | 85 | 71.8588 | 6.11624 |
| Total | 118 | 72.0932 | 5.78827 |

The independent variable, CTSO membership, compared CTSO members, and nonmembers to provide a description of students' perceptions of work and career-related issues. Table 22 displays the results for the ANOVA for work and career-related issues

based on CTSO membership. Results from the ANOVA analysis, $F$ (1, 116) = .496, p = .483, indicated that the differences were not significant at alpha = .05. Thus, there was no significant difference between CTSO members and nonmembers perceptions of work and career-related issues.

Table 22

*Results of ANOVA for Work and Career-related Issues based on CTSO Membership*

| | SS | df | MS | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 16.699 | 1 | 16.699 | .496 | .483 |
| Within Groups | 3903.276 | 116 | 33.649 | | |
| Total | 3919.975 | 117 | | | |

*Note.* Sig. = Significance

## Summary

The results of this study revealed there were no differences in the perceptions of WBL students toward their course based on the three independent variables: gender, race/ethnicity, and CTSO membership. There also were no significant differences found when comparing student perceptions of work and career-related issues for each of the three independent variables. Overall, students seemed to have positive perceptions of their WBL course and work and career-related issues. Mean scores suggest that students believed their WBL course is beneficial to them.

# CHAPTER 5

# SUMMARY, CONCLUSIONS, DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

This descriptive survey study provides valuable information for understanding two Georgia school districts' WBL programs from the students' perspective. This research provides a better understanding of students' perceptions towards their course and work and career-related issues. It also compares WBL students' perceptions about their course and work and career-related issues based on gender, race/ethnicity, and career and technical student organization membership. This final chapter includes reinstatement of the rationale, purpose, and research questions for this study of WBL. A review of the methodology used and results of the analytic procedures are also presented. Recommendations for future research and effective practice conclude the chapter.

## Rationale

A study of secondary students' perceptions of work-based leaning (WBL) is important for several reasons. Educators must understand how student participants of WBL courses perceive their learning experiences in order to improve teaching and learning (Stanislawski & Haltinner, 2009). In today's educational environment, plagued with budget cuts, career and technical education programs must be justified. Enrollment numbers are always considered when decisions are made as to which programs should be cut. A study of WBL gives program administrators data that can be used in order to increase enrollment. It is also imperative that program quality be continually addressed. Information gathered can help to guide resource allocation to specific populations

(Fishbein & Ajzen, 2010). Positive associations have been found between participation in WBL and educational outcomes on the post-secondary level (Wonacott, 2002b). Researchers have rarely studied secondary student perceptions of their WBL course as well as work and career-related issues, which are inextricably linked. Information garnered from studies such as this one may assist coordinators, administrators, and counselors in creating effective WBL programs.

## Purpose

The purpose of this descriptive survey study was to assess the influence of gender, race/ethnicity, and CTSO membership on the perceptions of high school WBL students toward their course and work and career-related issues. It also provided insight to the characteristics of students enrolled in WBL. Data were collected using the *Student Perceptions of Work-based Learning Questionnaire* (see Appendix A).

## Research Questions

This study examined the following research questions:

1. What are the perceptions of secondary work-based learning students toward their course and work and career-related issues?
2. Is there a statistically significant difference in the perceptions of secondary work-based learning students toward their course based on gender (male and female)?
3. Is there a statistically significant difference in the perceptions of secondary work-based learning students toward their course based on race/ethnicity (White or non-White)?

4. Is there a statistically significant difference in the perceptions of secondary work-based learning students toward their course based on CTSO (Career and Technical Student Organization) membership?

5. Is there a statistically significant difference in the perceptions of secondary work-based learning students toward work and career-related issues based on gender (male and female)?

6. Is there a statistically significant difference in the perceptions of secondary work-based learning students' toward work and career-related issues based on race/ethnicity (White and non-White)?

7. Is there a statistically significant difference in the perceptions of secondary work-based learning students perceptions toward work and career-related issues based on Career and Technical Student Organization (CTSO) membership?

## Method

### Design

Survey research was used in this study to determine WBL student perceptions of their course and work and career-related issues. This research design is commonly used in educational research to collect data on perceptions through the use of questionnaires (Gall et al., 2007). Several researchers (Adams et al., 2000; Jones & Womble, 1997; Jones & Womble, 1998; Mativo et al., 2011; Ruff, 1993; Womble, 1995b) have used survey research to investigate student perceptions of course and work and career-related issues.

**Participants**

A total of 395 students from seven high schools were approved to participate in the survey study by their school districts, school principals, and WBL coordinators. After students received permission from their parents, a convenience sample of 135 students was used for this research study. A response rate of 34% was calculated by dividing the number of surveys by the number of students approved to participate. Of the potential participants, 135 started the survey, 125 finished the questionnaire, and 115 students answered every question.

**Instrumentation**

To collect data for this descriptive survey research study the *Student Perceptions of Work-based Learning* Questionnaire (see Appendix A) was created by merging two questionnaires, *Student Perceptions of Vocational Courses* (Jones & Womble, 1994) and *Student Perceptions Toward Work and Career-related Issues* (Womble & Jones 1994). The new online questionnaire *Student Perceptions of Work-based Learning* allowed for collection of data on secondary students' perceptions of their WBL course and work and career-related issues.

**Research Procedures**

Survey administrators were provided with survey packets which included permission forms (see Appendix I), consent documents (see Appendix J), and questionnaire directions. Student consent and parental permission forms (for students under age 18) were obtained from each participant prior to the administration of the questionnaire. Only those students who completed, signed, and returned the student consent documents and parental permission forms were allowed to participate in this

study. Once students returned the signed documents to their WBL coordinator, they were given the survey URL. Survey Monkey was used to administer and collect the data for this study. Students were given the survey link and a one-week window in which they could complete the survey alone at any time from any computer as not to interrupt school instructional time and provide confidential information to the researcher.

**Data Analysis**

A combination of descriptive and inferential statistics were generated using the Statistical Package for the Social Sciences (SPSS) computer program version 20.0 to answer the research questions posed for this study of WBL. Text analysis was used to determine patterns related to open-ended demographic questions, answers were simply reported in chapter 4 to describe the sample. Descriptive statistics and ANOVA results were reported for each of the seven research questions in chapter 4.

## Summary of Findings

A total of 395 students were approved by their school districts, principals, and WBL coordinators to participate in this study of WBL students. One-hundred and thirty-five students agreed to participate after presenting appropriate consent and permission forms. A total of 135 WBL students from two Georgia school districts started the questionnaire, and a total of 125 finished, 115 students answered every question. The response was calculated to be 34%. Demographic information was collected on participants including gender, grade level, ethnicity, and CTSO membership and reported in chapter 4 to provide a detailed description of the sample (Gall et al., 2007). The survey participants consisted of 108 seniors, 25 juniors, and 2 sophomores. Non-White students were comprised of several subgroups: 35 African American (Black), 12 Asians,

11 Hispanic, and 2 students identified themselves as other. White students comprised 57.7% (N=75) of participants. There were more female students (N=89) than male students (N=46) in the final sample. Only 27.8% of students surveyed indicated membership in a CTSO.

Results of this study revealed there were no significant differences in the perceptions of WBL students toward their course on each of the three factors (gender, race/ethnicity, or CTSO membership). There were no significant differences in student perceptions of work and career-related issues for each of the three independent variables (gender, race/ethnicity, and CTSO membership). Overall students expressed positive perceptions toward their WBL course and work and career-related issues.

## Conclusions

Overall students expressed positive perceptions toward their WBL course and work and career-related issues. Adams et al. (2000) and Ruff (1993) found that students had mostly positive perceptions towards their marketing course. Womble (1995b) and Jones and Womble (1997) found that students had positive perceptions toward work and career-related issues. The findings of this study also support Stasz and Brewer's (1998) research which found that students had positive perceptions of their internships and work-based experiences, and they agreed that they had learned valuable skills. Students found WBL to be beneficial and they learned skills that would help them in their future careers, and participation in these programs had an impact on their skills, career choices, and workplace preparation. Hopkins (2008) found that students also believed that work-related programs were beneficial and participation in these programs had an impact on their attitudes about themselves, school, and their skills. Students researched believed

that participation in work-related programs increased students' knowledge of the qualifications and skills employers required (Hopkins, 2008). Georgia WBL students surveyed indicated that WBL prepared them for employment and informed them on where to gain additional information after high school (3.1440). Over half of the sample responded favorably when asked if they believed that WBL prepared them to make career choices.

Students did not rate their WBL assignments as difficult; more than half (57.7%) did not find projects and assignments challenging. The item, "The assignments and projects in WBL classes are challenging" had the lowest mean score. One limitation of this study is that students were not given the opportunity to elaborate on the reasons they did not find their projects and assignments challenging. Evanciew et al. (2001) also found that students did not believe their projects and assignments were challenging. Mativo et al. (2011) found that students do not find their engineering and technology courses to be challenging; and in their research study this question produced the lowest mean score. This supports the need to have more rigorous CTE courses. Students are consumers of their CTE courses and programs should meet their needs (Evanciew et al., 2001).

The theory of reasoned action supports the link between beliefs, attitudes, and behaviors. Gaining input from students may increase buy-in and overall positive perceptions toward WBL programs and could possibly lead to an increase in enrollment (Azjen, 2005). A majority of students (98.4%) indicated that they would recommend WBL to their friends. The mean for student responses to the statement "I would recommend WBL to my friends" garnered the second highest score (3.64) for the course

scale. If students recommend WBL to their peers, this could lead to an increase in enrollment. People form many of their beliefs based on information from outside sources such as a friend or relative and they accept the information provided by these sources (Fishbein & Ajzen, 2010). Therefore, students may believe that WBL is a beneficial course because someone told them that this is true.

Almost all students surveyed were glad they enrolled in WBL; this statement secured the highest mean score (3.72). According to Ajzen (2005), an individual's positive prior experiences (in this case in WBL) may influence their perception toward an event or idea. Students' beliefs affect their willingness to participate in WBL activities in the future (Ajzen, 2005). This is extremely important for juniors, which consisted of 18.5% of the sample, because they have the option to enroll in the course for a second year. The reasoned action approach posits that beliefs provide the basis for attitudes and lead to intentions and actions (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 2010). Since behavior follows from beliefs, if students have favorable perceptions of their WBL course they may be more likely to enroll in the course again and they could also persuade a friend to take the course. Experiences that students have in high school WBL may also affect their post-secondary participation in WBL programs.

Only a small number of students (27.8%) indicated membership in a CTSO. The number of students in this survey study who were not members of a CTSO was disproportionally large and this may have affected the outcome. Levene's test for differences in the groups was used to determine if variances were equal across the groups which resulted in sig = .444 for course and sig = .050 for work and career-related issues. No significant difference was found for student perceptions based on CTSO membership

for course and for work and career-related issues. CTSOs have been found to have many benefits for students such as opportunities to use the knowledge learned in CTE courses (Alfeld et al., 2006). Investigating why students were not members of CTSOs might be of interest to CTE teachers who serve as CTSO advisors and administrators.

The independent variable gender was examined and no differences were found for student perceptions of their course and work and career-related issues. No differences were found in past studies of CTE courses (Jones et al., 1997; Womble, 1995b) and work and career-related issues (Womble, 1995a; Womble & Jones, 1996). The gap that limited career choices for female students may not be as wide as it once was (Wonacott, 2002a). There may be more gender balance in some CTE programs (Wonacott, 2002a). The sample for this survey consisted of 65.9% female and 34.1% male students. In this study, it appears more likely for female students to enroll in WBL than males based on the number of male and female participants. A record number of women have entered the workforce in the past 30 years (Gordon, 2008). Efforts have been made to eliminate gender bias, discrimination, and segregation for women in the workplace and in schools; these circumstances may have had some effect on the prevalence of these issues (Wonacott, 2002a). There remains evidence that gender bias, discrimination, and segregation still exist (Gordon, 2008). Differences in male and female perceptions have been found in CTE courses including engineering and a vocational intervention program (Jones & Womble, 1998; Mativo et al., 2011).

Race/ethnicity was examined and no differences were found for student perceptions of their WBL course and work and career-related issues. Mativo et al. (2011) examined ethnicity and differences were found in student perceptions. Race/ethnicity has

not been examined in some of the other studies that use the *Student Perceptions of Vocational Courses* and *Student Perceptions Toward Work and Career-related Issues* instruments (Jones, 1995b; Jones & Womble, 1998; Womble, 1995b; Womble, 1995b; Womble & Jones, 1996).

## Discussion and Implications

This study of WBL sought to examine students' perceptions toward their course and work and career-related issues. Examination of the variables resulted in no statistically significant differences based on gender, race/ethnicity, and CTSO membership. Students had positive perceptions of WBL and the course was found to be beneficial for the students in the two Georgia School districts examined.

Although work-based learning is found in secondary schools throughout the country, research on student perceptions of their learning experiences are lacking in the professional literature. Research studies that have been conducted examine work-based learning mostly from a qualitative paradigm (Freestone et al., 2007). However, quantitative studies can often examine a larger sample in order to uncover people's beliefs on a variety of subjects. Replication of this study may add credence to the results found.

The landscape of America is changing and the workforce is becoming more diverse (James, 2006; Maldonado, 2004). Students in this study believed that their WBL course prepares them to effectively relate to people in various cultural and ethnic backgrounds in the workplace. The majority of students indicated that they did not believe that their career choices were limited by their ethnic background or gender.

The independent variables of gender, race/ethnicity, and CTSO membership were examined and no differences were found for student perceptions of their course and work and career-related issues. According to the theory of reasoned action, differences between different subgroups (i.e. male/female or White/non-White) that exist may be too miniscule to produce differences in beliefs (Fishbein & Ajzen, 2010). This may be because of efforts to eliminate bias, discrimination, and segregation. This may indicate that issues non-White students and women have faced historically in CTE and in the workplace such as racism and discrimination, may no longer be as prevalent. There have been a variety of programs put in place to improve the possibilities for non-White students.

Work-based learning has been widely recognized as an effective means for helping students to successfully transition from school to work (Burgstahler & Bellman, 2009). Students must be prepared to enter the world of work upon graduation from high school. The secondary curriculum should reflect and respond to student needs and aspirations as social, cultural, political and economic changes take place (Mativo et al., 2011). Findings of this study provide a better understanding of students enrolled in Georgia WBL programs. The sample for this study was limited so the results are not generalizable. This study should be replicated in the U.S. and abroad using a larger sample to gain additional information on how to improve WBL programs.

This study extends the existing literature on student perceptions of their career and technical education course and work and career-related issues. The literature has seldom examined secondary students' perceptions of their course and work and career-related issues.

## Recommendations

Replication of this study with a larger sample could potentially add credence to these findings. A full-scale study conducted with a sample representing the entire state of Georgia may determine if the findings are consistent. This would allow for a study that is potentially generalizable. A study initiated by the state department of education could make it possible to use students from all WBL programs in Georgia. If this study is initiated at the state department, principals and WBL coordinators may be more willing or obliged to allow their students to participate. There must be collaboration between local school systems and the state department of education. Administering this survey at each school to a group of students in one sitting could also increase the number of students who complete it (Hill, 2001). Additional studies would add to the body of literature on secondary students' perceptions of WBL. This could provide WBL programs with valuable information especially when surveying students from across the state.

In future studies, demographic variables, such as parents educational level, should be included to provide more descriptive information on the sample. The questionnaire *Student Perceptions of Work-based Learning* needs slight modifications to gather this data on WBL students. The questions "What is the educational level of your mother?" and father should be added. Although parent educational level has been examined in past studies there are several questions throughout the survey that ask about parents and this would have added valuable information about this specific group. Students believed that speaking with their parents about career plans was helpful; this statement received a high mean score of 3.5120. They would also like their parents to show more interest in their

schoolwork (3.0). The statement "My parents want me to go to college" received the highest mean score (3.87) so it would be interesting to know the educational level of mother and father.

A qualitative or mixed methods study should be conducted to delve deeper into student perceptions (Creswell, 2009). This study should specifically seek to describe why students have positive or negative perceptions. A study that examines male and female WBL students' perceptions of their course and work and career-related issues could delve more in-depth into secondary student perceptions to better understand their experiences. Efforts to combat bias, segregation, and discrimination (which create barriers for women in the workplace) will always be needed (Wonacott, 2002a) therefore further research is needed to investigate male and female perceptions of WBL and work and career-related issues. Qualitative research designs utilizing interviews and case studies would allow for questioning and examination that is not possible with survey research (Gall et al., 2007; Hill, 2001). Specific cases could be studied and qualitative studies also allows for intense study in the natural setting (Gall et al., 2007). This could give educators and administrators more detailed information about ways in which WBL programs can be improved or how they are being successful.

The following recommendations for practice were developed in response to the findings presented in this study:

Students can be surveyed while in the program, near the end of the school year and then after they graduate. Perceptions of past WBL participants after they have graduated would be useful. WBL students attending four year post-secondary institutions after high school often performed better than those that did not participate in WBL (Swail

& Kampits, 2004). This would entail keeping an accurate account of student contact information (phone number, permanent address, and email) following graduation from high school. Students and WBL coordinators should understand the importance of participating in the study and expect to be contacted to complete a follow-up questionnaire and/or qualitative study. A follow-up survey is recommended in the *Standards and Guidelines for Work-based Learning* but unfortunately, school systems often fail to survey graduates and use this information to improve programs (GADOE, 2012b).

The activities in WBL need to be made more challenging for students. Students did not find the activities and projects they completed in their WBL course to be challenging. Mativo et al. (2011) and Evanciew et al. (2001) also found that students did not believe the projects and assignments in their CTE course was challenging. Students' evaluation and reflection of their learning experiences is critical to effectively assist them in reaching their educational goals (Ryken, 2006). Therefore, teacher, employer, and student collaboration is needed to improve learning experiences (Ryken, 2006). Researchers may want to add a question that asks, "Are you required to complete assignments related to your WBL course?" and "Do you find these assignments valuable?". This question may reflect the strength of the program, students may feel confident completing assignments. This could be because the assignments and projects are easy or because with guidance from the WBL coordinator students are able to complete the assignments. It is unknown as to why students reported that their WBL course was not challenging.

Guidance from the WBL coordinator is critical. There seems to be a disconnect between WBL students and coordinators. Some of the WBL coordinators who participated in the study seldom interacted with their students. Teachers should have an opportunity to meet with students often throughout the school year. Workplace and other employability skills can be taught during regular meeting times. Students benefit greatly from the social support of adults. Between the WBL coordinator/teacher and student, collaboration is needed to improve learning experiences (Ryken, 2006).

In 2011, approximately 1.5 million students participate in CTSOs (Association for Career and Technical Education, 2011). In this research study only a small number of students reported CTSO membership. CTSOs are a critical component of strong CTE programs (Association for Career and Technical Education, 2011). Investigating why students are not members of CTSOs would be helpful to CTE teachers. Students should be encouraged by WBL coordinators to join CTSOs. Coordinators often serve as CTSO advisors and work with CTSO is from all career areas. CTSOs compliment students' school and work experiences (Zirkle & Connors, 2003). Students are able to develop personally and socially and they gain employability skills including critical thinking and leadership (Alfeld et al., 2006; Association for Career and Technical Education, 2011; Zirkle & Connors, 2003).

TRA has guided many studies that investigate perceptions. The theory has been found to be valid for over three decades (Fishbein & Ajzen, 2010). This research study provides valuable information on WBL students' perceptions of their course and work and career-related issues.

## Study Reflection

Ensuring that students are college, career, and work ready is essential in the 21st century. As a CTE leader, teacher, and former WBL participant, I have been able to see the stark differences between students that participate in quality work-based learning and those that do not. A quality work-based learning experience requires linkage between student's career goals, classroom learning, and school-to-work activities. In order to accomplish this, student should have frequent contact with the work-based learning coordinator. WBL programs must be strengthened so that students are prepared to immediately contribute to the workforce and/or enter a post-secondary educational institution. Improving programs should start with the data, and then decision makers can make wise choices to meet the needs of the students. Student perceptions should be measured in addition to other factors when making program decisions. Georgia school districts are moving towards an evaluation system that takes student perceptions in to account when evaluating teachers. This may be a step in the right direction because student perceptions should be a component of evaluating programs.

In several schools contacted for this research study principals were unaware and sometimes unsure if their school had a WBL program. This is quite problematic when trying to ensure that students are provided with school-to-work opportunities. If a school's chief administrator is unsure as to whether a program exists, it is reasonable to think that students and parents may be unaware of the availability of WBL. An issue that also may need to be addressed is the differences between the names of WBL programs from county to county and school to school. Differences in name and the way in which the course is delivered may be part of the reason administrators are oblivious to these

programs. Work-based learning connects work and learning in a way that no other program can. Programs of WBL should undertake recruitment activities to ensure that everyone at the local level knows about the program and understand the benefits of participation. WBL is the nation's best hope for providing the workforce with workers that have skills to contribute to the U.S. economy's future prosperity.

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# APPENDICES

# APPENDIX A
## Student Perceptions of Work-based Learning Questionnaire

**STUDENT PERCEPTIONS OF WORK-BASED LEARNING**

**SECTION I BACKGROUND DATA**

**Directions:**

Fill in the circle next to the appropriate response. See the example below. Select only one response for each question. Fill in the blanks with the requested information when necessary.

What is your favorite color?

① Red ● Green ③ Blue ④ Other (please fill in): _____

| | | |
|---|---|---|
| 1. Gender<br><br>① Male<br>② Female | 2. What grade are you in?<br><br>① 9th<br>② 10th<br>③ 11th<br>④ 12th | 3. Ethnicity<br><br>① African American<br>② Asian<br>③ Caucasian (White)<br>④Hispanic<br>⑤ Native American<br>⑥ Other<br>_____ |
| 4. What is your current grade point average (GPA) overall?<br><br>① Above 4.0<br>② 3.5- 4.0<br>③ 3.0- 3.5<br>④ 2.5- 3.0<br>⑤ Below 2.5<br>⑥ Not sure | | |
| 5. What job would you like to have 10 years from now? (Please write in below. If undecided, indicate so.)<br>_____<br>_____ | 6. How many hours per week do you work?<br><br>① 10 or less<br>② 11-15<br>③ 16-20<br>④ 21-25<br>⑤ Over 25 | 7. Where do you work, and what do you do?<br><br>_____<br>(Place of employment)<br><br>_____<br>(Job position and/or department) |
| 8. Did you have a job before you started the work-based learning program?<br><br>① Yes<br>② No | 9. How did you find your job?<br><br>① WBL coordinator/ teacher<br>② Other teacher<br>③ School counselor<br>④ Friends or family<br>⑤ Internet website<br>⑥ Newspaper<br>⑦ Other _____ | 10. Is your current job related to your future career interest area?<br><br>① Yes<br>② No<br>③ Not sure |

11. What was the *most important* reason for enrolling in this course? Choose one.

① Thought it would help me get a job after high school
② Thought it would help me in college
③ Liked the teacher
④ Thought it would be easy to pass or get a good grade
⑤ Needed the credits and nothing else was available or appealing
⑥ Friend recommended it to me
⑦ Guidance counselor recommended it to me
⑧ Wanted to get out of school early by enrolling in an internship/ on-the-job training experience (WBL)
⑨ Interested in the subject
⑩ Other (please fill in):_____

12. Are you a member of a career and technical student organization (CTSO) (such as DECA, FBLA, TSA, etc)?

① Yes (please indicate which one(s):_____
② No

13. Where have you received the most information about careers? Choose one.

① Parents
② Work-based learning teacher / coordinator
③ Other teacher (s)
④ Other adult (s)
⑤ Friends
⑥ Guidance counselor
⑦School career center
⑧ Books
⑨ Magazines, newspapers, or television
⑩Other_____

14. What do you plan to do immediately upon graduation from high school? Shade in your choice and fill in the blanks.
① Work full-time. Job or occupation you will pursue:
_____
_____

②Attend a two-year college or vocational school. Major or area you will study:
_____
_____

③ Attend a four-year college or university. Major or area you will study:
_____
_____

④ Work full-time and attend school part-time (please indicate job/ occupation, type of school, and area of study):

⑤Military
⑥ Undecided
⑦ Other (please fill in)
_____

**SECTION II QUESTIONS ABOUT YOUR WORK-BASED LEARNING COURSE**

**Directions: Please show how much you agree with the following statements about work-based learning. Fill in the circle above the appropriate response. See the example below.**

Red is a more pleasing color than blue.

① Strongly Disagree ② Disagree ● Agree ④ Strongly Agree

15. Work-based learning prepares me for employment.

① Strongly Disagree ② Disagree ③ Agree ④ Strongly Agree

16. Work-based learning prepares me for education after high school.

① Strongly Disagree ② Disagree ③ Agree ④ Strongly Agree

17. Work-based learning informs me about where to get more education after high school.

① Strongly Disagree ② Disagree ③ Agree ④ Strongly Agree

18. Work-based learning teaches me to solve problems and make effective decisions.

① Strongly Disagree ② Disagree ③ Agree ④ Strongly Agree

19. Work-based learning teaches me how to communicate effectively (including both speaking and writing).

① Strongly Disagree ② Disagree ③ Agree ④ Strongly Agree

20. Work-based learning teaches me math skills needed by workers in the business world.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

21. Work-based learning improves my ability to get along with other people, especially in the work place.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

22. Work-based learning prepares me to make good career choices.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

23. I am glad I enrolled in work-based learning.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

24. Other elective courses (such as art, chorus, band, etc.) are more beneficial to me than work-based learning.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

25. Work-based learning is just as beneficial to me as the academic courses (such as English, math, history, etc.) that are required for all students.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

26. The projects and assignments required in work-based learning are challenging for me.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

27. I would recommend work-based learning to my friends.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

28. Work-based learning prepares me to effectively relate to people of various cultural and ethnic backgrounds in the work place.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

**Section III SCHOOL, WORK, AND CAREER-RELATED ISSUES**

Directions: Please show how much you agree with the following statements about school, work, and career-related issues.
Fill in the circle above the appropriate response.

29. My parents want me to go to college.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

30. Talking to my parents about my career plans is helpful.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

31. I need to learn more about different careers in which I might be interested.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

32. I have thought about dropping out of school.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

33. I believe I have been pushed into low-level, non-academic types of classes by teachers or guidance counselors.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

34. I expect to make a good income when I complete my education.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

35. Talking to my friends about my career plans is helpful.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

36. Most jobs in our society require an unreasonable amount of work.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

37. I understand how academic subjects such as math, science, and English are used in the workplace.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

38. Career choices are not limited by a person's ethnic background.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

39. Career choices are not limited by a person's gender (male/ female).

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

40. It will be difficult for me to get a good job after I complete my education.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

41. Spending time with an adult role model who shares my career interests is important for my career future.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

42. I believe I will be successful after I graduate from high school.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

43. I believe going to college is not a good choice for me.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

44. Getting a good job later in life depends on how well I do in school now.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

45. I see the need to obtain education and job training throughout my lifetime.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

46. My teachers do not encourage me to go to college.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

47. Talking to my teachers about my career plans is helpful.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

48. I am concerned about being able to handle both a career and family/household responsibilities.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

49. I wish my parents would show more interest in my schoolwork.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

50. If I decide not to go to college, high school is preparing me to locate permanent job opportunities.

| ① | ② | ③ | ④ |
|---|---|---|---|
| Strongly Disagree | Disagree | Agree | Strongly Agree |

**FINAL INSTRUCTIONS**

Thank you for taking time to complete this survey.

# APPENDIX B
## Local School System Approval

GWINNETT COUNTY PUBLIC SCHOOLS

GWINNETT COUNTY BOARD OF EDUCATION
Louise Radloff
2012 Chairman
District V
Carole Boyce
2012 Vice Chairman
District I
Dr. Robert McClure
District IV
Dr. Mary Kay Murphy
District III
Daniel D. Sockinger
District II
J. Alvin Wilbanks
CEO/Superintendent

THE MISSION OF GWINNETT COUNTY PUBLIC SCHOOLS
is to pursue excellence in academic knowledge, skills, and behavior for each student, resulting in measured improvement against local, national, and world-class standards.

437 Old Peachtree Road, NW
Suwanee, GA 30024-2978
678-301-6000
www.gwinnett.k12.ga.us

It is the policy of Gwinnett County Public Schools not to discriminate on the basis of race, color, sex, religion, national origin, age, or disability in any employment practice, educational program, or any other program, activity or service.

2010 Winner of
the broad prize for urban education

March 1, 2012

Yvette Dupree
6486 Fleming Road
Morrow, Georgia 30260

**Re: File ID 2012-63**

Dear Ms. Dupree:

This is to advise you that your research proposal, "Secondary Work-Based Learning Students' Perceptions of Their Course and Work and Career-Related Issues" (File ID 2012-63), has been approved with the following comments and limitations:

- While the proposed study has the potential to inform instructional practice, it must be conducted in a way that provides informed consent without intimidating potential participants with unnecessarily long and hard to read permission letters. Parents must be given the opportunity to review the survey before providing consent.
- Consider removing requirement of students' email addresses from the survey, as this undermines the anonymity the researcher guarantees.
- Attention to sample size is important as some research questions subdivide the sample extensively.
- Effect sizes will be a useful accompaniment to significance tests.

Please note that schools and teachers may elect not to participate in your research study, even though the district has granted permission.

**Important: When contacting schools regarding this research, it is your responsibility to provide a copy of this approval letter to the principal**. In addition, it is your responsibility to provide your sponsors and project officers or managers with a copy of this approval letter. **Be sure to use the file ID number issued above when contacting schools or district level personnel regarding this research study**.

Please forward a copy of your results to me when they are completed. Also, we would appreciate you providing us with feedback on the research approval process by completing the enclosed survey and returning it in the enclosed postage-paid envelope.

Best wishes for a successful research project. Please call me at (678) 301-7090 if I may be of further assistance.

Sincerely,

Colin Martin, Ph.D., Executive Director
Research and Evaluation

cc: Yvette Dupree, vette@uga.edu
Dr. Elaine Adams, adamsie@uga.edu

Subject: Re: Proposal
From: Lynda Hale
To: Yvette Dupree
Sent: Monday, January 30, 2012 2:13 PM

Yvette,
Mr. Brown at NOHS has agreed to having you conduct your research at his school. You may contact him at -pbrown@oconeeschools.org

Lynda

--
Lynda Hale
Assistant Superintendent
Oconee County Schools
Office of Curriculum and Instruction
34 School Street
Watkinsville, GA 30677
706-769-5130 x 2307

"Committed to Student Success"

Subject: Re: research at OCHS
From: Lynda Hale
To: Yvette Dupree
Sent: Friday, February 3, 2012 9:00 AM

Yvette,
Mrs. Beckham, principal of OCHS, has agreed for you to do your research at her school. Please feel free to contact her at sbeckham@oconeeschools.org .

Thank you,
Lynda

--
Lynda Hale
Assistant Superintendent
Oconee County Schools
Office of Curriculum and Instruction
34 School Street
Watkinsville, GA 30677
706-769-5130 x 2307

"Committed to Student Success"

# APPENDIX C
## Letter to Principals Requesting Permission to Conduct Study

Dear <TITLE>< FIRST>< LAST>,

I am a graduate student at The University of Georgia in Athens, Georgia. I would like to conduct a study of Georgia secondary students' perceptions of work-based learning (WBL) for my dissertation. The proposal for my research study has been approved by the Gwinnett County Institutional Review Board #2012-63. I have attached the letter sent to me by the IRB office. The purpose of this research is to determine secondary work-based learning participants' perceptions of their work-based learning course and work and career-related issues. I would like to survey all the work-based learning students in Gwinnett County using an online survey that has been used in several studies of career and technical education courses and programs. I would like your permission to use all of the work-based learning students who attend your high school in this research.

The completion of the survey will take approximately 30 minutes and will not utilize instructional time. The study will be confidential and no findings will identify participating schools, teachers, or students. I will not collect student email addresses on the parental permission form and consent/assent document. These forms have been shortened and edited for clarity. Students have been found to be a valuable source of information about their courses because they are the primary stakeholder. They can provide information to improve learning and teaching practices in WBL programs. Because work-based learning links school and work and many are finding the job market to be increasingly competitive, understanding student perceptions is essential to create quality programs. A study of WBL will aid in the improvement of high school WBL programs as well as teaching practices in these programs. Most importantly, CTAE program administrators can effectively prepare students for the world of work. Upon completion of my study, I will share the results with the Gwinnett County School District

I am confident that this study will be beneficial for all of the work-based learning students in Gwinnett County. Would you be willing to allow your WBL students to participate? Your consideration is appreciated. I have attached a copy of the letter I received from the Gwinnett County School IRB. Please contact me with any questions at (770)853-8919 or vette@uga.edu. Thank you for consideration of this request.

Sincerely,
Yvette Dupree

*Yvette T. Dupree*
PhD candidate
Program of Workforce Education
The University of Georgia

Attachment:1

# APPENDIX D
Permission to use Instrument in Study

**From:** M. N. Womble <mwomble@uga.edu>
**To:** Yvette Dupree <yvettetdupree@yahoo.com>; Karen H Jones <khjones@uga.edu>; Yvette Dupree <vette@uga.edu>
**Sent:** Friday, January 6, 2012 6:40 PM
**Subject:** RE: Statement of Permission to use instrument
Yvette Dupree has my permission to use the Student Perception Instrument. Contact me at the e-mail address below if necessary.

Dr. Myra N. Womble
Associate Professor
Workforce Education, Leadership, and Social Foundations
University of Georgia
Athens, GA 30602 706-542-4091

**From:** Karen H Jones <khjones@uga.edu>
**To:** Yvette Dupree <yvettetdupree@yahoo.com>; M. N. Womble <mwomble@uga.edu>
**Sent:** Friday, January 6, 2012 4:42 PM
**Subject:** RE: Statement of Permission to use instrument
Ms. Yvette Dupree has my permission to use the Students' Perceptions instrument.

# APPENDIX E
## Cover Letter to Expert Panel

Dear <TITLE>< FIRST>< LAST>,

I will conduct a study of Georgia secondary students' perceptions of work-based learning for my dissertation. The purpose of this research is to determine secondary work-based learning participants' perceptions of their work-based learning course and work and career-related issues.

You are being asked to serve as a member of the expert panel that will be reviewing the instrument that will be used to measure student perceptions of their work-based learning course and work and career-related issues. You were chosen because of your work with Georgia high school work-based learning students.

The first section of the questionnaire collects demographic information using multiple choice and fill-in-the blanks. Questions in the second and third sections will be measured using a set of statements that are assessed on a four-point Likert-type scale, with 1 representing strongly disagree and 4 representing strongly agree, for each item.

I would like for you to evaluate the clarity of each item on the questionnaire. Then, evaluate whether the items actually gathers information on student perceptions of their work-based learning course (section II) and school, work, and career-related issues (section III). You may suggest any additions or deletions you feel necessary to improve the survey. This includes changes to statements or answer choices (in Section I) or additions and deletions of a complete item. Finally, please respond to the questions at the end of the evaluation form that relate to general comments and problems with the instrument.

Your insight into the questions that may need to be changed is an invaluable part of the instrument development process. Providing revisions related to clarity and representativeness will be useful in refining the instrument.

Please return your responses by Tuesday March 13, 2012. Responses may be sent electronically. Thank you for your time and assistance in refining this instrument.

Sincerely,

Attachment

# APPENDIX F
Instrument Evaluation

# INSTRUCTIONS
**Content/Construct Validation Responses**

**Background:** The Student Perceptions Questionnaire has been used to examine secondary students' perceptions of their career and technical education courses, and work and career-related issues in several previous research studies.

**Panel Directions:** *Please review the instrument on Student Perceptions of Work-based Learning. First, evaluate the clarity of each item on the questionnaire. You may suggest any additions or deletions you feel necessary to improve the survey. This includes changes to statements or answer choices or additions and deletions of a complete item. Second, evaluate whether the items actually gathers information on student perceptions of their work-based learning course (section II) and work and career-related issues (section III). Finally, please complete questions 1 through 5 below.*

1. **Total number of years in education:**

2. **Current role:**

3. **Years experience in current role:**

4. **General comments about the questionnaire:**

5. **Identification of problematic items:**

*Thank you for reviewing this instrument!*

# SUMMARY OF RESPONSES

**1. Total number of years in education:** 6 - 32 years

**2. Current role:** Work-Based Learning Coordinator

**3. Years experience in current role:** 3 - 19 years

**4. General comments about the questionnaire:** The questionnaire is tooooo Long. Students will not take time to complete it. Also, if possible, you should survey students once they graduate. They have a different perspective after they move on to college or full-time in the work force. You really need to cut down the number of questions that concern "demographics".

I would love to see a summary of responses to help improve WBL!

I am glad to see research oriented towards the perceptions of WBL.

Additional Comments:
1. The questions do not always seem to flow, but rather jump around with various focus points...might be confusing for a teenager.
2. Some of the questions feel leading to me giving the overall instrument a bias towards career prep rather than a college & career prep focus.
3. I think a huge part of WBL is the relationship between the mentors & the student workers, especially in YAP roles. I did not really see how this instrument will explore that role which is truly vital to the students' perceptions of WBL and the overall effectiveness of WBL placements.
4. Two aspects of WBL needs to be clarified...the assignments related to the classroom and the expectations of the job placement.
5. Do you want to look at anything related to training plans and the mentor's evaluation of work-ready skills?

**5. Identification of problematic items:**

Section one:

> Question 2 - only junior and seniors can be in WBL
> #8 - position?
> #15 - they will not know what type of course they are – you will need to get this information from their teacher.
> Delete # 16, 17, 19 – combine and ask their plans after high school
> #18 - include internet research (GAcollege411)
> #14 - Give option for not completing a pathway; GA has 14 career pathways that are aligning with the national career standards in case you want to cover all areas
> #15 - Students may not know the difference. Plus the terminology used by the state department and other counties is different. The state coordinators handbook

identifies 4 types of WBL…YAP, Internship, Co-op, Employability Skills Development; add ESD and internship

Section Two:

Delete # 3, 4, 7, 8, 10,11,12,14, 16, 18,

Section Three:

Delete # 21, 24, 27,28,30,31, 32, 34, 35,37,41,42, and 43

Change #39 – delete "NOT"

# APPENDIX G
University of Georgia IRB Approval Letter

The University of Georgia
Office of The Vice President for Research
DHHS Assurance ID No: FWA00005901

Institutional Review Board
Human Subjects Office
612 Boyd GSRC
Athens, Georgia 30602-7411
(706) 542-3199
Fax: (706) 542-3360
www.vpr.uga.edu/hso

## APPROVAL FORM

**Date Proposal Received:** 2011-10-03 **Project Number:** 2012-10299-0

| Name | Title | Dept/Phone | Address | Email |
|---|---|---|---|---|
| Dr. Elaine Adams | PI | Workforce Education<br>706 Rivers Crossing 4303<br>706-542-4214 | | adamsje@uga.edu |
| Ms. Yvette T. Dupree | CO | Workforce Education<br>770 961 9919 | 6-86 Fleming Rd<br>Morrow, GA 30260 | vette@uga.edu |

**Title of Study:** Secondary Work-based Learning Students' Perceptions of their Course and Work and Career related Issues

**45 CFR 46 Category:** Expedite 7
**Parameters:**
Reviewed per Subpar. D (46.404): Permission of one parent may be sufficient;
Approved for Institutions with Authorization Letters on File;

**Change(s) Required for Approval:**
Receipt of Recruitment Materials;
Revised Application;
Revised Consent Document(s);

**Approved : 2012-02-27 Begin date : 2012-02-27 Expiration date : 2013-02-26**

*NOTE: Any research conducted before the approval date or after the end date indicated above is not covered by IRB approval and cannot be considered approved.*

**Number Assigned by Sponsored Programs:** **Funding Agency:**

**Your human subjects study has been approved.**

**Please be aware that it is your responsibility to inform the IRB:**
**. . . of any adverse events or unanticipated risks to the subjects or others within 24 to 72 hours;**
**. . . of any significant changes or additions to your study and obtain approval of them before they are put into effect;**
**. . . that you need to extend the approval period beyond the expiration date shown above;**
**. . . that you have completed your data collection as approved, within the approval period shown above, so that your file may be closed.**

**For additional information regarding your responsibilities as an investigator refer to the IRB Guidelines.**
**Use the attached Researcher Request Form for requesting renewals, changes, or closures.**
***Keep this original approval form for your records.***

Chairperson or Designee
Institutional Review Board

# APPENDIX H
## Directions for Survey Administration

Dear <TITLE>< FIRST>< LAST>,

Thank you for your assistance in completing this study of work-based learning. This packet includes the materials that will be needed to complete the study:

- Parental permission forms (2 for each WBL student under the age of 18)
- Student consent/ assent documents (2 for each WBL student)
- Checklist for returned documents
- 2 manila envelopes for signed parental permission letters and student consent/assent documents (I will arrange a time to pick up these documents).
- Sheets with the URL for the questionnaire
- Directions for administration

Please contact me with any questions or concerns about the completion of this study at (770) 853-8919 or vette@uga.edu.

Sincerely,

Yvette Dupree
PhD Candidate
Program of Workforce Education
The University of Georgia

**Directions (for teacher/administrator):**

**Prior to questionnaire administration:**
Please give each work-based learning student two copies of the parental permission form and two copies of the letter of student consent/assent (one copy is for the parent/student to keep for their records and the other copy should be returned to the teacher/administrator). The parental permission form is only needed for those students who are under the age of 18. Student should be instructed to return the forms immediately with a one week deadline.

**Collection of forms:**
Please collect all permission and assent/forms (1 of each from for each student). Please mark the names of those students who have returned the parental permission form and letter of student assent/consent on the sheet provided and place the forms inside of the manila envelope that has been provided. (I will arrange a day/time to pick these forms up.)

On the scheduled date students should complete the online questionnaire. Students that return the forms should be given the URL to complete the survey:

https://www.surveymonkey.com/s/studentperceptionsofworkbasedlearning

Students can complete the online questionnaire anytime, anywhere from a computer during a one week window.

Thank you for your assistance in completing this study of work-based learning. ☺

Questionnaire URL for WBL students

| *Questionnaire Directions for Research Study at _____ County Schools: Secondary Work-based Learning Students Perceptions of their Course and Work and Career-related Issues* |
|---|
| *Questionnaire: Student Perceptions of Work-based Learning*<br><br>Please go to the web address:<br>https://www.surveymonkey.com/s/studentperceptionsofworkbasedlearning<br><br>Please follow the online questionnaire directions.<br><br>Please complete the questionnaire<br>by_____.<br><br>Thank you for completing this questionnaire. |

# APPENDIX I
## Parental Permission Letter

## *Parental Permission Letter*

Dear parent,

I am a graduate student at The University of Georgia in Athens, Georgia. To complete my PhD I will be conducting a research project on *Secondary Work-based Learning Students Perceptions of their Course and Work and Career-related Issues*. The purpose of this research is to determine secondary work-based learning participants' perceptions (opinions) of their work-based learning course and work and career-related issues. I would like your child to participate in this project. The _____County Public Schools Research Department and the school principal have approved this research study. I am working with the work-based learning teacher to have the questionnaire completed. All work-based learning students in _____County Public Schools at approved high schools have been asked to take part in the study.

As a part of this research, I would like your child to complete a short questionnaire about their opinions of their work-based learning course, work, and career-related issues. This questionnaire was created to collect data on work-based learning. It should take about 30 minutes to complete. The link to questionnaire will be given on _____. Starting on _____, those students that have returned the parental permission letter and the student assent/consent forms, will be given a sheet with the web address for the online questionnaire. Your child will have one week to complete the survey. Your child can complete the questionnaire from a computer any time before the one-week deadline. The questionnaire must be completed by _____.

There are no right or wrong answers and your child may skip questions on the survey. Your child will be allowed to work on the questionnaire until they have finished. Students should follow the directions carefully when taking the survey. (Online questionnaire directions: Please select your response for each question. You may select only one response for each question. Fill in the blanks with the requested information when necessary.)

Individual answers on the surveys will not be linked to any student. Students will not be asked to provide their name anytime during the survey. Teachers and administrators from the _____County Public Schools will not view student answers to the survey. Participation is completely confidential and no one from the _____ County Public Schools system will see individual answers. The only people who will have access to the questionnaire results are the researchers involved in the study. We would like students to feel free to be completely truthful on the survey. The questionnaire should be completed privately. Students should not share their answers or the survey questions. Please note that internet communications are insecure and there is a limit to the confidentiality that can be guaranteed due to the technology itself. Once the completed surveys are downloaded from the online survey host, firewall technology will be used to protect the researcher's computer from unauthorized access. Hardware storing the data will be accessible only to authorized users with log-in privileges.

Students may benefit from this project because it will give them a chance to give their opinions of their work-based learning course. Students will be able to reflect on their beliefs about work and career-related issues. There are several future potential benefits for future work-based learning participants. The work-based learning program can be reviewed and changed to better focus on learner needs. Educators can determine if students are learning the skills they will need to be successful after graduation. There are no expected discomforts or risks for participants in this project. Confidentiality for the students that complete the surveys may help to lessen student fears. Student names and all other personal information will not be included in any published results. School name or the county will not be included in the final report. Information gathered during the course of the project will become part of the data analysis and may contribute to published research reports and presentations.

University of Georgia
Institutional Review Board
Approved: 2-27-12
Expires: 2-Dec 13

Student participation in this project is voluntary. Your child will not be punished or lose any benefits if he or she decides not to take part in this research project. Participation or refusal to participate in this study will in no way affect your child's grade(s) or placement decisions. If your child decides to take part in this project, he or she may stop taking part at any time without punishment or loss of benefits. _____ County Public School teachers and administrators are not affiliated with the research project, and cannot answer questions about the project (e.g. purpose) and the questionnaire (e.g. contents). You may contact me or my major professor for answers to questions about this research study. You should keep a copy of the parental permission form for your records. Additional questions or problems regarding your child's rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 629 Boyd Graduate Studies Research Center, Athens, Georgia 30602; Telephone (706) 542-3199; E-Mail irb@uga.edu.

*Yvette Dupree (PhD Candidate)*
*The University of Georgia*
*(770)853-8919*
*vette@uga.edu*

Yvette Dupree _____ _____
Researcher's name Researcher's Signature Date

*Dr. Elaine Adams (Major Professor/ Advisor)*
*The University of Georgia*
*(706) 542-4204*
*adamsje@uga.edu*

If you agree to allow your child participate in this research study, please complete the information below:

_____
Student Participant's Name (please print)

_____ _____ _____
Parent/Guardian's Name (please print) Parent/Guardian's Signature Date

Return to _____ by _____

University of Georgia
Institutional Review Board
Approved: 2-[illegible]-12
Expires: 2-26-13

# APPENDIX J
## Student Letter of Informed Consent

## *Student Letter of Informed Consent or Assent*

Dear student,

I am a graduate student at The University of Georgia in Athens, Georgia. To complete my PhD I will be conducting a research project on *Secondary Work based Learning Students Perceptions of their Course and Work and Career-related Issues*. The purpose of this research is to determine secondary work-based learning participants' perceptions (opinions) of their work-based learning course and work and career-related issues. I would like you to participate in this project. The _____County Public Schools Research Department and the school principal have approved this research study. I am working with the work-based learning teacher to have the questionnaire completed. All work-based learning students in _____ County Public Schools at approved high schools have been asked to take part in the study.

As a part of this research, I would like you to complete a short questionnaire about your opinions of your work-based learning course, work, and career-related issues. This questionnaire was created to collect data on work-based learning. It should take about 30 minutes to complete. The link to questionnaire will be given on_____. Starting on _____those students that have returned the parental permission letter and the student assent/consent forms, will be given a sheet with the web address for the online questionnaire. You will have one week to complete the survey. You can complete the questionnaire from a computer any time before the one-week deadline. The questionnaire must be completed by _____.

There are no right or wrong answers and you may skip questions on the survey. You will be allowed to work on the questionnaire until you have finished. Please follow the directions carefully when taking the survey. (Online questionnaire directions: Please select your response for each question. You may select only one response for each question. Fill in the blanks with the requested information when necessary.)

Individual answers on the surveys will not be linked to any student. You will not be asked to provide your name anytime during the survey. Teachers and administrators from the _____County Public Schools will not view student answers to the survey. Participation is completely confidential and no one from the _____ County Public Schools system will see your individual answers. The only people who will have access to the questionnaire results are the researchers involved in the study. We would like you to feel free to be completely truthful on the survey. The questionnaire should be completed privately. You should not share your answers or the survey questions. Please note that internet communications are insecure and there is a limit to the confidentiality that can be guaranteed due to the technology itself. Once the completed surveys are downloaded from the online survey host, firewall technology will be used to protect the researcher's computer from unauthorized access. Hardware storing the data will be accessible only to authorized users with log-in privileges.

Students may benefit from this project because it will give them a chance to give their opinions of their work-based learning course. You will be able to reflect on your beliefs about work and career-related issues. There are several future potential benefits for future work-based learning participants. The work-based learning program can be reviewed and changed to better focus on learner needs. Educators can determine if students are learning the skills they will need to be successful after graduation. There are no expected discomforts or risks for participants in this project. Confidentiality for the students that complete the surveys will help to lessen student fears. Your name and all other personal information will not be included in any published results. The name of your school or the county will not be included in the final report. Information gathered during the course of the project will become part of the data analysis and may contribute to published research reports and presentations.

University of Georgia
Institutional Review Board
Approved: 2-27-12
Expires 2-26-13

Your participation in this project is voluntary. You will not be punished or lose any benefits if you decide not to take part in this research project. Participation or refusal to participate in this study will in no way affect your grade(s) or placement decisions. If you decide to take part in this project, *you* may stop taking part at any time without punishment or loss of benefits. _____ County Public School teachers and administrators are not affiliated with the research project, and cannot answer questions about the project (e.g. purpose) and the questionnaire (e.g. contents). You may contact me or my major professor for answers to questions about this research study. You should keep a copy of the consent/assent document for your records. Additional questions or problems regarding your rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 629 Boyd Graduate Studies Research Center, Athens, Georgia 30602; Telephone (706) 542-3199; E-Mail irb@uga.edu.

*Yvette Dupree (PhD Candidate)*
*The University of Georgia*
*(770)853-8919*
*yette@uga.edu*

Yvette Dupree _____ _____ _____
Researcher's name Researcher's Signature Date

*Dr. Elaine Adams (Major Professor/ Advisor)*
*The University of Georgia*
*(706) 542-4204*
*adamsje@uga.edu*

If you agree to participate in this research, please complete the information below:

_____ _____ _____
Participant's Name (please print) Participant's Signature Date

Return to _____ by _____

University of Georgia
Institutional Review Board
Approved: 2-27-12
Expires: 2-26-13

# APPENDIX K
Follow-up Letter

Dear <TITLE>< FIRST>< LAST>,

Thank you for your assistance in helping me to complete the data collection for the survey of secondary students' perceptions of work-based learning. Students will be given an additional week (until May 15,2012) to complete the survey. Students can go to the URL https://www.surveymonkey.com/s/studentperceptionsofworkbasedlearning . If your students will need more time, please let me know. I understand that this is a busy time of year and I would like as many students as possible to complete the survey. I have attached a copy of the sheet with the URL to access the questionnaire for those who may have misplaced their original copy.

I would also like to arrange a time to collect the parental permission forms and student consent documents from your school. Please contact me with any questions at (770)853-8919 or vette@uga.edu. Thank you for your assistance in this matter. Have a great day!

Sincerely,
Yvette Dupree

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