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The Perspectives of Core Academic Middle School Teachers regarding Career Education under Different School Settings

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The Perspectives of Core Academic Middle School Teachers regarding Career Education under Different School Settings

by

Meredith Leigh Bogush

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Career and Workforce Education with an emphasis in Curriculum and Instruction
Department of Leadership, Counseling, Adult, Career and Higher Education Career and Workforce Education College of Education University of South Florida

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Keywords: Career Integration, Charter School, Future Orientation, Magnet School, Traditional Public School

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DEDICATION

My faith in God has strengthened through this process, and I could not have achieved this without a constant belief in Him, but even more so, His constant belief in me. In addition, my family has fostered unwavering encouragement as persistent enthusiasts. To my dad for frequently asking, “Are you done with that paper yet?” to my mom who has called me “Dr. Bogush” from the time I first received acceptance into the program, to my step-dad for reminding me through each success or upset, “This is a marathon... keep going.” A separate thank you to my brother and sister for not questioning or judging me when I continuously had my nose in the books. I am grateful to each of you for your (different but incessant) support of my interest and enthusiasm towards teaching and making a difference in the field of education; therefore, it is only right to dedicate this work to my students.
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The purpose of this study was to quantify core academic (English/language arts, mathematics, science, and social science) middle school teachers’ perspectives of career education. Prior research indicates that when increased awareness and exposure to career education is provided in middle school grades, students have the opportunity to gain a valuable understanding of various vocational occupations available in the future (Akos, Konold, & Niles, 2004). Students are able observe what the work accomplishes and the effort required of the employee to be successful. If the occupation is of interest to the students, an increased motivation to complete their studies is likely to develop as they see the connection between what is taught in class and the opportunity to enter the desired career (Schaefer, & Rivera, 2012). In order to cultivate student motivation, the first step would be to understand the teaching community’s viewpoint on career education and to use that knowledge to build successful programs. Teachers employed in a large Florida school district were asked to respond to a survey assessing their understanding and assimilation of the concepts of future career orientation and career integration in the middle school curriculum. The researcher distributed the tested CareerStart Teacher Perspective Survey (CTPS) to the teachers with a data analysis plan based on a selection of teacher related variables from charter, magnet, and traditional public middle schools (n=199). Using the independent t-test analysis, the study found a significant difference in the value of future orientation and overall career education factors between male and female respondents. In addition, teachers ages 25-44 had a higher mean value for all factors than teachers of other age groups. There were no significant differences in teachers’ value of career education between the three different types of schools. This study contributes to the body of research pertaining to teacher perspectives of career education at the middle school level.
CHAPTER ONE: INTRODUCTION

In 2006, the federal Carl D. Perkins Career and Technical Education Act replaced the long used term vocation education with Career and Technical Education (CTE). It formally recognized career education as a mainstream educational concept. CTE became redefined as providing educational activities that deliver students with academic and technical knowledge for further education aimed at emerging employment prospects. The act stipulates, “the principle source of federal funding to states for the improvement” of middle and high schools, community and technical colleges, and other post-secondary institutions (US Department of Education, 2015, p.1). As a result, states and school districts integrated educational content standards along with academic achievement standards and aligned them with certification requirements recognized by trade organizations and industry leaders. The Act states that CTE can provide students with opportunities for career awareness and preparation by offering the academic and technical skills necessary for success in post-secondary education, training, and employment (Lewis & Stone, 2013). For schools and teachers, that meant increased grant funding for conforming school districts. Focus to date has been primarily high school and subsequent education including career academies; however, it is recognized career awareness should begin before a student enters high school.

The core academic classroom teachers’ perspectives of CTE and career education can have a strong influence on students’ connection to their future career (Akos, Charles, Orthner, Cooley, 2011). For that reason alone, the key contributors to students’ perspectives are the teachers who are working with the students in the classroom. Education policy establishes rules and guidelines for school boards, districts, and administrators; but the classroom teacher is responsible for the implementation and contribution to the success or failure of a policy. This research identified middle school teachers’ perspectives of the concept of career education as well as current state of implementation.
The teacher’s abilities to first understand their role in CTE, to then support or implement an education policy or program are ultimately critical for its success. Teachers are expected to implement policy as written but have substantial leeway to adjust implementation to their own classroom needs and personal views. What are the opinions of middle school teachers concerning career awareness at the middle school level? Akos et al. (2011) specified that up until 2011 minimal research had been conducted that queried middle school teachers’ attitudes and perspectives toward career development in the middle school. The paucity of research has been attributed to the lack of empirically validated instruments to measure both the support for and capacity to prepare their students for career-motivated high school academic choices. The lack of validated instruments motivated Akos et al. to develop the CareerStart Teachers Perspective Survey (CTPS) a Likert-type survey (2011). Akos et al. (2011) developed their instrument with influence from the U.S. Office of Education report (Hoyt, 1975) and validated it in a southeastern North Carolina public school district. Akos et al. used the instrument to survey 291 core academic classroom middle school teachers. They were focused on exploring the CTPS measure to assess teacher perspectives of career education at the middle school level. A two-factor structure (future orientation and career integration) found middle school teachers believe there is potential of career education integrated into the core curriculum. In addition, the results indicated statistically significant differences (Akos, et al., 2011) in terms of demographics such as gender, subject matter, and socio economic status of the school. The Akos, et al. (2011) CTPS has proven a necessary initial step in understanding teacher views on career education at the middle school level. As a tested instrument, the CTPS remains the only viable topic-specific document in existence today.

Akos, et al. (2011) concluded that career education in core academic classrooms (such as reading and mathematics) could be a fundamental step that leads secondary school students to willingly engage with their curriculum. Additional pragmatic research designed to measure teacher attitudes towards career academic counseling and education in middle schools appears to be necessary. If the goal of attaining a successful, long-term, widely embraced middle school academic curriculum integrated with programs such as career academic counseling is desired, then enlisting current and future teacher support is essential.
By using the 2011, CTPS this research built upon the Akos study without distorting the prior results with untested survey questions. The reuse of the basic CTPS instrument, allows the researcher to be able to “confirm or refute the findings of previous studies” (p. 127). This research intends to add to the value of the previous research and complement it. With that goal, the research significantly increases the target survey population in a large highly regarded school district, yet maintaining the same prior tested instrument quality. The target school district has three types of middle schools: Charter, Magnet, and Traditional (see glossary for definition). Each type of school has a different organizational and administrative make up. Although similar in concept and focus, do differences such management, staffing and diverse student body result in individual teacher perspective of career education programs? Additionally, this research further expands the study’s potentially dependent variables by introducing increased teacher related variables that are linked to the specific types of middle schools involved. The long-term goal would be to understand and then reduce the impact of all variables whether they are organizational or personal. This level of career education research has not been addressed in prior studies and allows future research and analysis to further define the underlying structural elements of current programs. The build upon and expand approach significantly increases the available career education in the middle school knowledge base in a logical and methodical manner that can be made available for education policy developers to further the advancement of the concept.

**Background: Evolution in Career Development and Workforce Education**

The ideas of “work” and “education” have changed over the centuries. The development of the two as integral parts of American society is interrelated and dependent on one another (Niles & Harris-Bowlsbey, 2005). History has exhibited the evolution of technology has markedly altered society’s work requirements. As a result, there has consistently been an agreeing response from the educational system that intends to complement the often-unexpected occupational development so common in modern life. What is less clear is the important question of when the school system and its teachers should begin to influence student interest in understanding future career and workplace opportunities. If such intervention is important, are contemporary school systems prepared to address this challenge and how are they perceived as progressing?
To answer, it is important to address how formal education and workplace needs became essentially linked for economic growth and social stability. In the late 1800’s, the United States’ economy transitioned from an agrarian society to a culture rapidly moving toward the emerging concepts of industrial and manufacturing systems. Cities rapidly grew and became economic hubs and engines. Work began to be referred to as an “occupation” (Niles & Harris-Bowlsbey, 2005, p.13) rather than a manner to simply provide family sustenance. One’s type of work had great influence over one’s social status and role in the community.

Owing to previously unimagined technical innovation along with new personal wealth, a new demand for consumer goods and services resulted. This unexpected development provided a rapidly expanding business base and with it new occupational opportunities; however few workers possessed the skills and qualities necessary to master the new occupations (Niles & Harris-Bowlsbey, 2005). Individuals became interdependent on one another as members of economic organizations not just as individual farmers, and, as a result, there emerged a growing need for local school systems to provide occupational education.

Recognizing society’s new workforce demands, the United States’ educational system began to provide formal vocational education in school setting (Wonacott, 2003). The “Smith-Hughes Act of 1917” marks the start of the vocational education movement (Silverberg, Warner, Fong, & Goodwin, 2004). The U.S. Congress was motivated by the rapidly emerging workforce demands created by the needs of the industrial revolution; thus, the act focused on preparing workers for low and semi-skilled careers (Hillison, 1987). That Smith-Hughes Act was the first federal legislation to provide States the financial resources and guidelines to support the advancement of Career and Technical Education.

Educational scholars saw the ongoing need for both educational policy and classroom changes brought on by the events highlighted in Table 1.1 below. Social reformer Frank Parsons provided an approach to career development interventions with his manuscript Choosing a Vocation (Parsons, 1909). Parsons emphasized the importance for youth to be provided with assistance when making vocational choices. Parsons believed that students could be encouraged towards a vocation through testing, exposing students to occupational information, and advising on occupational paths to success.
One of Parsons’ principles concerning vocational counseling was the need for a strong understanding of one’s self, abilities, interests, strengths, and areas of improvement when choosing a vocation.

Table 1.1. Stages of America’s Work/Career Development: Based on Review.

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1800’s</td>
<td>Transition from an agrarian society towards an industrial and manufacturing system</td>
</tr>
<tr>
<td></td>
<td>Work was referred to as an “occupation”</td>
</tr>
<tr>
<td></td>
<td>Workers grew independent</td>
</tr>
<tr>
<td></td>
<td>Occupational Education was provided</td>
</tr>
<tr>
<td>1900’s</td>
<td>An influence of innovation and emerging technologies</td>
</tr>
<tr>
<td></td>
<td>Work was referred to as “vocation”</td>
</tr>
<tr>
<td></td>
<td>The Smith-Highes Act of 1917—the start of vocational education for preparing low and semi-skilled workers</td>
</tr>
<tr>
<td></td>
<td>In Parsons’ “Choosing a Vocation,” he emphasized opportunities for youth to be provided with guidance when making vocational choices</td>
</tr>
<tr>
<td>Late 1900’s to Present</td>
<td>Cyberwork spaces and technology are replacing workers</td>
</tr>
<tr>
<td></td>
<td>Vocational education is replaced with “college and career readiness”</td>
</tr>
<tr>
<td></td>
<td>USOE offers 16 occupational clusters</td>
</tr>
<tr>
<td></td>
<td>Super’s “Life-Span Theory” highlights career developments influence of psychosocial development and societal expectations</td>
</tr>
</tbody>
</table>

Parsons’ work motivated educational scholars who developed advising and objective methodologies to assist students and job seekers to make better choices; thus, a key component in matching people to occupations became based on personal characteristics or traits (Niles & Harris-Bowlsbey, 2005). Students were encouraged by teachers and career counselors to find a career that complimented their strengths and interests. As a result, vocational training was conceived as an alternative for students who were preparing for a career in blue-collar industry rather than continuing formal education through college and beyond.

This movement towards institutionalizing vocational education brought a profoundly new way of looking at work/occupations. The term, “vocation” implied the need to find a career where long-term employment at the same company was an indicator of success (Niles & Harris-Bowlsbey, 2005).
Whereas in prior years, religious, political, and societal influences had influenced work, this period was different. It became a turning point in the history of work as it was greatly influenced by individual needs and goals: the choice became college or workforce. This model remained virtually unchanged for nearly a century. The contemporary digital revolution and modern lifestyles continued to validate that the needs of the workplace were constantly evolving.

The continuing need to provide workers of all types and skills in a timely manner has reignited the ongoing debate: Should a student learn through professions, or learn for a profession? In other words, does a school educate a student for an occupation, or does a student learn by practicing in the occupation with the assistance of the school? Many of the required skills are often new and still evolving, adding confusion and difficulty to the problem. The debate represented long-standing opposing views of the value of education to the greater society.

Robison and Johnsen (1921) stated, “Vocational education is, irreducibly and without unnecessary mystification, education for the pursuit of an occupation,” (p.155). American philosopher John Dewey viewed vocational education, as understood in his day, as intellectually limiting because vocational education failed to provide the student with the broad classical background necessary for successful modern critical thinking (Dewey, 1916). Opposing that view was the belief that the goal of a vocational training model should be directly related to specific labor force needs (Hyslop-Margison, 1999). Snedden (1914) argued, “the public is forcing the demand for a more purposeful, a more scientific, and a more efficient liberal education in the schools,” (p.321).

Dewey supported liberal education in principle (Dewey, 1916). Dewey believed that an education system should integrate workforce or vocational training in school curricula; but Dewey had an underlying fear that, if implemented incorrectly, this path promoted social destiny and class stratification (Danforth, 2008). Dewey maintained an educational system should support the enhancement of our capacities, as Dewey believed the future is never certain, and the best way to maintain a successful economy was to discover the habits of learning through plasticity and independence. Dewey viewed school as social instruction where student and curriculum interact cohesively and students take part and play a significant role in their own learning. Dewey understood students should have the ability to identify their potential by establishing associations with the
information linked with prior experiences. He did not perceive a division between academic and vocational learning; but Dewey thought they were one in the same educational process. Building upon Dewey and, to some extent Snedden, Kolb (1984) matched didactic learning with specified vocational training that was focused on the individual’s learning process. Dewey’s early approach combined with Kolb’s became what is now widely practiced as experiential learning. It is important to note that these views and opinions flow from the Constructivist theory of how humans learn.

The twenty first century has begun with the deindustrialization of what many now consider traditional skilled and manual labor businesses, including the transfer of manufacturing functions offshore. The history of the ongoing transition from one economic engine to another is important in order to understand the requirements for the equally evolving educational solutions. With the evolution of what has been commonly termed work, school systems throughout the country are implementing career interventions to various degrees. The U.S. Office of Education (McLaughlin, 1976) provided 16 occupational clusters (focused predominately at the high school and post-secondary level), which school systems and teachers can use to guide career education through offering experiential and theoretical experiences (Niles & Harris-Bowlsbey, 2009). What is uncertain is the degree of teacher interest and commitment to pursue career education at the earlier middle school stage, for a concept that has classically been viewed as a non-traditional classroom activity,

Super and other educational leaders understood there is a continued progression of an individual’s interest and preferences that strongly influence how the development of the personal competence necessary to meet the needs of the modern workforce should be met (Niles & Harris-Bowlsbey, 2009). Those ongoing personal changes require an education system that not only leads but also successfully prepares students for a role in the future workforce. Since the middle school years are what Super defines as important growth period, this process of preparation can benefit from beginning career education earlier than traditionally addressed (Super, 1969). Super sought with limited success creditable examples of such activity. Research has indicated the value of career education intervention at the middle school level (Akos et al., 2011; Turner & Lapan, 2005); however, a key element of that research, the understood perspectives of teachers regarding such an intervention is minimal.
Problem Statement

For decades, there has been a growing concern that American school systems are not providing well-rounded educational programs, i.e. ones that graduate students who are prepared to enter and contribute to rapidly changing and diverse economies (Hoyt, 1975; Schwartz, 2014). For example, as the United States enters an era of highly visible international comparison, the country spends more money per student than most other countries (Fleischman, Hopstock, Pelczar, & Shelley, 2010); however, that significant investment is not directly exhibited in the students’ academic performance. According to the Performance for International Student Achievement (PISA) results (Fleischman et al., 2010), only 30 percent of U.S. students received a score of at or above proficiency level. The proficiency category describes students as having the ability to complete challenging reading tasks such as identifying embedded information and critically evaluating text. Similarly, in math, only 27 percent of U.S. students scored at or above proficiency level and are therefore deemed able to complete higher order mathematics tasks.

Previous research has also concluded that students entering high school are often unprepared to make informed choices when choosing their high school curriculum (Akos, Konold & Niles, 2004). Most middle and high schools are capable of providing the core essential subjects such as reading, writing, and mathematics, but are they producing skilled, productive, and ultimately content members of the future workforce? It has become clear that for some students there is a missing link between what they learn in the classroom and what interests them as individuals (Hiebert & Morris, 2012; Hoyt, 2005). They often choose curriculums or courses with minimal thought, not aware that decisions made in haste could significantly alter their post high school opportunities. Those future opportunities could be either academic or Career and Technical Education and are directly linked to their educational experiences. Many middle school students have diminutive understanding of the practical value of the proposed academic subject matter and its relationship to careers that interest them. As a result, when they arrive at high school they see scant need to critically analyze their high school subject choices (Akos et al., 2004).

Historically, schools offer fixed career education interventions that are mandatory for students to participate in and receive academic grades (Niles & Harris-Bowlsbey, 2005). Full semester electives
or class options are only entered in the later stages of secondary education but become increasingly more available in college and graduate level programs. Research has suggested that middle school career education programs have the potential for improving student awareness of current and future careers and, to some degree, the educational requirements necessary to attain them (ACT, 2005; Akos et al., 2004; Arrington, 2000; Brogan, 2010). Regardless of local, state, and Federal attempts such as the Perkins Act to stimulate career awareness, it is still true that many primary and middle school students are unable to understand the value of the academic topics presented to them and have few opportunities to change from one subject to another (Akos et al., 2004). This unintentional disconnect often leads to boredom, loss of interest, lack of comprehension, and, in some cases, dropping out of school. These students incrementally enter into the academic shadows and become the underserved of their community (Orthner, Akos, Rose, Jones-Sanpei, Mercado, & Wolley, 2010).

In this evolving era of reduced budgets and increased student dropout, schools still can strive to increase their understanding of the known disconnect between academic learning and careers. Students should be exposed to various career options early on. Middle school teachers are the essential key element in beginning to close that information gap. Their personal experiences, knowledge of careers, interest in the topic, and willingness to invest classroom time are primary factors that can influence the students’ perspectives surrounding academic subject matter value and their future career goals (Super, 1969). There is a clear research gap between the attitudes and perspectives that are held by middle school teachers and the recognized value of middle school career education and practicable sustainable applications in current middle schools (Niles & Harris-Bowlsbey, 2005). Understanding the cause of that gap can advance the policy development and teacher training necessary improve student success and retention when in high school.

Purpose Statement

This quantitative, non-experimental study of core academic middle school teachers (English/language arts, mathematics, science, and social science) compares teacher perspectives of career education in terms of their understanding of the concepts of future orientation and career integration. The two factors, future orientation, and career integration were selected based on the US Office of Education report: An Introduction to Career Education (Hoyt, 1975).
Future orientation was significant to this study since “one’s career and one’s education are best viewed in a developmental rather than in a fragmented sense,” (Hoyt, 1975, p. 8). By incorporating career education into middle school core academic classrooms, supports the idea that career and education should be a concept that is consistently exposed and developing in order to successfully affect one’s future.

The second factor, career integration was of significance to this study because the integration into a curriculum helps expose students to various career opportunities while developing a desire to work. This integration can be achieved through understanding the relationship between what they are being taught and its relationship to the world of work that they will enter. There is no one size fits all model for this concept, rather career education provides a wide-ranging series of unconventional learning strategies and learning settings that succeed best when understood by the teacher. Career integration, is addressed by five questions in the CTPS.

A large Florida public school district’s charter, magnet, and traditional middle school core academic classroom teachers were questioned to assess their perspective of career education programs. In addition, whether those programs are integrated and applied to their classroom, or not addressed at all was investigated. Finally, the study explores whether such views of career education program are linked to teacher related variables.

Research Questions

1. What are the perspectives of career education in middle school among core academic charter, magnet, and traditional schoolteachers?

2. Are there differences in middle school teachers’ perspectives of overall career education, future orientation, and career integration among core academic charter, magnet, and traditional public middle school teachers?

3. Are there differences in middle school teachers’ perspectives of overall career education, future orientation, and career integration based on teacher related variables?

4. Do teacher related variables affect the teachers’ perspective of overall career education, future orientation, and career integration?
   a. To what extent does overall teacher related variables affect teachers’ perspectives.
b. Which specific teacher related variables have a significant impact on teacher perspectives?

Definition of Terms

Educational institutions use various terms and definitions; thus, for clarity, the following terms apply to this study:

Career education. The composite between future orientation (see definition) and career integration (see definition). Experiences can include formal or informal discussion about potential career/occupation/vocations available for students. They can also include experiential tasks such as job shadowing, attending career fairs, conducting occupational information interviews, and participating in activities that help enhance career interests and academic expectations (Niles & Harris-Bowlsbey, 2005).

Career integration: Making the curriculum challenging yet relevant through devising, locating, and infusing career education and work into subject matter (Hoyt, 1975).

Charter school. An independent public school that is operated by a board of directors and a non-profit organization. Not managed by the district, they are required to meet Florida Standards and Sunshine State Standards; however, they hire their own certified teachers, design unique academic programs, and control their own finances (Removed to protect identity, 2015).

Curriculum. Methods and resources in which students utilize with the intent of learning a subject or topic that comprises a course of study.

Future orientation. Obtaining competency in core academic classrooms that include a meaningful set of work values that foster a current and future desire and ability to work in a rapidly changing society (Hoyt, 1975).

Magnet school. A program that provides technology rich, theme-based, innovative, and rigorous academic instruction by specially trained teachers in smaller learning communities. Curricula can have a focus on Science, Technology, Engineering, and Mathematics (STEM), Fine and Performing Arts, International Baccalaureate, International Studies, Micro Society, Career and Technical Education (CTE), World Languages (immersion and non-immersion) and several other opportunities of
concentration. They maintain the philosophy of helping to connect students to the real world (Removed to protect identity, 2015).

Middle school. Adolescents between the ages of twelve and fourteen in the: sixth, seventh, or eighth grade (Raphael & Burke, 2012).

Perspective. A logical, interpretation of what is alleged to be factual, genuine, and of significance (Paul, 2005).

State school. See Traditional Public School.

Survey. A method of data collection from a selected population using interviews or questionnaires. The population is selected in order to generalize findings (Gall, Gall, & Borg, 2005).

Teacher related variables. Type of school, grade level, subject area, gender, type of teaching certificate, educational attainment, race, and age.

Traditional public school. Also known as “state school” (Thattai, 2001). Free to the public, public education is obligatory over an age range amongst five and eight years of age and ending between sixteen and eighteen (ages are dependent on the state). Funding is available via state, local, and federal government (Weil, 2009).

Type of school. The sample teacher’s designated school of employment: charter, magnet, or traditional public school.

Delimitations

The primary delimitation of the study was the restriction of participation to only teachers and excluding students. Omitting students was purposely chosen since prior research has implied that students do indeed benefit from career education interventions (ACT, 2008). This research is limited to the study of core classroom teachers’ perspectives of career education exposure. The value was to find key underlying factors that could lead to the continuous improvement of middle school education through viable career academic counseling and education program.

Significance of Study

Middle school students do not often display high-levels of academic interest when choosing high school curriculum (Akos et al., 2004); therefore, it is unclear how middle school students can be sure they are choosing the best path for their post-secondary goals. More importantly, are they aware the
curriculum they choose will most likely influence their future lives?

Teachers’ perspectives and knowledge of education pathways could positively and, in some cases, negatively influence student opinions and choices during their educational career. To date, there has been limited research focused on identifying middle school teacher perspectives of career education opportunities and whether their view of such opportunities implemented on a school-wide basis or individually by a single teacher is a function of student demographic and/or academic success variables. Such research could assist curriculum developers in assessing the efficacy and value of implementation regarding existing career education programs.

Developers have a responsibility to consider teacher background, experience, and personal beliefs when assembling career education programs. Is it reasonable a middle school teacher can effectively conduct career education in their classroom? What level of teacher involvement is appropriate? What teacher training is necessary? Do teachers believe there is sufficient time available, or do they support potential curriculum adjustments?

This research provides curriculum developers insight into current middle school teachers’ attitudes and opinions on the state of career education as practiced today in a large school system. Furthermore, teacher background was linked to experience in order comprehend their understanding of the concept. It is this researcher’s belief many well-meaning and potentially valuable education programs fail not because the original concept was flawed but in the actual implementation as it is carried out. The success of career education and its integration into an effective curriculum may depend entirely on the teacher’s understanding and acceptance of it as an important asset to their students and classroom.
CHAPTER TWO: REVIEW OF THE LITERATURE

Introduction

Middle school students rarely apply informed judgment when making their curriculum choices for high school (Akos et al., 2004). Such choices directly link the educational development that the student receives during high school to a dynamic that can ultimately narrow their available career opportunities (Izzo, & Lamb, 2003). This lack of concern could be because students do not always see the connection between the standards learned from their curriculum choices and their future individual career paths, thus widening the gap between what is learned in school versus opportunities post school. As a result, individuals are incapable of transferring formative skills into their careers and subsequent lives (Hiebert & Morris, 2012). Teachers can play an important role in making students aware of their choices and opportunities.

This literature review is three-fold. It identifies peer-reviewed research about the critical transitional period of the average middle school student. Secondly, it discusses the benefits of incorporating career education into the existing middle school curriculum, and finally, it addresses the value of understanding and identifying the perspectives of middle school teachers’ views on career academic counseling and education.

Three educational concepts are prevalent within the literature review: middle school student experiences, teacher impact, and educational impact of career interventions. The joining of these three seemingly unrelated prior researched areas of knowledge helps expand the rapidly growing body of creditable information regarding career interventions recently conducted at the middle school level. Figure 2.1 graphically displays the confluence of the concepts that lead to the primary area of interest. The intersection of the three research areas signifies the much narrower scope of the study within the three broader topics. Concepts are summarized, analyzed, and collated.

Studies that utilized experimental methods make up the majority of the resources chosen for this review; however, owing to ethical issues as well as practical feasibility, experimental design is
Figure 2.1. Focus of the review of literature

often difficult to implement in educational settings (Bellara, 2013). Random studies in education are often questioned since denying a student an intervention that could help achieve success can be harmful to the student’s future. Therefore, studies that incorporated quasi-experimental, ex-post facto and correlational designs were added to the list of methods. Conversely, to limit scope, articles that focused primarily on program implementation and/or non-school based programs were not included.

Lastly, an effort was made to identify recently published articles on middle school based career development. Except for career relevant theories, sources before the year 2000 were omitted unless deemed essential to current understanding. References from dissertations and journal articles were reviewed including those from the Educational Research Information Center (ERIC), Dissertation Abstracts, Google Scholar, Journal Storage (JSTOR), and other similar electronic databases. Interventions conducted in an online setting or solely by career-counselors were excluded from the review.
Middle School Transitional Experiences

The standard American school system practice of transitioning students based on age to a different school with its often-unknown rules and social atmosphere can be an influential milestone for establishing student goals and aspirations. Children in adolescence spend more time in school than any other place aside from their homes (Eccles, 2004). Adapting to the physical environment and social pressures can influence both short-term challenges and long-term goals during the mandatory elementary school/middle school/high school transitions.

Transition from Elementary to Middle School. Transitioning to a new learning environment can be overwhelming. Middle school-aged students encounter more opportunities for higher-level developmental tasks than they were previously exposed to in their elementary school years (Niles & Harris-Bowlsbey, 2005). Thus, for some students, transitioning to a different school building with new teachers and unknown peers stimulates a possibility for growth that can lead to self-discovery (Brogan, 2010; Ryan & Shim, 2012). For others, transitioning to middle school can be tarnished by the seemingly overwhelming exposure to daunting events such as larger class sizes, new test-taking and grading practices, and challenging learning material (Akos & Gallasi, 2004). Transitioning from elementary school to middle school tends to be a different educational experience for each student involved.

The transition to middle school can have an immediate impact on student success. Non-academic experiences and peer influence become heightened as students enter the more demanding phase of their education (Eccles, 2004). The effect is apparent from the data. One can conclude that there exists an increased stress and uncertainty upon young students as they enter middle school (Ozturk & Debelak, 2008). Connections between peer relationships and academic achievement have been studied and indicate that classroom context plays an influential role in personal development (Eccles, 2004). During times of confusion or difficulty, students tend to utilize peer input for help in the classroom. Consequently, how well and in what manner a student responds to the transition is critical since the actualization of a student’s potential self is related to test performance, attendance, and knowledge retention (Eccles, Midgley, Wigfield, Buchanan, Reuman, Flanagan, & Maclver, 1993; Oyserman, 2008).
Social influences in middle school are vastly different from what a student may experience in elementary school years. As a student enters middle school, with its emphasis on increased competition, external influences such as peer pressure, social activities, and athletics begin to incrementally erode the student-teacher relationship (Diemert, 1992). The increased external activity competes for valuable student-teacher interaction. The result is a more demanding and challenging learning environment facing the average middle school student (Ozturk & Debelak, 2008).

Along with short-term impacts, utilizing peer input for help can also influence a student emotionally—beyond the middle school years. Teicher, Samson, Sheu, Polcari, and McGreenery (2014) found peer victimization is the highest around age 12. The research team further found that victimization has evidence to have its most detrimental impact to student stability during young adulthood. To gain more insight on that finding, Rosen, Underwood, Gentsch, Rahdar, and Wharton (2012) conducted a study with 210 participants ages 18-29. The participants completed online questionnaires that provided insight into middle school experiences when a peer or peers have mistreated them. The majority of participants (seven out of ten) recalled experiencing social victimization. Nearly one out of five recollected physical victimization or property damage. Only one out of ten indicated they did not recall a negative experience. Even though the study included a small minority population, it still provided a valuable insight into the strong influence of the middle school years in that nearly nine out of ten students recall a traumatizing experience they still remember ten or more years after it occurred. The research demonstrates most students regardless of background or race experience a difficult transition from elementary school into middle school.

Teacher to student interaction establishes an important relationship that physically changes from the comfortable elementary school norm to the more frenetic middle school. Where elementary school teachers remain with their class for the entire school day, middle school students often see their homeroom teachers briefly and for only one period each day. Middle school students travel between different classrooms within the school for each learning period. Moving between classes provides students with additional distractions and increased social interaction that can dilute academic focus (Catalano, Oesterle, Fleming, & Hawkins, 2004). That transition of environment from elementary
Transition from Middle to High School. The middle school years are incubators for a student’s successful transition from youth (middle school) to the increased challenges of becoming a teenager (high school). Experiences, preparation, and performance demonstrated during the formative middle school years help the student transition to high school (Hammond, Linton, Smink, & Drew, 2007). High school is for many students the last formal education they will participate in; therefore, graduation from high school is a major personal milestone for many (National Middle School Association Research Committee, 2003).

A young person’s economic potential and American society’s ability to provide a viable workforce depends on a student’s successful completion of a high school education. In that regard, a middle school student’s academic performance and schoolroom engagement are signs of a potential future high school dropout (Randolph, Rose, Fraser & Orthner, 2004). More specifically, an increase in truancy, worsened standardized achievement scores, lower grade point averages, and grade retention were found to be reliable indicators of a potential high school dropout (Hammond et al., 2007). Kennelly and Monrad’s (2007) findings supported those by Randolph et al.; but Hammond et al. added other reliable predictors of a high school dropout are children in the middle school grades who display visible disengagement from school life. Clearly, research points to the middle school years as being both the origin and viable litmus test for future student success or failure with direct links to becoming a productive member of the workforce.

School Designs

For this section, the three types of schools; namely, charter, magnet, and traditional public schools (also known as state schools), are discussed. Specifically, information regarding school history, policy, teacher makeup, and school funding is reviewed.
**Charter Schools.** In 1991, the idea of a “public school under contract” (Weil, 2009, p. 1) became introduced to the American school system to refer to what is now known as the Charter School. Maintained by three- to five-year grants from a public agency, the number of charter schools continue to be on the rise despite the average age of a school being anywhere between one year and seven years nationally (Weil, 2009).

The concept grasped school systems all over the country, and by 1998, over 1,100 charter schools were educating nearly a quarter of a million students (Weil, 2009). Most currently, the U.S. Department of Education, National Center for Education Statistics (Kena, Musu-Gillette, Robinson, Wang, Rathbun, Zhang, & Velez, 2015) found that, in 2013, the percentage of charter schools had increased substantially since 1999. There are now estimated to be over 6,100 public charter schools.

Beginning with the belief that public schools are failing the students (Weil, 2009), the charter reform provides public choice for families on which school they want their student to attend. Differing from traditional public schools, charter schools offer a low student-teacher ratio, an absence of a teacher’s-union, and an absence of repressive government regulations. In addition, they hold an ability to receive support from local neighborhood and community governance. Through these and other qualities, the proponents believe they are able to advocate for innovative, national politics concerning America’s education system. As a result, a charter school can stimulate competition between schools; thereby, improving the quality of instruction and encouraging meaningful improvements within the American educational system as a whole (Weil, 2009).

Nearly 37 percent of charter schoolteachers are under 30 years of age (Weil, 2009). This is more than three times the figure of a traditional public school. A great obstacle for charter schools is dealing with a high professional attrition rate. Nearly 40 percent of newer charter schoolteachers search for new careers each year (Miron & Applegate, 2007). A common disappointment amongst the fleeing educators is their dissatisfaction with the school’s mission. In addition, and specific to the state of Florida, charter schoolteachers do not have equal access to the public school teacher’s retirement system (Weil, 2009). These were two common reasons for low teacher retention.

Collective bargaining is dependent on the state and school district. The drafters of the school’s charter make a decision as to whether or not they will be affiliated and covered through the
district’s collective bargaining laws. A charter school’s ongoing expenses strongly resemble that of a traditional public school. A predominant difference from the public school; however, the charter school has the capability to regulate and maintain its budget and financial identity depending on its needs (Weil, 2009).

**Magnet Schools.** Initiated by school districts and motivated by the congressional support of the Emergency School Aid Act (ESAA) of 1972, magnet schools were first introduced to the American school system in the 1970s. As a free public school option, it was unique in that it maintained a priority of increasing student diversity (Blank, Levine, & Steele, 1996). Court ordered with the intent of preventing desegregation of schools (Metz, 1986), magnet schools promoted students to attend schools outside of their home neighborhood as an aid to this class discrimination. Under the 1984 and 1994 Magnet Schools Assistance Program (MSAP), grants were offered to aid the magnet school movement’s effort to desegregate schools. Still today, students are not discriminated from attending due to their background or location.

Chubb and Moe (1990) referred to magnet schools as the catalyst for enticing superb quality teachers who demonstrate innovation and passion. Prothro (2012) supported this conclusion through her study. She found 37 percent of superintendents believed magnet programs take the best teachers from traditional programs, which impacts the traditional public school staffing. These schools are known for their unique programs (Chubb & Moe, 1990). Curricula can have a focus on Science, Technology, Engineering, and Mathematics (STEM), Fine and Performing Arts, International Baccalaureate, International Studies, Micro Society, Career and Technical Education (CTE), World Languages (immersion and non-immersion) and several other opportunities of concentration. With these unique curriculums, magnet schools can be exceedingly competitive and selective of both teachers and students (Chubb & Moe, 1990).

**Traditional Public School.** America’s public school system has offered free education since the early 1800’s efforts of Common School reformers such as Thomas Jefferson (Thattai, 2001). Jefferson believed the public school system should be under the control of the government, free from religious influence, and offered to individuals of the community despite their socio economic status (Thattai, 2001). As a result, the state and individual school districts maintain primary responsibility for
a school’s effectiveness and efficiency. Each state has a developed and functioning department of
education with federal, state and local legislation that outlines financing, hiring of personnel, student
attendance, and curriculum. These schools rely heavily on local property taxes for financial support.

Public schools are directly impacted by targeted federal, state, and local legislation that
influence teacher quantity and quality. The Smith-Hughes Act of 1917, for example, provided
opportunity for professionals in vocational trades to move into the teaching profession. This act
allowed teacher candidates to obtain certification based on their previous occupation’s professional
knowledge. It was not until No Child Left Behind Act where the “highly qualified” teacher” was
defined as being fully certified in the content areas of teaching (Ramirez, 2014, p.73).

With these acts, there is a demand for certified educators in public schools—whether it is a
professional or temporary certificate. Morris (2011) examined the relationship between 129 teachers
and their tier level of teacher-licensure in fourth and fifth grade classrooms in a New Mexico public
school district. Level 1 indicated a provisional teacher who graduated from a teaching program or
alternative-licensure program. Level II signifies at least three years of successful teaching. Finally,
Level III designates a master teacher who possesses a master’s degree and complex instructional and
leadership skills. Results from the analysis revealed that more advance a teacher was in their licensure
level, the more academic gains students made in both reading and mathematics.

Engaging Students through Integrated Career Education

A student can display disengagement in numerous forms. In Student Disengagement and the
Socialization Styles of High Schools, Pellerin (2005) defines disengagement as absenteeism, tardiness,
turning in unfinished homework, and a general lack of interest in the concept of school.

Disengagement from school is a long process that starts in early adolescence and gets progressively
worse as a student moves through his or her academic career (Balfanz, Herzog, & Mac Iver, 2007).
Students who make the decision to leave high school rarely do it as a spur of the moment decision but
rather decide to leave incrementally over time. The Alliance for Excellent Education (2011) estimates
12 million students will drop out of high school between 2012 and 2022. This approximation will
ultimately cost the United States nearly three trillion dollars in damages due to a drop out’s likelihood
of poor job and income prospects, unstable employment, imprisonment, and/or the likely need for government assistance.

Transitioning to high school poses numerous new challenges for a student. Akos and Galassi (2004) conducted a study providing 360 ninth-grade students with questionnaires regarding the procedural, social, and academic difficulties of their transition to high school. The most indicated reason for ninth-grade students to feel overwhelmed in their first year was caused by the amount of homework assigned by teachers. The study stated the student population originated from a high-performing school district but failed to release specific demographic information, which could have aided in analysis.

Sparks, Johnson, and Akos (2010) extended Akos and Galassi’s (2004) research and evaluated similar data from 17,735 ninth-grade students between the 2003-2005 school years to further refine the markers Akos discovered. Of surveyed students, six percent dropped out of school in the ninth grade. A stepwise factor analysis was conducted to identify which academic and behavior variables might predict that dropout. In addition, tests of statistical significance were conducted to identify the potential risk factors. Such risk factors included being retained at least one grade from kindergarten through ninth grade, receiving a long term suspension, failing Algebra I, or earning low scores on the end of eighth grade math assessment. The researchers concluded students who had a history of one or more of those risk factors were likely to drop out of high school.

Contributing to the knowledge of this educational gap, Purcell-Gates, Duke, and Martineau (2007) discovered African-American students withdrew from academic courses because they identified no meaningful connection between the classroom instruction they were receiving and their present lives and/or potential aspirations. African Americans and Hispanics have characterized a negative stereotype and internalized oppression towards their own ethnicity. Graham (2001) discovered that when he conducted a study that gave the description of a “dropout.” Latin American and African-American students were found to have a tendency to assume a dropout to be Latin American or African American rather than white. They took for granted or easily accepted the prevailing attitude that their ethnic contemporaries would leave school early.
Through longitudinal research, there are reliable predictors if a high school student will make the decision to drop out. A study by Bridgeland, Diulio, and Morison (2006) sought to understand high school dropout statistics by scrutinizing the demographic makeup of the target population. That study used focus groups to interview 467 ethnically and racially diverse students between the ages of 16 and 25. The research denoted 44 percent of the respondents identified their upbringing as below average. The researchers identified 47 percent of the students made the decision to drop out because classes were not interesting. Of those who dropped out, 70 percent stated they would have graduated if they had attempted to succeed. Financial stress was a reason for 32 percent of students dropping out i.e. needing to find work due to caring and being financial responsible for a sick family member or dealing with a pregnancy. Feeling poorly prepared for high school accounted for 45 percent of the dropouts. An overwhelming 70 percent of the dropouts interviewed stated that having a tutor, mentor, or closer relationship with their teacher would have increased their probability of graduating. It can be inferred from the results of the Bridgeland et al. (2006) study that students chose to dropout because they did not feel connected to the school, did not see the long-term benefit of school, or had no positive influence such as a teacher or mentor to guide them.

Conducting a longitudinal analysis regarding disengagement is needed to aid in determining its underlying causes. Support from Balfanz and Herzog (2006) followed nearly 13,000 students between the years of 1996 and 2004. Empirical study results provided a reliable indication that 60% of urban students in a Philadelphia school had displayed school disengagement characteristics beginning at the middle school level. These characteristics included student tardiness or poor attendance record, obtaining a poor final behavior grade, failing math, or failing English. Such characteristics were specified to be early predictors, which could ultimately culminate in their failure to graduate high school. Perry (2008) confirmed the finding by discovering that students do not easily see academics as a necessary element for attaining their future career aspirations. As a result, gradual disengagement from their school participation and other personal priorities which ultimately led to dropping out at the high school level.

The United States has a high school graduate rate of 86 percent (US Census Bureau, 2013). High school policy makers place a strong emphasis on a select few traditional subjects. Those subjects,
many of whom conform to the reading, writing, arithmetic educational paradigm, are not easily associated with the career interests of the many “at risk” students who make up the 14 percent who do not graduate. The result is that students are less likely, when selecting their middle and high school courses, to place the required personal emphasis or to seek help when faced with the critical thought necessary to choose curriculum courses correctly (Bridgeland et al., 2006). Daunted by the prospect or confused by the difficult but often seemingly unimportant event, students may even choose to dropout from school (Bridgeland et al., 2006).

From the research studies considered, it can be concluded there is no dominant single reason for a high school student to choose to dropout. As it would be expected, many factors influence that decision; however, a common characteristic amongst the studies was the concept of disengagement. Low income and low achieving students find little optimism and encouragement; therefore, dropping out of high school is common as they receive few opportunities of meaningful support to succeed (Goodwin, Mrug, Borch, & Cillessen, 2012). The reviewed research thoroughly addresses the expanding high school dropout problem facing America’s educators but is mostly silent about advancing practical solutions. Stein (1991) noted from Herr and Cramer (1998) that:

[M]... any youngsters who drop out of school physically at age 16 have already, in fact, dropped out of school psychologically as early as third grade. Frequently, this occurs because they fail to sense relationships between what they study in school and life as they experience it outside of school. (p. 153)

A quasi-experimental study incorporating the constructivism framework was conducted regarding career integration (Pierce, 2013). The study’s purpose was to determine whether ninth and tenth grade students who participated in CTE courses that had an integration of mathematics and reading standards performed better on state tests than traditional, non-integrated courses. The findings from the study’s ANCOVA and multiple regressions disclosed that integrating reading into CTE courses had significant improved reading treatment scores, however in the subject area of mathematics, they were not statistically significant in improving scores.

Orthner et al., (2010) conducted a study regarding CareerStart—a program that targets middle school students from lower socio economic statuses. With the piloted program supported by school
leaders, the program encouraged education reform to promote collaboration amongst educators and interested businesses. The CareerStart program was heterogeneous and open to all students. Educators were provided lessons on how to incorporate career readiness into learning activities. Overall, the program was acknowledged to be a success and credited much of its achievement to the design of simple lesson plans. It also was controlled with a slow start into the school system, which allowed implementation flexibility, open communication and feedback between educators and the CareerStart employees.

The study concluded the CareerStart program promoted engagement into activities as it connected what the student was learning in class to the local community. It is through programs such as CareerStart, which allocated resources in a clear and communicative manner, that students have the valuable opportunity to develop a solid connection between academics and career aspirations. In light of resources and funding restraints, programs such as CareerStart are not common throughout the American education system.

Schools that have a strong emphasis on providing career options are available through Career Centers at the high school level, but not at the middle school level. Fletcher (2014) conducted a study regarding the practiced pedagogies within various CTE disciplines used by P-12 educators. Of the 362 respondents, it was concluded that career centers place a higher value than comprehensive schools on providing students with real world settings and attempt to engage students in relevant and meaningful ways. With this type of educational opportunity missing from middle schools, the attention must refocus to career education programs.

There is a large volume of research previously conducted on the topic of student-career education programs. The literature review has selectively chosen and highlighted research efforts that focus on the value of career education programs, specifically those beginning in the early education years such as during the middle school period. It is clear from the previous research that there is benefit that exists for such programs, and it is equally clear the earlier they begin, the greater the impact upon the student’s career and academic decision process.

As a conclusion, career education in middle school is an integral part of student development as a whole (Solberg, Howard, Blustein, & Close, 2002). In addition to the many necessary education
functions, the middle school years are an important time for students to gain awareness regarding various career opportunities. Those opportunities serve as a foundation of knowledge when the time comes to decide on high school curriculum options. Quality schools prepare students for a life of opportunity and build a solid foundation for students to become assets to society. School systems, individual schools, curriculum developers, and teachers all play important and an interrelated role for preparing students for life’s many challenges.

**Using Career Education to Promote Awareness of Future Orientation**

Donald Super validates the importance of early career education, after the product of a 40-year investigation to synthesize and develop previously existing career theories (Super, 1969). Building upon previous ideas, Super’s theory resulted in a segmented theory of life span, life space, and self-concept. In the life span segment, Super highlighted that career development is influenced by both psychosocial development and societal expectations. Elaborating on that view, Super stated at certain ages, youth in school are required to make decisions that will influence their future. As a result, Super stated early career development is homogenous and directly related to age (Niles & Harris-Bowlsbey, 2005). That is a contrast to the concept of career development in adults as adults can make career changes and choices at almost any age, which is more heterogeneous in nature (Niles & Harris-Bowlsbey, 2005).

Super (1969) further divided the life-span segment into five sub categories: growth, exploration, establishment, maintenance, and disengagement. For the purpose of this study, only growth and exploration were reviewed, since these two categories fall within the target age range of this research. Students ages four to 13 are identified as being in the “Growth Stage” (Niles & Harris-Bowlsbey, 2005, p. 45). It is within this nine-year period that students develop a sense of self and begin to link with an emerging understanding of the world of work. Recognizing Super’s growth stage, the middle school years of grades six to nine are an ideal time and opportunity to introduce the concept of career choice. Schools and teachers can use multiple approaches such as formal lectures, stories about various careers, introduction of local business leaders, and early forms of experiential learning to bring awareness of available careers and the necessary academic requirements to their middle school students (Niles & Harris-Bowlsbey, 2005). Super’s theory also infers the essential value
of the influence provided by teachers during the all-important student growth stage and the need for teachers to recognize their role in this critical phase of education.

This study finds support from Super’s life-span theory in that the independent factors—environmental determinants (type of school: charter, magnet, or traditional public); situation determinates (grade taught: six, seven and/or eight; and subjects taught: math, science, social science, and reading); and personal determinants (gender: male or female)—have influence on one’s perspectives during the growth and exploration process.

Since the 1990’s, educational researchers have advocated for career awareness and exploratory learning programs to aid students’ connection with their education. In most high schools, career and college preparation have clear academic distinctions; however, those differences are not often addressed in the years before high school. Half of middle school counselors in Tennessee believe career technical education (CTE) in public schools can prevent high school dropouts; and nearly seven of ten middle school counselors felt more CTE class time and programs should be offered at the middle school level (Finlayson, 2010). On the other side of the school walls, some teacher educators believe students are not tuned into careers until their high school years; and, instead, those teachers are concerned about competing requirements for teacher availability (Akos et al., 2011). A third group of teachers found the concept of career awareness difficult to implement (Akos & Galassi, 2004). Perry and others believe a student who feels connected to his/her education is more likely to succeed (Perry, 2008).

The average middle school student’s age is between 12 and 15 years old. That age range includes the formative years, when a young adolescent’s maturity level is in the early stages of development. According to modern expectancy value theories of learning, academic achievement is most effective when a student believes the achievement will help attain personal goals (Eccles, et al., 1993; Lee, Bong, & Kim, 2014). Achievement within the broader construct of goal setting stimulates a student’s cognitive framework aiding retention (Wigfield & Eccles, 2002). When there is an absence or weak connection, there may be a short-term cognitive framework benefit, so that the student may be able to retain learned knowledge for a short period of time; however, it is not likely that they will retain that information for long periods of time.
Human interest develops from personal experience (ACT, 2005). Providing middle school students with opportunities for career relevant interventions promotes advantages to a student’s planning and preparation for high school, academic enthusiasm, and future career choices (Lapan, Gybers, & Petroski, 2001; Legum & Hoare, 2004). Lapan, et al. (2001) identified students who attended schools where career development was integrated into the curriculum earned higher grades and, when questioned, viewed school participation more relevant to their lives. This value was higher than students who were in schools that did not have integrated career development opportunities.

Examining the role that career relevant intervention has on students during their middle school experience, Perry, Liu, and Pabian (2010) found students who were more engaged in their schooling also had a larger exposure of career-relevant preparation. Research confirms those students actually reached the higher grades predicted by the study. Additional studies have validated exposing students to career education is an opportunity to successfully increase student to school engagement (Orthner, Akos, Rose, Jones-Sanpei, Mercado, & Woolley, 2010).

Other researchers have addressed the concern of tracking students into certain college or career paths when career development programs have been implemented at an early age. Kerka (2000) addressed those concerns, finding the benefits of career development programs outweigh the risks of administrating the programs. Kerka’s findings are widely supported by later research (Legum, & Hoare, 2004; Schultheiss, Stead, & O’Donnell, 2006; Turner & Lapan, 2005; Wonacott, 2002). The researchers found students who have been introduced to potential career options at an early age also, at the same, time become aware of their own personal characteristics, curiosities, and abilities. Students develop respect and positive outlook for the diverse world of the workplace they will enter in the future.

Turner and Lapan’s (2005) research supported Kerka’s findings by conducting an evaluation of the effectiveness of middle school intervention. One hundred sixty ethnically diverse public middle school students participated in the quasi-experimental design. The students were provided educational and occupational information on common stereotypes and nontraditional careers to help broaden their career knowledge. Students were then asked to rate their level of interest in one occupation, their views of gender in various occupations, what their parents thought about choosing an occupation, and
their perceived value of a specific occupation. The intervention identified many self-reported gains in student interest in possible career options. The study also indicated gender-influenced differences in perceived career interests by the middle school students. Additionally, there were significant positive increases in efficacy, vocational, and educational development in the treatment group as compared to the control group.

**Overall Grade Benefit**

Knowledgeable educators have found that middle school career education provides an interested student with numerous intangible benefits, including an increased awareness of reasonably attainable future occupations, a stronger school-to-work ethic, and a proven increase in class engagement (Orthner et al., 2011). Such positive traits ultimately lead to a decreased high school dropout rate. Akos (2001) also suggests that a career preference begins developing as early as elementary school; however, prioritization of teacher time to present exploration opportunities in elementary or even middle school is not high. The financial allowance for middle school career education is scarce, and the counselors are outnumbered. Those deficiencies negatively affect the ability for one-on-one career guidance with students—making such a possibility unlikely (Roksa & Calcagno, 2010). As a result, many students entering high school cannot demonstrate the needed skills to recognize and express the interest that will help guide them to choose meaningful career paths (Auger, Blackhurst, & Wahl 2012).

Education policy such as Career and Technical Education (CTE) and the Common Core State Initiative (CORE) has attempted to bring a level of career awareness into the secondary school classroom. “CTE addressed all learning styles in its instruction” (Elliot & Deimler, 2007, p.45); however, does the contemporary classroom address all learning styles in its instruction? Making connections from what students learn in classrooms (such as science and mathematics) to career opportunities has ascertained to increase student self-esteem, self-efficacy, and foster a higher degree of school work-ethnic (Grisham & Wolsey, 2006). Furthermore, Grisham and Wolsey found that making connections between learning and practical application increases a student’s understanding of attainable careers and identifies the educational requirements necessary for the student to pursue the appropriate curriculum choices when in high school. A designated amount of career education has the
potential to maximize one’s overall education and assist a student to make a successful entry as a productive member of a competitive workforce (Lozada, 2001).

State and local focus has been on CTE at the high school and subsequent educational levels; but minimal recent initiatives have begun to emphasize career awareness at the middle school level. Educators have recognized for decades that introduction of career awareness at the middle school level will assist the student transition into high school and make the high school years more productive. Such thinking is a pillar of the National Middle School Association’s (NMSA, 2003) contemporary policy document “This We Believe.” A coordinated curriculum implementation that is accepted by core academic teachers has been missing.

**Sixth grade.** Sixth grade can be the start of the middle school years—a point when a student’s potential self-control and growing maturity begins to influence their academic and career future direction (Lapan et al., 2001). The CareerStart program, as implemented, is a recent innovation that provides educators with career-linked lessons in the four standard core middle school courses: math, science, language arts, and social science. Using an integrated approach, teachers are not asked to teach anything new, but to only use CareerStart to augment what they were already teaching by including careers in the lessons they deliver. Orthner et al. (2010) collected data from sixth grade teachers in an urban school district. They identified that of 116 sixth grade educators, 98% supported the idea that “It is beneficial for students to see connections between classroom content and possible future careers” (p.228) and 90 percent identified that “An important goal of their school is to prepare middle school students for future work” (p.228). Orthner et al.’s findings confirmed that increasing the obtainability of future career relevance in academics was associated with increased levels of student engagement with additional indication that both students and their educators found benefit with career contextualized teaching and learning. Orthner et al.’s research points to the difficulty in developing career relevance metrics that can be easily transportable to middle school teachers, since not all teachers are comfortable with their knowledge of the topic of career relevance.

Further, career relevant interventions that have a primary focus on student engagement stimulate students’ curiosity for education, embolden a sense of belonging at the school, inspire the attainment of more knowledge, and inspire a new value placed on students’ education (Niles & Harris-
Bowlsbey, 2005). No single education theory is specific enough to explain the career behavior of an individual or group (Niles & Harris-Bowlsbey, 2005). For that reason, it is valuable to be familiar with the various approaches, strengths, and limitations to career theory. Unfortunately, many high-risk students have already disengaged from school before the time occupational opportunities are presented to them; therefore, the logical application of career intervention needs to be exercised before a student enters high school (Turner and Lapan, 2005). Teachers are the avenue to help students connect what students learn inside of school walls and how that can be applied to their future. There is a strong linkage between middle school student engagement and its direct connection with school (Orthner et al., 2011). Positive connection suggests the potential for improved student performance and a commitment to continuing within academia (Perry, Liu, and Pabian, 2010).

A study conducted by Schaefer and Rivera (2012), found sixth grade students had displayed they may be on the cusp of developmental readiness in regards to deciphering the importance of college and career goals. Schaefer and Rivera identified that those students thought in broad terms about their future goals, and that the broad thinking failed to become more specific after the career intervention. These findings indicate research results are highly sensitive to manipulation depending on the choice of the intervention and its internal rigor.

Seventh Grade. Looking at the attitude seventh grade public school students have towards math and its correlation to career in interests, Schneider (2014) conducted a four-year follow-up study resurveying students in their high school years. The study found there was no reliable conclusion that middle school students’ intention to pursue science, technology, engineering, and mathematics (STEM) correlated positively or significantly with high school students’ intent to pursue STEM majors or careers. It is important to note the Schneider study had no mention of any career-awareness intervention program being conducted throughout the time span of the longitudinal study. Thus, one might conclude students were not actively exposed to the various STEM majors and careers, and, as a possible result, they established no interest in such occupations and career tracks before high school.

Eighth Grade. The eighth grade year is the cusp of Super’s growth stage and the start of the exploration stage. During exploration, students are making tentative choices about interests and hobbies (Super, 1969). Recognizing the importance of this coming stage, Akos et al. (2004) used the
Career Factors Inventory (CFInv) to conduct a quantitative study investigating the career readiness typology of 629 eighth grade students. The CFInv is an instrument comprising 21 items asking for responses from four cognitive factors; namely, need for career information and self-knowledge, career choice anxiety, and generalized indecisiveness. The instrument uses those factors to assess an individual’s level of preparedness for the method of making good career decisions. Using a five-point Likert scale, the CFInv consists of ten items that signify between one (strongly disagree) and five (strongly agree). The remaining 11 items are questions that provide the answer choices of one (confident) and five (frightened). The study claimed those eighth grade students (preparing to transition to high school) failed to display a strong level of interest or concern when making class subject matter choices. The researchers further determined one important reason for the lack of interest was the students were not able to link high school curriculum choices to a future career path. The students were not concerned because they failed to realize the economic importance the decision might have to their working life.

The Akos et al., (2011) study concluded that middle school students were in need of assistance to guide curriculum choices before entering high school. It further advised that students were in need of opportunities to obtain the necessary self-knowledge through activities as interest inventories or by identifying personal strengths through assessments. Although many of the studies have been inconclusive to date, it appears little of the research had effective career academic counseling or education programs applied before entering into analysis.

The Impact of Teacher Perspectives

Throughout the modern era, educators have grappled with the challenge of matching educational material presented in classrooms with the needs of contemporary society and its essential workforce. Society and the emerging technologies that it uses are constantly evolving. Educational policy, theory, and philosophy will benefit from evolving in parallel with society changes in order to stay current and meaningful.

As learning is interrelated, the capability to apply proficiencies in various contexts provides both development and permanence to skills. The learner should become the vital contributor, not the curriculum (Deese, 1958). Researchers believe that guiding students to see the connection between
curriculum choices and career opportunities and encouraging career education directly from classroom learning objectives will promote approaches to explore potential occupational interests seamlessly (Izzo, & Lamb, 2003).

Education scholars such as John Dewey (1916) have postured that the purpose of education is to provide the social conditions that support persons having a range of experiences necessary to develop whatever capabilities, interests, and desires each individual might have. Further, given the rapidly changing nature of society, schools have a responsibility to support academic and real-world development for all students so that they have the ability to prepare for a variety of possible life doings (Danforth, 2008). Since the 1970’s, American school systems have incrementally developed the concept of career academic counseling and education as an integral part of school curriculums.

Hoyt in his Career Education: History and Future (2005) described governmental and state-led policy and legislation designed to establish curriculum based career education. Laws such as the federal School to Work Opportunities Act of 1994 accelerated state and local efforts by funding existing programs designed to assist students in identifying and transitioning to careers. Initial policy focus had been on high school students, but state and local policy has further evolved to include middle school curriculum. In 2010, the National Middle School Association defined relevant, challenging, integrative, and exploratory goals for middle school curriculum with career relevant education as a strategy to meet those goals.

There have been few research studies identified that directly assess teacher perspectives on career education. Based in Israel, Oppenheimer and Flum (1986) conducted a study that assessed: (1) attitudes about the importance, interest, and concerns connected with career education; (2) behaviors related to career integration; and (3) relating factors and concepts regarding logistics of career education. The researchers used a Pearson’s correlation of chi-squares between each item of variables, i.e. grade taught, subject taught, teacher’s level of education, type of school, teacher’s age, and gender. Results concluded that 60 percent of teachers included one or more concepts of career education in their daily teaching routine; however, those activities were spontaneous and, as a result, teachers failed in having a career education outcome goal in mind. That study was a starting point for research on teacher’s perspectives of career education; however, owing to the study being
nearly 30 years old and from a different country, Israel, the instrument and findings are difficult to
generalize for current teachers in the United States.

A quarter of a century later, Akos, Charles, Orthner, and Cooley (2011) developed a measure
that was created and tested to identify teacher perspectives of career education efforts in middle
school. Using a two-factor structure (future orientation and career integration), 291 middle school
teachers rated their stance on career education integration into the core curriculum. Demographic
information regarding gender, subject matter, and the schools’ socioeconomic status were collected.
When other variables were controlled, gender, teaching science, and the socio economic level of the
school were identified as being associated with teacher perspectives of future orientation and career
integration. It was suggested, teachers of low socio economic status schools found more appreciation
in the ability to connect learning content to future career opportunities.

Conceptual Framework

This research has two main execution thrusts: the first is to expand the knowledge base of
career education as practiced in current middle schools; and the second is to seek this knowledge
through the opinions and experiences of practicing middle school teachers. Both thrusts are rooted in
Jean Piaget’s constructivism theory. Although not strictly pedagogic, constructivism brings forward the
idea that human knowledge is developed and more firmly rooted by the daily interaction of personal
experiences combined with levels of knowledge. This is true for middle school students as well as their
teachers. The differences being the social background, amount of personal teaching experiences, and
demographic influence an adult teacher retains. To this end, this research will engage in reflection on
the methodologies, activities, and personal beliefs of the participants.

Constructivism in career education is logically enhanced by the strategy of curriculum
integration. Being a multi-disciplined approach, Constructivism helps the learners make connections
between what is learned inside the classroom to its application outside of the classroom (Paul, 2005).
This strategy, when accomplished successfully, links learning content, expected cognitive ability and
learning context in an integrated curriculum. The idea of curriculum integration is not limited. Such
integration can occur in one single classroom lesson or throughout a school wide unit. Using such an
An integrated approach can provide students with opportunity to make connections with real life application that models life-long learning (Lake, 1994).

Referring to Figure 2.2, integrated approach recognizes that learning is a life-long process, which is strongly influenced by personal experience, and is supported by educational philosophers such as Piaget, Dewey, Super, and Bruner (Bruner, 1963). By using an integrated approach to education and commencing that process as early as middle school, there is an ability to provide students the opportunity to establish connections with real-life applications that support life-long learning (Bruner, 1963). The research seeks to further explore that concept using the Akos CTPS (2011).

Figure 2.2. Conceptual framework

Research Gaps

Research widely confirms that early career academic counseling and education helps motivate and encourage students to continue with their formal education. The research also indicates that
Middle school is the appropriate age to begin formal career education. The concept of career education is recognized as a necessary step in developing student interest in their education; however, what appears deficient in contemporary school systems are meaningful implementation programs.

Middle school implementation, at a national level to date has been sporadic, which has limited available formal knowledge on the positives and negatives of meaningful career academic counseling intervention. Because of this lack of knowledge, there are numerous gaps in the research. Most in progress, career education programs are characterized to be inconsistent, ad hoc, informal, and dependent on teacher desires and interest rather than policy based intervention. Few examples of successful consistent, integrated curriculum are present in the knowledge base; nor is data identifying the best intervention approach such as formal career academic counseling or informal career education. There is little research addressing curriculum tradeoffs that must be made to accommodate career academic counseling. These significant research gaps indicate that school districts are struggling to implement career education intervention at the middle school level.

The most apparent and pressing gap identified is comprehensive research focused on teacher perspectives. Effective career education programs cannot be developed without the understanding and support of the teacher corps. Akos et al. (2011) began to explore teacher understanding and to collect their comments in an attempt to quantify their beliefs and the potential impact on existing and future programs. This research will further that knowledge base and expand the existing understanding by addressing additional potential external variables.

Summary

Further research to identify teacher opinions, subject knowledge and recommendations could assist policy makers and school administrators design, train, and implement middle school career academic counseling and education programs that advance the findings of prior research.

Developing lesson plans that integrate academics and association with an occupation will support a unique opportunity for students to categorize and identify their individual interests and skills with an occupation (Hanover Research, 2012). Teachers providing students with a clear understanding of expectations (Sato, Coffey, & Moorthy, 2005) and possible outcomes are beneficial ways for students
to see how the contents benefit them throughout their academic career. Integrated programs that allow for open discussion on how learned information can apply to life skills or future career interests promotes links to other classroom activity (Sato et. al., 2005); The research acknowledged that there is known value in educators being aware of career opportunities and mentoring their students. Middle school teachers have a unique opportunity to guide students in identifying an understanding of the necessary paths to entering a potential career. This research will further the body of knowledge necessary to make advances in this concept.
CHAPTER THREE: METHODOLOGY

The purpose of this chapter is to describe the structure of the research and clarify how all-major components of the project work together to address the central research questions of the study. The start of the chapter restates the purpose along with the research questions. Following that, the research design will be discussed. Subsequently, the research setting, which includes: the population and sample size, human subjects considerations, the study's variables, and the utilized instrument will be explained. Data collection will be defined in the next section, and the chapter will conclude with an outline of the data analysis.

Purpose Statement

The purpose of this quantitative, non experimental study of core academic middle school teachers (English/language arts, mathematics, science, and social science) was to compare teacher perspectives of career education in terms of their understanding of the concepts of future orientation and career integration, and their composite, career education. These two factors, future orientation, and career integration were selected based on the US Office of Education report: An Introduction to Career Education (Hoyt, 1975). This chapter communicates the methods to explore the following research questions using the instrument in the Akos et al., (2011) study.

Research Questions

1. What are the perspectives of career education in middle school among core academic charter, magnet, and traditional schoolteachers?

2. Are there differences in middle school teachers’ perspectives of overall career education, future orientation, and career integration among core academic charter, magnet, and traditional public middle school teachers?

3. Are there differences in middle school teachers’ perspectives of overall career education, future orientation, and career integration based on teacher related variables?
4. Do teacher related variables affect the teachers’ perspective of overall career education, future orientation, and career integration?
   
a. To what extent does overall teacher related variables affect teachers’ perspectives?
   
b. Which specific teacher related variables have a significant impact on teacher perspectives?

Research Design

This research study was established and conducted as a non-experimental design (Gall, Gall, & Borg, 2007). Since no group is treated or manipulated, the non-experimental design was most appropriate for this study. This study utilized descriptive and inferential statistics (Gal et al., 2005). Descriptive statistics described what the data asserted in summary. Inferential statistics was also utilized to reach conclusions that were beyond the descriptive data results. Inferential statistics aided in making judgments of the probability in conditions that were more general.

More specifically, a causal-comparative research design (ANOVA) was used to answer questions two and three. The independent variables were not manipulated in order to observe its effects (Gall et al., 2005). The presumed cause was the teacher related variables whereas the presumed effect was the perspectives of career education.

A correlational design (multiple regression) was used to answer the final fourth question. This type of design has two purposes (Gall et al., 2005). The first purpose was to identify independent variables that can predict a dependent variable at a distinct point in time. The second purpose was to identify possible causal relationships among variables. The regression analysis differs from the ANOVA as it was used to explore the variables while controlling for other variables.
Research Setting

Population and Sample. When determining the sample for the study, finding a district that was large enough to incorporate numerous charter, magnet, and traditional public schools was a necessary criterion. As a result, the third largest school district in Florida and the eighth largest school district in the United States was chosen as the representative district for this study. The school district in this study employed over 15,000 certified teachers who annually educated more than 206,000 students (Removed to protect identity, 2015). The Teacher Ethnic Distribution of the district in Figure 3.1 indicates that the county has “the second highest percentage of White staff and the second lowest percentage of African American staff” in comparison to other districts (Removed to protect identity, 1996, p. 2).

![Teacher Ethnic Distribution](image)

**Figure 3.1.** Teacher Racial Distribution

Culturally diverse, 36 percent of the student population is White, 33 percent Hispanic, more than 21 percent Black, five percent is considered “multi,” and nearly four percent is Asian (Removed to protect identity, 2015). This interestingly large district has an overall ethnically diverse student body in their K-12 schools, (see Figure 3.2), which complements a study requirement of insuring multi-racial relevance.
Figure 3.2. Student Ethnic Enrollment

The unit of analysis for this study was the core academic middle school classroom teacher. A purposive, non-probability sampling technique was most applicable since the study was interested in cultural domain with the experienced, core academic classroom, middle school teacher (Tongco, 2007). The entire target schools contained only sixth through eighth grade students. The county’s schools that include additional grades other than sixth, seventh, and eighth grade were omitted due to the difference in the student achievement gap, behavior problems, and transitional experiences a K-8, K-12, or 5-8 school presents from a traditional, isolated middle school (Baltimore City Schools, 2001; Offenberg, 2001).

The school district in this study had 43 accredited magnet and traditional public middle schools in the county (Advance Education, 2015). The makeup of those 43 schools included 10 middle schools that were magnet schools and 33 that were traditional public schools. Additionally, there were seven charter middle schools in the county. This brought a total count of 50 middle schools to participate in this study. It is important to note that these seven charter schools also cater to other grade levels; however, they have distinct separate buildings from those grade levels. This separation makes them appropriate for this study. From the 50 selected schools, the target population for this study included...
core classroom teachers in the subject areas of English/language arts, mathematics, science, and social science.

In order to ensure that there were enough participants of a certain subgroup, oversampling did occur. Since the margin of sampling error is in relation to the sample size, oversampling allows for estimates with a smaller margin of error. By doing this, there is more possibility of reaching the target sample; thus, a more reliable estimate can be reported.

With N=1530, A priori power analysis was conducted through the G*Power software to search for an appropriate sample size, which is dependent on the number of independent variables. It is important to note a small effect size is an appropriate standard since there is no treatment group for this study. To this end, maintaining a significance (alpha) level of .05, an effect size of 0.25, a power level of 0.8, a minimum sample-size calculation would obligate 36 participants for each of the six variables totaling desired sample size of at least 216 participants. The researcher attempted to achieve a response rate that exceeded the minimum sample size by nearly 40%. Thus, the desired sample size was 300 participants. As a result, the researcher anticipated a 20% response rate of the N=1530.

Human Subjects Considerations. In following good research protocols within the (Removed to protect identity) County School District, the researcher submitted a formal request to conduct research for approval by the Deputy Superintendent of the county. Permission was granted on February 2, 2016 and was valid through June 30, 2016 (see Appendix A). The researcher completed the USF IRB Student Research Workshop on September 22, 2015. This certificate suffices for the Human Subjects Research Certification and will expire in three years on September 22, 2018. In addition, The University of South Florida’s Institutional Review Board (IRB) required submission and acceptance before conducting research. Enlistment methods that were used in human subjects’ research require review and sanction by the USF IRB. USF IRB approval was granted on February 17, 2016 (see Appendix B).

It was of top priority to remain ethical during the distribution, collection, and analysis of the survey. The survey participants were human subjects, whose rights and privacy were of utmost importance (Fink, 2003). The researcher distributed surveys via the Internet as a web-based survey with an online informed consent.
The online informed consent (see Appendix C) provided information regarding the research and the voluntary nature of participation. The survey could not be viewed until the participant confirms a voluntary participation. Informed consent was achieved electronically on the Survey Monkey website. When volunteers followed the hyperlink to the instrument from the email invitation, a notification regarding informed consent appeared. Involvement in the study was voluntary and anonymous. After participants chose, “Yes. I would like to complete the survey.” This confirmed the required informed consent. In addition, the following procedures were also used to protect confidentiality of downloaded data. Any IP addresses that were collected by the survey tool were deleted from the downloaded data file; the data file was collected on a password-protected computer; and each back up file was secured in a safe location.

**Variables.** The research study identified independent and dependent variables that can be identified in Table 3.1.

### Table 3.1. Independent and Dependent Variables.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Description</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>18-24, 25-34, 35-44, 45-54, 55-64, 65-74 Associates degree, Bachelor’s degree, Master’s degree, Professional school degree, Doctorate degree</td>
<td>6 Level Categorical</td>
</tr>
<tr>
<td>Educational Attainment</td>
<td>Male/Female</td>
<td>2 Level Categorical</td>
</tr>
<tr>
<td>Gender</td>
<td>Male/Female</td>
<td>2 Level Categorical</td>
</tr>
<tr>
<td>Grade Level</td>
<td>6, 7, or 8, two grade levels, 6, 7, and 8</td>
<td>5 Level Categorical</td>
</tr>
<tr>
<td>Race</td>
<td>African American, Caucasian, Hispanic, Multi</td>
<td>4 Level Categorical</td>
</tr>
<tr>
<td>Type of Teaching Certificate</td>
<td>Professional, Temporary, Neither</td>
<td>3 Level Categorical</td>
</tr>
<tr>
<td>Subject</td>
<td>Language Arts, Math, Science, and Social science content</td>
<td>4 Level Categorical</td>
</tr>
<tr>
<td>Type of school</td>
<td>Magnet Middle School or Charter Middle School or Traditional Public School</td>
<td>3 Level Categorical</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Description</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Perspective of Career Education</td>
<td>5-point Likert scale</td>
<td>Interval</td>
</tr>
<tr>
<td>Future Orientation</td>
<td>5-point Likert scale</td>
<td>Interval</td>
</tr>
<tr>
<td>Career Integration</td>
<td>5-point Likert Scale</td>
<td>Interval</td>
</tr>
</tbody>
</table>

The variables listed in Table 3.1 were based on the previous similar research conducted regarding teacher perspectives of career education at the middle school level. Interval and categorical data were types of variables used in this research study. Age was categorically measured in age range
groups: 18-24, 25-34, 34-44, 45-54, 55-64, and 65-74. Educational attainment consisted of five levels: Associates degree, Bachelor’s degree, Master’s degree, Professional school degree, Doctorate degree. The gender variable included two choices, male and female. The grade level variable comprised of five levels, and it was defined by the core academic classroom teacher’s teaching grade level taught: three levels for individual grade levels taught, sixth grade, seventh grade, and eighth grade; the fourth level was two grade levels taught, sixth and seventh, seventh and eighth, sixth and eighth; and the fifth was all three grade levels, sixth, seventh, and eighth grade. Race had four levels: African American, Caucasian, Hispanic, and Multi. Type of certificate contained three levels: Professional, Temporary, and Neither. A teacher’s current position consisted of the subject area taught by the core classroom educator. That independent variable included four choices: English/language arts, mathematics, science, and social science content. A type of school (independent variable) was determined by whether the participant teaches at a charter, magnet, or traditional public school. Five independent variables were used to check and encourage a sample that was relative to the population: type of school, age, gender, educational attainment, and race.

Instrument. The CTPS (see Appendix D) was developed by the Akos et al. (2011) research team to reflect broad career orientation concepts that were intended for the application of teachers in core middle school subject areas. Dr. Dennis Orthner, the creator of the instrument, granted permission to the researcher to utilize the instrument for this study in October 2015 (see Appendix E) and Taylor and Francis Group, Association of Middle Level Education (http://www.amle.org) granted reprinting permission of the survey (see Appendix F).

Perspectives on future orientation and career integration make up this two-factor structure instrument. It was developed based on two insights: career integration with five items and future orientation with four items. These two-factors were addressed in nine items that investigate a teacher’s perspective on the future orientation and current career integration, and they were chosen based on the US Office of Education report (Hoyt, 1975).

There were four questions in the CTPS that addressed future orientation. Future orientation was significant to this study since “one’s career and one’s education are best viewed in a developmental rather than in a fragmented sense,” (Hoyt, 1975, p. 8). By incorporating career
education into the middle school core academic classrooms, this is supporting the idea that career and education should be a concept that is consistently exposed and developing in order to successfully affect one's future.

The second factor, career integration was of significance to this study because the integration into a curriculum helps expose students to various career opportunities while developing a desire to work. This integration can be achieved through understanding the relationship between what they are being taught and its relationship to the world of work that they will enter. There is no one size fits all model for this concept, rather career education provides a wide-ranging series of unconventional learning strategies and learning settings that succeed best when understood by the teacher. Career integration, is addressed by five questions in the CTPS.

The survey was designed to obtain the position teachers have on Career Education. Because of that, the study assessed this position using a 5-point Likert scale (Alreck & Settle, 1994), which utilizes the level of agreement using for positions: strongly disagree, disagree, agree, and strongly agree (Vagias, 2006). Using this scale, the issue can be stated while the participants’ responses were used as coded data that was easily compared to other participant responses (Alreck & Settle, 2004).

Validity. An exploratory factor analysis (EFA) was conducted by the Akos et al., (2011), utilizing principal axis factoring with promax rotation. Based on eigenvalues > 1 (Kaiser, 1958) and the examination of a scree plot (Catell, 1966) a two-factor solution was identified. The former factor future orientation comprised of four items with high factor loadings with a range of .74 to .91. Correspondingly, the second factor (career integration) covered five items demonstrated high loadings of .63 to .96.

Evaluating the model fit, Akos et al., (2011) used numerous fit indices via that chi-square to measure the overall fit of the model. In addition, several complementary indices (including root mean square error of approximation RMSEA, comparative fit index, and standardized root mean-square residual) were conducted. The fit indices for the confirmatory factor analysis (CFA) model were very good as defined by Schumacker and Lomax (2004): $x^2 (14, N = 122) = 7.45, p = .9159, RMSEA = .000, CFI = 1.000$, and $SRMR = .037$. The non-significant chi-square, the RMSEA and SRMR < .05, and $CFI > .90$, all
suggested good model fit. The future orientation and the career integration scales displayed good internal consistency with Cronbach alpha of the former being .75 and the latter being .87.

**Pilot Study.** Because Akos et al.’s (2011) instrument was applied among a different population; a pilot study to review and analyze reliability and validity was conducted for the new context of the study. The pilot study provided opportunity to perform a trial run on the research instrument (Baker, 1994). Its purpose was to ensure that instructions and wording were comprehensible. In addition, the pilot study checked the reliability and validity of the instrument.

In an effort to ensure reliability, a pilot study consisting of six middle school educators in Florida was created in order to determine if the items were yielding the kind of evidence that is looked-for. The chosen participants represented a similar population for the intended study, and their demographics can be seen in Table 3.2; however, they either teach at a K-8 school, or teach outside of (Removed to protect identity) County School District. Therefore, the pilot study participants are not intended to participate in the actual study; thus, this study’s participants were not exposed to the instrument before the actual start of the study.

<table>
<thead>
<tr>
<th>Subject Identification</th>
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<th>Specialty</th>
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<td>White</td>
<td>Science</td>
<td>8</td>
<td>TPS</td>
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<tr>
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<td>F</td>
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<td>ELA</td>
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<td>Charter</td>
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<td>F</td>
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<td>7</td>
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<tr>
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<td>M</td>
<td>White</td>
<td>ELA</td>
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<td>006A</td>
<td>F</td>
<td>White</td>
<td>Science</td>
<td>8</td>
<td>N/A</td>
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</tbody>
</table>

This review team had a purpose to ensure test-retest reliability, over a two-week period. The average completion times of Time 1 and Time 2 were compared for each pilot participant (see Figure 3.3). The instrument was administered twice over a two-week period; thus, the participants took the nine-item survey at the start of week one (Time 1) and at the start of week 2 (Time 2). On average, it took three minutes to complete the survey. The scores from Time 1 and Time 2 were correlated in an effort to assess the instrument for stability. Thus, a test retest reliability (Cronbach, 1951) was
conducted since it is one of the most widely used measures of reliability in the social sciences. The results of the score determined good internal consistency of .818.

![Figure 3.3. Pilot Study: Average Time to Complete CTPS Survey](image)

In an effort to ensure validity, in December of 2015, the researcher submitted the instrument to a three-person review panel. The panel consisted of three doctoral candidates from the University of South Florida who lived in two different regions across the United States. Two of the panel members were candidates in Career and Workforce Education with past experience teaching higher education; one panel member was a candidate in Biology Education with three years of teaching experience as a middle school educator. The panel was asked to examine the nine-item instrument in its online format. The demographics of participants in the pilot study can be viewed in Table 3.3.

**Table 3.3. Expert Panel Demographics and Sample Characteristics.**

<table>
<thead>
<tr>
<th>Subject Identification</th>
<th>Gender</th>
<th>Race</th>
<th>Specialty</th>
<th>Region</th>
<th>Presenter</th>
<th>Published</th>
</tr>
</thead>
<tbody>
<tr>
<td>001B</td>
<td>F</td>
<td>White</td>
<td>Science</td>
<td>South East</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>002B</td>
<td>F</td>
<td>African American</td>
<td>CWE</td>
<td>South East</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>003B</td>
<td>F</td>
<td>Native Hawaiian</td>
<td>CWE</td>
<td>West</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

This panel assessed face validity by indicating whether each item in the instrument is congruent with the construct by providing written feedback (see Appendix G) (Cronbach, 1971). In
addition, they also provided feedback on content validity, which was used to confirm that the instrument is measuring what was intended to measure. The panel aided in ensuring sampling validity by providing feedback on whether the content area was adequately sampled and not bias. In conclusion, the expert panel provided suggestions regarding the wording or display of the variables on the online survey; however, no suggestions were made concerning the items of the instrument. As a result, the previous findings by Akos et al. (2011) and the results from this study’s pilot study and expert panel confirm the strength and appropriateness of the CTPS instrument. For these reasons, the CTPS instrument was used to answer the research questions of the study (Akos et al., 2011).

Based on the expert panel’s suggestions (see Appendix H), adjustments were made to items of the instrument accordingly. Two of the three expert panel members suggested reformatting the survey’s spacing and Welcome Page. One addressed the two subsequent concerns. 1) Adjusting the uneven spaces between the CTPS questions 2.) Placing the welcome information on a separate page before the Statement of Consent. For questions 2, 3, and 4 panel members made suggestions that were outside the scope of the study. For example, suggestions to include K-12, private school educators, or non-core academic educators were proposed for the survey but not included in the final survey. For question 5, two of the three panel members suggested providing an option for educators that may not be certified. This suggestion was included in the updated Survey. Two of the three panel members suggested adding open-ended questions to allow participants to expand on responses. This was outside the scope of the study as the study was confidently interested in the quantitative results of the CTPS instrument.

Data Collection

All educators in the chosen district’s charter, magnet, and public schools have an email account and free access to the Internet. The survey access information was distributed via Survey Monkey, an online survey development cloud-based software. This software was chosen for its versatility since it is also mobile responsive. This survey was emailed to each core academic classroom teacher with an explanation of the intentions of the survey and the survey link. In addition, the survey provided versatility as it measured qualities as simple as teacher related variables and qualities as complex as perspectives of the participants. The utilization of a web surveys allowed the ability for
the researcher to uphold and maintain integrity for the study, as well as assure participants that their identities and responses remained confidential.

In addition, there were numerous benefits in utilizing a web survey, which are as follows (Alreck & Settle, 2004): Since Internet access was easily accessible in each of the participating schools, utilizing a web survey reduced data collection difficulties. For example, distributing the surveys was inexpensive since the price of printing and postage is eliminated. The online survey allowed for real time processing where the researcher can monitor characteristics of the data distribution at any given point. In addition, the number of respondents (n=size) was clearly monitored. Finally, response rates are typically higher in comparison to mail surveys. An increase in efficiency can be expected since the surveys can be taken at the convenience of the participant. This survey provided flexibility in that it was distributed and collected via the Internet with an expected response task that required an average of three minutes of their time.

Recruitment for the teacher participants in this study followed a three-step process: obtain IRB approval, obtain district approval, and invite teachers to participate. An email requesting participation in the research (see appendix I) was sent to 1569 teachers. Thirty-nine of the email addresses were inactive. This generated 1530 potential teacher participants from the 50 middle schools in the district.

The survey was distributed and collected via Survey Monkey in the spring of 2016. Teachers had eighteen days to complete the survey, with one reminder email. Monitored daily, the researcher followed Alreck and Settle (2004) advice by obtaining reports from the field at least two to three times per week to ensure adjustments were made if there were glitches in the survey. In using Survey Monkey, the date and time was effectively recorded with each submission to ensure the data were being properly collected. Obtaining frequent reports from the field also ensured that the data collection progressed as scheduled. Initially, the first emailed invitation to participate in the survey was sent on March 30, 2016. From this invitation, 91 participants responded over the course of eleven days. A reminder was sent on April 11, 2016 to all participants. From this reminder, an additional 102 participants completed the survey. In total, three participants failed to fully respond to the survey. This brought 199 participants to complete the CTPS survey, resulting in a 13% response rate.
Survey non-response has increased in recent years (De Leeuw and Heer, 2002). In a study regarding the role of demographics, engagement and personality, Porter and Whitcomb (2005) wanted to better understand how non-respondents differ from respondents. They found that survey respondents were more likely to be female, socially engaged, and have an investigative personality. Contributing to the non-response rate was the iniquitousness in the Internet as 40% of emails sent are spam (Kopytoff, 2004). As a result, potential participants delete survey emails before opening or they are apprehensive to open emails (Cook, Heath, & Thompson, 2000). Porter and Whitcomb found that academic researchers who send emails from “collegename.edu” email accounts yield higher results than from a nonacademic email account. To ameliorate this concern, the email invitation to participate in this study’s CTPS survey was sent from the researcher’s university account. As an increased incentive, participants were informed that, up to twenty participants were eligible to win a $10.00 gift card to www.amazon.com for completing the survey. Those participants submitted their contact information after the survey is complete, and twenty participants were randomly selected (using the Survey Select option via SAS) for the gift cards. The Survey Select option via SAS supports selecting probability-based random samples from presented data sets. Finally, in a last effort to meet the desired sample size, the researcher requested permission from the district to distribute a second reminder. This authorization was denied.

Data Analysis

Data collected throughout this research study was analyzed operating SAS (Statistical Analysis System). SAS was beneficial to this analysis due to its ability to handle vast datasets. In addition, due to its common usage by biostatisticians, many resources were available in terms of support in how to secure appropriate analysis.

In order to answer the first research question: What are the perspectives of career education in middle school among core charter, magnet, and traditional schoolteachers? Using descriptive statistics (primarily percentages and frequencies), this analysis focuses on the aggregate numbers of teachers’ overall perspectives of career education, future orientation, and career integration as designated by the CTPS survey.
In answering research question two and three: Are there differences in middle school teachers’ perspectives of overall career education, future orientation, and career integration among core academic charter, magnet, and traditional public middle school teachers? And, are there differences in middle school teachers’ perspectives of overall career education, future orientation, and career integration based on teacher related variables?

An ANOVA analysis was conducted with each of the dependent variables (overall perspective of career education, future orientation, and career integration) and the independent variables (type of school, grade level, gender, educational attainment, type of teacher certificate, and subject). The ANOVA determined significance via the F-test, which is based on the p-value. If there were overall significant differences between the group means, a post hoc test was run in order to determine where the differences occurred between groups.

For the fourth research question: Do teacher related variables affect the teachers’ perspective of overall career education, future orientation, and career integration?

a.) To what extent does overall teacher related variables affect teachers’ perspectives?

b.) Which specific teacher related variables have a significant impact on teacher perspectives?

To answer sub question 4A, three separate regressions analysis were conducted (one for the total score and two for the two sub scores, with overall perspective of career education, future orientation, and career integration respectively). The model’s p-value, adjusted R-squared, and R-squared were reviewed to determine the significance of the model. Ultimately, that test helped to understand the extent of teachers’ perspectives of career education as an effect of their teacher related variables. Then, variance inflation factors (VIF) were checked to check for multicollinearity issues. VIF measured the amount of variance of the estimated regression coefficients and how it is inflated in comparison to when the predictor variables are not linearly related (O’Brien, 2007). Multicollinearity occurs when one dependent variable correlates highly with another dependent variable.

In answering sub question b, the model from sub question A was used to run three separate multiple regression analysis (one for the total score and the other two for the two sub scores).
Parameter estimates and p values were reviewed to determine which individual variables have no significance. Those variables that were determined to have no significance were removed, leaving only the individual variables with significance. Then, the multiple regressions were rerun omitting the variable with no significance. To this end, the changes of R-squared from time one to time two were determined. This provided the simplest model. The multiple regression provided opportunity to investigate variables while controlling the other variables.

Summary

In Chapter Three, the research techniques for the study were defined in comprehensive detail. Additionally, the methodology supporting the choice and use of the quantitative method, including data collection, data analysis, sample, and ethical considerations were explained. A pilot study was also discussed that helped support the reliability and validity of the CTPS instrument. Chapter Four will report data analysis, whereas Chapter Five will provide a detailed discussion of the findings. This research intends to contribute to the relatively small body of knowledge pertaining to teacher perspectives of career education at the middle school level.
CHAPTER FOUR: RESULTS

The purpose of this quantitative, non-experimental study of core academic middle school teachers (English/language arts, mathematics, science, and social science) was to compare teacher perspectives of career education in terms of their understanding of the concepts of future orientation and career integration, and their composite, career education. This chapter communicates the findings of the Akos et al., (2011) instrument (see Appendix D) as described in Chapter Three.

Analysis of Research Questions

1. What are the perspectives of career education in middle school among core academic charter, magnet, and traditional schoolteachers?
2. Are there differences in middle school teachers’ perspectives of overall career education, future orientation, and career integration among core academic charter, magnet, and traditional public middle school teachers?
3. Are there differences in middle school teachers’ perspectives of overall career education, future orientation, and career integration based on teacher related variables?
4. Do teacher related variables affect the teachers’ perspective of overall career education, future orientation, and career integration?
   a. To what extent does overall teacher related variables affect teachers’ perspectives?
   b. Which specific teacher related variables have a significant impact on teacher perspectives?

In answering question one on the perspectives of career education in middle school among core academic charter, magnet, and traditional schoolteachers, descriptive statistics were used to identify and describe the perspectives of career education in middle school among core academic charter, magnet, and traditional school teachers in terms of demographics and teacher characteristics.

An ANOVA analysis was conducted to answer questions two and three about the differences in teachers’ perspectives of overall career education, future orientation, and career integration among
core academic charter, magnet, and traditional public middle school teachers; and the differences of middle school teacher perspectives of overall career education, future orientation, and career integration based on teacher related variables. The variables selected included three dependent variables (overall perspective of career education, future orientation, and career integration) and seven independent variables (type of school, grade level, gender, race, educational attainment, type of teaching certificate, and subject taught).

The ANOVA identified significant differences in class variable levels via the F-test, based on the nominal alpha level .05, to identify the presence of overall significant differences between the group means. To further address research questions two and three, post-hoc testing was conducted to determine where the differences occurred between groups that asserted significant differences. Lastly, to address research question four, sub-question (a), model significance and parameter estimates were checked in the outputs from three separate regression analysis (one for the total score and two for the sub-scores) of overall perspective of career education, future orientation, and career integration, respectively. To identify possible multicollinearity issues, variance inflation factors (VIF) were conducted. This VIF measurement determines the amount of variance of the estimated regression coefficients. It then determines how it is inflated when compared to the not linearly related predictor variables (O’Brien, 2007). Multicollinearity happens when one dependent variable correlates decidedly with another dependent variable.

The model’s p-values were reviewed to determine the model significance, while the adjusted R-squared values were reviewed to evaluate model fit. Ultimately, that test helped to understand teachers’ perspectives of career education as they were influenced by a group of teacher related variables. If multicollinearity did occur between a pair of independent variables, one of the correlated variables was removed from the model.

In answering sub-question (b), the model from sub-question (a) was used to run three separate multiple regression analysis (one for the total score and the other two for the two sub-scores). Parameter estimates and p-values were reviewed to determine which individual variables had no significance. Those variables that were determined to have no influence on the model were removed, leaving only the individual variables with significance. That provided the simplest model.
Sample and Data Representativeness

Of the three types of participating schools from the district, 23 of the participants were from charter schools, 39 were from magnet schools, and 137 were from traditional public schools. Figure 4.1 reveals that the response rate was representative of the total population, as 14% of the district was made up of charter schools, 20% was made up of magnet schools, and 66% was made up of traditional public schools. Thus, the sample size was representative of the school-type population.

The Education Information and Accountability Services Data Report (2016) indicates that females made up 62% of the secondary teachers in the fall of 2012, whereas males represented 38%. The gender of participants was also representative of the population. This study received survey responses from 67% females and 33% males. Thus, the sample size approximately represented the population of teachers in the district with respect to gender.

To determine if the sample size was representative of the teacher population in terms of race, data from the Florida Department (2013) of Education’s Education Information & Accountability Services: Data Report was compared to the sample population, which can be found in figure 4.2.
White public school teachers made up 71% of schoolteachers in 2012 (Florida Department of Education, 2013). In the current study, 69% of the teachers who responded identified themselves as White. Concurrently, district data indicated 13% of the teacher population was Black; while in this study, 16% of the responding teachers identified themselves as Black. Hispanic teachers made up 13% of the teacher population in 2012, and this study had 10% of the responding teachers identifying themselves as Hispanic. Finally, the district identified 2% of teachers as Other races, and this study identified 5% as Other/Multi races. Thus, the study sample was considered representative of the teachers’ race distribution within the district. For race frequency based on the type of school, see Appendix J.

To determine if the study sample composition was representative of the population in terms of age, the National Center for Education Statistics (NCES) average age of public school teachers was used as a guide, stating that teachers in the state of Florida were on average 43.7 years old (NCES, 2016). Thus, by looking at Figure 4.3, the average age of teachers for this study was between the ages of 45-54 years of age, making the sample reasonably comparable to the population of Florida. For age frequency based on the type of school, see Appendix K.

Figure 4.2. Comparing race, sample versus population.
Figure 4.3. Frequency of age.

Identifying Middle School Teacher Perspectives

Research question one was: What are the perspectives of career education in middle school among core academic charter, magnet, and traditional schoolteachers? Its intent was concerned with identifying the core perspectives of middle school teachers in the three types of schools: charter, magnet, and public. Using a five-point Likert Scale ranging from “strongly disagree” with a score of one point to a “strongly agree” with a score of five points, respondents reported their perspectives of two factors: future orientation, career integration, and the composite score of career education. The following section will discuss the means and standard deviation for each of the three schools for the two factors future orientation and career integration, which make up the composite score, career education. The two factors, future orientation and career integration, were selected based on the US Office of Education report An Introduction to Career Education (Hoyt, 1975).

There were four questions in the CTPS that addressed future orientation. Future orientation was significant to this study since “one’s career and one’s education are best viewed in a developmental rather than in a fragmented sense,” (p. 8). By incorporating career education into the middle school core academic classrooms, this is supporting the idea that career and education should be a concept that is consistently exposed and developing in order to successfully affect one’s future. Future orientation is significant to this study as “one’s career and one’s education are best viewed in a
developmental rather than in a fragmented sense” (Hoyt, 1975, p. 8). By incorporating career education into middle school core academic classrooms, this is supporting the idea that career and education should be considered concepts that are consistently exposed and developing in order to successfully affect one’s future.

The second factor, career integration was of significance to this study because the integration into a curriculum helps expose students to various career opportunities while developing a desire to work. This integration can be achieved through understanding the relationship between what they are being taught and its relationship to the world of work that they will enter. There is no one size fits all model for this concept, rather career education provides a wide-ranging series of unconventional learning strategies and learning settings that succeed best when understood by the teacher. Career integration, is addressed by five questions in the CTPS.

For the analysis, Table 4.1 indicates participant perspectives averaged for the two factors and summed to determine the composite score.

Table 4.1. Comparison of the Three Types of Schools to the Dependent Variables.

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Charter (n=23)</th>
<th>Magnet (n=39)</th>
<th>Traditional Public (n=136)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future Orientation</td>
<td>4.01 (SD=1.25)</td>
<td>4.51 (SD=0.44)</td>
<td>4.43 (SD=0.84)</td>
</tr>
<tr>
<td>Career Integration</td>
<td>3.80 (SD=1.00)</td>
<td>4.02 (SD=0.67)</td>
<td>4.05 (SD=0.93)</td>
</tr>
<tr>
<td>Career Education</td>
<td>3.89 (SD=1.08)</td>
<td>4.24 (SD=0.50)</td>
<td>4.22 (0.85)</td>
</tr>
</tbody>
</table>

Referencing the mean for each of the factors, future orientation had a less Likert scale value than career integration. In addition, charter schools have an overall less value of the factors than magnet and traditional public schools. Finally, in looking at standard deviation, charter schoolteachers have more variance than magnet schools; thus making charter schools more heterogeneous and magnet schools more homogenous.

A comparison of means from the Likert scale results on the continuous variable for future orientation, career integration, and career education was composed between the 23 teachers in charter schools, 39 teachers in magnet schools, and 136 teachers in traditional public schools. Teachers in the study assessed this position using a 5-point Likert scale (Alreck & Settle, 1994), which
utilizes the level of agreement using for positions: strongly disagree, disagree, agree, and strongly agree (Vagias, 2006). When analyzing the sample (N=199) of middle school teachers, results designated that teachers from the three schools had a grand mean of 4.31 in regards to future orientation. Of the 199 teachers, 4% strongly disagreed with the concept of future orientation; similarly, 4% strongly disagreed with the concept of career integration. Conversely, 59% of participating teachers strongly agreed with the concept of future orientation; whereas 46% strongly agreed with the concept of career integration. In terms of either agreeing or disagreeing with future orientation and career integration results concluded 3% and 16% respectively.

In terms of future orientation, the perspective of career education from the charter-school teacher participants resulted in an average agreement of 4.01 (SD=1.25). Concurrently, magnet schools indicated that participants had a higher average agreement of 4.52 (SD=0.44). Finally, public schools had an average agreement of 4.43 (SD=0.84).

In terms of career integration, charter school teachers showed an average of 3.80 (SD=1), whereas magnet school teachers specified 4.02 (SD=0.67), and public school teachers signified 4.05 (SD=0.93). Finally, looking at the composite score of the two factors, for career education, charter schools showed 3.89 (SD=1.08), magnet teachers denoted 4.24 (SD=0.50), and traditional public school teachers indicated 4.22 (SD=0.85).

**Differences in Middle School Teachers’ Perspectives**

The second research question was: Are there differences in middle school teachers’ perspectives of overall career education, future orientation, and career integration among core academic charter, magnet, and traditional public middle school teachers? This question pertains to whether teacher perspective of career education, future orientation, and career integration were significantly different among the three school settings: charter, magnet, and traditional. A one-way ANOVA was used to compare each of the dependent variables (teacher perspective of career education, future orientation, and career integration) amongst the school setting predictor variable levels (charter, magnet, and public).

Certain assumptions must be satisfied in order to perform an ANOVA analysis: (1) Each group sample was drawn from a normally distributed population; (2) All populations had a common variance;
and (3) Samples were drawn independently of each other. Two of three criteria (i.e. equal variances and independence) were met for this study’s sample. According to Curran, West, and Finch’s (1996) cut off values about the assumption of normality, two out of three dependent variables (i.e. career education and future orientation) had non-normal data and only one (orientation) had relatively normal data (i.e. absolute value of skewness < 2 and kurtosis < 7). The one-way ANOVA is a test that is robust against violations of the normality assumption. Thus, this analysis is able to tolerate data that were non-normal with a minimal effect on Type-1 error rate. It is important to acknowledge that platykurtosis can have a profound effect when group sizes are small, which might not be the case in the current study with group size of charter n = 23, magnet n = 39, and traditional public n = 136. The three school types indicated satisfactory homogeneity of variance across the three indices (career education, future orientation, and career integration).

An overview of the ANOVA results is provided in Table 4.2. There was not a statistically significant difference in teachers’ perspectives of overall career education, future orientation, or career integration among core academic charter, magnet, and traditional public middle school teachers.

Table 4.2. Dependent Variables ANOVA Results.

<table>
<thead>
<tr>
<th>Source</th>
<th>Df</th>
<th>F</th>
<th>P value (sig. &lt;.05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Education</td>
<td>2, 196</td>
<td>1.65</td>
<td>0.1944</td>
</tr>
<tr>
<td>Future Orientation</td>
<td>2, 197</td>
<td>2.96</td>
<td>0.054</td>
</tr>
<tr>
<td>Career Integration</td>
<td>2, 197</td>
<td>0.79</td>
<td>0.4561</td>
</tr>
</tbody>
</table>

For the future orientation factor, there were no statistically significant differences between group means as determined by the one-way ANOVA with $F(2, 197) = 2.96$, $p > .05$. In terms of career integration, there were no statistically significant differences between group means as determined by the one-way ANOVA with $F(2, 197) = 0.79$, $p > .05$. Finally, in regards to overall career education as the composite score, there were no statistically significant differences between group means as determined by the one-way ANOVA with $F(2, 196) = 1.65$, $p > .05$. Rejection of the null hypothesis failed for each of the career education indices based on the ANOVA results.
Middle School Teachers’ Perspectives Based on Teacher Related Variables

In order to answer the third research question (Are there differences in middle school teachers’ perspectives of overall career education, future orientation, and career integration based on teacher related variables?), a one-way ANOVA was conducted to compare teacher perspectives of future orientation, career integration, and career education by the independent variables grade level taught, teaching certificate, education attainment, gender, and subject taught.

There were five categories for the grade level variable as seen in Table 4.3. Those categories are as follows, teachers who taught sixth grade, seventh grade, eighth grade, teachers who taught two grade levels, and teachers who taught all three grade levels.

Table 4.3. Five Categories of Grade Levels Taught.

<table>
<thead>
<tr>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1: Sixth grade</td>
</tr>
<tr>
<td>Category 2: Seventh grade</td>
</tr>
<tr>
<td>Category 3: Eighth grade</td>
</tr>
<tr>
<td>Category 4: Sixth and seventh grade, or seventh and eighth grade, or sixth and eighth grade</td>
</tr>
<tr>
<td>Category 5: Sixth, seventh, and eighth grade</td>
</tr>
</tbody>
</table>

Referencing Table 4.4, there was not a statistically significant difference in teachers’ perspectives of overall career education, future orientation, or career integration based on the grade level teacher variable.

Table 4.4. Comparison of Grade Level to the Dependent Variables.

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Future Orientation Mean (SD)</th>
<th>Career Integration Mean (SD)</th>
<th>Career Education Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6th Grade; n=43</td>
<td>4.42 (SD=0.85)</td>
<td>4.05 (SD=0.78)</td>
<td>4.21 (SD=0.77)</td>
</tr>
<tr>
<td>7th Grade; n=28</td>
<td>4.38 (SD=0.79)</td>
<td>3.89 (SD=0.79)</td>
<td>4.10 (SD=0.75)</td>
</tr>
<tr>
<td>8th Grade; n=33</td>
<td>4.27 (SD=1.12)</td>
<td>3.97 (SD=1.12)</td>
<td>4.10 (SD=1.08)</td>
</tr>
<tr>
<td>6&amp;7th, 7&amp;8th, or 6&amp;8th Grade; n=46</td>
<td>4.41 (SD=0.82)</td>
<td>3.86 (SD=0.97)</td>
<td>4.12 (SD=0.86)</td>
</tr>
<tr>
<td>6, 7, &amp; 8th Grade; n=48</td>
<td>4.49 (SD=0.70)</td>
<td>4.23 (SD=0.77)</td>
<td>4.35 (SD=0.71)</td>
</tr>
</tbody>
</table>

In looking at the ANOVA results for grade level for the future orientation factor, there were no statistically significant differences between group means as determined by the one-way ANOVA with $F(4, 197) = 0.32$, $p > .05$. In terms of career integration, there were no statistically significant differences between group means as determined by the one-way ANOVA with $F(4, 197) = 0.15$. 
Finally, in regards to overall career education as the composite score, there were no statistically significant differences between group means as determined by the one-way ANOVA with $F(4,196) = 0.68, p = .05$.

As seen in figure 4.4, the majority of middle school teachers from the three types of schools identified as having a traditional teaching certificate, whereas the least number of teachers from all three schools had neither a traditional nor a temporary teaching certificate.

![Figure 4.4. Frequency of teaching certificate.](image)

Representing 23%, magnet school teachers had the highest percentage of teachers with temporary teaching license, with charter and traditional schoolteachers at 17% and 18% respectively.

The mean for each factor and type of teaching certificate can be seen in Table 4.5.

<table>
<thead>
<tr>
<th>Certificate Type</th>
<th>Future Orientation</th>
<th>Career Integration</th>
<th>Career Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary; n=39</td>
<td>4.31 (SD=1.07)</td>
<td>3.89 (SD=0.99)</td>
<td>4.07 (SD=0.99)</td>
</tr>
<tr>
<td>Professional; n=153</td>
<td>4.42 (SD=0.80)</td>
<td>4.08 (SD=0.87)</td>
<td>4.21 (SD=0.80)</td>
</tr>
<tr>
<td>Neither; n=6</td>
<td>4.45 (SD=0.51)</td>
<td>4.13 (SD=0.70)</td>
<td>4.28 (SD=0.59)</td>
</tr>
</tbody>
</table>

For the future orientation factor, there were no statistically significant differences between group means as determined by the one-way ANOVA with $F(2, 198) = 0.161, p = .05$. In terms of career integration, there were no statistically significant differences between group means as determined by
the one-way ANOVA with $F (2, 198) = 0.55, p = .05$. Finally, in regards to overall career education as the composite score, there were no statistically significant differences between group means as determined by the one-way ANOVA with $F (2,196) = 0.47, p = .05$.

In looking at figure 4.5, each type of school was varyingly populated with teachers with different types of degrees.

![Frequency of Educational Attainment](image)

**Figure 4.5.** Frequency of educational attainment.

The majority of charter and public school teachers obtained a bachelor’s degree, whereas the majority of magnet school teachers acquired a master’s degree. Looking closer at the figure, teachers with master’s degrees at magnet schools represented the highest percentage of types of degrees at 59%. In addition, magnet schools employed the highest percentage of teachers with Ph.Ds. at nearly 8% of their staff obtaining that degree; charter and public schools were represented by .05% and .03%, respectively.

The mean for each factor and educational attainment can be seen in Table 4.6.
Table 4.6. Comparison of Educational Attainment to the Dependent Variables.

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Future Orientation</th>
<th>Career Integration</th>
<th>Career Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelors; n=101</td>
<td>4.46 (SD=0.73)</td>
<td>4.07 (SD=0.78)</td>
<td>4.24 (SD=0.71)</td>
</tr>
<tr>
<td>Masters; n=89</td>
<td>4.31 (SD=0.99)</td>
<td>3.93 (SD=1.02)</td>
<td>4.10 (SD=0.97)</td>
</tr>
<tr>
<td>PhDs; n=8</td>
<td>4.625 (SD=0.46)</td>
<td>4.36 (SD=0.57)</td>
<td>4.46 (SD=0.51)</td>
</tr>
</tbody>
</table>

In regards to educational attainment, for the future orientation factor, there were no statistically significant differences between group means as determined by the one-way ANOVA with \( F(2, 198) = 1.00, p > .05 \) (see Table 4.6). In terms of career integration, there were no statistically significant differences between group means as determined by the one-way ANOVA with \( F(2, 198) = 1.05, p = .05 \). Finally, pertaining to overall career education as the composite score, there were no statistically significant differences between group means as determined by the one-way ANOVA with \( F(2,197) = 1.12, p > .05 \).

Females represented the majority of the teaching population for all three schools, as seen in figure 4.6.

![Frequency of Gender](image)

**Figure 4.6.** Comparison of gender respondents.

Females represented 67% of the entire sample size population. Traditional public schools had the most number of male teachers at 30%, whereas magnet and charter schools had significantly less males at 13% and 14% respectively. The mean for each factor in regards to indicated gender can be seen in Table 4.7.
Table 4.7. Comparison of Indicated Gender to Dependent Variable.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Future Orientation</th>
<th>Career Integration</th>
<th>Career Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male; n=50</td>
<td>4.19 (SD=1.03)</td>
<td>3.82 (SD=1.01)</td>
<td>3.98 (SD=0.97)</td>
</tr>
<tr>
<td>Female; n=150</td>
<td>4.48 (SD=0.77)</td>
<td>4.09 (SD=0.84)</td>
<td>4.26 (SD=0.77)</td>
</tr>
</tbody>
</table>

For the future orientation factor, there were statistically significant differences between group means as determined by the one-way ANOVA with $F(1, 198) = 3.757, p < .05$ (see Table 4.7). In terms of career integration, there were no statistically significant differences between group means as determined by the one-way ANOVA with $F(1, 198) = 3.47, p > .05$. Finally, pertaining to overall career education as the composite score, there were statistically significant differences between group means as determined by the one-way ANOVA with $F(1, 198) = 4.27, p < .05$. Thus, the null hypothesis for the career education (composite) score was rejected based on the survey results stating the presence of statistical significance based on gender. Female teachers had a higher value of future orientation and overall career education than male teachers.

As seen in Figure 4.7, core academic classroom teachers from four academic categories participated in the survey. The majority of middle school teachers who participated in the current study’s survey were teachers who taught English/Language arts and represented 36% of the sample size. Mathematics, science, and social studies teachers represented 29%, 23%, and 22% respectively.
The mean for each factor and subject area taught can be seen in Table 4.8. For the future orientation factor, there were no statistically significant differences between group means of subject area taught as determined by the one-way ANOVA with $F(4, 198) = 0.608, p > 0.65$. In terms of career integration, there were no statistically significant differences between group means as determined by the one-way ANOVA with $F(4, 198) = 0.458, p > 0.76$. Finally, in regards to overall career education as the composite score, there were no statistically significant differences between group means as determined by the one-way ANOVA with $F(4, 196) = 0.495, p > 0.73$.

Table 4.8. Comparison of Subject Area Taught to the Dependent Variables.

<table>
<thead>
<tr>
<th>Subject Taught</th>
<th>Future Orientation Mean (SD)</th>
<th>Career Integration Mean (SD)</th>
<th>Career Education Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>English/Language Arts; n=62</td>
<td>4.49 (SD=0.78)</td>
<td>4.16 (SD=0.87)</td>
<td>4.31 (SD=0.80)</td>
</tr>
<tr>
<td>Mathematics; n=51</td>
<td>4.26 (SD=1.04)</td>
<td>3.95 (SD=0.98)</td>
<td>4.09 (SD=0.96)</td>
</tr>
<tr>
<td>Science; n=37</td>
<td>4.39 (SD=0.93)</td>
<td>3.91 (SD=1.0)</td>
<td>4.13 (SD=0.92)</td>
</tr>
<tr>
<td>Social Studies; n=31</td>
<td>4.46 (SD=0.40)</td>
<td>3.95 (SD=0.61)</td>
<td>4.17 (SD=0.47)</td>
</tr>
<tr>
<td>More than one subject; n=16</td>
<td>4.58 (SD=0.29)</td>
<td>4.06 (SD=0.42)</td>
<td>4.30 (SD=0.36)</td>
</tr>
</tbody>
</table>

Figure 4.7. Frequency of subject level.
Teacher Related Variables Effect on Teachers’ Perspective

Research Question four asked: Do teacher related variables affect the teachers’ perspective of overall career education, future orientation, and career integration? (a) To what extent does overall teacher related variables affect teachers’ perspectives?

Multiple regression analysis was used to determine whether the teacher related variables were significant predictors of participants’ ratings of the perspective of future orientation, career integration, and career education. This test allowed the ability to explore variables while controlling other variables. A variable selection process was implemented for each model. In addition, VIF were calculated to determine the presence or absence of multicollinearity. VIF calculates the extent of variance of the estimated regression coefficients and its degree of inflation in relation to when the predictor variables are not linearly related (Obrien, 2007). Multicollinearity arises when two dependent variable correlates highly with one another. A VIF greater than 10 is indicative of multicollinearity. As a result, the conclusion of sub question (a) results as a significant model that has no multicollinearity for males regarding both future orientation and career education factors. Outcomes from the multiple regression inferred there is at least one variable within the model that is generating a significant difference. Thus, the model indicated significance.

(b) Which specific teacher related variables have a significant impact on teacher perspectives?

For the dependent variable future orientation, a multiple regression was conducted to explore the variables while controlling for other variables and to determine the influence of 14 independent variables (see Table 4.8). The complete regression analysis results can be found in Appendix L.

The completed regression analysis with the variable selection process indicated three significant predictor variables. Those variables included multi-racial, male, and age 55-64 and age 65-74, which met the .05 significance level for entry into the model. Results of the regression indicated ($R^2 = .11$, $F (14, 183)=1.62, p<.05$) no independent variables below the target significance value of $.05$ allowing entry into the model.
For the dependent variable career integration, ANOVA results from the multiple regression analysis run on the dependent variable career integration utilizing the same 14 independent variable as in future orientation resulted in ($R^2 = .13$, $F (14, 183)=1.87$, $p<.05$). The variable selection process found the age 55-64 and 65-74 variable below the target significance value of <.0500 allowing entry into the model.

For the dependent variable career education, an ANOVA produced during the regression analysis yielded the following results: ($R^2 = .12$, $F (14, 183)=1.87$, $p<.05$). The variable selection process using the same 14 independent variables identified three variables meeting the <.05 significance level for entry into the model. Those variables included multi-racial, age 55-64, 65-74, and male.

Referring to Figure 4.8, the trend amongst age and perspective value of future orientation, career integration, and its composite, career education is specified. Teachers ages 18-24 had a lower perspectival value of career education concepts than teachers ages 25-34 and 35-44. With the subsequent age groups of teachers ages 45 and above, a dwindling perspective of the factors can be noticed.

**Figure 4.8.** Trends and mean of age amongst the dependent variables.

Considerations to deliberate may be teachers who were ages 18-24 have accumulated minimal experience as a teacher. Consequently, they may not have attained the opportunity to reap the
benefits of implementing career education activities; thus, without sufficient opportunity to implement career education activities, they are not able to identify their benefits. As a result, teachers ages 18-24 may have indicated a lower value of future orientation, career integration, and career education. Additionally, teachers ages 45 and above may have been influenced by the 1970s advice and promotion of ‘Work smart, not hard’ to get high school students to elude blue collar work by attending colleges and universities.

In looking at the age group that have a stronger support for the concepts, teachers ages 24-44 are considered to be in the latter portion of generation X and earlier portion of the generation Y cohort. Those two generational groups are the most well educated groups of young adults with the unfortunate truth that many graduate from four-year colleges and universities with much debt but few job opportunities (Howe & Strauss, 2007). This determent of careers may explain their support and encouragement for their value of career education concepts.

Referencing figure 4.9, the trend amongst race and perspective value of future orientation, career integration, and its composite, career education is specified.

Figure 4.9. Trends and mean of race amongst the dependent variables.
Supporting the findings of the multiple regressions, multi race has a significantly less value of factor one and the overall composite score.

In looking at figure 4.10, the trend amongst gender and perspective value of future orientation, career integration, and its composite, career education is specified.

![Gender Mean and Trends](image)

**Figure 4.10.** Trends and mean of gender amongst the dependent variables.

Supporting the findings of the multiple regressions, males have a significantly less value of factor one, future orientation and the overall composite score, career education.

**Summary**

The instrument, the CTPS, provided items assessing two sub-categories (future orientation and career integration) and a composite score (career education). Statistical analysis was conducted among all 199 participants. The total number of participants in this research study was 11.2% of the 2016 target teacher population. Descriptive statistics were used to describe the participants in terms of demographic variables and sample characteristics of the teachers. Demographic variables, such as age, gender, and race, as well as sample characteristics, such as school type, concluded that the sample was relative to the population.

To address the first question, descriptive statistics were used to identify and describe teacher perspectives of career education in terms of school type, gender, grade level taught, subject area taught, educational attainment, and teaching certificate. To respond to the second and third research
questions, an ANOVA was used. To retest the fourth and final research question, a regression analysis was used.

For the 2015-2016 school year period, teachers at charter, magnet, and public schools had a similar value of career education, future orientation, and career integration for their middle school students. Magnet schools exhibited an average to higher value of career education, future orientation, and career integration, especially in comparison to charter schoolteachers; yet, there was no statistically significant difference.

Overall, in looking at the grade level taught independent variable and career integration factor, teachers who taught seventh or eighth grade or two different grade levels gave an average Likert-scale rating of less than four out of five, indicating less of a preference for career integration at their class level. Teachers who taught only sixth grade students had a slightly higher value of career education, future orientation, and career integration than teachers who taught only eighth grade students. Teachers who taught all three grades (sixth, seventh, and eighth) valued career education, future orientation, and career integration more than all other teachers; however, there was no statistically significant differences between grade levels, only trending data.

Teachers who have neither a temporary or a professional teaching certification valued career education, future orientation, and career integration more than teachers who held a temporary or maintained a professional teaching certificate. Teachers who obtained a temporary teaching certificate were found to have valued career education, future orientation, and career integration the least; however, there was no statistically significant difference.

Teachers with master’s degrees valued career education, future orientation, and career integration the least, whereas teachers with Ph.Ds. valued career education, future orientation, and career integration the most. It is important to note that there was no statistically significant difference.

Male teachers did not value career education, future orientation, or career integration as significantly as female teachers did. There was no statistical significance regarding males and career integration; however, males had a statistically significant difference in future orientation and career education indices. That difference showed males conferred a lower value than females.
This concludes Chapter Four, delivering the presentation of the data from the study’s school district for the 2015-2016 school year. Chapter Five will follow, providing a review of the research study, along with findings, discussions, conclusions, implications for practice, and suggestions for possible future research.
CHAPTER FIVE: DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

This chapter is comprised of five sections. The succeeding sections (1) summarize the findings; (2) disclose limitations (3) interpret those findings and relate the results significant to the literature and to the conceptual framework of the study; (4) explain the importance of the study as well as implications for practice; and (5) consider opportunities for additional future research.

The purpose of this quantitative, non experimental study of core academic middle school teachers (English/language arts, mathematics, science, and social science) was to compare teacher perspectives of career education in terms of their understanding of the concepts of future orientation and career integration, and their composite, career education. The two factors, future orientation, and career integration were chosen grounded on the US Office of Education report: An Introduction to Career Education (Hoyt, 1975).

Future orientation is noteworthy to this analysis as “one’s career and one’s education are best viewed in a developmental rather than in a fragmented sense” (Hoyt, 1975, p. 8). By integrating career education into middle school core academic classrooms, the appreciation that career and education be measured ideas that are firmly supported and emergent in order to effectively impact one’s future is supported.

The second factor, career integration is of importance to this study since the incorporation of curriculum aids in allowing students to discover various career prospects while developing an aspiration to work. This integration is attained through understanding the relationship between what they are being taught and its connection to the world of work that they will enter. There is no one size fits all model for this concept, rather career education provides a wide-ranging series of unconventional learning strategies and learning settings that succeed best when understood by the teacher.

Summary of the Findings

Teachers from a large Florida school system’s middle-school charter, magnet, and traditional public schools participated in the study. The two factors, future orientation and career integration,
were selected based on the U.S. Office of Education report *An Introduction to Career Education* (Hoyt, 1975). For the purpose of this study, career education is defined as the composite between those two factor scores. There is no one-size-fits-all model for the concept of career education; rather, career education provides a wide-ranging series of unconventional learning strategies and learning settings that succeed best when understood by the teacher. The results from this study support the perspective that middle school teachers who serve in charter, magnet, and traditional public schools are in overall agreement pertaining to the value of future orientation, career integration, and career education for middle school students. The results of this study correspond to and build upon the Akos study (2011). In looking at specific variables that influence teacher perspectives, the data concluded that female teachers valued future orientation and career education more than male teachers. Additional explanation of the full study results is specified below to support these conclusions.

**Identifying Middle School Teacher Perspectives.** In order to answer the question: What are the perspectives of career education in middle school among core academic charter, magnet, and traditional schoolteachers? data from this study indicated a comparison of means from Likert-scale results on the continuous variable for future orientation, career integration, and career education. Those data were composed between the 23 teachers in charter schools, 39 teachers in magnet schools, and 136 teachers in traditional public schools. When analyzing the sample (N=199) of middle school teachers, results signified that teachers from the three types of middle schools had a grand mean of 4.31 in regards to future orientation.

In terms of future orientation, the perspective from the charter-school teacher participants resulted in an average agreement of 4.01. Concurrently, magnet schools indicated that participants had a higher average agreement of 4.52. Finally, public charter schools had an average agreement of 4.43. In terms of career integration, charter schoolteachers indicated an average of 3.80, whereas magnet school teachers showed 4.02, and traditional public school teachers indicated 4.05. Finally, looking at the composite score of the two factors, for career education, charter schools denoted 3.89, magnet teachers signified 4.24, and traditional public-school teachers specified 4.22.

Overall, magnet school teachers valued future orientation more than public and charter school teachers. Both magnet and public school teachers valued career integration more than charter school
teachers. Finally, when comparing the composite of the two factors, both magnet and public school teachers had an overall higher value of career education than charter school teachers.

**Differences in Middle School Teachers’ Perspectives.** In answering the question: Are there differences in middle school teachers’ perspectives of overall career education, future orientation, and career integration among core academic charter, magnet, and traditional public middle school teachers?; the data analysis comparing the dependent variables of career education, future orientation, and career integration as relating to the type of school where the responding teacher worked indicated that the school variable had no statistical relevance to the teachers’ perspective of the dependent variables. That result is relevant since prior to the analysis there was a possible recognition that the type of school where a teacher worked may influence his or her perspective of the value of career education, future orientation, and career integration. By failing to reject the null hypothesis, the data confirmed little or no link to that concept.

**Middle School Teachers’ Perspectives Based on Teacher Related Variables.** Are there differences in middle school teachers’ perspectives of overall career education, future orientation, and career integration based on teacher related variables? In order to assess teacher perspectives, five independent variables were selected; namely, grade level taught, type of teaching certificate held, gender, education level attained, and subject taught. Those variables were considered a cross-section of the variables available to middle school teachers and the research question sought to query teachers’ perspectives as members of each sub-group.

Grade level taught was divided into individual middle school grades (six, seven, or eight) two levels (six and seven, seven and eight, six and eight) and all three levels (six, seven, and eight). The data results did not show evidence of a significant statistical difference in perspectives as related to grade level that the teachers taught. There were slight differences in the responses. The most notable were teacher perspectives of career integration dropping below 4.0 on the Likert scale by those teachers who taught grade seven, grade eight, and by those who taught two grades (six and seven, seven and eight, and six and eight).

The teacher independent variable of type of teaching certificate was divided into three categories: teachers with temporary teaching certificates, teachers with professional certificates, and
teachers with neither. The research goal was to identify if there were significant differences in
teacher perspectives on any or all of the three dependent variables by type of teaching certificate
held. The study results showed no evidence of significant statistical difference based on teaching
certificate. Teachers with temporary teaching certificates did, however, view career integration
below 4.0 on the Likert scale, the only category from this variable to do so. On the 5-point Likert scale,
this would be a value of less than ‘agree’ as the scale utilizes the level of agreement using for
positions: strongly disagree, disagree, agree, and strongly agree (Vagias, 2006).

The independent variable, level of educational attainment, had three education levels:
bachelor’s degree, master’s degree, and doctorate degree. There was no significant statistical
difference in perspective of the dependent variables of education level attained by the responding
teachers. Subtle differences existed for master’s level teachers who dropped below the Likert scale
rating of 4.0 for career integration. It is noteworthy that doctorate level teachers’ perspective of the
dependent variables all scored higher in the Likert scale than all other teacher education levels.

The independent variable, gender, had two categories: male and female. Female teachers
dominated both the actual middle school teacher population and this study’s respondents. There were
no significant statistical differences in the teacher perspective of the career integration dependent
variable. Female teachers had a statistically significant higher perspective of the value of career
education and future orientation than male teachers did.

The independent variable, subjects taught, had five categories: English or language arts,
mathematics, science, social studies, and multiple subjects taught. There were no statistically
significant results in any of the five categories. The study assessed a teacher’s position using a 5-point
Likert scale (Alreck & Settle, 1994), which utilizes the level of agreement using for positions: strongly
disagree, disagree, agree, and strongly agree (Vagias, 2006). The weakest dependent variable was
career integration with mathematics, science and social studies resulting with Likert Scores below 4.

Teacher Related Variables Effect on Teachers’ Perspective of Career Education. Do teacher related
variables affect the teachers’ perspective of overall career education, future orientation, and career
integration?

a. To what extent does overall teacher related variables affect teachers’ perspectives?
b. Which specific teacher related variables have a significant impact on teacher perspectives?

Question 4a intended to quantify middle school teacher perspectives of career education, future integration, and career education using numerous independent variables; in other words, are there independent teacher variables that influence teacher perspectives of the dependent variables? Question 4a was answered positively through the regression analysis indicating a statistically relevant correlation with at least one teacher-related variable.

The purpose of question 4b purpose was to drill down into a more specific set of personal independent variables and determine which ones, if any, had a significant impact on middle school teacher perspectives. For question 4b, 14 independent teacher-related variables were used (Table 4.8). The dependent variable, career integration, age 65-74 was the only relevant independent teacher variables linking it to teacher perspectives on the topic. The regression analysis, however, found three of the 14 independent variables statistically relevant to both future orientation and the composite, career education. Those independent teacher variables were multiracial, male, and ages 55-64 and 65-74. Individuals that identified as multiracial negatively valued the concept of career education and future orientation. The same result was true for the teacher age group of 65-74. It is important to note that there was a small sample size of participants for multiracial, 55-64, and 65-74 at 6%, 10%, and 4%, respectively. The regression analysis indicated that males had a less positive perspective of career education and future orientation. Although the results showed evidence of an overall positive regard towards the factors, they were; in contrast, lower than the female population’s perspective of the same two dependent variables.

Limitations

The first potential study limitation is the concern that the correlations identified are not able to conclude a cause-and-effect relationship between the correlated variables and, therefore, induce study error (Gall et al., 2005). Complex abilities are often reduced and simplified into basic components; thus, Gall et al. recommend users of this type of research should be encouraged to maintain a careful analysis of the data so that the phenomena can be best and carefully understood. The study minimized that limitation by using the previously validated CTPS instrument (Akos et al.,
and by closely monitoring the responses. Additionally, this study, without random sampling and including a statistically valid represented number of respondents, effectively showed trending, which may have practical significance.

A second limitation is the purposive sampling method used in this research study. Purposive sampling is not free from bias (Tongco, 2007). This type of sampling makes it more difficult to conclude valid inferences about a population; however, the benefit of such a method is the participants are being studied in their natural setting (Gall et al., 2005). That limitation was minimized because the respondent population was purposely narrow in scope (core academic classroom, middle school teachers).

A third limitation of the study was the inability to control for extraneous variables that have the potential to influence teacher perspectives of career education at the middle school level. For example, the socio-economic background of teachers may influence their perspective of career education. Perhaps a teacher had a family member who was a blue-collar worker. That personal connection could produce a negative or positive influence on the career perspective of the teacher. Thus, that could be an example of an extraneous variable. Related to that limitation are the known limitations of the Likert scale, where the respondent cannot discern the difference between choices since it is difficult to be truly equidistant between selections. Additionally, most participants will not choose an extreme choice of either positive or negative when that extreme choice might be warranted. Those limitations exist but were minimized by including a large collection of independent teacher variables.

A fourth limitation is the outcome of non-response. A fundamental step in getting survey participation of a sample person is to make face-to-face contact. Since face-to-face contact was not possible, this study resulted in an unexpectedly high non-response rate due in part to non-contact. It is not possible to identify the characteristics of the non-responsive population. That population may have been reluctant to respond to the survey due to their lack of knowledge, appreciation, or support of the concept of career education, or for other elusive reasons. The measurement device provided statements in the questionnaire that can be considered broad and general. This generalness provides many directions for respondents’ interpretations; therefore, it may be a concern that respondents felt
safest to respond with either agree or strongly agree. Although a smaller-than-desired data set was collected, the analysis concluded the respondent data that were collected represented a valid sample size of the overall school district, middle school makeup, and teacher population.

**Findings and Implications**

The findings are connected to both significant literature that exists on the topic of career education and to the conceptual framework of the study in the sub-sections that follow. Previous research from Oppenheimer and Flum (1986) suggest that teachers may rate career education of high value; however, their perspectives are more complex due to the multiple definitions of career education. In addition, there are several influencing variables, such as type of school, grade level, subject taught, type of teaching certificate, and gender.

Akos et al. (2011) conducted the initial study using the CTPS survey. Results from their study found gender, teaching science, and the economic level of the school were associated with a teachers’ perspective of future orientation and career integration. The results from this study corroborate gender being associated with future orientation; however, this research did not associate gender with teacher perspectives of career integration. There was no significant difference found from the data in this study for teachers who taught science or any other core academic subjects. The economic level of the school’s independent variable was not an offered variable in this study as it was in Akos’s.

Charter schools are not only different from regular public schools and magnet schools, but each individual charter school is different from one another in what they practice, their leadership, and their fiscal responsibility. Teachers are hired based on subject matter taught and teach using research-based methods (Izumi, 2008). As a result, student learning standards are based on what the organizers of the school put into developing the curriculum. Findings from this study conclude that teachers at charter schools have a lower perspectival value of career education than teachers at magnet or public schools; however, that difference did not prove to be statistically significant. Knowing the value that charter schoolteachers give career education provides insight regarding what transpires inside charter school classrooms. That contributes to the existing literature since there is previously little understanding of how charter school classrooms are instructed and motivated. By having an understanding of charter-schoolteachers’ value of career education in regards to teacher
orientation and career integration, better insight is gained regarding the structure of the charter school classroom.

Magnet schools differ from both charter and public schools in that they have a motivated theme and a curricula that can have a focus on Science, Technology, Engineering, and Mathematics (STEM), Fine and Performing Arts, International Baccalaureate, International Studies, Micro Society, Career and Technical Education (CTE), World Languages (immersion and non-immersion) and several other opportunities of concentration. As magnet schools are noteworthy of encouraging teacher autonomy and professional development credentials (Evans, 2002), they encourage a hands-on-minds-on learning approach, with the belief that students have both curiosities and strengths that can be nurtured within the school. Results from this study conclude that, out of the three types of schools, magnet schools specified a higher average mean value for future orientation and career integration than charter schoolteachers and public school teachers.

The findings of the study indicate that middle school teachers who taught in charter, magnet, and public schools are in overall agreement regarding the value of career education opportunities at the middle school level. However, there were no significant differences when it came to the influence of the type of school, educational attainment, type of teaching certificate, core academic subject taught, or grade level taught. There was a statistical difference, however, in the way males versus females perceived career education and future orientation. Male teachers valued future orientation and career education significantly less than female teachers.

Constructivism in career education is enhanced by the strategy of curriculum integration. Being multi-disciplined approaches, Constructivism and career education help the learners make connections between what is learned inside the classroom and its application outside of the classroom (Paul, 2005). In addition, teachers who implement constructivist teaching techniques can become both the teacher and the researcher. A constructivist teacher observes and questions students in order to learn more about their learning habits and level of engagement (Ping, 2011). When that strategy is combined with curriculum integration, it enhances content learning and the engagement of the student.
Not only does curriculum integration enhance the learning for the students, but also the cycle continues back to the teacher, as illustrated in Figure 5.1. The teacher is reflective on how the experience and implementation of career education affects the students; thus, the teacher constructs a developed perspective about the idea of future orientation and career integration. Based on the conceptual framework, it was expected that taking into consideration the various backgrounds of teachers, certain experiences would have an influence regarding teachers’ perspectives of career education at the middle school level. According to Jean Piaget (Bruner, 1963), Constructivism theory should help researchers understand the idea that human knowledge is developed and more firmly rooted by the daily interaction of personal experiences combined with levels of knowledge.

![Figure 5.1. Connecting the framework to the findings.](image)

Results from this study support that Constructivism furthers the ability to make meaning between both past and present knowledge and beliefs (Crotty, 1998). Knowledge fails to exist outside of our minds, because it is not discovered; instead, it is constructed by individuals and their given experiences (Crotty, 1998).

The study measured this position using a 5-point Likert scale (Alreck & Settle, 1994), which applied the level of agreement using the positions: strongly disagree, disagree, agree, and strongly agree (Vagias, 2006). The teachers who participated in the study had an overall high value of future
orientation, career integration, and career education. Using such an integrated approach can provide students with opportunity to make connections with real-life applications that model life-long learning (Lake, 2000).

**Recommendations for Practice**

Reflecting on the outcomes of this study and the limitations outlined above, there are numerous recommendations for practice. The ensuing recommendations are presented for related research in the field supporting teachers’ perspectives of career education at the middle school level.

**Defining Career Education.** Career education is defined as the composite between future orientation and career integration. More specifically, it can be defined as experiential tasks, such as job shadowing, attending career fairs, conducting occupational information interviews, and participating in activities that help enhance career interests and academic expectations (Niles & Harris-Bowlsbey, 2005). Experiences can also include formal or informal discussion about potential careers or Career and Technical Education prospects that are available for students.

In order to encourage the practice and benefits of career education, a common understanding of the definition of career education is necessary. This definition should clearly identify the difference between informal versus formal career education opportunities. Prospects such as the daily practice of connecting what was learned in the classroom to how it may be applied outside the classroom, to formal career education opportunities, such as career fair days or career educational curriculums are viable options worthy of clarification. By having a clear understanding of the definition of career education, there is an increased probability that the design and practice of career education opportunities will be purposefully implemented and effectively integrated.

**Career-Relevant Instruction.** The study’s results suggest that teacher perspectives of future orientation, career integration, and their composite, career education are valued amongst charter, magnet, and public schools. In fact, the overall grand mean of the composite career education was 4.31 on a one (strongly disagree) to five (strongly agree) Likert-scale rating.

It is highly recommended to incorporate a relevant curriculum integration instruction for core middle school teachers. A clear understanding of the teachers’ responsibility to incorporate career education ameliorates the provision of career education being “everybody’s and nobody’s
responsibility” (Hoyt, 2005). Incorporating the exploration of career opportunities related to curriculum learning objectives has indicated to improve student engagement and educational performance (Orthner, Akos, Sanpei, & Rose, 2013). An example of that could be a Geography activity. Students could investigate geographical explanations for labor market trends in a location of study. Another example could be in an English or Language Arts course. After reading a biography, students could write an essay reporting the pros and cons of the character’s occupation.

Given their feasibility, it is critical to promote and maintain opportunities for teachers to incorporate career educational opportunities for their middle school students. By providing students with probing opportunities like, “What profession uses the information we just learned in the real world?” or “How can you use the information we just learned outside of school walls?” teachers can build upon the curriculum in a way that both deepens the students’ interest and understanding of applications and make associations among subjects, resulting in a mutual advantage.

**Professional Development.** School leaders of this particular school district should acknowledge the overall high-value the teachers of this district have towards future orientation, career integration, and overall career education. It is highly recommended that teachers have access to professional development that outlines short and long-term training for both the various school types and the individual schools. Providing teachers with the opportunity to be informed of the benefits, practices, and implementation of career integration can help teachers “move away from the traditional model of instruction, in which subjects are taught by themselves, completely isolated from any context,” (Stone, Alfeld, & Pearson, 2008). Professional development can promote understanding through guest speakers, modeling, and collaborative learning.

**Opportunities for Future Research**

As with any research study, the findings encouraged new thinking and questioning. The first set of new thinking relates to the possible influences of teacher perspectives regarding career education. Research is warranted to differentiate the main sources of impact of teacher perspectives that should take into account the benefits of the two factors (future orientation and career integration). Future studies can utilize mixed methods research. That research may take into consideration entering additional sample-characteristic variables and may include utilizing open-ended
questions and classroom observations that identify the frequency of practiced career education opportunities. Incorporating variables related to those characteristics may help to strengthen the model used to predict career education perspectives.

By utilizing qualitative inquiry, a more comprehensive understanding of teachers’ perspectives towards career education can be obtained. Qualitative studies are unique to quantitative research in that they can select their participants by their value or devalue of career education in order to examine the influencing variable trends. This design of research could gain insight into family background and dynamics, which can add valuable understanding to teacher support or lack thereof relating to career education.

The second opportunity for future research relates to delving deeper into the value of teacher perspective by evaluating the utilization and effectiveness of middle-school-based career education initiatives. Evaluation should be a vital part of a middle school’s career educational program. “Evaluation is the process whose duty is the systematic and objective determination of merit, worth, or value. Without such a process, there is no way to distinguish the worthwhile from the worthless” (Scriven, 1991, p. 4). By exploring and understanding the effectiveness of those programs through the teachers and students, priority could be given to improve career education initiatives in which teachers and students find value and discard those initiatives in which teachers and students find little value.

The third opportunity pertains to gaining insight on career integration. In each of the study’s independent variables, career integration was considerably lower on the Likert-scale rating than future orientation was. There could be many reasons for that perspective difference. Career education can only be fully integrated (career integration) into a school curriculum by course developers. Teachers can begin the process but will require training and formal assistance to make it an effective tool. A better understanding of why that factor is lower across all survey questions than future orientation would benefit a curriculum developers’ and school management’s movement towards implementing a concept recognized as valuable by most middle school teachers.

Finally, the data results regarding gender and future orientation from this study corroborate data outcomes from the Akos et al. (2011) study. Thus, further research is warranted in understanding the various perspectives of future orientation based on gender identity. Why males value career
education significantly less in both surveys, conducted several years apart and in different sections of the country, is a valid question. Is it because most men have historically entered the work force after completing their education and see a diminished value in trying to encourage career opportunities to students? Or is it something else? That can be accomplished through future research by further expanding teacher independent variables and developing an improved measurement device of male teachers’ perspectives of career education.

In summary, this research study provided expanded evidence that magnet middle-school teachers indicated a higher mean value of future orientation, career integration, and career education than charter and public school teachers. In addition, it further corroborated existing data that female middle-school teachers had a significant difference in their higher value of future orientation and overall career education than male middle-school teachers.
REFERENCES


Finlayson, K. J. (2010). Perceptions of Career Technical Education by Middle School and High School Counselors and the Effect of These Perceptions on Student Choice of Career and Education Planning. *ProQuest LLC.*


National Middle School Association Research Committee. (2003). *An Adult Advocate For Every Student in This We Believe: Successful Schools for Young Adolescents*. Westerville, OH: National Middle School Association: 16-17.


Appendix A: (Removed to protect identity) County Public School’s Research Approval

Meredith Leigh Bogush
Home address removed to protect identity

Dear Ms. Bogush:

The Removed to protect identity district has agreed to participate in your research proposal, The Perspectives of Middle School Teachers Regarding Career Exploration Under Different School Settings. A copy of this letter must be available to all participants to assure them your research has been approved by the district. Your approval number is RR1516-67. You must refer to this number in all correspondence. Approval is given for your research under the following conditions:

1) Participation by the schools is to be on a voluntary basis. That is, participation is NOT MANDATORY and you must advise ALL PARTICIPANTS that they are not obligated to participate in your study.

2) You must request approval from this department before other schools are added to your sample.

3) You can send one invitation to participate, and only one follow-up/reminder to participate.

4) Confidentiality must be assured for all. That is, ALL DATA MUST BE AGGREGATED SUCH THAT THE PARTICIPANTS CANNOT BE IDENTIFIED. Participants include the district, principals, administrators, teachers, support personnel, students and parents.

5) Any student data MUST be DESTROYED when the project has been completed.

6) Research approval does not constitute the use of the district’s equipment, software, email, or district mail service. In addition, requests that result in extra work by the district such as data analysis, programming or assisting with electronic surveys, may have a cost borne by the researcher.

7) This approval WILL EXPIRE ON 6/30/2016. You will have to contact us at that time if you feel your research approval should be extended.

Letterhead information was removed to protect identity of school district
9) A copy of your research findings must be sent to us for our files and must be submitted to this department.

<table>
<thead>
<tr>
<th>SERVE VOLUNTEER FORMS/FINGERPRINTING:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your proposal indicates that you will not come into contact with any students. IF THIS CHANGES, YOU MUST contact us for further instructions.</td>
</tr>
</tbody>
</table>

Good luck with your endeavor. If you have any questions, please advise.

Closing signature was removed to protect identity of school district
Appendix B: IRB Exempt Certification

February 17, 2016

Meredith Bogush
L-CACHE - Leadership, Counseling, Adult, Career & Higher Education
Tampa, FL 33613

RE: Exempt Certification
IRB#: Pro00025240
Title: The Perspectives of Core Academic Middle School Teachers Regarding Career Exploration Under Different School Settings

Dear Ms. Bogush:

On , the Institutional Review Board (IRB) determined that your research meets criteria for exemption from the federal regulations as outlined by 45CFR46.101(b):

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
(i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects’ responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects’ financial standing, employability, or reputation.

Approved Items:

Version #1 Bogush

Bogush Consent Form

As the principal investigator for this study, it is your responsibility to ensure that this research is conducted as outlined in your application and consistent with the ethical principles outlined in the Belmont Report and with USF HRPP policies and procedures.

Please note, as per USF HRPP Policy, once the Exempt determination is made, the application is closed in ARC. Any proposed or anticipated changes to the study design that was previously declared exempt from IRB review must be submitted to the IRB as a new study prior to initiation.
of the change. However, administrative changes, including changes in research personnel, do not warrant an amendment or new application.

Given the determination of exemption, this application is being closed in ARC. This does not limit your ability to conduct your research project.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

Kristen Salomon, Ph.D., Vice Chairperson
USF Institutional Review Board
Appendix C: IRB Certification

Certificate of Completion

Meredith Bogush

Completed USF IRB Student Researcher Workshop

on Tuesday, September 22, 2015

USF
UNIVERSITY OF SOUTH FLORIDA

Certificate ID#: 60313
Appendix D: Online Informed Consent

Informed Consent to Participate in Research
Information to Consider Before Taking Part in this Research Study
Pro # 00025240

Researchers at the University of South Florida (USF) study many topics. To do this, we need the help of people who agree to take part in a research study. This form tells you about this research study. We are asking you to take part in a research study that is called: The Perspectives of Core Academic Middle School Teachers regarding Career Education under Different School Settings. The person who is in charge of this research study is Meredith Bogush. This person is called the Principal Investigator.

Purpose of the Study
The purpose of this study is to find out middle school teachers’ perspectives of career education and to determine what characteristics or qualities may influence those perspectives.

Why are you being asked to take part?
We are asking you to take part in this research study because you are a charter, magnet, or public middle school English language arts, mathematics, science or social studies teacher in [District Name Removed to Ensure Anonymity].

Study Procedures
If you take part in this study, you will be asked to complete an anonymous online survey through Survey Monkey. The survey should take about 3 minutes of your time to complete.

Alternatives / Voluntary Participation / Withdrawal
You have the alternative to choose not to participate in this research study. Your decision to participate or not to participate will not affect your job status.

Benefits and Risks
We are unsure if you will receive any benefits by taking part in this research study. This research is considered to be minimal risk.

Compensation
There is no cost to you to participate in the study. If desired, up to 20 participants will be randomly selected for a $10 Amazon gift card.

Privacy and Confidentiality
We must keep your study records as confidential as possible. It is possible, although unlikely, that unauthorized individuals could gain access to your responses because you are responding online.

Certain people may need to see your study records. By law, anyone who looks at your records must keep them completely confidential. The only people who will be allowed to see these records are: Principal Investigator, Meredith Bogush, the advising professor, Dr. Johanna Lasonen, and The University of South Florida Institutional Review Board (IRB).
It is possible, although unlikely, that unauthorized individuals could gain access to your responses. Confidentiality will be maintained to the degree permitted by the technology used. No guarantees can be made regarding the interception of data sent via the Internet. However, your participation in this online survey involves risks similar to a person’s everyday use of the Internet. If you complete and submit an anonymous survey and later request your data be withdrawn, this may or may not be possible as the researcher may be unable to extract anonymous data from the database.

Contact Information

If you have any questions about your rights as a research participant, please contact the USF IRB at 974-5638. If you have questions regarding the research, please contact the Principal Investigator at XXX-XXX-XXXX.

We may publish what we learn from this study. If we do, we will not let anyone know your name. We will not publish anything else that would let people know who you are. You can print a copy of this consent form for your records.

I freely give my consent to take part in this study. I understand that by proceeding with this survey that I am agreeing to take part in research and I am 18 years of age or older.
Appendix E: Survey Instructions

Dear Middle School Teacher:

I am a doctoral candidate from USF and I am requesting your participation in my research study: Middle School Teacher Perception regarding Career Education under Different School Settings. I am asking you to participate in my study by completing the CareerStart Teacher Perspective Survey. The survey takes an average of three minutes to complete. The information requested from you will be completely anonymous and will assist in determining the perspectives of career education at the middle school teacher. The University of South Florida IRB approved this project: Pro00025240.

I ask for your help in providing data for this study. I hope that you will agree to participate. For us to be able to include your data in the area study, we ask that you complete the survey by Sunday, April 17, 2016. If you desire, you can enter for a drawing to win a $10 gift card to Amazon.com. Up to 20 participants are eligible to win this drawing.

Thank you in advance for your willingness to provide information for this survey. I sincerely hope that you will take the time to help determine teacher perspectives of career education at the middle school. I appreciate your time and assistance. I am confident that you will find the survey results to be as useful to you as your results will be to us.

To complete this survey, please visit this link: Link removed due to inactivity.

Sincerely yours,

Meredith Bogush
Appendix F: CTPS Instrument

| Type of school: Magnet □ Charter □ Traditional Public □ |
| Grade level: 6 □ 7 □ 8 □ |
| Gender: Male □ Female □ |
| Licensure: Traditional □ Alternative □ Neither □ |
| Subject(s) Now Teaching: English/Language Arts □ Math □ Social science □ Science □ |
| Educational Attainment: Associate □ Bachelors □ Masters □ Vocational □ Doctoral □ |
| Race: African American □ Caucasian □ Hispanic □ Indian □ Asian □ Multi □ |
| Age: 19-24 □ 25-34 □ 35-44 □ 45-54 □ 55-64 □ 65-74 □ |

Please respond to each question by marking the appropriate box:

<p>| An important goal of school instruction is to prepare middle school students for future work. |</p>
<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

<p>| I encourage students to think about future job possibilities. |</p>
<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

<p>| Students should be taught to apply the knowledge they gain in class to real life situations. |</p>
<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

<p>| It is beneficial for students to see connections between classroom content and possible future careers. |</p>
<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

<p>| Students are more engaged in school when career content is included in classroom instruction. |</p>
<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

<p>| It is important for students to be exposed to a wide variety of jobs in the classroom. |</p>
<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

<p>| Middle school is an appropriate time to introduce career content into classrooms. |</p>
<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

<p>| Integration of career content into the standard curriculum is a helpful way to encourage students to consider possible jobs. |</p>
<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

<p>| It is important for students' future success to get a realistic preview of job possibilities. |</p>
<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

Teacher Perspectives on Career Relevant Curriculum in Middle School
RMLE Online: Research in Middle Level Education 34 (5): 1-9.
Reprinted by the permission of the Association of Middle Level Education, (http://www.amle.org).
Appendix G: Email Seeking Permission to Use CTPS Survey

Dear Professor Orthner,

My name is Meredith Bogush, and I am a Career and Workforce Education doctoral candidate at the University of South Florida. I have been interested in understanding teachers’ perspectives on career integration and future orientation since I first began teaching in the District of Columbia back in 2006. As I was reviewing research for my literature review, your name was one that I came across consistently. Each of your contributions to this area of research helped to provide a greater understanding of the direction I would like to go with my doctoral dissertation. I would be honored for the opportunity to use your 2011 instrument on CareerStart Teacher Perspectives Survey that is referred to in the Teacher Perspectives on Career-Relevant Curriculum in Middle School article.

I am hoping to get your permission to use your instrument. By doing this, I would follow your procedures for data collection as closely as possible.

Thank you in advance for your time.
Sincerely,

Meredith Bogush
Doctoral Candidate
The University of South Florida’s Career and Workforce Education

Meredith:
I enjoyed our conversation and am so pleased with the work you are planning. I am grateful that my work has been helpful to you so anything I can do to help you along the way, know that I am available.

I hope this is helpful.
Dennis
Permissions

3/22/2016

Meredith Bogush
Career and Workforce Education
University of South Florida
mbogush@mail.usf.edu

Dear Ms. Bogush,

We are in receipt of your letter requesting to reproduce the Career Start Teacher Perception (CSTP) survey from the following article

Teacher Perspectives on Career-Relevant Curriculum in Middle School
RMLPE Online: Research in Middle Level Education 34 (5): 1-9.

For use in your dissertation

Permission is granted for print and electronic use.

We will be pleased to grant you permission free of charge on the condition that:

This permission is for non-exclusive English world rights.

This permission does not cover any third party copyrighted work which may appear in the material requested.

Full acknowledgment must be included showing article title, author, and full Journal title, reprinted by permission of the Association of Middle Level Education, (http://www.amle.org).

Thank you very much for your interest in Taylor & Francis publications. Should you have any questions or require further assistance, please feel free to contact me directly.

Sincerely,

Mary Ann Muller
Permissions Coordinator
Telephone: 215.606.4334
E-mail: maryann.muller@taylorandfrancis.com
## Appendix I: Expert Panel Feedback

<table>
<thead>
<tr>
<th>001B</th>
<th>002B</th>
<th>003B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Areas for Improvement</strong></td>
<td>The spaces between some of the questions are funny.</td>
<td>I believe you could enhance the format of your survey by placing the Welcome information (up to the Statement of Consent) on a separate page than the actual survey. I think the inclusion of a Welcome Page would better represent the informed consent form a participant would complete during an in-person interview.</td>
</tr>
<tr>
<td><strong>Strengths</strong></td>
<td>I found the survey to be easy to follow and I did not encounter any issues with accessing the information. I believe it includes pertinent information to perform an exploratory study of middle school teachers' perspectives about career education. I believe the survey format is good. I appreciated your inclusion of the informed consent and confidentiality information.</td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>It won’t let me choose less than 22 years.</td>
<td></td>
</tr>
<tr>
<td><strong>Question 2</strong></td>
<td>Perhaps you should add a K-12 or K-8 Charter School option. Some charter schools may include other grades although the teachers may only teach middle school grades.</td>
<td></td>
</tr>
<tr>
<td><strong>Question 3</strong></td>
<td>Also, will you include private school or CTE teachers?</td>
<td>What about private middle schools? or an option for &quot;Other&quot;</td>
</tr>
<tr>
<td><strong>Question 4</strong></td>
<td><em>Question 4</em>: Perhaps you should add an &quot;Other&quot; option with a free-form text box to allow participants to enter another option. Some teachers may teach another subject such as Career Exploration, Computers, etc.</td>
<td>Did you want to add an &quot;other&quot; option?</td>
</tr>
<tr>
<td><strong>Question 5</strong></td>
<td>Perhaps you should add an &quot;Other&quot; option in case some teachers may not be certified. I think this would be interesting to discover, if true.</td>
<td>Would you receive any responses if you had a &quot;no certificate&quot; option?</td>
</tr>
<tr>
<td><strong>Other Comments</strong></td>
<td>I think you should consider adding a free-form comment box to capture general comments your participants may have. They may provide additional feedback you had not considered.</td>
<td>I think you might get a lot of &quot;Agrees&quot; and &quot;Strongly Agrees.&quot; Maybe some variety in the questions or reversing them. Maybe adding a question 11 as an optional open-ended one for survey-takers to expand on their responses.</td>
</tr>
</tbody>
</table>
APPENDIX J: Race Frequency

<table>
<thead>
<tr>
<th>Frequency of Race based on School Type</th>
<th>Charter</th>
<th>Magnet</th>
<th>Traditional Public School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian / Pacific Islander</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Black or African American</td>
<td>2</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>White / Caucasian</td>
<td>16</td>
<td>26</td>
<td>97</td>
</tr>
<tr>
<td>Multiple ethnicity / Other (please specify)</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

The chart shows the frequency of different races based on school type.
APPENDIX K: Age Frequency

<table>
<thead>
<tr>
<th>Frequency of Age according to School Type</th>
<th>18 to 24</th>
<th>25 to 34</th>
<th>35 to 44</th>
<th>45 to 54</th>
<th>55 to 64</th>
<th>65 to 74</th>
<th>75 or older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charter</td>
<td>1</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Magnet</td>
<td>3</td>
<td>11</td>
<td>9</td>
<td>10</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Traditional Public School</td>
<td>6</td>
<td>39</td>
<td>39</td>
<td>40</td>
<td>14</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>
### APPENDIX L: Regression Analysis results

The REG Procedure  
Model: MODEL1  
Dependent Variable: FACT1

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Squares</th>
<th>Square</th>
<th>F Value</th>
<th>Pr &gt; F</th>
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<tbody>
<tr>
<td>Model</td>
<td>14</td>
<td>18.58044</td>
<td>1.32717</td>
<td>1.96</td>
<td>0.0233</td>
</tr>
<tr>
<td>Error</td>
<td>183</td>
<td>124.11053</td>
<td>0.67820</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>197</td>
<td>142.69097</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Root MSE: 0.82353  
R-Square: 0.1302

Dependent Mean: 4.40278  
Adj R-Sq: 0.0637

Coeff Var: 18.70475

<table>
<thead>
<tr>
<th>Parameter Estimates</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
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<td>0.15218</td>
<td>31.67</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>MAST1</td>
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<td>-0.17337</td>
<td>0.12828</td>
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<td>0.1782</td>
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<tr>
<td>PHD1</td>
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<td>0.31191</td>
<td>0.44</td>
<td>0.6641</td>
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<tr>
<td>BLACK1</td>
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<td>0.16865</td>
<td>-0.38</td>
<td>0.7037</td>
</tr>
<tr>
<td>HISP1</td>
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<td>-0.19836</td>
<td>0.19728</td>
<td>-1.01</td>
<td>0.3160</td>
</tr>
<tr>
<td>MULTI1</td>
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<td>-0.75211</td>
<td>0.32451</td>
<td>-2.32</td>
<td>0.0216</td>
</tr>
<tr>
<td>MALE1</td>
<td>1</td>
<td>-0.31985</td>
<td>0.13990</td>
<td>-2.29</td>
<td>0.0234</td>
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<td>ALT1</td>
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<td>-0.18542</td>
<td>0.15290</td>
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<td>0.2268</td>
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<tr>
<td>NEITH1</td>
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<td>0.28790</td>
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<td>0.0731</td>
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<td>AGE2534</td>
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<td>0.16142</td>
<td>-1.25</td>
<td>0.2129</td>
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<tr>
<td>AGE5564</td>
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<td>-0.51927</td>
<td>0.22831</td>
<td>-2.27</td>
<td>0.0241</td>
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<tr>
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<td>0.39151</td>
<td>-2.47</td>
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The REG Procedure  
Model: MODEL1  
Dependent Variable: FACT2

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<th>Source</th>
<th>DF</th>
<th>Squares</th>
<th>Square</th>
<th>F Value</th>
<th>Pr &gt; F</th>
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<tbody>
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Root MSE: 0.87453  
R-Square: 0.1102

Dependent Mean: 4.01818  
Adj R-Sq: 0.0421

Coeff Var: 21.76477

<table>
<thead>
<tr>
<th>Parameter Estimates</th>
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The REG Procedure
Model: MODEL1
Dependent Variable: COMP

Number of Observations Read 199
Number of Observations Used 197
Number of Observations with Missing Values 2

Analysis of Variance

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<tr>
<th>Source</th>
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<th>Mean Square</th>
<th>F Value</th>
<th>Pr &gt; F</th>
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Root MSE 0.80953  R-Square 0.1256
Dependent Mean 4.18895  Adj R-Sq 0.0584
Coeff Var 19.32548

Parameter Estimates

| Variable  | DF  | Parameter Estimate | Standard Error | t Value | Pr > |t|  | Inflation |
|-----------|-----|--------------------|----------------|---------|-------|----------------|
| Intercept | 1   | 4.57482            | 0.14960        | 30.58   | <.0001| 0              |
| MAST1     | 1   | -0.18704           | 0.13618        | -1.37   | 0.1713| 1.19030        |
| PHD1      | 1   | 0.20567            | 0.33120        | 0.62    | 0.5354| 1.10108        |
| BLACK1    | 1   | 0.21761            | 0.17866        | 1.22    | 0.2253| 1.09363        |
| HISP1     | 1   | -0.00182           | 0.21328        | -0.01   | 0.9932| 1.06943        |
| MULTI1    | 1   | -0.54306           | 0.34458        | -1.58   | 0.1167| 1.04832        |
| MALE1     | 1   | -0.34671           | 0.24180        | -1.43   | 0.1533| 1.05954        |
| ALT1      | 1   | -0.84813           | 0.41508        | -2.04   | 0.0425| 1.09796        |
ABOUT THE AUTHOR

Meredith Leigh Bogush has worked in education for 10 years. She began her career teaching in the K-8 schools in Washington DC while also working in curriculum development for English/Language Arts and mathematics for all K-8 grade levels. After six years of experience as a classroom teacher, she gained additional teaching experience abroad in India, Senegal, England, and the Dominican Republic. Meredith then transitioned to Program Coordinator from the University of South Florida’s tutoring initiative program where she supervised and mentored more than 150 tutors in 16 local area middle schools. In 2016, Meredith participated in the CIMO fellowship in Jyväskylä, Finland for three months. Meredith is certified in program evaluation and meta-evaluation through the University of South Florida. She holds a bachelor’s degree in economics from the University of Virginia’s College at Wise and a master of teaching in special education from Trinity Washington University.