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# Instructional Alignment of Workplace Readiness Skills in Career and Technical Education

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# INSTRUCTIONAL ALIGNMENT OF WORKPLACE READINESS SKILLS IN

# CAREER AND TECHNICAL EDUCATION

by

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# Abstract

INSTRUCTIONAL ALIGNMENT OF WORKPLACE READINESS SKILLS IN
CAREER AND TECHNICAL EDUCATION

Sarah Jane Martin
Old Dominion University, 2009
Director: Dr. Philip A. Reed

The United States faces a skills shortage that goes beyond academic and technical skills. Employers report entry-level workers lack the necessary "soft" skills, also referred to as workplace readiness skills, needed for success in the workforce; thus, calling on educational institutions to make improvements in high school curriculum in order to address the skills gap. The intent of this dissertation was to examine high school marketing education teachers' knowledge of workplace readiness skills and whether that knowledge had an impact on student workplace readiness skill achievement. Further, this study examined the usage of Virginia's 13 Workplace Readiness Skills curriculum and identified the teaching methods and instructional strategies used to disseminate the skills to students.

Three sets of data were used for this study: teacher workplace readiness skills data, teacher survey data, and student workplace readiness skills post-test data. Pearson's correlation was used to determine whether teacher knowledge of workplace readiness skills had an impact on student attainment of the same. The results showed that while overall teacher scores did not show a statistical significance on overall student scores, there were four individual skill areas in which there was a relationship between teacher and student scores.

Recommendations to practitioners focused on increased professional development for teachers on identifying workplace readiness skills, training on how to teach the skills using research-based teaching methods and instructional strategies, training on using on-going assessments to adjust instruction for student achievement, and implementing workplace readiness skills into career and technical education curriculum to provide a better prepared workforce.

This dissertation is dedicated to my wonderful husband, John, for his love, support, and unwavering faith in me. In my moments of doubt, he was a constant cheerleader and supporter. I greatly appreciate you for believing in me. To my beautiful girls, Sofie and Jessica, may all of your dreams come true.

To educators around the globe, "Sooner or later, everyone goes to work."

John F. Ledgerwood

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Sarah Jane Martin

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# CHAPTER I

# INTRODUCTION

"The United States is facing a serious challenge in preparing students to meet workplace demands in an increasingly complex, knowledge- and technology-based, global economy" (Conference Board Report, Corporate Voices for Working Families, Partnership for 21$^{st}$ Century Skills, and the Society for Human Resource Management, 2006, p. 12).

The United States faces a skills shortage that goes beyond academic and technical skills. The shortage is of technically skilled workers who lack the skills employers have identified as "soft skills," such as communications and interpersonal skills (Holdsworth & Gearhart, 2002). Employers are concerned that the gap which exists between skill readiness and those exhibited by potential employees will widen (ACT, Inc., 2006; Conference Board Report, Corporate Voices for Working Families, Partnership for 21$^{st}$ Century Skills, and the Society for Human Resource Management & WSJ/Careers, 2006; Martin, Carrier, & Hill, 1997; National Center on Education and the Economy, 2007). The United States no longer can claim that its educational results are unparalleled. Students around the world significantly outperform even the top American students on comparative assessments that measure competence in 21$^{st}$ century skills (Partnership for 21$^{st}$ Century Skills, 2006). According to the Conference Board Report, et al (2006) most young people entering the U.S. workforce lack critical skills essential for success. Industry studies show the need for more soft skills training. A 1989 American Management Association (AMA) survey of more than 1,000 human resources managers found that 22% of the job applicants lacked basic reading and mathematics skills which prevented them from getting hired (Greenberg, 1996). Zargari (1997) found that in today's changing workplace, an employee needs to learn the importance of continuously

developing skills beyond those required for the performance of a specific job; such skills are the ability to think critically, problem-solve, work in teams and oral and written communication. According to The Conference Board Report (2006), "These skills are in demand for all students, regardless of their future plans, and will have an enormous impact on our students' ability to compete" (p. 7). The ability of the United States to stay competitive in the 21$^{st}$ century is dependent upon the preparedness and skill levels of its workforce. A survey of manufacturers found that the most common reason companies reject applicants for hourly production jobs was inadequate basic employability skills, such as attendance, timeliness, and work ethic (National Association of Manufacturers Anderson Center for Workforce Success, 2002). Without a pool of qualified workers from which to choose, U.S industries will have to look outside the country for their labor force (Lankard, 1990). This movement has a direct impact on local businesses as they try to fill the employment void with less qualified workers than their global competitors. In essence, if our students are not learning how to problem-solve, work in teams, and learn to clearly communicate ideas, then the United States economy will suffer as more and more industries will be short of qualified employees and be forced to move manufacturing plants overseas (Friedman, 2005).

There is a disconnect between what is taught in schools and what is needed in the workplace (ACT, 2006). The increase in educational accountability measures for student achievement have driven states and local school divisions to re-focus their attention on what and how students are taught (Wagner, 2008), moving from a curricula of discovery to one of test-prep. Now more than ever, leading corporate managers expect states and local school divisions to do a better job of teaching technical education, professionalism

and work ethic (Partnership for 21st Century Skills, 2006). Therefore, in order to better prepare students for life after high school, educational leaders need to re-align their policies and curricula in order to facilitate student transition from K-12 to postsecondary education and the workforce.

### Statement of the Problem

The purpose of this study was to examine high school marketing education teachers' knowledge of workplace readiness skills and whether that knowledge had an impact on student workplace readiness skill achievement.

### Research Questions

To guide this study the following research questions were established:

1. To what extent are marketing education teachers knowledgeable of workplace readiness skills?

2. What teaching methods and instructional strategies did teachers report to deliver the workplace readiness skills?

3. How successful were the students in obtaining competence in workplace readiness skills?

4. Is there a correlation between teacher knowledge and student attainment of workplace readiness skills?

### Background and Significance

There has been a great deal of attention placed on improving the quality of school programs over the past 10 years (Southern Regional Education Board, 2000). School reform efforts are not only focusing on students' academic achievement, but also on

preparing students to be work ready. According to the National Governor's Association (2007), America's high schools are not adequately preparing America's youth for a global society. Governor's from all states, with support from business and industry, are spearheading an initiative to include workplace readiness skills into public education. They are focusing their efforts on how graduates will acquire the skills employers deem as necessary for success in the workplace, who will provide the teaching/training of the skills and how student knowledge of the skills will be validated or assessed. Career and technical educators in Virginia believe that career and technical education (CTE) programs are one area to incorporate the workplace readiness skills (CTE Resource Center, n.d.). Secondary CTE legislation and programs have included instruction in employability skills since the early 1990s (Holdsworth & Gearhart, 2002). The original purpose of CTE, often still referred to as vocational education, was to prepare students for work following high school. Today, CTE focuses on career education including rigorous and challenging academic content standards and providing a non-duplicative sequence of courses leading to an industry-recognized credential or certificate, or an associate or baccalaureate degree (ACTE, 2004).

According to the U.S. Department of Education, the Office of Vocational and Adult Education (2007):

> Career and technical education is a massive enterprise in the United States. Virtually every high school student takes at least one career and technical education course, and one in four students take three or more courses in a single program area. One-third of college students are involved in career and technical education programs (para. 1).

During the 2005 National Education Summit on High Schools sponsored by the National Governor's Association (NGA) and Achieve, Inc., in partnership with the Business

Roundtable, John Thomasian, Director of the NGA Center, affirmed that governors recognize the value of CTE programs and the opportunities the programs offer towards academic and career success. When paired with a rigorous academic platform, CTE programs make learning more relevant and engaging when aligned with students' interests and career skill needs (p. 3). Therefore, it is only fitting that CTE be involved in providing the education and skills needed for graduates to succeed in the workplace.

Over the last two decades, reports have indicated that a skills gap exists between what is arriving at the door of industry and what is exiting from high school and college (Commission on the Skills of the American Workforce, 1990, National Academy of Science, 1984, National Association of Manufacturers Anderson Center for Workforce Success, 2002, U.S. Department of Labor – Employment and Training Administration, 1990). Progressive business leaders have contended that vocational education should teach students to be adaptable, work in teams, solve problems, and make decisions to increase worker productivity and international competitiveness (Gregson, 1994). A national report, *America's Choice: high skills or low wages!* (Commission on the Skills of the American Workforce, 1990) suggested that vocational graduates must have such skills and attributes if American industries are to become high performance work organizations. High school graduates possessing such skills will be better equipped to enter the workforce, become a valuable asset to their employer, and be prepared to compete in a global economy. Additionally, employers will have better qualified employees and be able to compete and grow in the marketplace (Freidman, 2005).

Across the nation, states are revamping their K-12 curricula to include the skills sought after by employers. Virginia is one of many states focusing on CTE as the vehicle

in which to incorporate workplace readiness skills to prepare students for the demands of the global marketplace. Identifying the skills and determining how to embed them into CTE curricula became a focus of the Virginia Department of Education. In 1997, the Weldon Cooper Center at the University of Virginia convened a panel of business representatives who identified thirteen skills which employees need to possess in order to be successful in the workplace, including academic skills and personal qualities called "soft skills" (Martin, Carrier, & Hill, 1997). After interviewing 564 employers in Virginia, the researchers identified the skills employers sought in their entry-level employees. Those skills became known as Virginia's 13 Workplace Readiness Skills - reading, math, writing, speaking, computer, problem-solving skills, understanding the "big picture," work ethic, a positive attitude, independence and initiative, self-presentation skills, attendance, and teamwork. Opportunity Inc., Hampton Roads' Workforce Development Board in Southeast Virginia, conducted a similar survey in January 2006 to determine the workforce needs of Hampton Roads. A total of 500 employers from various industries participated in the study. The results mirrored those of the Weldon Cooper Center. The skills were not technical in nature, rather skills important across all fields of work (Opportunity, Inc., 2007).

With the skills identified, the goal now was to determine if they were being taught in K-12 curricula, and if so, in which disciplines. Opportunity Inc. contacted the school divisions within Workforce Investment Board Region 16 to determine if the identified "soft skills" were included within career and technical education courses. Findings showed that these skills were considered "add-ons" to an already intense student competency list. While these 13 skills were included on all high school CTE course task

lists in Virginia (CTE Resource Center, n.d.), an instructional curriculum was not available. Opportunity, Inc. decided to take action to help in the development of a workplace readiness skills curriculum for regional career and technical education students. Opportunity, Inc. sent a request for proposals (RFP) to all local school divisions within its region seeking curriculum writers to develop and disseminate a curriculum for Virginia's 13 Workplace Readiness Skills. Virginia Beach City Public Schools' Office of Technical and Career Education responded to the RFP and received the grant. Virginia Beach City Public Schools organized its resources to include thirteen teachers to write the curriculum, a retired teacher to serve as the webmaster for the project, and partnered with Virginia's CTE Resource Center to serve as the reviewer of the curricula and to compile all work into one concise document. The National Occupational Competency Testing Institute (NOCTI) was contracted to develop an assessment, both a pre- and post-test, based on the content developed for the curriculum.

During the eighteen-month process, each curriculum writer was assigned a skill area and charged with researching the skill to include evidence which supported the need for employees to possess an understanding and knowledge of the skill as it relates to success in employment. Furthermore, each writer was to create twelve lessons for the particular skill they were assigned. All lessons were designed to reinforce the skill and were differentiated by student readiness, learner profile, and interest. The lessons were created using a variety of instructional strategies to meet the needs of different learning styles and student interests. The depth of the lessons varied from students having no prior knowledge of the skill to providing extension activities for those students desiring to explore deeper into the content. The lessons were not designed to be taught in sequence,

but rather to be selected and aligned by the classroom teacher with their instructional plans for the best fit based on the course content and results of the students' pre-test. A post-test assessment served as a means to determine if there was growth in learning the skill areas after the lessons were taught and to measure whether the teachers were successful in teaching all thirteen skills.

## Delimitations

The findings of this research were delimited by the following parameters:

1.  The participants of this study included only Virginia Beach City Public Schools high school marketing education teachers and students.

2.  The medium for testing student achievement on workplace readiness skills was limited to the online assessment via the National Occupational Competency Testing Institute.

3.  This study examined the success of the curriculum in part by the students' post-test scores on the National Occupational Competency Testing Institute assessment on Virginia's 13 Workplace Readiness Skills.

## Assumptions

Assumptions of this study were:

1.  Teachers participating in this study have taken the workplace readiness skills assessment.

2.  Teachers participating in this study used Virginia's 13 Workplace Readiness Skills curriculum as the means for student achievement/competency attainment of the workplace readiness skills.

3. Teachers participating in this study did not alter their responses to the survey questions in order to 'please' the researcher and support their study; this social desirability poses a risk to internal validity.

## Procedures

Virginia Beach marketing education teachers attended two training sessions in the use of the workplace readiness skills curriculum. The training sessions were conducted by the Office of Technical and Career Education staff and the workplace readiness skills curriculum writers. Training sessions were offered several times during the course of the 2006-07 and 2007-08 school years. Both training sessions incorporated the use of whole group and small group instruction. For small group discussion, teachers were grouped according to program area, i.e., Marketing Education, Technology Education, Business and Information Technology, Family and Consumer Sciences, and Trade and Industrial Education. This grouping allowed teachers to share content knowledge as well as any work experience in their field with the other members. Each training session provided teachers the opportunity to interact with curriculum and data. The facilitators concluded the training sessions by asking each participant to complete an exit ticket and training evaluation form. The first two-hour training session provided information on the updated course requirements and competencies; emphasizing the new essential competency *Demonstrate Virginia's Workplace Readiness Skills in course activities* (CTE Resource Center, n.d.). Training facilitators shared the research which led to the identification of Virginia's 13 Workplace Readiness Skills, the development of the curriculum, the teaching methods and instructional strategies used to incorporate workplace readiness skills into each CTE course using Virginia's 13 Workplace Readiness Skills curriculum,

and training on the use of the support resources referenced within each skill area in the curriculum; including the use of pre- and post-test assessments developed by NOCTI. The second two-hour training session focused on interpreting pre-test data to adjust instruction for student achievement. Teachers were guided through an analysis of their students' pre-test data to determine the low lying skill areas. Teachers worked in small groups to plan and strategize on how to adjust teaching methods and instructional strategies to address those areas. Students were post-tested six months after the pre-test as a means to measure growth in the skill areas.

## Methods

Several methods of data collection were used in this study; Virginia's 13 Workplace Readiness Skills assessment – teacher and student, and a teacher survey. CTE high school marketing education teachers were asked to take an online assessment to determine their knowledge of workplace readiness skills. The teacher assessment was developed by the researcher using Virginia's 13 Workplace Readiness Skills curriculum. The assessment's validity and reliability are addressed in Chapter III.

Student post-test workplace readiness skills data were used as a measurement of student achievement. The student assessment was developed by the National Occupational Competency Testing Institute (NOCTI) using Virginia's 13 Workplace Readiness Skills curriculum. The assessment's validity and reliability are addressed in Chapter III. Data collected from the teachers' assessment and the students' post-test were compared to determine whether there was a correlation between teacher knowledge of the skills and student attainment of the same.

The marketing teachers were asked to participate in an online survey. The purpose of the survey was to gather information on the teaching methods and instructional strategies used to teach Virginia's 13 Workplace Readiness Skills. The survey was modified from a previous study and is addressed in Chapter III. Data collected from the survey were used to identify the most commonly used teaching methods and instructional strategies used to deliver workplace readiness skills to students enrolled in a second year marketing education course.

The anonymity of the participants was respected and guarded by the specific privacy measures established by the researcher and approved by the institution's Human Subjects Review Committee and the local school division's Research, Evaluation and Assessment Department (see Appendix A). Because of the position of the researcher within the school division and the teachers who were asked to participate in the study, the researcher chose a third party to serve as a 'middleman' in the data collection process. Teachers who were interested in participating in the study contacted the third party via email. Teachers provided the third party a four-digit numeric code which was used as an identifier for both the assessment and survey. The teacher names and corresponding codes were kept with the third party during the study. The third party emailed each participant two separate web links; one for the survey and one for the assessment. After completion on both instruments, the results were sent to an electronic drop box that was accessed by the researcher. Additionally, the researcher sent an electronic file of the student post-assessment scores. The third party cross-walked the student data with the teachers' numeric code so the researcher could analyze the data according to the guiding research questions for the study. All data collected were destroyed after the study was

complete. Findings of the study are analyzed and summarized in Chapter IV and are reported in aggregate.

## Definition of Terms

The following terms have been defined in order to give the reader a better understanding of the content discussed within this research.

- Achievement (1) refers to a student's score on pre- and post-tests. (2) a score showing a difference between the workplace readiness skills pre-test and the post-test have measured achievement.

- Collaborative Learning is defined as students working together towards a common goal, to create or develop an outcome that is not pre-determined by the instructor (personal communication with Daniel Baron, Harmony Education Center, October 7, 2008).

- Completer is defined as a student who has taken at least two-years of sequential courses within a specified program area and has graduated from high school (Virginia Department of Education Office of Career and Technical Education and Adult Services, 2008).

- Cooperative Learning is defined as students working together towards a common goal to create or develop an outcome that is pre-determined by the instructor (personal communication with Daniel Baron, Harmony Education Center, October 7, 2008).

- CTE Resource Center is a clearinghouse for Virginia Career and Technical Education. The Center offers a variety of products and services to the Virginia Department of Education, other state agencies funded under the Perkins Act, and

local school divisions throughout the Commonwealth (CTE Resource Center, n.d.).

- <u>DACUM</u> is the acronym for **developing a curriculum**; a system for gathering information from practicing professionals about the essential knowledge, skills, and attitudes required of entry-level professionals. This information is placed in a DACUM chart which is used in decision making about how to build the curriculum for the particular technology program under scrutiny (Dacum, 2001).

- <u>Entry-level employee</u> is defined for the purpose of this research as a position within a company that does not require a four-year college degree.

- <u>Instructional Alignment to standards</u> refers to instruction that is aligned with standards (expectations) and to the assessments developed to measure the standards. Improvements in student learning will depend on how well assessment, curriculum, and instruction are aligned and reinforce a common set of learning goals, and on whether instruction shifts in response to the information gained from assessments (National Research Council, 1999).

- <u>Instructional Strategies</u> are methods that are used in the lesson to ensure that the sequence or delivery of instruction helps students learn (Access Center, 2009). For the purpose of this study, teaching methods and instructional strategies are synonymous.

- <u>National Occupational Competency Testing Institute (NOCTI)</u> is a leading provider of high-quality occupational competency assessment products and services to secondary and post-secondary educational institutions in the United States and around the world (NOCTI, n.d.).

- One-Stop Career Centers are publicly-funded resource centers for jobseekers and businesses. One-stop centers assist individuals in locating jobs from entry level to technical to professional to CEO; identify job-ready workers with the right skills; assist in locating public workforce services in an area, and assist individuals in exploring alternative career paths, compare salary data for different occupations, learn which careers are hot, get resume writing tips and job interview strategies (U.S. Department of Labor, n.d.).

- Opportunity, Inc. is one of the sixteen Virginia Workforce Development Boards. Opportunity Inc.'s Board of Directors (the South and Western Hampton Roads Workforce Development Board) is responsible for developing policy and overseeing local workforce development initiatives in partnership with the local elected officials (Opportunity, Inc., n.d.).

- Program Area as identified by the Virginia Department of Education, Office of Career and Technical Education include courses within one of seven areas: Agriculture Education; Business and Information Technology; Family and Consumer Science; Health and Medical Sciences; Marketing Education; Technology Education; and Trade and Industrial Education.

- Soft Skills are a set of personal qualities, attributes, talents, or the levels of commitment that an individual can bring to the workforce that set him or her apart from other individuals who may have similar skills and experience (Perreault, 2004).

- <u>Teaching Methods</u> are the principles and methods of instruction based on a continuum ranging from "exposition" to "inquiry" (Cantrel, n.d.). For the purpose of this study, teaching methods and instructional strategies are synonymous.

- <u>Virginia's 13 Workplace Readiness Skills</u> are soft skills identified by Virginia employers as non-technical skills. Virginia's 13 Workplace Readiness Skills include: reading, math, writing, speaking, computer, problem-solving skills, understanding the "big picture," work ethic, a positive attitude, independence and initiative, self-presentation skills, attendance, and teamwork (CTE Resource Center, n.d.).

- <u>Workforce Investment Boards (WIB)</u> provide workforce development leadership in their communities. Business-led WIBs have the critical role of governance and oversight of the federal resources that support the operations of the national network of taxpayer-supported One-Stop Career Centers and federal training investments. WIB membership consists of private-sector businesses and employer representatives, working in concert with public sector representatives to design effective workforce development services for job seekers and employers alike (National Association of Workforce Boards, n.d.).

## Summary and Overview

"Creating an aligned, 21st century public education system that prepares students, workers and citizens to triumph in the global skills race is the central economic competitiveness issue for the next decade" (Partnership for 21st Century Skills, 2008, p. 1).

The research supporting the need for public education to include workplace readiness skills in the high school curricula is plentiful (NGA, 2007, Partnership for 21st

Century Skills, 2007a, Zargari, 1997); however, little research has been conducted on when (at what grade level) the skills should be taught to students and which educational discipline should be responsible for disseminating the instruction. The development of Virginia's 13 Workplace Readiness Skills curriculum and training for teachers to incorporate them into high school career and technical education courses was an important step in student attainment of the workplace readiness skills.

The primary purpose of this study was to investigate a possible relationship between high school marketing education teachers' knowledge of workplace readiness skills and student attainment of the skills. Further, this study identified teaching methods and instructional strategies used to deliver workplace readiness skills within marketing education courses so that other CTE teachers could replicate with intent to raise student attainment of workplace readiness skills. In Chapter I, research questions and a list of related terms were presented. Clearly defined delimitations and assumptions were also presented to establish the scope of this study.

Chapter II is a comprehensive review of related literature; specifically identifying the skills, the call for workplace readiness skills from business and industry as they relate to the changing workforce, and the role of career and technical education in incorporating workplace readiness skills in CTE curriculum - development and implementation. Further, a review of research on teaching methods and instructional strategies, and required professional development for career and technical education are presented.

Chapter III describes the research methodology and procedures as it applies to the research questions. The research questions are presented along with a description of the

participants, research variables and instrumentation reliability and validity. Data

collection procedures and statistical analysis procedures conclude the third chapter.

The findings and results of statistical tests performed on the collected data are

included in Chapter IV. Finally, in Chapter V conclusions and recommendations for

practice and further research in this area are presented.

# CHAPTER II

# REVIEW OF LITERATURE

This chapter presents a review of relevant strands of literature examined for this study of teaching workplace readiness skills in high school career and technical education programs. Five relevant strands of literature were included in this study. The first strand pertained to the identification of soft skills and the call for workplace readiness skills by business and industry. The second strand focused on the changing workforce, specifically the skills employees need to enter the workforce in the twenty-first century. The third strand focused on curriculum development and implementation; narrowing the curriculum designs and models to those that are commonly used in CTE and support the implementation of workplace readiness skills. The fourth area of review focused on teaching methods and instructional strategies. The methods and strategies reviewed were those that allow students to make a connection between the classroom and the workforce, providing relevance and authentic assessments. Finally, a fifth strand focused on required professional development as outlined in federal legislation for career and technical educators.

## Identification of and the Call for Workplace Readiness Skills

"The future U.S. workforce is here- and it is woefully ill-prepared for the demands of today's (and tomorrow's) workplace" (Conference Board Report et al, 2006, p. 9)

Several reports have emerged from the business community that address the competencies needed of both high school and postsecondary graduates to succeed in the workplace. The most notable projects in this country which began the call for preparing students for the workforce were conducted by the National Academy of Science (1984),

the Committee for Economic Development (1985), and the Secretary's Commission on Achieving Necessary Skills (SCANS) report (1990). The National Academy of Science established a study panel including representatives from different types of public and private sector employers, labor unions, university scholars, and representatives from the education community. Their task was to identify skills or attributes that were not technical in nature; rather they were to identify "necessary skills" employees would need to succeed in a lifetime of employment. These skills included reasoning and problem-solving, reading, writing, computation, oral communication, interpersonal skills, social and economic studies and personal work habits and attitudes (Appendix B). The Committee for Economic Development (CED) was a strong proponent of building partnerships between business and industry and the education sector. The goal of the report, *Investing in our Children* as cited in Wise, Chia, & Rudner (1990), was to identify individual traits that were "important for success in the workplace, strategies for increasing investment in education, programs for upgrading the professionalism of teachers, and ways that schools and business could forge partnerships" (p. 23). A critical component of the report included an employer survey. In a summary of the report conducted by Levine (1985), the employer survey identified sixty skill attributes that were then grouped into ten clusters; including problem-solving and decision making, working well with others, and communicating. In 1990, the Secretary's Commission on Achieving Necessary Skills (SCANS) report, commissioned by the Secretary of Labor to determine the skills our young people needed to succeed in the world of work, indicated that students are graduating high school and college lacking the skills necessary to maintain and compete in the workplace (U.S. Department of Labor – Employment and

Training Administration, 1990). The fundamental purpose of the SCANS report was to encourage a high-performance economy characterized by high-skill, high-wage employment. Although the commission completed its work in 1992, its findings and recommendations continued to be a valuable source of information for individuals and organizations involved in education and workforce development (Wise, Chia, & Rudner, 1990).

These early studies gave voice to American business and industry as they continued to report the skills employers sought, but found lacking, in potential employees. The identified skills were not based in content knowledge; rather they focused on intrinsic characteristics and were considered skills that would "equip young people for success in the labor market throughout a working lifetime," (Wise, Chia, & Rudner, 1990, p. 19) and have become known as "soft skills". These reports laid the groundwork for more recent research in the area of preparing students for the world of work. The National Business Education Association (NBEA) stated that skills emphasized in the twentieth century must be refocused, as cited in Mitchell (2008), "To ensure success, students entering the twenty-first century workforce must possess non-technical soft skills along with Technical competence" (p. 11). Wilhelm (2004) reports twenty-first century employers are seeking employees with polished interpersonal and soft skills. *Tough Choices or Tough Times* (National Center on Education and the Economy, 2007) cites employee candidates must possess a strong academic background as well as have a high comfort level with "ideas and abstractions, be good at both analysis and synthesis, creative and innovative, self-disciplined and well organized, able to learn very quickly and work well as a member of a team" (p. 8). In agreement, the

report *Are they really ready to work?* (Conference Board Report et al, 2006) reports

"young people need a range of skills, both basic academic skills as well as the ability to

apply these skills and knowledge in the workplace" (p. 7). The report makes a distinction

between basic knowledge/skills and applied skills, citing that employers ranked applied

skills as "very important" to success at work (p. 9), see Figure 1.

| Basic Knowledge/Skills | Applied Skills |
| --- | --- |
| English Language (spoken) | Critical Thinking/Problem Solving |
| Reading Comprehension (in English) | Oral Communications |
| Writing in English (grammar, spelling, etc.) | Written Communications |
| Mathematics | Teamwork/Collaboration |
| Science | Diversity |
| Government/Economics | Information Technology Application |
| Humanities/Arts | Leadership |
| Foreign Languages | Creativity/Innovation |
| History/Geography | Lifelong Learning/Self Direction |
| | Professionalism/Work Ethic |
| | Ethics/Social Responsibility |

*Figure 1.* Distinction between Basic Knowledge/Skills and Applied Skills

## The Changing Workforce

"Advanced economies, innovative industries and firms, and high-growth jobs require more educated workers with the ability to respond flexibly to complex problems, communicate effectively, manage information, work in teams and produce new knowledge" (Partnership for 21$^{st}$ Century Skills, 2008, p. 6).

The workforce has changed dramatically from the early 20$^{th}$ century. Companies

have automated jobs traditionally performed by people; i.e., factory line positions; and

outsourced positions to a labor market in countries whose workforce does not demand a

high rate of pay; i.e., software developers in India (Pink, 2006). Because of this shift,

workers will need more than the technical skills to compete; employees will need to be

able to communicate their ideas and work well with others (Timm, 2005). Although the

nature of work has changed, the need for graduates to possess the soft skills remains

critical to the growth of the American economy (Center for Workforce Preparation,

2002). More recent studies of the needs of workforce and economic development confirm

what we already knew to be true – students entering the workforce lack the skills needed

to succeed in the marketplace, citing the failure of schools to prepare them for

employment (ACT, Inc., 2006, Commission on the Skills of the American Workforce,

1990, Partnership for 21st Century Skills, 2006). A study commissioned by the

Partnership for 21st Century Skills, *Are they really ready for work?* (2006), found that a

"majority of Americans don't believe today's children are adequately prepared to compete

in a global economy. Eighty-eight percent of those surveyed (all registered voters) say

schools need to incorporate more critical thinking and problem solving, communication

and self-direction" (p. 1). The same report finds that "young people need a range of skills,

both basic academic skills, as well as the ability to apply these skills and knowledge in

the workplace" (p. 7). Among the skills identified as critical to success in the 21st century

workforce are the combination of basic knowledge skills, i.e., reading, writing, and

mathematics, and applied skills, i.e., critical thinking, problem-solving, communication,

teamwork/collaboration, creativity/innovation, and professionalism/work ethic

(Conference Board Report et al, 2006, Martin, Carrier, & Hill, 1997, Society for Human

Resource Management & WSJ.com/Careers, 2008). Employers are particularly

concerned with high school graduates' lack of preparedness to compete in a global

society. In the early 1970's students who studied hard, received good grades, went to

college (and graduated) were almost guaranteed a job that would carry them into a

comfortable retirement; unfortunately, this practice is no longer true (Pink, 2006). The

National Business Education Association stated in order for students to succeed in the

current high-performance, outcome-based workplace they need a variety of skills; such as

human relation skills, self-management skills, and workplace enhancement skills

(Policies Commission for Business and Economic Education, Statement No. 67, n.d.).

So where does that leave the remainder of the positions needed by companies and

those who are entering the workforce? Fortunately the answer is right here at home. An

understanding of what employers need is imperative for making changes to U.S.

education policy and curriculum. Success in the global marketplace requires companies

to differentiate their products and services from those of their competitors and that

requires critical thinking and problem solving skills (Pink, 2007). Business and industry

are speaking out to education with a clear message – "new entrants to the U.S. workforce

must be equipped with the basic knowledge and applied skills necessary to be

competitive in the global economy of the 21$^{st}$ century" (Conference Board Report et al,

2006, p. 8). According to Tony Wagner's (2008) research of over 100 U.S. business

leaders, schools must focus on teaching seven survival skills that will enable students to

succeed in the 21$^{st}$ century workforce:

- Critical Thinking and Problem-solving: the ability to ask the right

    questions to continuously improve products, processes or services (p. 14).

- Collaboration Across Networks and Leading by Influence: understanding diversity in order to influence and move the team in a forward direction (p. 22).

- Agility and Adaptability: the desire to be flexible and adapt to change while maintaining a high level of performance (p. 30).

- Initiative and Entrepreneurialism: the desire to take risks and develop 'stretch' goals without the fear of failure (p. 32).

- Effective Oral and Written Communication: the ability to communicate thoughts clearly and concisely while creating focus, projecting energy, and passion (p. 34).

- Accessing and Analyzing Information: the ability to process large amounts of information effectively (p. 36).

- Curiosity and Imagination: the ability to think and be inquisitive – to be engaged and interested in the world (p. 38).

Education and business leaders must work together to solve the issue of preparing students for the workforce of today and tomorrow. It is in the best interest of our nation to produce graduates that are well equipped for the workplace (Society for Human Resource Management & WSJ/Careers, 2008).

## Curriculum Development

"The nature of education is changing internationally. The United States is falling behind on critical international comparisons of educational performance, particularly when it comes to higher level thinking and problem-solving skills" (Partnership for 21st Century Skills, 2006, p.6).

Recent accountability measures have had a tremendous impact on the American educational system (United States Department of Education, 2002); caught up in testing students, educational leaders have not kept up with the changes in or the needs of the workforce. As evidenced by the Workplace Readiness Report Card, defined by the Conference Board Report, 2006, "Employers expect young people to arrive in the workplace with a set of basic and applied skills" (p. 10), unfortunately, the reality does not match the expectations. Additionally, at the high school level, "well over one-half of the new workforce entrants were found to be *deficiently prepared* in the most important skills – oral and written communications, professionalism and work ethic, critical thinking, and problem solving" (p. 7). There is a misalignment between what employers need and what is being taught in schools. Recent legislation has prompted schools to focus on the accountability measures required by the No Child Left Behind Act; and what gets measured gets done. Educators are under enormous pressure to generate students who can successfully pass standardized assessments. Wagner (2008) acknowledges that assessment drives instruction; however, when most of the assessments contain multiple choice questions and only require students to memorize facts, the curriculum becomes one of 'test-prep.' In agreement, McLester & McIntire (2006) suggested the current lack of graduates' ability to apply skills may be partially a result of an increasingly narrow and segmented curriculum.

In redesigning curriculum, educational leaders must take into account the perceptions and expectations of those delivering and receiving instruction while meeting the needs of the end users, in this case the employers (Phillips, Settoon & Phillips, 2008). The approach to curriculum development shapes the nature of student learning (Venville,

Sheffield, Rennie & Wallace, 2008); therefore, decisions need to be made on which design to use, the framework or process to follow, and which type of teaching methods and instructional strategies will be used to deliver the content.

*Curriculum Designs*

Curriculum integration (Beane, 1997) and concept-based curriculum (Erickson, 2007) are but two curriculum designs that were reviewed for this study. The researcher included these two designs because CTE combines theory into practice; both are a natural fit to the way career and technical educators deliver instruction. Beane describes curriculum integration as a teaching approach that enables students and teachers to identify and research problems and issues without regard for subject-area boundaries. In addition, curriculum integration adds problem-solving, real-world application and social consciousness to the learning process, making it a more comprehensive way of educating and of learning (Lake, 1994). A concept-based curriculum is built around 'big ideas;' concepts that are timeless, universal, abstract, and broad (Erickson, 2007). Additionally, it allows students to make meaning of the concepts through creating a bond between the factual and conceptual levels of thinking, and providing a deeper understanding of the relevance and relationships between the concepts and their personal life (Erickson, 2007). The concept-based curriculum design is 'reality-based;' it cuts across disciplines, linking them together so that learning and teaching is holistic and reflects the real world. Research (Erickson, 2008, Tomlinson, 2007, Wiggins & McTighe, 2005) shows an increase in student learning when students:

- recognize information, ideas, and concepts,
- are able to apply strategies to process the information, and

- are engaged in their learning.

Anchored in building knowledge across disciplines to guide student learning, both designs support a strong relationship between educational context and the implementation of integrated, community-based projects (Venville et al, 2008).

*Curriculum Frameworks*

Curriculum frameworks provide guidance for implementing content standards. For the purpose of this research, two curriculum frameworks were studied: Competency Based Education and Understanding by Design. The researcher chose to include these frameworks because they work well with an integrated curriculum and a concept-based curriculum design and support the fundamental principles of career and technical education.

*Competency Based Education*

The Competency Based Education (CBE) model emerged in the United States in the 1970s. This model developed as the educational movement of the time advocated defining educational goals in terms of precise measurable descriptions of knowledge, skills, and behaviors students should possess at the end of a course of study (Richards & Rodgers, 2001). Competency Based Education focuses on student outcomes - what students need to know and be able to do, in varying and complex situations. The outcomes, known as competencies, are linked to workforce needs, as defined by employers and the profession. Competencies are identified through a DACUM, an acronym for developing a curriculum, process. The DACUM process has been used for over 40 years to perform job analysis in every profession imaginable (California Resource Center for Occupational Program Design and Evaluation, n.d.). Different from

the way curriculum was developed in other subject areas, workers in the profession, also

referred to as experts in the field, are used to determine what should be taught, rather than

having the course content selected by instructors or college professors who may or may

not have any first-hand field experience. By using experts in the field, the DACUM

process narrows the gap between what is typically taught in classes and what workers

actually need to know to achieve excellence in the workplace (California Resource

Center for Occupational Program Design and Evaluation, n.d.). Competency Based

Education groups like competencies together, these are known as skills sets. Skill sets are

complex in nature, which often require more complex assessment; i.e., portfolios,

experiential learning assessment in field experience, demonstration and/or performance

assessments, and role play (Council on Education for Public Health, 2008). Large skill

sets are broken down into sequential levels of mastery; competencies reinforce one

another from basic to advanced as the learning progresses. Scaffolding the competencies

allows for a natural progression, thus the results show how each part connects to the big

picture. Metaphorically, the whole is greater than the sum of the parts. The importance of

continually updating and refining competencies is necessary so that learners are able to

improve their knowledge and skill base which in turn improves job performance. In

essence, CBE is considered a process, not a product.

### *Understanding by Design*

"To begin with the end in mind means to start with a clear understanding
of your destination. It means to know where you're going, so that you
better understand where you are now so that the steps you take are always
in the right direction" (Covey, 1989, p.98).

Understanding by Design (UbD) is a conceptual framework used to design

meaningful curriculum. UbD works within the standards-driven curriculum to help

teachers clarify learning goals, develop informative assessments of student understanding, and create effective and engaging learning activities (Wiggins & McTighe, 1999). Developed by Grant Wiggins and Jay McTighe, this model frames the content to be taught beginning with the end in mind. Teaching is focused on desired results, thus ensuring greater alignment with goals and objectives. The effectiveness of this model is based on two major concepts which support the content: backwards design and the six facets of understanding.

The use of the backwards design model centers on identifying the desired student learning/outcome first, beginning with the assessment (what you want the students to know, understand, and be able to do) and then *work backwards* to develop instruction – choosing activities and materials that help determine student ability and promote student learning (Wiggins & McTighe, 2005). Backward design uses a question format rather than measurable objectives. By answering key questions, referred to as essential questions, students deepen their learning about content and experience an *enduring* understanding. Enduring understandings, as defined by Wiggins and McTighe (2005), "provide a larger purpose for learning the targeted content. They implicitly answer the question, 'Why is this topic worth studying?' Enduring understandings go beyond discrete facts or skills to focus on larger concepts, principles, or processes; they are transferable, applicable to new situations within or beyond the subject" (p. 128). The backwards design allows the instructor to determine the evidence that will be used to assess the students' understanding of the content.

The second major concept supporting the content is identified as the six facets of understanding. According to Wiggins and McTighe (2005), understanding can be measured when we:

- Can Explain: provide thorough, supportable and justifiable accounts of phenomena, facts and data

- Can Interpret: tell meaningful stories; offer apt translations; provide a revealing historical or personal dimension to ideas and events

- Can Apply: effectively use and adapt what we know in diverse contexts

- Have Perspective: see and hear points of view through critical eyes and ears; see the big picture

- Can Empathize: find value in what others might find odd, alien, or implausible; perceive sensitively on the basis of prior direct experience

- Have Self-knowledge: perceive the personal style, prejudices, projections, and habits of mind that both shape and impede our own understanding; aware of what we do not understand and why understanding is so hard (p. 84).

The six facets of understanding help teachers identify the enduring understandings that students will refer to throughout the unit.

Student learning is affected by the extent to which the curriculum is well organized (Schunk, 1996). The two frameworks reviewed for this study support an integrated curriculum and a concept-based curriculum design as well as the premise of career and technical education.

## Teaching Methods and Instructional Strategies that Work

"The traditional theory-based educational delivery system may prove inadequate for training the workforce... Adequate preparation in the workforce may require different or higher-level skills than those currently taught in public schools. Thus, educators should design curricula and apply appropriate, effective instructional strategies to prepare students for entry-level employment" (Mobley, Joyner and Peel, 1998, p. 49).

Preparing today's youth to succeed in the digital economy requires a new kind of teaching and learning. There are a number of research-supported teaching methods and instructional strategies (Bennett, 1986; Creemers, 1994; Hattie, 1992; Marzano, Pickering & Pollock, 2001) that have proven to be effective ways to enhance the learning of both skills and content. Table 1 represents nine instructional strategies that have a high probability of enhancing student achievement for all students in all subject areas at all grade levels (Marzano et al, 2001, p.7). As illustrated, "the effect size reports how many standard deviations the average score in the experimental group (the group that uses the instructional strategy) is above the average score in the control group (the group that did not use the instructional strategy)" (Marzano, 2003, p.80). The categories illustrated in Table 1 are often combined into broader headings; i.e., problem-based learning. Based on research which examined strategies for higher-level thinking skills, the use of a hands-on approach, and strategies which students could make learning relevant to their world, problem-based learning and cooperative learning are two instructional strategies that are commonly used in career and technical education (Gregory & Chapman, 2002, Marzano et al, 2001). Therefore, the researcher chose to include both instructional strategies within this study as problem solving and team work are two skills depicted in the research as lacking in today's graduates and entry-level employees (Conference Board Report et al,

2006, Martin, Carrier, & Hill, 1997, Society for Human Resource Management &

WSJ.com/Careers, 2008).

Table 1

*Categories of Instructional Strategies That Affect Student Achievement*

| Category | Ave. Effect Size (ES) | Percentile Gain | No. of ESs | Standard Deviation (SD) |
|---|---|---|---|---|
| Identifying similarities and differences | 1.61 | 45 | 31 | .31 |
| Summarizing and note taking | 1.00 | 34 | 179 | .50 |
| Reinforcing effort and providing recognition | .80 | 29 | 21 | .35 |
| Homework and practice | .77 | 28 | 134 | .36 |
| Nonlinguistic representations | .75 | 27 | 246 | .40 |
| Cooperative learning | .73 | 27 | 122 | .40 |
| Setting objectives and providing feedback | .61 | 23 | 408 | .28 |
| Generating and testing hypothesis | .61 | 23 | 63 | .79 |
| Questions, cues, and advance organizers | .59 | 22 | 1.251 | .26 |

(Marzano et al, 2001, p. 7)

*Problem-based Learning*

Problem-based learning (PBL) is an instructional strategy defined by the George Lucas

Educational Foundation in *Edutopia: Success Stories for Learning in the Digital Age* as

an instructional approach in which "students investigate rich and challenging issues and

topics, often in the context of real world problems," (p. 3). Problem-based learning

models also include other aspects of 21st century instruction such as the use of

interdisciplinary content, cooperative learning groups, and student reflection. Research

has shown that because working with problems requires students to become actively

engaged in content – defining the issue and developing solutions, it promotes learning.

Problem-based learning also builds students' capacity for self-directed learning,

collaboration, and social interaction (Knowlton, 2003). "Students who are actively engaged in the educational process make substantive connections with course content," (Knowlton, 2003, p. 6). Additionally, problem-based learning enables teachers to address a variety of learning styles at once, thus reaching and engaging more students than traditional direct instruction (Knowlton, 2003, Marzano et al., 2001). PBL leads students through a series of steps. Gregory and Chapman (2002) provide a list of steps students must work through in order to develop a solution:

- Clarify or identify the problem

- Draw on background knowledge and experience

- Begin with what you know

- Plan your own approach

- Work at your own pace

- Use creative solutions (p. 127).

Students are given a complex, multi-step; authentic issue/problem that they must apply previously acquired knowledge, in addition to applying critical thinking and problem-solving skills in order to propose a solution.

*Cooperative Learning*

Another pedagogy that supports 21st century skills is cooperative learning. For the purposes of this study, cooperative learning is defined as students working together in small groups toward a common goal with a pre-determined outcome. Cooperative learning is a way for students to learn essential interpersonal life-skills and to develop the ability to work collaboratively. Organizing students in well-structured heterogeneous groups has been shown to have a powerful effect on learning (Marzano et al., 2001,

Tomlinson, 2003). Such groupings also have the advantage of promoting teamwork, leadership and other life/career skills, while enhancing student academic performance (Partnership of 21$^{st}$ Century Skills, 2007). According to Johnson and Johnson (1999) there are five defining elements of cooperative learning: positive interdependence (a sense of sink or swim together), face-to-face promotive interaction (helping each other learn, applauding success and efforts), individual and group accountability (each of us has to contribute to the group to achieve its goals), interpersonal and small group skills (communication, trust, leadership, decision-making, and conflict resolution), and group processing (reflecting on how well the team is functioning and how to function even better). Students are given a target or goal and tasked with creating and designing the processes via working through the five defining elements in order to achieve the goal.

## Professional Development

"Quality teachers are the single greatest determinant of student achievement. Knowing the subject matter, understanding how students learn, and practicing effective teaching methods translate into great student achievement" (Public Education Network, 2005, p. 3).

The reauthorization of the Carl D. Perkins Career and Technical Education Act of 2006 (referred to as Perkins IV) mandates states who accept Perkins funding provide professional development opportunities and programs for local CTE administrators and teachers. Likewise, local education agencies who accept the funding must also provide and support professional development programs to secondary career and technical education teachers. As stipulated in the Perkins IV legislation, such professional development should include training on effective teaching skills based on research and data, should be "high-quality, sustained, intensive and focused on instruction," (Brustein,

2006, p. 153). This message is consistent with the accountability measures and definition of professional development under the No Child Left Behind (NCLB) Act, which "prohibits one-day or short-term workshops or conferences (unless [they] are part of a larger series of professional development activities)" (Brustein, 2006, p. 153). "Designing 'quality' professional development experiences for teachers that improve teacher practice and impact student achievement is a challenge for educators," (Sturko, 2007, p. 37); there isn't a one-size fits all approach. There is a plethora of research on effective professional development methods and delivery systems (Brown, 2002, Diaz-Maggioli, 2004, Eisenman, Hill, Bailey & Dickinson, 2003, Sturko, 2007). The consensus among the researchers is that professional development should be meaningful to the teacher, applicable to their content, and supported by research and data.

## Summary

"Our nation's long-term ability to succeed in exporting to the growing global marketplace hinges on the abilities of today's students" (J. Willard Marriott, Jr., Chairman and CEO, Marriott International, Inc.).

Five relevant strands of literature were presented in this chapter. The first strand reviewed literature which identified the soft skills employers deemed to be essential for employees to possess in order to compete in a global marketplace. The second strand of literature focused on the twenty-first century workforce, specifically the skills employees should possess in order to succeed. The third strand focused on curriculum development and implementation; centered on two curriculum designs and two frameworks commonly used in career and technical education, all rooted in standards and performance-based learning. The fourth area of review focused on teaching methods and instructional

strategies. The methods and strategies reviewed were those that allow students to make a connection between the classroom and the workforce, providing relevance and authentic assessments. Lastly, the fifth strand reviews professional development requirements for career and technical educators.

In Chapter III, the research methods and procedures for this study are established. Research goals are presented along with information on the participants, instrumentation, and data collection procedures. Statistical analysis procedures along with the reliability and validity of this study conclude the chapter.

# CHAPTER III

# METHODS AND PROCEDURES

The primary purpose of this study was to investigate a possible relationship between high school marketing education teachers' knowledge of workplace readiness skills and student attainment of the skills. Further, this study identified the teaching methods and instructional strategies used to deliver workplace readiness skills within CTE courses so that other career and technical education teachers could replicate with the intent to raise student attainment of workplace readiness skills. In Chapter I, research questions and a list of related terms were presented. Clearly defined delimitations and assumptions were also presented to establish the scope of this study. Chapter II presented a comprehensive review of related literature; specifically the identification of and the call for workplace readiness skills from business and industry, the changing workforce, and the role of career and technical education in incorporating workplace readiness skills in CTE curriculum. Additionally, curriculum designs and curriculum frameworks, which support a student-centered classroom, were presented. A review of research on teaching methods and instructional strategies was presented, and last, a review of professional development requirements for career and technical educators.

In this chapter, the research methods and procedures are established. The research questions are presented along with a description of the participants, and instrumentation reliability and validity. Data collection procedures and statistical analysis procedures conclude this chapter.

**Design of Study**

This research is a descriptive study combining both qualitative and quantitative research methods. The design of this study was threefold; first the researcher wanted to determine teacher knowledge of workplace readiness skills. Second, the researcher identified the teaching methods and instructional strategies used to disseminate instruction of the skills within the classroom. Last, the researcher wanted to determine whether there was a relationship between teacher knowledge of the workplace readiness skills and student attainment of the skills after instruction was delivered. In order to achieve these purposes, three sources of data were used; results of the teacher assessment of workplace readiness skills, student post-test assessment results to measure student attainment of the workplace readiness skills, and results of the survey of teachers to determine the types of teaching methods and instructional strategies used in the classroom. The use of multiple methods helps to overcome the weakness or intrinsic biases and the problems that may arise from using a single method as the only form of data collection (Patton, 2002).

**Research Questions**

The research questions were derived from a review of literature and resulting problem statement and were presented in Chapter I. To guide this study the following research questions were established:

1. To what extent are marketing education high school teachers knowledgeable of workplace readiness skills?

2. What teaching methods and instructional strategies did marketing teachers report to deliver the workplace readiness skills?

3. How successful were the marketing students in obtaining competence in workplace readiness skills?

4. Is there a correlation between teacher knowledge and student attainment of workplace readiness skills?

## Population and Sample

This study utilized a convenient sample; including two distinct groups of participants – classroom teachers and secondary career and technical education students. The teachers represented high school career and technical education, specifically those who taught a second year course in marketing education (N=19, n=10). The researcher sent an email to marketing education teachers who taught a second level course requesting they participate in an online assessment and an online survey for the purpose of continuous improvement for career and technical education, specifically in the area of disseminating workplace readiness skills information within marketing education. Of the 19 eligible teachers who could participate, 10 positively responded to the request; completing both the online survey and the assessment. Characteristics of the teachers came from those who completed the survey. The average years of teaching experience equal 15; five teachers have been teaching less than 10 years; two teachers have been teaching for 13 years and three teachers have 25 or more year's experience. Four teachers hold a Master's degree and six hold a Bachelor's degree.

The students represented CTE completer candidates; those who were enrolled in the teacher participants' second year course of marketing education during the 2007-08 school year and were candidates for graduation in 2008 (N=151). Characteristics of the students came from the student information system in which the students are identified

using their permanent identification number. Of the 151 students used for this study, 108 were female, 43 were male. Student ethnicity was identified as unspecified (8), African American (38), Caucasian (88), Hispanic (5), American Indian (1), and Asian (11).

## Instrumentation Design

This study used three types of data collection instruments. The following sections describe the designs used for the researcher developed teacher assessment, teacher survey, and the student assessment.

*Researcher Developed Teacher Assessment*

The first method of data collection was an assessment developed by the researcher to measure teacher knowledge of Virginia's 13 Workplace Readiness Skills. The teacher assessment was created using questions found at the end of each skill section of Virginia's 13 Workplace Readiness Skills curriculum developed by Virginia Beach City Public Schools (Opportunity, Inc., 2006b); and contains 100 multiple choice questions measuring each of the 13 skill areas (Appendix C). Each skill area was weighted identical to the student assessment and included the same number of questions per skill area as the student assessment, see Table 2. The weight and number of questions per skill area for the student assessment was determined by NOCTI.

*Teacher Assessment Validation Process*

The teacher assessment was validated by a panel of experts who reviewed for content and format. The researcher contacted five reviewers to provide feedback on content and one reviewer to provide feedback on format and question development. The content reviewers represent career and technical education and/or workforce development and hold positions at a university or state education agency in which they are responsible

for the improvement of career and technical education and/or workforce development in their respective states. The construct/format reviewers' expertise is in psychometrics; holding a doctorate degree in Industrial-Organizational Psychology with a vast working background in business and industry (Appendix D). Each reviewer was sent two forms of the assessment and a rating form developed by Landon (2009) via email (Appendix E). Results of the review process found the teacher assessment to be an appropriate measure to assess knowledge of workplace readiness skills as outlined within the research questions guiding this study, including content validity, construct validity, and criterion-related validity. Key (1997) identifies three basic approaches to the validity of tests and measures - content validity, construct validity, and criterion-related validity. According to Key (1997), content validity measures the degree to which the test items represent the domain of the trait being measured and is best determined by the use of a panel of experts from the field of study. Construct validity is evaluated by investigating what qualities a test measures, that is, by determining the degree to which certain explanatory concepts or constructs account for performance on the test. Criterion-referenced validity is concerned with detecting the presence or absence of one or more criteria considered to represent traits or constructs of interest (para. 2).

Table 2

*Skill Area Weights for Virginia's Workplace Readiness Skills*
*Teacher and Student Assessment*

| Areas covered | Weight | Number of Questions |
|---|---|---|
| Reading | 5% | 5 |
| Math | 9% | 9 |
| Writing | 8% | 8 |
| Speaking and Listening | 8% | 8 |
| Computer Literacy | 6% | 6 |
| Reasoning, Problem-Solving, and Decision Making | 7% | 7 |
| Understanding the Big Picture | 6% | 6 |
| Work Ethic | 6% | 6 |
| Positive Attitude | 8% | 8 |
| Independence and Initiative | 8% | 8 |
| Self Presentation | 13% | 13 |
| Attendance | 6% | 6 |
| Team Member | 10% | 10 |
| Total | 100% | 100 |

*Teacher Assessment Reliability*

The teacher assessment was checked for reliability by using an alternate-form reliability measure. The researcher created a large set of questions that addressed the same construct and then selected questions for both assessments, dividing the questions so that each assessment measured the same content in similar formats. The reviewer who evaluated the assessment for construct and format also paralleled the two forms for consistency. The researcher made adjustments to the two forms according to the feedback

received from the reviewer. Both forms were used independent of each other and given to the participants to assess their knowledge of Virginia's 13 Workplace Readiness Skills. The alternate-form reliability of an assessment helps to overcome the "practice effect." This method is viewed as superior to the retest method because a respondent's memory of test items is not as likely to play a role in the data received (Key, 1997). Although this study only required teachers to take the assessment once, the researcher wanted to ensure reliability of the assessment and to prepare for future research.

*Survey Protocol*

The purpose of the teacher survey was to obtain information on whether the teachers used the workplace readiness skills curriculum, specifically which teaching methods and instructional strategies and resources were used to deliver instruction on the skills. The methods and strategies included in the survey were derived from a review of related literature concerning teaching workplace readiness (career and employability) skills in the classroom (Manley, 2008). The survey was reviewed by a panel of experts in the field of career and technical education. The survey was modified from a previous study conducted in Roanoke, Virginia (Manley, 2008). The questions (Appendix F) support the research goals for this study.

*Student Assessment*

The student assessment was developed by the National Occupational Competency Testing Institute (NOCTI). The assessment was created based on the information included in Virginia's 13 Workplace Readiness Skills curriculum developed by Virginia Beach City Public Schools (Opportunity, Inc., 2006b); which was written based on industry standards provided by experts in the field. The assessment was administered

online and consisted of 100 multiple choice questions. NOCTI requires their assessments be administered by a trained proctor, someone other than the classroom teacher, to protect against influence. The assessment is given in a secured environment free from distractions. Students had 90-minutes to complete the assessment.

*Student Assessment Validation Process*

An item analysis was conducted on the student assessment by experts in the field to ensure the appropriateness and accuracy of each question. The assessment was designed to measure competency in the thirteen workplace readiness skill areas – reading, math, writing, speaking and listening, computer literacy, reasoning, problem-solving and decision making, understanding the 'big picture', work ethic, positive attitude, independence and initiative, self presentation, attendance, and being a team member.

*Student Assessment Reliability*

The student assessment was checked for reliability by using an alternate-form reliability measure. Additionally, the student assessment was pilot tested prior to being available to all school divisions in the state of Virginia in 2002. The researcher was unable to secure any additional information from NOCTI on the validation and reliability process for this assessment.

## Data Collection

The teacher sample for this study was determined by the course level the teacher taught; i.e., whether the teacher taught a $2^{nd}$-year course as compared to an introductory course (N=19, n=10), and whether the students in their second year course took the workplace readiness skills assessment (N=151). The researcher identified the teachers by reviewing course schedules and student post-test data. The researcher sent the identified

teachers an email requesting participation in the study. Teachers who were interested in participating were given contact information of the 3$^{rd}$- party who served as the proctor in this study. A proctor was used, rather than the researcher, to eliminate bias and to maintain teacher anonymity. Teachers provided the third party a four-digit numeric code which was used as an identifier for both the assessment and survey. The teacher names and corresponding codes were kept with the third party during the study. The third party emailed each participant two separate web links; one for the survey and one for the assessment. The results of the teacher assessments were sent to an electronic drop box which was accessed by the researcher. All results were kept confidential and remained in the sole possession of the researcher. After the research was completed all data were deleted.

In addition to taking the assessment, the teachers were asked to complete a survey (Appendix F). The purpose of the survey was to obtain information on whether teachers were using Virginia's 13 Workplace Readiness Skills curriculum to teach the skills, to garner information on teacher perceptions of the skills, and to determine which teaching methods and instructional strategies were used to deliver instruction on workplace readiness skills. The survey was administered online. The teachers were emailed a link to the survey and given a due date of when the survey had to be completed. Once teachers logged into the survey, they entered their unique numeric code. This code served as an identifier to the researcher and linked the survey results to the assessment results. The survey consisted of 22 questions; multiple choice and open-ended questions. The completed surveys were sent to an electronic drop box which was accessed by the

researcher. The results were kept confidential and remained in the sole possession of the researcher. After the research was completed all data were deleted.

The student post-test assessment data are from the 2007-08 school year. These data represented students who were enrolled in an advanced marketing course. The post-test assessments were given to students from March 30 through June 1, 2008. The assessments were administered by a trained NOCTI proctor hired by Virginia Beach City Public Schools Office of Technical and Career Education. Once the student completed the online test, he or she submitted the responses electronically and the assessment was immediately scored and results were printed for each student, their teacher, and the proctor. The results were presented in chart form which reflected each skill area individually as well as providing an overall combined average score for the 13 skills; thus arriving at a passing or non-passing score. The assessment was normed using the past three years of student data and a passing score of 75% was determined by NOCTI (G. Creasy, personal communication July 7, 2009).

## Analysis of Data

To guide this study four research questions were developed. Each question required a different method of data collection and analysis. The first research question asked, "To what extent are marketing education teachers knowledgeable of workplace readiness skills?" The online teacher assessment provided the data for this question. The researcher determined teachers were considered knowledgeable of Virginia's Workplace Readiness Skills if they scored 80% or above on the assessment; this is consistent with the assessment reviewer's comments on the content of the assessment. In addition to the overall score, each skill area was assessed and scored separately. This allowed the

researcher to narrow her focus on which skill areas the teachers were strongest and compare this to the students' skill areas. The results of the teacher assessment are reported in Chapter IV.

The second research question asked, "What teaching methods and instructional strategies did teachers employ to deliver the workplace readiness skills?" A teacher survey was used to collect information to guide the answer to this question. Teachers were asked to participate in the online survey, which consisted of both multiple choice and open-ended questions. The multiple choice questions were tallied by the packaged instrument and are reported in Chapter IV. The answers to the open-ended questions were recorded under each question. The researcher reviewed the results of the open-ended questions for similar responses and chose to use open coding to identify major categories, teaching methods and instructional strategies, and then moved into axial coding to identify specific strategies used by teachers to deliver instruction on the workplace readiness skills. Open coding and axial coding are used in conducting grounded theory research (Creswell, 2007). Each of the teacher responses to the open-ended questions were rewritten on index cards and sorted by shared responses; all responses were considered significant. The researcher separated the shared responses into categories and reported the results in Chapter IV.

The third research question asked, "How successful were the students in obtaining competence in workplace readiness skills?" Student post-test data were used to answer this question. NOCTI determined students were considered successful if they scored 75% or above on the assessment. In addition to the overall score, each skill area was assessed and scored separately. This allowed the researcher to narrow her focus on which skill

areas the students were strongest and compare this to the teachers' skill areas. The results of the student assessment are reported in Chapter IV.

The fourth research questions asked, "Is there a correlation between teacher knowledge and student attainment of workplace readiness skills?" The teacher assessment data and student post-test assessment scores from 2007-08 were compared. A Pearson Correlation was used to determine whether there was a relationship between teacher knowledge and student attainment of the workplace readiness skills. Pearson Correlation was chosen because it numerically expresses both the strength and direction of the relationship between two variables (Levin & Fox, 2006). Additionally, the researcher reviewed the individual skills area scores for both teachers and students, drawing comparisons between the teachers' and students' low and high skill areas. The results of the correlation are reported in Chapter IV.

## Summary

The research methods and procedures of this study were established in this chapter. Research questions were presented along with information on the population, sample, and instrumentation design, reliability, and validity. Data collection procedures and statistical analysis procedures were also presented in this chapter.

The results of the statistical tests and findings of this study in relation to the research questions are presented in Chapter IV. Finally, conclusions are drawn and recommendations for further research are presented in Chapter V.

# CHAPTER IV

# FINDINGS

This study investigated whether a correlation exists among high school marketing education teachers' knowledge of workplace readiness skills and advanced marketing education student attainment of the same. Further, this study identified the teaching methods and instructional strategies used to deliver workplace readiness skills within high school marketing education courses in order for other career and technical education teachers to replicate with the intention of raising student attainment of Virginia's 13 Workplace Readiness Skills.

This chapter provides the empirical data related to teacher knowledge of Virginia's 13 Workplace Readiness Skills (Opportunity, Inc., 2006b). Additionally, it provides data necessary to illustrate the usage of the workplace readiness skills curriculum to support the teaching methods and instructional strategies used to disseminate instruction of the skills. Finally, this chapter provides the data to show correlations among teacher knowledge and student attainment of Virginia's 13 Workplace Readiness Skills.

Specifically, four questions guided this research: (1) To what extent are high school marketing education teachers knowledgeable of workplace readiness skills? (2) What teaching methods and instructional strategies did teachers report to deliver the workplace readiness skills? (3) How successful were the students in obtaining competence in workplace readiness skills? (4) Is there a correlation between teacher knowledge and student attainment of workplace readiness skills.

**Response Rate**

For this study, 19 marketing education teachers were eligible to participate. The conditions of eligibility included whether the teacher (1) taught a second year course in marketing education; i.e., Advanced Marketing and/or Advanced Fashion Marketing, and (2) administered the workplace readiness skills post-test to their second year students in 2007-08. Of the nineteen teachers, 10 positively responded to an email request to participate. All ten teachers completed the workplace readiness skills online assessment and the survey.

*Descriptive Statistics*

The teacher participants' average years of teaching experience is 15, with 5 teachers having 10 or fewer years in the classroom and 3 having 25 or more years of classroom experience. All ten teachers hold a Virginia teaching license; four have a Masters' degree, six have a Bachelor's degree. Eight of the 10 teachers have professional work experience in their discipline; fashion marketing and/or marketing, with an average of 1.7 years experience. The student group consisted of 151 second year marketing education students; 43 male and 108 female. Demographics of the student group with a comparison to the state enrollment in advanced marketing and fashion courses are illustrated in Table 3. The statistics are consistent between the local student group used in this study and the state enrollment in the same courses.

Table 3

*Comparison of Demographic Characteristics of Student Participants - Local and State*

| Ethnicity | Percentage | | |
|---|---|---|---|
| | Total | Local | State |
| Unspecified | 8 | 5.3% | 1.6% |
| African American | 38 | 25.1% | 28.8% |
| Caucasian | 88 | 58.3% | 59.8% |
| Hispanic | 5 | 3.3% | 4.7% |
| American Indian | 1 | .7% | .2 |
| Asian | 11 | 7.3% | 4.8% |
| Hawaiian | 0 | 0 | .1% |
| Total | 151 | 100% | 100% |

## Results of Data Collection

*Teacher Assessment*

The first research question focused on the teachers' knowledge of Virginia's 13

Workplace Readiness Skills. Table 4 shows the results of the teacher assessment,

including the mean and standard deviation for each of the thirteen skill areas. Ten

teachers took the assessment; all 10 scored above 80% overall, resulting in a 'passing'

score. The three highest skill area averages were work ethic, independence and initiative,

and self-presentation. The lowest skill area averages were Reasoning, Problem-Solving,

and Decision Making, Computer Literacy, and Math. The mean score for the teacher

workplace readiness skills assessment was an 87. Results for the teacher assessment are

also found in Appendix G, including individual teacher scores for each of the thirteen

skill areas.

Table 4

*Means and Standard Deviation for Virginia's 13 Workplace Readiness Skills Teacher Assessment*

| Skill Area | M | SD |
| --- | --- | --- |
| Reading | 82 | 18 |
| Math | 81 | 14 |
| Writing | 93 | 10 |
| Speaking and Listening | 84 | 13 |
| Computer Literacy | 80 | 10 |
| Reasoning, Problem-Solving, and Decision Making | 71 | 16 |
| Understanding the Big Picture | 83 | 16 |
| Work Ethic | 98 | 5 |
| Positive Attitude | 89 | 11 |
| Independence and Initiative | 96 | 6 |
| Self-Presentation | 97 | 5 |
| Attendance | 90 | 12 |
| Team Member | 85 | 11 |

*Teacher Survey*

To examine the second research question, teachers completed a survey to self-report the usage of Virginia's 13 Workplace Readiness Skills curriculum, their perceptions on the workplace readiness skills as it relates to their course content, and the types of teaching methods and instructional strategies used to disseminate workplace readiness skills. The survey consisted of 22 questions; the first 10 questions garnered information pertaining to the teacher's professional background; including whether they had any professional work experience outside of teaching (found under Descriptive Statistics). The remaining questions sought to discover the teacher's perceptions of Virginia's 13 Workplace Readiness Skills and to categorize the teaching methods and instructional strategies used to disseminate the skills.

*Teacher Perception of Workplace Readiness Skills*

All ten teachers responded workplace readiness skills are equally important as the teaching of technical skills; two teachers responded they only teach the workplace readiness skills relevant to their course, while eight reported they teach all thirteen skills. The teachers were asked to rank Virginia's 13 Workplace Readiness Skills in order of importance, see Figure 2. Work ethic was ranked the highest, 95.3%; followed closely by reading skills (94.7%), writing skills (94.5%), and positive attitude (94%). When asked when a student should be exposed to workplace readiness skills, 40% of the teachers reported the skills should be taught in the first year course, 60% reported students should be exposed to them in both first year and second year courses. Fifty percent of the teachers reported they teach the skills at various planned times during the school year, 40% whenever it seemed appropriate, and one teacher reported that they concentrate on the skills towards the beginning of the year.
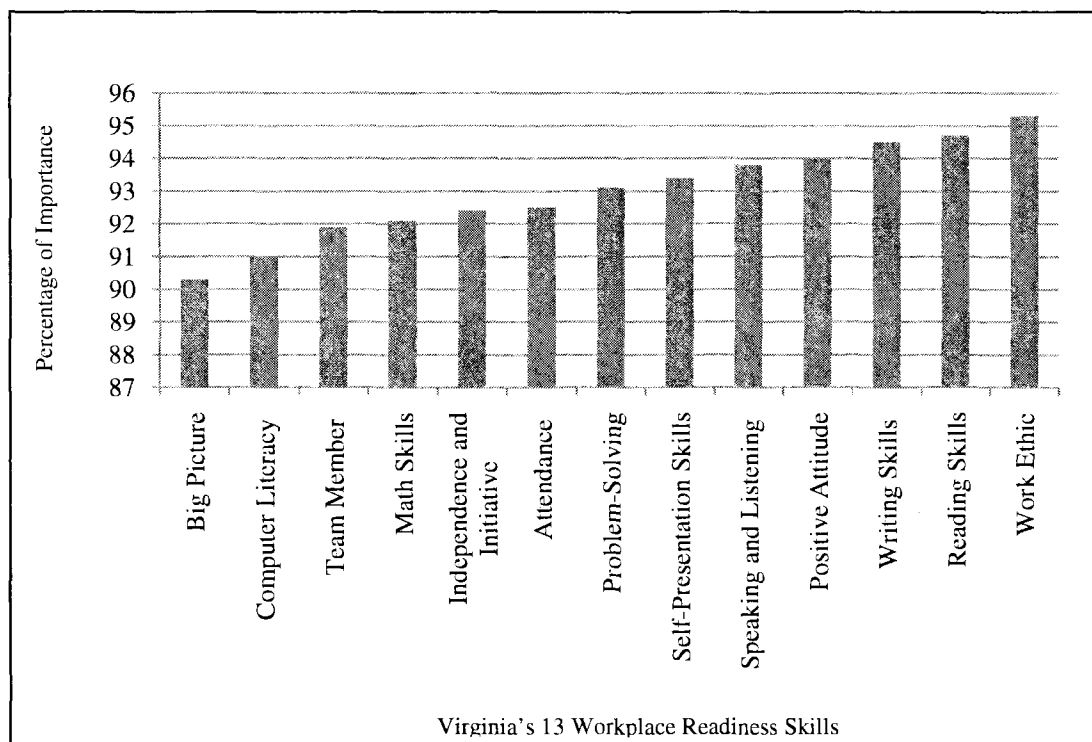
*Figure 2*. Teacher ranking of Virginia's 13 Workplace Readiness Skills by percentage of importance.

## Teaching Methods and Instructional Strategies

Teachers were asked a series of questions that focused on teaching methods and instructional strategies used to disseminate workplace readiness skills. The first question in the series asked, "Since the implementation of Opportunity, Inc.'s Virginia's 13 Workplace Readiness Skills educational program in fall 2006, have you changed the way you teach workplace readiness skills to your students?" Seventy percent of the teachers reported they have changed the way they teach the skills; using one or more of Virginia's 13 Workplace Readiness Skills curriculum supplementary resources to teach the skills (see Table 5) in addition to developing their own teaching tools. Examples of self-created teaching tools included power points, displays, brochures, and a student developed board game to reinforce team work and problem solving skills.

Table 5

*Teacher Reported Use of Virginia's Workplace Readiness Skills Curriculum*
*Supplementary Resources*

| Resources | Number of Teachers Using the Resource (n=10) |
|---|---|
| Activities | 9 |
| Handouts | 10 |
| Lesson Plans | 7 |
| Assessments | 4 |
| Power Points | 5 |

Teachers were given a list of methods and strategies to choose from that best identifies what they used to incorporate workplace readiness skills into their curriculum (see Table 6). The developer of the survey instrument, Manley (2008), included teaching methods and instructional strategies which were derived from a review of related literature concerning teaching workplace readiness (career and employability) skills in the classroom. The methods and strategies most often used were bringing in professionals from the workplace in to the classroom to discuss workplace readiness skills with the students (90%), mentioning the workplace readiness skills during lectures and/or activities when it seemed appropriate (80%), and having students work in teams or groups to accomplish workplace readiness skills assignments, projects, and/or activities (70%). None of the teachers selected having the students develop and maintain a workplace readiness skills portfolio, maintain a video or audio library of their workplace readiness skills accomplishments or assigning each student a professional mentor to help teach the workplace readiness skills. The last question on the survey asked the teachers to check all of the workplace readiness skills covered or reiterated this year, September

2008 through June 2009, with this school year's potential set of completers. All ten

teachers responded they covered each of the thirteen skill areas with their students.

Table 6

*Teaching Methods and Strategies Used to Incorporate Virginia's Workplace Readiness*
*Skills into Curriculum*

| Method/Strategy | Number of Teachers Using the Method/Strategy (n=10) |
|---|---|
| Devote entire class time to teaching the skills | 5 |
| Maintain a workplace readiness skills portfolio | 0 |
| Projects or assignments for each of the 13 skills | 3 |
| Project or assignments for teacher identified skills | 5 |
| Separate lessons for each skill | 1 |
| Maintain a video or audio library | 0 |
| Work in teams or groups | 7 |
| Participate in games that re-enforce the skills | 4 |
| Bring in professionals from the workplace | 9 |
| Mention the skills during lectures | 8 |
| Assign a professional mentor | 0 |

*Student Assessment*

The third research question concerned student success in obtaining competency in

workplace readiness skills. Of the 151 students reported in this study, 120 students scored

above the pre-determined pass rate of 75%. Table 7 shows the results of the student

assessment, including the means and standard deviation for each of the 13 skill areas. The

mean score for the student workplace readiness skills assessment was an 82. The three

highest skill area averages were Attendance, Work Ethic, and Self-Presentation. The

lowest skill area averages were Computer Literacy, Math, and Team Member.

Table 7

*Means and Standard Deviation for Virginia's 13 Workplace Readiness Skills*
*Student Assessment*

| Skill Area | M | SD |
|---|---|---|
| Reading | 83 | 17 |
| Math | 73 | 24 |
| Writing | 82 | 19 |
| Speaking and Listening | 78 | 15 |
| Computer Literacy | 61 | 16 |
| Reasoning, Problem-Solving, and Decision Making | 79 | 18 |
| Understanding the Big Picture | 84 | 17 |
| Work Ethic | 92 | 12 |
| Positive Attitude | 80 | 15 |
| Independence and Initiative | 84 | 17 |
| Self-Presentation | 87 | 13 |
| Attendance | 96 | 10 |
| Team Member | 77 | 13 |

## Correlations of Teacher and Student Assessment

Finally, the researcher wanted to determine whether there was a relationship

between teacher knowledge of the workplace readiness skills and student attainment of

the same. A Pearson's correlation coefficient ($r$) was used to examine whether there was

a relationship between teacher scores on a workplace readiness assessment and student

scores on the same. According to Levin and Fox (2006), Pearson's correlation coefficient

($r$) can "determine the strength and the direction of the relationship between $X$ and $Y$

variables," (p. 333). Green and Salkind (2005) states, "behavioral sciences, correlation

coefficients of .01, .03, and .05, irrespectively of sign, are by convention, interpreted as

small, medium, and large coefficients, respectively," (p.256). The researcher chose a $p$

value of less than .05 for significance. The results of an obtained $r$, $(r = .067, p < .05)$ indicates there is no statistically significant relationship between overall teacher scores and overall student scores on the workplace readiness skills assessment in the population from which the sample was taken.

A closer look at the thirteen individual skill areas showed a statistical significance between teacher scores on Speaking and Listening and student scores on the same, $(r = -.185, p < .05)$; teacher scores on Problem-Solving and student scores on Math, $(r = .163, p < .05)$; teacher scores on Big Picture and student scores on Team Member $(r = .196, p < .05)$; and teacher scores on Self-Presentation and student scores on Speaking and Listening $(r = -.214, p < .05)$, see Table 8. Appendix H includes SPSS out put for each of the thirteen skill areas.

Table 8

*Correlations among four of the 13 Virginia's Workplace Readiness Skill scores – Teacher and Student*

|  | Student | | |
|---|---|---|---|
|  | Speaking and Listening | Math | Team Member |
| Teacher | | | |
| Speaking and Listening | -.185* | | |
| Problem-Solving | | .163* | |
| Big Picture | | | .196* |
| Self-Presentation | -.214* | | |

*. Correlation is significant at the 0.05 level (2-tailed).

## Summary

This chapter presented the results of the study and described the techniques used to analyze the data and answer each of the research questions. The purpose of this study was to examine high school career and technical education teachers' knowledge of workplace readiness skills and whether that knowledge had an impact on student workplace readiness skill attainment. Four questions guided this study (1) To what extent are marketing education teachers knowledgeable of workplace readiness skills? (2) What teaching methods and instructional strategies did teachers report to deliver the workplace readiness skills? (3) How successful were the students in obtaining competence in workplace readiness skills? and (4) Is there a correlation between teacher knowledge and student attainment of workplace readiness skills?

This chapter has shown that teacher's possess knowledge of workplace readiness skills; however, for this sample teacher knowledge was not correlated to overall student attainment of the workplace readiness skills. Further investigation of the individual skill areas reported a statistical significance in four individual skill areas. Chapter V discusses the study findings in detail, opening with a summary of the study, and concludes with recommendations for the use of this study and for future research.

# CHAPTER V

## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes the study, presents conclusions and makes recommendations for further research. The conclusions discuss the findings from an analysis of survey responses and computed correlation coefficients. The recommendations address future research in this area.

## Summary

### Restatement of the Problem

This study investigated whether there was a relationship between high school marketing education teachers' knowledge of workplace readiness skills and student attainment of the skills. Further, this study identified the teaching methods and instructional strategies used to deliver workplace readiness skills within marketing education courses so that other career and technical education teachers could replicate with the intent to raise student attainment of workplace readiness skills. The impetus for the focus of preparing students for the workforce began with a study entitled *Report of the National Commission on Aid to Vocational Education* (1914). This report was influential in the creation and passing of the Smith-Hughes Act (1917), which provided the first federal funding for vocational education. The findings of the report declared a great need to provide vocational education as a wise business investment for the Nation, and also the first report to suggest national grants to federal and state agencies to develop and implement vocational education programs at the secondary education level (Gordon, 1999).

Several decades later, additional research studies were conducted by the National Academy of Science (1984), the Committee for Economic Development (1985), and the Secretary's Commission on Achieving Necessary Skills (SCANS) report (1990). The studies were charged with identifying skills or attributes that were considered by employers to be "necessary skills" employees would need to succeed in a lifetime of employment. The skills which surfaced were not technical in nature, rather they focused on intrinsic characteristics and were considered skills that would "equip young people for success in the labor market throughout a working lifetime," (Wise, Chia, & Rudner, 1990, p. 19). Additional studies were conducted with similar results; graduates are entering the workforce ill-prepared (Conference Board Report et al, 2006).

Over the last few years, the urgent cry for workplace readiness skills education was heard. Across the nation, states were revamping their K-12 curricula to include the skills sought by employers. Virginia was one of many states which focused on CTE as the vehicle in which to incorporate workplace readiness skills to prepare students for the demands of the global marketplace.

This study reviewed five strands of literature: (1) the identification of soft skills and the call for workplace readiness skills by business and industry; specifically, the lack of skills possessed by high school and college graduates entering the workforce and the need for public education to implement the skills into curricula; (2) the changing workforce, moving from the twentieth century into the twenty-first; (3) curriculum development and implementation, specifically curriculum designs and frameworks used in career and technical education; (4) teaching methods and instructional strategies found to be commonplace in career and technical education; and (5) the requirement of

professional development for career and technical educators as outlined in federal legislation.

From the review of research, the researcher found a lack of research on assessment of teacher and student knowledge of workplace readiness skills and any inter-correlations between teacher knowledge and student attainment of the skills. This finding prompted the researcher to conduct this study.

The purpose of this study was to examine high school career and technical education teachers' knowledge of workplace readiness skills and whether that knowledge had an impact on student workplace readiness skill attainment. If the intended purpose of implementing workplace readiness skills into career and technical education pre-existing courses was met, then this action would fulfill three purposes: (a) to provide high school students with the necessary skills needed to succeed in the workplace; (b) to provide business and industry with a skilled labor pool; and (3) to position American companies in a competitive stance in the global marketplace. Thus, this study contributes to the knowledge base that providing professional development and training in curriculum implementation of workplace readiness skills will support the above.

*Review of Methods*

This study was faced by several limitations including participants, assessment medium and measurement of workplace readiness skill attainment. The participants of this study included teachers from only one career and technical education program area within one local school division. Participants were all volunteers and had to meet eligibility requirements for participation. The medium for testing student achievement on workplace readiness skills was limited to an online assessment developed by the National

Occupational Competency Testing Institute. Finally, this study measured student attainment of workplace readiness skills by the results on the National Occupational Competency Testing Institute online assessment.

The population for this study included ten marketing education teachers and 151 second year marketing education students who completed a post-assessment on workplace readiness skills in 2007-08. Two additional instruments were used for this study. A teacher assessment on workplace readiness skills, developed by the researcher, was used to gather information on the teacher's knowledge of the skills. A survey was used to collect descriptive data on the teachers, their perceptions of the workplace readiness skills and to collect information on the methods and strategies they used to disseminate the skills.

The data collected for this study included results of the teacher assessment, responses from the teacher survey and results from the 2007-08 student post-test on the workplace readiness skills. The study used both qualitative and quantitative methods and was non-experimental in design. The study used a teacher sample (n = 10) for research questions one and two, and a student sample (n=151) for research question three.

Descriptive analysis was used to investigate research question one:

1. To what extent are marketing education teachers knowledgeable of workplace readiness skills?

Descriptive analysis and open coding was used to investigate research question two:

2. What teaching methods and instructional strategies did teachers report to deliver the workplace readiness skills?

Descriptive analysis was utilized to investigate research question three:

3. How successful were the students in obtaining competence in workplace readiness skills?

Pearson Correlation was utilized to investigate research question four:

4. Is there a correlation between teacher knowledge and student attainment of workplace readiness skills?

## Conclusions

The following conclusions were drawn from the findings of this study and relate to the problem statement and four research questions. It is important to note that generalizations should not be made beyond the participants of this study as the number of teacher participants was low.

1. Teacher Knowledge of Workplace Readiness Skills

The mean score of teachers (n=10) was above 80% on the workplace readiness skills assessment, which was considered a passing score. A closer look at each skill area, Table 8, showed 9 of the 13 skill areas had one or more teachers who scored less than 80; Reading, Math, Speaking and Listening, Computer Literacy, Problem Solving, Big Picture, Positive Attitude, Attendance and Team Member. The full results are included in Chapter IV and data are located in Appendix G. The skill area that had the highest number of teachers scoring below a 75 and the lowest mean score (71), was Problem-Solving.

65

Table 8

*Skill Areas with a Teacher Score less than 80*

| Skill Area | Number of Teachers |
|---|---|
| Reading | 3 |
| Math | 2 |
| Speaking and Listening | 2 |
| Computer Literacy | 3 |
| Problem-Solving | 7 |
| Understanding the Big Picture | 2 |
| Positive Attitude | 1 |
| Attendance | 1 |
| Team Member | 2 |

Further review of the assessment questions pertaining to problem-solving showed that teachers were not successful on the questions that sought information on the problem-solving process. So while the student assessment showed a mean score of 79, there is a concern in whether the teachers possess the knowledge of and the ability to model the problem-solving process when engaging students in classroom activities. Research on the skills and attributes deemed most important by employers cites problem-solving as one of the most important skills graduates need in order to succeed in the workplace (Conference Board Report et al, 2006, Martin, J., Carrier, A., & Hill, E.S., 1997, Opportunity Inc., 2006).

> While critical thinking and problem solving have been given considerable research attention for more than two decades, and numerous workshops, conferences, and supplemental materials have been created to support instruction, recent classroom practice has been dominated by the emphasis on basic instruction. It will be important to study the lessons to be learned from these earlier efforts as we strive for renewed

emphasis on these important skills (Partnership for 21<sup>st</sup> Century
Skills, 2007, p. 13).

Although content is important, the *process* [italics added] of how students

learn is equally important. The need to provide professional development in

this particular area is warranted by both the research on the skills and

attributes deemed necessary by business and industry presented in this study

as well as by the teacher assessment scores from this research.

2. Teaching Methods and Instructional Strategies

The teaching methods and instructional strategies most often used by teachers

to disseminate the workplace readiness skills were bringing professionals

from the workplace into the classroom, i.e., guest speakers, teachers

mentioning the skills during classroom instruction, and having the students

work in teams. Only four of the ten teachers reported using the assessments

included in the workplace readiness skills curriculum as a resource. The

research of Wiggins & McTighe (2005) found supporting evidence that

emphasize the importance of student's understanding the 'big ideas' or

concepts of the curricula. These ideas and concepts are determined at the on

set of curriculum development and are based on what students are expected to

know, understand, and be able to do after instruction. Methods and strategies

used to reinforce the big ideas, such as bringing in guest speakers from the

field, allow students to make the connection between what is being taught in

school and what is expected in the workplace. Assessments should measure

student understanding; therefore, when designing curriculum and

implementing instruction teachers should create instruction with the outcomes

or assessment already determined, i.e., begin with the end in mind.
Professional development in the area of using on-going assessments and
assessments to drive instruction is warranted by the results of this study.

3. Student Attainment of Workplace Readiness Skills

    The student mean score for the workplace readiness skills assessment was an
    82. Of the 151 students used for this study, 120 of them passed, resulting in a
    pass rate of 79.4%, with a mean score of 85.9. Further review of the
    individual scores showed students were less successful in computer literacy
    with a mean score of 61. Though it seems students of the technology
    generation would have scored much higher on this skill area, this was not
    supported by this study. According to NOCTI, the assessments are geared
    more toward measuring a student's knowledge of basic processes including
    the identification and use of terminology and tools (NOCTI, n.d.). This leads
    the researcher to conclude that while students can maneuver in and out of
    applications with ease; i.e., Internet searches, instant messaging, and email;
    they may not be knowledgeable of the terminology or the "why" behind the
    use of specific applications. The researcher was not granted access to the
    online student assessment to review the questions for content; rather, the
    researcher was given the blueprint and sample questions of the assessment. It
    is the policy of NOCTI that teachers are not to view the assessment in order to
    keep the integrity of the test in tact. It is also worthy to note that using
    multiple-choice questions to assess a student's ability to demonstrate
    knowledge through application is very difficult.

4. Correlation between Teacher Assessment and Student Assessment

    This study showed there was no correlation between overall teacher knowledge of the workplace readiness skills and overall student attainment of the same. Though it seems logical that teacher knowledge would have an impact on student achievement, this was not found in this sample. The size of the teacher sample could be a contributing factor in this finding. Of the nineteen teachers eligible to participate in this study, only ten volunteered. The overall student assessment showed a mean score of 82. So while the analysis results of this study showed no correlation between teacher knowledge and student attainment, the students are learning the skills somewhere. It is possible that they learned the skills in their first year course, in which they might have had a different teacher. Another possibility is that the students are learning the skills via a work-based learning experience; i.e., cooperative education method of instruction. If these factors had any bearing on student achievement, they were not confirmed by this study.

## Recommendations for Practitioners

The following recommendations are based on the findings and conclusions of this study. This section highlights recommendations for administrators of career and technical education and teachers.

1. Professional Development

    According to the conference Board Report (2006), "Three-quarters (75.6 percent) of employer respondents say that K-12 schools should be responsible for providing the necessary basic knowledge and applied skills for their new

entrants," (p. 54). This is a bold statistic, one that puts the future of American

businesses in the hands of educators. The ultimate goal of public education is

to provide a strong foundation on which students are to build their knowledge

and skills in order to become productive members of society; generators of

knowledge rather than merely consumers. In order for that to happen,

educational leaders must provide well planned and executed professional

development opportunities for teachers, not only in their content areas but in

the skills identified by business and industry as necessary for success in the

workforce.

> Professional development is critical to ensuring that teachers
> keep up with changes in statewide student performance
> standards, become familiar with new methods of teaching in
> the content areas, learn how to make the most effective
> instructional use of new technologies for teaching and learning,
> and adapt their teaching to shifting school environments and an
> increasingly diverse student population (Lawless & Pellegrino,
> 2007, p. 575).

Career and technical education administrators need to assist teachers in

creating their professional development plans in order to design a plan that

supports the individual needs of the teacher in maintaining content knowledge

as well furthering their knowledge and understanding of the soft skills

necessary for students to succeed in the workplace. Professional development

should also focus on the use of assessment as a means to improve instruction

and student achievement.

2.  Curriculum Implementation

    Virginia's career and technical education courses are based on state-mandated

    competencies identified through a DACUM process. The number one

competency for each CTE course is *Demonstrate Virginia's workplace readiness skills in course activities* (CTE Resource Center, n.d.). Virginia's 13 Workplace Readiness Skills Curriculum is one resource that teachers can use to disseminate workplace readiness skills instruction to students. Additionally, implementing the use of the Understanding by Design framework to embed and connect workplace skills to career and technical education content enables not only the teacher, but also the student to grasp where CTE content fits into the 'big picture' of education.

3. Assessment

   Covey (1998) is known for his phrase "begin with the end in mind" (p. 98). Measuring teacher and student knowledge on workplace readiness skills is vital to instruction of the same. Gathering information on what the teachers and students already know will help gauge where professional development for teachers should start and where adjustment to instruction should begin for students. NOCTI's *Virginia's 13 Workplace Readiness Skills* assessment and/or their newly developed *21$^{st}$ Century Skills for Success* assessment can be used to measure student knowledge of workplace readiness skills. The data provided from both assessments can be used to adjust instruction so that students may obtain competence in these skills.

## Recommendations for Researchers

The following recommendations for further research are based on the findings and conclusions of this study. This section highlights recommendations for studies

concerning teacher professional development and curriculum implementation of workplace readiness skills into career and technical education curricula.

1. Since this study focused only on marketing education teachers and students, replication of this study in other program areas is highly recommended. Replication in other school divisions within the state and beyond would help establish a broader research base. A larger sample is recommended.

2. Future studies should focus on additional factors that may have an impact on student attainment of workplace readiness skills; i.e., using the cooperative education method of instruction, and course history; i.e., whether or not the student was enrolled in additional CTE courses throughout their high school career. As additional research is conducted to refine the skills and attributes most sought after by employers, continued research in the area of curriculum implementation, not only in career and technical education, but also in the core subject areas, should be conducted.

3. Additional research on workplace readiness skills and attributes is currently taking place, both within the education field (Weldon Cooper Center) and through private business organizations (Partnership for 21 Century Skills). The researcher recommends further study be conducted in the area of social responsibility, specifically in the area of sustainability. If public education, specifically career and technical education, is charged with providing students with the skills necessary to not only succeed in the workforce, but compete in a global market, then not only must they learn the intrinsic skills but also obtain an awareness of their place and impact on the world.

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# Appendix A

# Human Subjects Review Committee Approval Letters

**OLD DOMINION UNIVERSITY**

DEPARTMENT OF EXERCISE SCIENCE, SPORT, PHYSICAL EDUCATION, AND RECREATION
111 Spong Hall
Norfolk, Virginia 23529-0196
Phone (757) 683-4995 • Fax (757) 683-4270

March 5, 2009

Philip A. Reed, PhD.
Associate Professor & Technology Education Program Leader
Old Dominion University
Darden College of Education
Department of Occupational & Technical Studies
228 Education Building
Norfolk, Virginia 23529-0157

Dr. Reed & Ms. Sarah Martin,

Your proposal submission titled, "**Instructional Alignment of Workplace Readiness Skills in Career and Technical Education**" has been deemed EXEMPT by the Human Subjects Review Committee of the Darden College of Education. You may begin your research. **Please send a signed hardcopy of your application submission** to the address below. Thank you.

Sincerely,

Edwin Gómez, Ph.D.
Associate Professor
Chair, Human Subjects Review Committee
Darden College of Education
Old Dominion University
2010 Student Recreation Center
Norfolk, VA 23529-0196
757-683-6309 (ph)
757-683-4270 (fx)

# VIRGINIA BEACH CITY PUBLIC SCHOOLS
## A H E A D   O F   T H E   C U R V E

April 6, 2009

Ms. Sarah Jane Martin
704 Moss Quay
Chesapeake, VA 23320

Dear Ms. Martin:

This letter serves as the Department of Research, Evaluation, and Assessment's approval for your research study entitled "Instructional Alignment of Workplace Readiness Skills in Career and Technical Education." Permission is granted for you to contact the marketing and fashion marketing teachers in the school division and provide them an overview of your study. It is our understanding that you will request willing participants to complete a workplace readiness assessment and a survey. Your request was approved with the understanding that you will stress the voluntary nature of the study to the teachers and explain processes in place to protect their anonymity. The final decision to participate rests with the individual marketing and fashion marketing teachers that you contact.

Our approval for your study will expire one year from the date of this letter. If there are any changes to the methods or materials that you plan to use as part of your study, you must submit the changes to our office for review prior to proceeding. It is our expectation that you will submit an electronic copy of the final report upon its completion to the Department of Research, Evaluation, and Assessment. Please send the report to LisaA.Banicky@vbschools.com. If you have any questions, please contact me at 263-1112.

Sincerely,

Lisa A. Banicky, Ph.D.
Research Specialist

pc:     Jared A. Cotton, Ed.D., Assistant Superintendent
        Department of Research, Evaluation, and Assessment

        Hazel H. Jessee, Ed.D., Assistant Superintendent for High School Education
        Department of School Administration

        Christine W. Caskey, Ed.D., Assistant Superintendent
        Department of Curriculum and Instruction

        Patrick M. Konopnicki, Ed.D., Director
        Office of Technical and Career Education

        High School Principals

**Appendix B**

**Core Competencies identified by the National Academy of Science, 1984**

Command of the English Language

Reasoning and Problem solving

- Identify problems
- Consider and evaluate possible alternative solutions, weighing their risks and benefits
- Formulate and reach decisions logically
- Separate fact from opinion
- Adjust to unanticipated situations by applying established rules and facts
- Work out new ways of handling recurring problems
- Determine what is needed to accomplish work assignments

Reading

- Understand the purpose of written material
- Note details and facts
- Identify and summarize principal and subsidiary ideas
- Be aware of inconsistency in written material
- Verify information and evaluate the worth and objectivity of sources
- Interpret quantitative information: for example, in tables, charts and graphs

Writing

- Gather information suitable for the purpose
- Organize information in a logical and coherent manner
- Use standard English syntax
- Apply the rules of correct spelling, punctuation, and capitalization
- Use reference books such as a dictionary, a thesaurus, and an encyclopedia
- Write legibly

Computation

- Add, subtract, multiply, and divide whole numbers, decimals, and fractions accurately
- Calculate distance, weight, area, volume, and time
- Convert from one measurement system to another, for example, from English to metric
- Determine the costs, time, or resources necessary for a task
- Calculate simple interest
- Compute costs and make change
- Understand simple probability and statistics
- Calculate using information obtained from charts, graphs, and tables
- Use ratios, proportions, percentages, and algebraic equations with a single unknown
- Estimate results and judge their accuracy

Science and Technology

Oral Communication

- Communicate in standard English

- Understand the intent and details of oral communications
- Understand and give instructions
- Identify and summarize correctly principal and subsidiary ideas in discussions
- Obtain, clarify, and verify information through questioning
- Participate effectively in discussions

Interpersonal Relationships

- Interact in a socially appropriate manner
- Demonstrate respect for the opinions, customs, and individual differences of others
- Appreciate the importance and value of humor
- Offer and accept criticism constructively
- Handle conflict maturely
- Participate in reaching group decisions

Social and Economic Studies

- The history of present-day American society
- The political, economic, and social systems of the United States and other countries
- The Fundamentals of economics, including a basic understanding of the roles of
- money, capital investment, product pricing, cost, profit, and productivity, and market forces such as supply and demand
- The concept of "trade-offs" and the differences between economic principles, facts and value judgments
- The roles of industry and labor in creating wealth, maintaining employment, and raising the standard of living
- The forms and functions of local, state, and federal governments
- The rights and responsibilities of citizens
- Civil rights and justice in a free society.

Personal Work Habits and Attitudes

- A realistic positive attitude toward one's self
- A positive attitude toward work and pride in accomplishment
- A willingness to learn
- Self-discipline, including regular and punctual attendance and dependability
- The ability to set goals and allocate time to achieve
- The capacity to accept responsibility
- The ability to work with or without supervision
- Appropriate dress and grooming
- An understanding of the need for organization, supervision, rules, policies, and procedures
- Freedom from substance abuse
- Appropriate personal hygiene

## Appendix C

## Workplace Readiness Skills Teacher Assessment

## VIRGINIA'S WORKPLACE READINESS SKILLS (Form A)

This assessment is based on Virginia's 13 Workplace Readiness Skills curriculum and is designed to assess knowledge of these skills.

**DIRECTIONS:** Choose the answer that best completes the following statements or answers the questions below.

## READING SKILLS

1. One easy way to increase vocabulary on a daily basis is
   A. to look up lots of words in the dictionary while reading a book.
   B. to read the newspaper every day.
   C. to ask people to explain words to you.
   D. to listen carefully.

2. What is the best way to read the newspaper?
   A. Reflect on articles in order to discover the individual influences.
   B. Pick your favorite section and ignore the rest.
   C. Read for movie times and locations.
   D. Read articles over and over again until you have memorized them.

3. Which three are items that you may be required to read each day in the workplace?
   A. Contracts, product warranties, and newspapers
   B. E-mail, manuals, and memos
   C. Novels, newspapers, and Internet
   D. Letters, books, and Internet

4. While working, an employee may need to interpret a graphic display such as a
   A. pie graph.
   B. medical chart.
   C. Internet chat room.
   D. brainstorm.

5. If you do not understand the meaning of a word in a sentence of something that you are reading, the best way to try to figure it out is
   A. to use a pocket dictionary.
   B. to use context clues to figure out the meaning.
   C. to ask a coworker for the meaning of the word.
   D. to skip it and don't worry about it.

## MATHEMATICS SKILLS

6. Your cash drawer has coins in it. You tally the following amount of coins in your drawer:
   - 1 dollar coins – 25
   - 50 cent pieces – 30
   - Quarters – 27
   - Dimes – 37
   - Nickels – 127
   - Pennies - 87

   How much money do you have in your drawer from change?
   A. $53.47
   B. $55.47
   C. $57.67
   D. $65.67

7. You purchase a $13.67 item. You give the cashier a $20 bill. How much change do you get?
   A. $6.33
   B. $6.43
   C. $7.33
   D. $7.43

8. The car you have decided to buy costs $12,750.00 including tags, tax, title, and all dealer fees. Calculate a 15% down payment.
   A. $1,275.00
   B. $1,500.00
   C. $1,912.50
   D. $2,500.00

9. You have purchased a car and will be financing $11,000.00. If the interest rate is 6.5% and the term of the loan is 4 years, what will be the total amount of interest you will pay over the life of the loan? Remember: I = prt.
   A. $715.00
   B. $1,500.00
   C. $2,860.00
   D. $3,000.00

10. Car insurance costs $1,395.00 for 6 months. Your insurance company will let you pay your insurance in 6 equal monthly payments, but they charge a $3.00 per month fee for this service. What will be your monthly insurance payment if you decide to take this option?
    A. $229.50
    B. $232.50
    C. $233.00
    D. $235.50

**Use the following information for questions 11-12:**

Customers were asked how satisfied they were with the service at their local video store. The following results were tabulated:

- Very Satisfied                              50
- Somewhat Satisfied                          100
- Neither Satisfied nor Dissatisfied          25
- Somewhat Dissatisfied                       30
- Very Dissatisfied                           10
- Total Surveyed                              215

11. What proportion (fraction) of the customers were either Very Satisfied or Somewhat Satisfied?
    A. 0.70%
    B. 6.97%
    C. 69.8%
    D. 150%

12. Based on this data, customers generally felt
    A. well satisfied with the service.
    B. satisfied with the service.
    C. unsatisfied with the service.
    D. unable to tell based on the information provided.

13. A cake recipe has a total weight of 7 pounds, 8 ounces. If each individual cake should have 12 ounces of batter, how many cakes can you make?
    A. 6.5
    B. 9.33
    C. 10
    D. 10.5

14. A recipe that produces 150 servings is being converted to produce 60 servings. What is the working factor? (recall that the working factor = new yield / old yield)
    A. 0.4
    B. 2.0
    C. 2.5
    D. 3.0

**WRITING SKILLS**

15. A memo is written for
    A. potential clients.
    B. fellow employees.
    C. corporate sponsors.
    D. sales representatives.
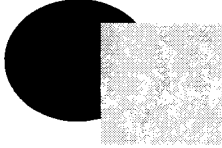
16. When communicating with people outside of your company, which format should you use?
    A. Business letter
    B. Agenda
    C. Mission statement
    D. Memo

17. Determining the audience of your writing will help you to do all of the following, EXCEPT
    A. use a format that will appeal to them.
    B. fix grammatical errors.
    C. select information to include.
    D. write in appropriate language.

18. Before writing a draft, you should
    A. revise.
    B. publish.
    C. pre-write.
    D. edit.

19. When conducting Internet research on your topic, the most important thing to consider is
    A. the source of the information.
    B. the quality of the pictures.
    C. how many visitors the page has had.
    D. the number of pop-up ads.

20. An agenda
    A. gathers information about a topic.
    B. communicates with clients.
    C. records communication in an office.
    D. sets a schedule for a meeting.

21. The purpose of a mission statement is to
    A. impress the employer.
    B. determine the audience of the document.
    C. advertise a new product.
    D. define the goals of an organization.

22. When writing a letter of complaint, you should include all of the following, EXCEPT
    A. A description of the product or service.
    B. A description of the problem.
    C. A request to resolve the issue.
    D. A threat to harm the company.

**SPEAKING & LISTENING SKILLS**

23. Communication can best be described as the process of
    A. sending and receiving messages.
    B. speaking and listening.
    C. sending and receiving messages to achieve understanding.
    D. reading and writing.

24. Interpersonal communication is best described as
    A. talking to oneself.
    B. talking to one or more persons.
    C. talking into a microphone.
    D. rehearsing a speech.

25. In public speaking, nonverbal communication
    A. is unimportant.
    B. "says" a great deal to the audience.
    C. makes the audience self-conscious.
    D. makes very little difference to the audience.

26. The first step taken by the sender is
    A. providing feedback.
    B. speaking.
    C. encoding.
    D. decoding.

27. A synonym for feedback is
    A. response.
    B. symbol.
    C. nonverbal reaction.
    D. verbal answer.

28. Failure to listen effectively can result in
    A. misunderstandings.
    B. dull conversations.
    C. mistakes on the job.
    D. All of these

29. An interview differs from a conversation mainly because
    A. an interview often involves more than two persons.
    B. interviews take longer.
    C. interviews deal only with jobs.
    D. an interview has a definite goal.

30. During a well-conducted job interview,
    A. the person conducting the interview should ask all the questions.
    B. the person who is being interviewed should ask all the questions.
    C. both the interviewer and the interviewee should ask questions.
    D. questions should be kept to a minimum.

## COMPUTER LITERACY SKILLS

31. Which of the following entries will bring the best results from an Internet search for marketing careers?
    A. "marketing"
    B. marketing or career
    C. career
    D. "careers in marketing"

32. Sherry wants to record the survey information that she collected and use it to create a chart that identifies the most desired items she could carry in her shop. The best application that she could use is
    A. word processing.
    B. spreadsheet.
    C. database.
    D. graphics.

33. In order to perform a calculation in a spreadsheet, you need to use a
    A. table.
    B. formula.
    C. field.
    D. variable.

34. In a desktop publishing program, the graphic shown demonstrates the principle of
    A. spacing.
    B. filtering.
    C. kerning.
    D. layering.

35. There wasn't enough space for the text Tom wanted to use once he imported some graphics into a card he made. He can make it fit by
    A. using different colors.
    B. resizing the graphics.
    C. resizing the window.
    D. using a different file name.

36. George wants to change his newsletter title to make it look more visually appealing. He will need to increase the type size and change the font to bold and italic. This is an example of
    A. searching.
    B. editing.
    C. resizing.
    D. replacing.

**PROBLEM SOLVING SKILLS**

37. When brainstorming, _____ answers are gathered for consideration.
    A. two
    B. five
    C. the best
    D. all

38. To quickly organize information to make a decision, one would use a(n)
    A. brainstorm list.
    B. affinity diagram.
    C. flow chart.
    D. Venn diagram.

39. In determining a breakdown on a production it would be best to use a(n)
    A. brainstorm chart.
    B. VU meter.
    C. affinity diagram.
    D. flow chart.

40. When solving process change issues, _____ thinking is applied.
    A. mathematical
    B. analytical
    C. ethical
    D. convergent

41. When using an affinity diagram, information is _____ on cards for clarity.
    A. processed
    B. synthesized
    C. organized
    D. rationalized

42. The worth, importance, or usefulness of something that is uniquely important to each individual is known as _____.
    A. Values
    B. Ethics
    C. Experiences
    D. Goals

43. Thinking that involves disciplined intellectual criticism that combines research, knowledge of historical context and balanced judgment is known as _____ _____.
    A. Analytical thinking
    B. Convergent thinking
    C. Critical thinking
    D. Divergent thinking

## BIG PICTURE SKILLS

44. When an employee does not show up at work for their scheduled hours, it affects
    A. the employee.
    B. the customers.
    C. their coworkers.
    D. the whole business.

45. Which of the following is NOT something a business would take into consideration when writing their mission statement?
    A. The market
    B. The products or services they offer
    C. Their public image
    D. The general public

46. A potential employee might look at a company's mission statement before going on an interview with that company because
    A. they are interested in the skills required to do the job.
    B. they want to know if their goals and values match up with the company's goals and values.
    C. they are bored and need something to search on the Internet.
    D. they want to know how the company's mission statement compares to their competitors.

47. Which statement is best described as "what we are trying to do?"
    A. Purpose statement
    B. Vision statement
    C. Mission statement
    D. Directive statement

48. As an employee, where can you find policies and procedures?
    A. Employee handbook
    B. During training
    C. Employment application
    D. Personnel manual

49. _____ refers to the shift toward a more integrated and interdependent world economy.
    A. Proliferation
    B. Globalization
    C. Consumerism
    D. Internationalization

**WORK ETHIC SKILLS**

50. Which three characteristics below best summarize work ethic?
    A. Interpersonal skills, initiative, dependability
    B. Depressed, considerate, hostile
    C. Courteous, productive, forceful
    D. Adaptable, irresponsible, well-groomed

51. How do you exhibit responsibility?
    A. Coming to work as assigned
    B. Avoiding difficult work tasks
    C. Keeping to yourself
    D. Doing something only when told by your supervisor

52. When you first meet the person that is interviewing you for a job, you should _____.
    A. excuse yourself to the restroom to comb your hair
    B. immediately take a seat
    C. firmly shake hands and greet the person
    D. ask what the starting pay will be

53. Which of the following does NOT indicate initiative?
    A. Asking your boss for additional work since you have completed all assigned tasks
    B. Watering plants and wiping the dust from the office file cabinets even though it is not in your job description
    C. Asking the boss if you can leave 15 minutes early since you have finished all of your work
    D. Offering help to a coworker who is struggling to complete an important assignment

54. Work ethic can come from which of the following?
    A. Parents
    B. Your boss
    C. Your coworkers
    D. All of the above

55. A worker without initiative may be considered
    A. motivated.
    B. industrious.
    C. enthusiastic.
    D. lazy.

## POSITIVE ATTITUDE SKILLS

56. First impressions are generally formed within the first _____ of meeting someone.
    A. 2 to 3 seconds
    B. 7 to 17 seconds
    C. 30 to 45 seconds
    D. 1 to 2 minutes

57. Which of the following should you do when you are trying to make a strong first impression?
    A. Use the person's name frequently.
    B. Make lots of jokes to lessen the tension.
    C. Don't worry about the way you look, because what you say is all that matters.
    D. Use slang language to make them feel comfortable around you.

58. Specialized vocabulary used by people who share a common interest or technical knowledge is referred to as
    A. an accent.
    B. jargon.
    C. slang.
    D. a mantra.

59. What should you do when a customer or coworker has questions?
    A. Treat the person with respect.
    B. Gather the facts.
    C. Call a manager for help if you cannot handle the situation.
    D. All of the above

60. Why is feedback important?
    A. It assures both the sender and receiver that the message was understood.
    B. People can keep communicating for longer periods of time.
    C. It helps the sender not let emotions or blocks get in the way.
    D. All of the above

61. Which of the following is NOT a form of feedback?
    A. "You did a great job!"
    B. Note from a friend
    C. A on a test
    D. Commercial

62. Work teams that are made up of positive people are generally _____ than work teams with members who have negative attitudes.
    A. more successful
    B. less successful

63. A man should wear which of the following to an interview?
    A. Boldly printed shirt
    B. Tuxedo
    C. Collarless shirt
    D. Socks

## INDEPENDENCE & INITIATIVE SKILLS

64. Which of the following characteristics is NOT associated with a good employee?
    A. Dependable
    B. Helpful
    C. Punctual
    D. Defiant

65. Which of the following skills would an employer in any industry look for in an employee?
    A. Good communication skills
    B. Organizational skills
    C. Mathematical skills
    D. All of the above

66. A reliable employee is one who
    A. reports to work on time
    B. takes lots of sick days
    C. is trustworthy
    D. finishes assigned work on schedule

67. Which of the following would NOT be an example of flexibility?
    A. You complain when a project requires you to stay late.
    B. You willingly help out when coworkers need assistance.
    C. You volunteer to take on extra assignments when your supervisor asks.
    D. You learn new skills regularly.

68. Which is an emotion that is associated with both planned and unplanned changes?
    A. Fear
    B. Happiness
    C. Envy
    D. Both A and B

69. Which of the following is NOT a reason that a person might change to part-time hours?
    A. More pay
    B. Return to school
    C. Spend more time on outside interests
    D. Have/care for children

70. A letter of resignation should include all of the following EXCEPT
    A. the date you intend to leave.
    B. the reason you are leaving.
    C. criticism of your employer.
    D. a brief thank-you for the opportunity.

71. If you want to quit your job, you should
    A. give as much notice as possible.
    B. give no notice.
    C. tell your boss off before you leave.
    D. just don't show up one day.

## SELF-PRESENTATION SKILLS

72. When attempting to speak to a person of authority in your company, you should
    A. introduce yourself and ask if they have a moment to speak with you.
    B. schedule an appointment months in advance.
    C. give up if they don't immediately have time to spend with you.
    D. e-mail if speaking to them in person makes you nervous.

73. If you are working in a factory setting, the most appropriate shoe for your work environment is
    A. steel-toed work shoe.
    B. comfortable tennis shoes.
    C. sandals.
    D. sensible heels.

74. Historically, if you reported to work each day in a company shirt and jeans or work pants, your job was most likely classified as
    A. white collar.
    B. blue collar.
    C. casual.
    D. unimportant.

75. The true corporate definition of "Business Casual" for men is
    A. a tie with no jacket or a jacket with no tie.
    B. jeans and a t-shirt.
    C. jeans and a company shirt.
    D. anything better than sweats or shorts.

76. If you are hoping to get promoted within your organization your dress should
    A. express your personal style.
    B. emulate people in the position to which you aspire.
    C. be just like others in your current job.
    D. not impact decisions about promotions.

77. In which job is it most important to have clean, neat fingernails?
    A. Medical doctor
    B. Chef
    C. Hair dresser
    D. All of these

78. If you are unhappy about an incident at work, you should
    A. immediately confront your supervisor.
    B. take your problem to the highest level manager that you can find.
    C. tell customers about all of the problems with your employer.
    D. schedule a time to speak calmly and privately with your supervisor about your concerns.

79. If you are planning to meet with business people from another country or culture, what should you do to prepare for the meeting?
    A. You should just be yourself.
    B. You should do nothing. They are coming to your office and should follow your customs.
    C. You should investigate etiquette and business customs from their culture to make the meeting go smoothly.
    D. You should treat them just like you would your best friend.

80. When e-mailing a client, which of the following emoticons is appropriate
    A. ☺
    B. ☹
    C. ☺
    D. None of these

81. John tells his new boss that he must sell everything in the warehouse immediately. Which of the following is a common business word that means the same as selling everything?
    A. Liquidate
    B. Eradicate
    C. Irrigate
    D. Sedate

82. John's boss asks him how he plans to launch a new product line. What does John's boss mean?
    A. He would like to know how John plans to introduce the product line to the public.
    B. He would like to know how John plans to keep the new product line out of the hands of the competition.
    C. He would like to know how John plans to ship the product line to customers.
    D. He would like to know how John plans to send the new product to the international space station.

83. An employee tells his manager that he is ill and must go home, but looks at the floor during this discussion. By refusing to make eye contact, this employee may be giving the manager the impression that he is
   A. very sick.
   B. happy to be going home.
   C. lying about the illness.
   D. very sincere.

84. When is it okay to forward jokes via company e-mail?
   A. It is always okay.
   B. It is okay only when you know the people that you are sending to like jokes.
   C. It is never okay.
   D. It is okay only when your supervisor does it too.

## ATTENDANCE SKILLS

85. Proper time management is an important part of
   A. being popular.
   B. maintaining a productive work/home/social environment.
   C. creating a proper impression for your teacher/employer.
   D. All of the above

86. Being able to prioritize activities and assignments will
   A. make a student more aware of the time needed for each task.
   B. help a student to focus on essential and non-essential activities.
   C. guarantee 2 hours of free time each day.
   D. Answers A and B

87. Being late for work and having several 'unexcused' absences
   A. could affect your productivity.
   B. reveal a pattern of negative behavior.
   C. could be a deciding factor in future promotional opportunities within the company.
   D. All of the above

88. Attendance policies in the workplace
   A. protect the employer.
   B. are used for support in the termination process.
   C. never change and are inflexible.
   D. provide company rules and employee expectations regarding time on the job.

89. Being late for work
   A. is acceptable if your supervisor is informed.
   B. is not as serious as not showing up for work at all.
   C. is OK if you worked late the day before.
   D. None of the above

90. Which of the following instances could NEVER be considered an excused absence?
    A. Attending a funeral for a relative
    B. Having a doctor's appointment
    C. Awards day at your child's school
    D. A liquidation sale at a local furniture store

## TEAM MEMBER SKILLS

91. What is a significant problem for a team?
    A. Lack of direction
    B. Weak members
    C. New members
    D. Indifference

92. Tammy has never functioned as a team leader in the past. However, she is a great organizer, and she quickly identifies potential problems. She has just been selected to serve as a team leader. Which statement represents the best advice to give Tammy?
    A. Focus on organization.
    B. Delegate everything.
    C. Seek assistance from your friends.
    D. Learn to communicate effectively.

93. A team's goals should be
    A. difficult.
    B. realistic and obtainable.
    C. simple.
    D. challenging and long range.

94. Leadership, organization, communication, and efficiency are examples of team member's
    A. goals.
    B. outcomes.
    C. skills.
    D. responsibilities.

95. What type of skill includes drafting memorandums, e-mailing agendas, and listing goals?
    A. Computational
    B. Writing
    C. Listening
    D. Management

96. What can hinder team performance?
    A. Animosity
    B. Acceptance
    C. Flexibility
    D. Diversity

97. Susan calls in sick. The team members quickly discuss how to shift and share responsibilities. Then they begin to effectively work as a team on an assembly line. What is a reasonable first impression of this team?
    A. The team functions ineffectively when jobs shift.
    B. The team dislikes Susan because she called in sick.
    C. The team understands the importance of flexibility.
    D. The team develops plans to eliminate Susan's job.

98. What can you conclude about an assembly line that quickly adapts to changes and still manages to perform at an optimal level?
    A. The team members rarely need input from the manager.
    B. The manager rarely communicates with the team members.
    C. The team members prefer to work independently.
    D. The team members and manager developed a positive working relationship.

99. What should a production team refer to as a reminder of the team's purpose?
    A. Company handbook
    B. Mission statement
    C. Employee contract
    D. Weekly evaluation

100. When group members feel comfortable and appreciated, they tend to
    A. increase loyalty to the team.
    B. increase loyalty to the strong individuals.
    C. increase absenteeism.
    D. increase peer pressure.

## VIRGINIA'S WORKPLACE READINESS SKILLS (Form B)

This assessment is based on Virginia's 13 Workplace Readiness Skills curriculum and is designed to assess knowledge of these skills.

**DIRECTIONS:** Choose the answer that best completes the following statements or answers the questions below.

## READING SKILLS

1. One of the best ways to learn about the world and yourself from reading the newspaper is by
   A. deciding how stories have a personal influence on you.
   B. memorizing it from cover to cover.
   C. reading only the classified section.
   D. reading the most complex stories first.

2. Reading the newspaper can positively affect employees in the workplace by
   A. taking minds off of stressful situations.
   B. contributing to paper recycling efforts.
   C. catching up on scores of games that were missed because of work hours.
   D. creating in employees stronger vocabularies and a broad base of knowledge.

3. One way that good readers are problem solvers is
   A. that they are usually good at mathematics, too.
   B. that they know how to solve problems that arise quickly.
   C. that they know who to call for help.
   D. that they are able to skim materials to find an answer to a problem.

4. Three words that signal an opinion are
   A. best, ought, and could.
   B. my, mine, and ours.
   C. data, evidence, and sources.
   D. proof, seems, and probably.

5. Which choice below could be a title for this list of terms?
   shipping address, billing address, shipping method, receipt, order number

   A. action words
   B. computer technology words
   C. mail order words
   D. transportation words

## MATHEMATICS SKILLS

6. At the end of your shift, you have tallied the following amount in your drawer:
   - 100 dollar bills – 25
   - 50 dollar bills – 10
   - 20 dollar bills – 75
   - 10 dollar bills – 47
   - 5 dollar bills – 125
   - 1 dollar bills – 68

   How much money do you have in your drawer?
   A. $3,053
   B. $4,153
   C. $5,663
   D. $6,163

7. You are given $50.00 to go shopping. You purchase an item for $12.45. How much money do you have left after you make your purchase?
   A. $27.55
   B. $37.45
   C. $37.55
   D. $38.45

8. The car you have decided to buy costs $12,750.00 including tags, tax, title, and all dealer fees. The dealer can get you 6.00% financing if you can make a 20% down payment. How much would you finance?
   A. $2,550.00
   B. $10,000.00
   C. $10,200.00
   D. $12,750.00

9. Your owner's manual recommends that you change the oil in your car every 3,000 miles. Jiffy Lube will perform the oil change and other minor maintenance checks for $24.95. What is the approximate cost per mile for this service?
   A. Less than a penny per mile
   B. About 8 cents per mile
   C. About 80 cents per mile
   D. About $8 per mile

**Use the following information for questions 10-11:**
- Hourly wage          $7.50
- Hours worked per week   37
- Weeks worked per year   50

10. What is your weekly gross income?
    A. $7.50
    B. $37.00
    C. $50.00
    D. $277.50

11. What is your annual gross income?
    A. $277.50
    B. $10,267.50
    C. $13,875.00
    D. $15,000.00

12. A recipe has the following ingredients and weights: 3 pounds all purpose flour, 2 pounds 4 ounces butter, 1 pound, 8 ounces water, ½ ounce salt. What is the total recipe weight?
    A. 6 pounds
    B. 6 pounds 12 ounces
    C. 6 pounds 12½ ounces
    D. 7 pounds 2½ ounces

13. A recipe that produces 50 servings is being converted to produce 125 servings. What is the working factor? (recall that the working factor = new yield / old yield)
    A. 0.4
    B. 2.0
    C. 2.5
    D. 3.0

14. The following recipe is used for making pie crusts:
    • 5 pounds sifted all-purpose flour
    • 4 pounds 2 ounces shortening
    • 24 ounces cold water
    • ½ ounce salt

    If each crust is to contain 14 ounces of dough, about how many crusts does this recipe yield?
    A. 10
    B. 11
    C. 12
    D. 13

**WRITING SKILLS**

15. Which of the following is an appropriate purpose for workplace writing?
    A. To advertise your company's products
    B. To spread rumors about competitors
    C. To gossip about new employees
    D. To publicly complain about your boss

16. If you were gathering information for a proposal to your employer, you should include all of the following, EXCEPT
    A.  the purpose of your proposal.
    B.  your plan for improvement.
    C.  the resources you need to make the change.
    D.  the bonus you expect to receive.

17. A résumé should include all of the following, EXCEPT
    A.  how to contact you.
    B.  relevant experience.
    C.  personal statements from your references.
    D.  your educational background.

18. Which of the following is not a good way to gather information about a topic?
    A.  Searching the Internet
    B.  Writing a draft
    C.  Conducting interviews
    D.  Surveying people

19. The last step in writing is to
    A.  determine your purpose.
    B.  peer edit.
    C.  write a draft.
    D.  publish.

20. When writing a first draft, you should do all of the following, EXCEPT
    A.  think about your purpose.
    B.  use clear, concise language.
    C.  fix all spelling errors.
    D.  consider your audience.

21. When writing a letter of complaint, you should include all of the following, EXCEPT
    A.  a description of the product or service.
    B.  a description of the problem.
    C.  a request to resolve the issue.
    D.  a threat to harm the company.

22. The purpose of a mission statement is to
    A.  impress an employer.
    B.  determine the audience of a document.
    C.  advertise a new product.
    D.  define the goals of an organization.

## SPEAKING & LISTENING SKILLS

23. Intrapersonal communication occurs
    A. within oneself.
    B. in the presence of one other person.
    C. in a group of three of more.
    D. before an audience.

24. The best example of one-to-one communication is
    A. a teacher in a classroom.
    B. a lecture.
    C. a television talk show.
    D. a telephone conversation.

25. Which of the following is NOT a type of nonverbal communication?
    A. gestures
    B. facial expressions
    C. vocabulary
    D. posture

26. The first task of the receiver is to
    A. decode.
    B. encode.
    C. hear.
    D. give feedback.

27. All of the following are examples of distraction EXCEPT
    A. open-mindedness.
    B. loud music playing in the background.
    C. a hot room.
    D. concentrating on how the speaker looks.

28. Being late for appointments
    A. shows your own importance.
    B. shows a lack of regard for others.
    C. is all right only with friends.
    D. can help you take charge of the situation.

29. An interviewee is
    A. the person conducting an interview.
    B. the person being interviewed.
    C. a very brief interview.
    D. a very long interview.

30. In a public speaking situation, feedback is
    A. mainly verbal.
    B. mainly nonverbal.
    C. generally balanced between verbal and nonverbal.
    D. non-existent.

## COMPUTER LITERACY SKILLS

31. To determine if a Web site has current information, you should check
    A. the Web site address.
    B. how the site is organized.
    C. when the site was last updated.
    D. how many other sites are listed.

32. A home page is
    A. an index of encyclopedia articles.
    B. where all Internet data is stored.
    C. required for access to the Internet.
    D. the first page of a Web site.

**Use the spreadsheet below to answer question 33.**

|   | A | B | C |
|---|---|---|---|
| 1 | Employee Name | Position | Salary |
| 2 | Doe, Jane | Cashier | $14,000 |
| 3 | Martin, Jill | Sales Rep | $25,000 |
| 4 | Smith, John | Manager | $30,000 |
| 5 | Taylor, Tom | Sales Rep | $22,000 |

33. Which formula would you use to calculate the total salary that is paid out to your employees?
    A. =sum(C1:C5)
    B. =sum(C2:C5)
    C. =sum(A1:C5)
    D. =sum(A2:C5)

34. Jill has a graphic of a car next to a garage, but she wants to use only the car. Which of the following commands in a graphics program will allow her to alter the picture the way she wants it?
    A. Resize
    B. Insert
    C. Crop
    D. Copy

35. Inserting an existing graphic into a document is an example of using
    A. clipart.
    B. fonts.
    C. pictures.
    D. icons.

36. Susan is editing a document that she had previously saved. If she wants to save her edited document without losing the original document, which command should she use?
    A. New
    B. Save
    C. Edit
    D. Save As

## PROBLEM SOLVING SKILLS

37. The ability to think "outside the box" is known as _____ _____.
    A. Critical thinking
    B. Analytical thinking
    C. Divergent thinking
    D. Convergent thinking

38. The _____ chart has ideas and information organized by diamond and square shapes.
    A. brainstorm
    B. affinity
    C. cluster
    D. flow

39. Using a(n) _____ _____ will insure that all team members are aware of individual responsibilities.
    A. affinity diagram
    B. resource list
    C. action plan
    D. management chart

40. A quick technique to gather ideas, _____ is useful in fast solution generation.
    A. brainstorming
    B. processing
    C. analyzing
    D. integrating

41. The first step in the decision-making process is
    A. defining the problem.
    B. stating solutions.
    C. evaluating results.
    D. analyzing options.

42. The last step in the decision making process is
    A. defining the problem.
    B. stating solutions.
    C. evaluating results.
    D. analyzing options.

43. A(n) _____ _____ would be a helpful tool for management to illustrate a change in process or policy.
    A. flow chart
    B. affinity diagram
    C. action plan
    D. brainstorm chart

## BIG PICTURE SKILLS

44. Employees need to know what the mission statement of their company is because
    A. they need to know what time to come to work.
    B. they need to understand their primary tasks and how they contribute to the overall goal of the company.
    C. they need to know what secret business needs to take place to carry out the mission.
    D. they need to understand their role in the company.

45. Mission statements should be free of
    A. jargon.
    B. proactive verbs.
    C. goals or purpose.
    D. company values.

46. Which of the following will result when employees understand and take part in a business's mission statement?
    A. Poor worker productivity
    B. Low worker self-esteem
    C. Role reversal
    D. More worker productivity

47. Which of the following is a characteristic of a policy?
    A. Shows emergency procedures
    B. Shows how to complete forms
    C. Identifies company rules
    D. Normally includes warnings and cautions

48. Which statement is best described as "what we do?"
    A. Purpose statement
    B. Vision statement
    C. Mission statement
    D. Directive statement

49. Which of the following is a characteristic of a procedure?
    A. Tells when the rule applies
    B. Shows how the rule will be enforced
    C. Describes the consequences
    D. Explains when to take action

## WORK ETHIC SKILLS

50. Which of the following does NOT demonstrate a positive work ethic?
    A. Arriving at work early
    B. Keeping vital information to yourself
    C. Working late when the boss needs you to
    D. Helping a coworker complete a difficult task

51. The term reliable is related to the terms _____.
    A. trusted, responsible
    B. avoidance, trust
    C. sophisticated, responsible
    D. trust, diversity

52. To work smart, you would
    A. set goals; focus energy and attention on important tasks; and use time wisely.
    B. do only the tasks that were assigned to you.
    C. keep to yourself and do as little communicating as possible.
    D. make suggestions to management only if asked.

53. Which of the following indicates a positive work ethic?
    A. You wear the proper uniform, to work every day.
    B. You wear the proper uniform but it is not always clean.
    C. Your work peers tell you to only work when the boss is around.
    D. Older workers do not share information with younger workers.

54. The term prioritizing is used most in connection with
    A. managing time.
    B. solving problems.
    C. preparing organization charts.
    D. listing questions.

55. Which of the following is NOT generally a job benefit?
    A. Tuition reimbursement
    B. Paid vacation
    C. Time off for good behavior
    D. Medical and dental benefits

## POSITIVE ATTITUDE SKILLS

56. What is attitude?
    A. The way you choose to do things
    B. Something you get only when someone upsets you
    C. A feeling about an object, fact, or person
    D. A theory of relativity that is used by doctors to assess people

57. Attitudes have a strong influence on what?
    A. How you will react to others
    B. How you will act
    C. How others will treat you
    D. All of the above

58. During the communication process, the term that refers to things such as uncomfortable temperature, noises, and interruptions are considered
    A. distractions.
    B. annoyances.
    C. external controls.
    D. communication variables.

59. Feedback can be extremely valuable because it
    A. points out your strengths.
    B. points out your weaknesses.
    C. provides guidance for self-improvement.
    D. All of the above

60. What is the difference between constructive criticism and destructive criticism?
    A. There is no difference, since both are designed to help you.
    B. Destructive criticism is helpful to you, while constructive criticism is not.
    C. Constructive criticism is designed to help you improve, while destructive criticism is never valid.
    D. Constructive criticism helps you improve even if it is negative, and destructive criticism tends to bring you down, since it is always negative.

61. Which of the following is an example of an employee NOT demonstrating cooperation with coworkers?
    A. Asking coworkers for their opinions
    B. Dividing up the work and then meeting to assess progress
    C. Doing all the work without input from coworkers
    D. Deciding where to go for lunch through a vote

62. What time should you arrive for a 2:00 p.m. interview?
    A. 1:15 p.m.
    B. 1:30 p.m.
    C. 1:50 p.m.
    D. 2:00 p.m.

63. Who would be the best person to hire?
    A. The applicant who has worked at a lot of different places
    B. The applicant who has worked for you before but has quit twice in the past
    C. The applicant with a positive attitude and who is eager to learn
    D. The applicant you like the best but don't know if he/she will fit into the business

**INDEPENDENCE & INITIATIVE SKILLS**

64. When looking at a classified advertisement, what does the term "motivated person" mean?
    A. Someone who can direct other employees
    B. Someone who will get the job done
    C. Someone who has experience
    D. Someone whom the boss will like

65. In terms of work ethic, what is initiative?
    A. A government program
    B. The beginning of a work project
    C. Working without being told
    D. Playing a supervisory role

66. Which of the following is not an action of a professional?
    A. Has a good attitude
    B. Does not repeat mistakes on the job
    C. Takes criticism personally
    D. Treats others respectfully

67. Which of the following would NOT be a positive way to handle a supervisor's criticism of your work?
    A. Remaining calm
    B. Accepting responsibility
    C. Blaming coworkers
    D. Focusing on finding a solution

68. If you are a new employee and have a suggestion for improving the company, you should
    A. find out how suggestions are made.
    B. wait until you have a thorough understanding of the company before making suggestions.
    C. tell your boss you know a way to do this better.
    D. consult with your boss on why the company does it this way.

69. The standard notice to employers that you are going to leave the company is
    A. 2 days.
    B. 2 weeks.
    C. 2 months.
    D. none.

70. Which of the following is NOT a time management tool?
    A. Watch
    B. Personal digital assistant
    C. Calculator
    D. Calendar

71. Which of the following will NOT help you get tasks done on the job?
    A. Making a "to-do" list
    B. Setting goals
    C. Avoiding procrastination
    D. Waiting for someone else to help

## SELF-PRESENTATION SKILLS

72. Why is it important to get to know core staff members like secretaries and custodial staff?
    A. It isn't important because they have no power.
    B. You should be friendly to everyone, even if you don't want to be.
    C. People in these positions often know a great deal about the inner workings of your organization.
    D. You only need to recognize these people on holidays.

73. When choosing clothing for work the most important consideration is
    A. that clothing is comfortable.
    B. that clothing is neat and suited to your job.
    C. that clothing reflects your personal style.
    D. that clothing is the newest fashion.

74. How does company culture effect employee appearance?
    A. It is a driving force behind employee appearance.
    B. It has no effect on employee appearance.
    C. It encourages self expression in fashion.
    D. It discourages self expression in fashion.

75. Current case law concerning body art, such as tattoos or body piercing, states that
    A. businesses cannot infringe on an employee's right to free expression.
    B. businesses are within their rights to set forth a professional dress code that includes covering tattoos and body piercing.
    C. businesses can only ban offensive tattoos.
    D. businesses can indiscriminately penalize employees for having tattoos that managers find offensive.

76. You are given logo clothing from your company to wear on personal time. Which of the following is NOT an appropriate situation in which to wear this clothing?
    A. Attending a religious service
    B. Heckling a politician in a public forum
    C. Attending a sporting event
    D. Attending your child's school event

77. Which of the following is an appropriate topic for a business lunch with new clients from another country?
    A. Religion
    B. Politics
    C. Company philosophies
    D. None of these

78. When is it okay to use humor of a cultural or sexual nature in the workplace?
    A. That type of humor has no place in most business environments.
    B. Use it only if you know your coworkers well.
    C. You may use that kind of humor as long clients are not present.
    D. Use it only if you work with people who feel the same as you do.

79. When is it appropriate to call a potential employer to see if you are still in the running for a job?
    A. As soon as you can
    B. Only after the date he or she said a decision would be made.
    C. Never call and bother an employer
    D. Call early and often to show maximum interest.

80. John's new boss tells him that he needs to purge all of the outdated merchandise. What does John's boss mean?
    A. John should raise the prices on all of his best items.
    B. John should put all of his old stock at a slight mark down.
    C. John should sell his outdated stock at deep discounts or just get rid of it.
    D. John should buy more items like the ones from the old days.

81. When messages from body language and the spoken word do not match, which message influences the receiver the most?
    A. The message from body language
    B. The spoken message
    C. The two messages cancel each other out
    D. The message that the listener noticed first

82. If you receive an e-mail from a client accusing you of not doing your job, it is best to
    A. respond immediately.
    B. cool off and then call the client to discuss the situation calmly.
    C. not respond to the e-mail.
    D. forward the e-mail to others to warn them about this client.

83. What can you assume about the privacy of company e-mail?
    A. The e-mail account is yours and should be private.
    B. As long as you do your job no one will check on your e-mail use.
    C. If you delete personal messages everyday there will be no record of them.
    D. The e-mail account is company property and should never be considered private.

84. Interviewers often ask job candidates to share something about themselves as an opening question. This question is an opportunity to
    A. give a synopsis of your personal and professional qualifications.
    B. tell the interviewer about your hobbies and interests.
    C. give the interviewer your life history.
    D. tell the interviewer what you did not like about your past employers.

## ATTENDANCE SKILLS

85. Stress results from
    A. a combination of work, homework, and/or family life.
    B. procrastination.
    C. not enough free time.
    D. All of the above

86. Your attendance records could reveal
    A. your personal work ethic/commitment.
    B. dependability.
    C. time management skills.
    D. All of the above

87. Employers most value
    A. an aggressive worker.
    B. a "yes" man.
    C. someone who is on time and willing to work.
    D. a humble/quiet employer.

88. Attendance policies
    A. are made to be broken.
    B. protect both the employee and the employer.
    C. are not as important to the employee as to the employer.
    D. place a barrier between the employer and the employee.

89. If an employee meets the job performance requirements but has a poor attendance record an employer should
    A. fire the employee.
    B. ignore the behavior.
    C. dock the employee's pay.
    D. discuss the behavior with the employee.

90. Employees should
    A. be familiar with all company policies.
    B. plan ahead when possible for days absent.
    C. inform the supervisor as soon as possible when an absence is necessary.
    D. All of the above

## TEAM MEMBER SKILLS

91. A group of people who collaborate to solve a problem or produce an outcome is called a
    A. focus group.
    B. peer group.
    C. team.
    D. pair.

92. What does a team use to establish direction?
    A. Problem-solving
    B. Goals
    C. Critiques
    D. Decision-making

93. All of the following should occur before the final goal of the team is set, EXCEPT
    A. identifying skills of members.
    B. identifying responsibilities of members.
    C. establishing a time frame.
    D. describing the final product.

94. Establishing deadlines, monitoring programs, and scheduling meetings are examples of setting
    A. time frames.
    B. goals.
    C. agendas.
    D. outcomes.

95. Being able to adjust goals and modify procedures are examples of
    A. flexibility.
    B. organization.
    C. communication.
    D. delegation.

96. What is the first stage of a team when members learn about each other and the task?
    A. Norming
    B. Forming
    C. Storming
    D. Performing

97. What is a basic skill that all team members must be able to do in order to complete the tasks?
    A. Compute
    B. Write
    C. Communicate
    D. Dictate

98. What is the most effective way for a manager to inform team members of an upcoming meeting?
    A. Business letter
    B. Personal letter
    C. Public announcement
    D. Memorandum

99. The day prior to a team meeting, the manager should
    A. send an e-mail reminder.
    B. reissue the original notice.
    C. call each team member.
    D. assume that members remember.

100. In a workplace team, effective communication
    A. establishes a hierarchy.
    B. enhances overall performance.
    C. decreases absenteeism.
    D. increases animosity.

# Appendix D

## Assessment Reviewers

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## Appendix E

### Expert Panel Assessment Rating Form
### Workplace Readiness Skills

*Please check ( ✓) the assessment rating questions using a scale of 1 to 5 where 1 means poor and 5 means excellent.*

1. Poor
2. Fair
3. Good
4. Very Good
5. Excellent

*Please add any comments that will add clarity of content, visual symmetry, and ease and efficiency in completing the assessment.*

| | | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 1. | Were the directions for completing the overall assessment clear? | | | | | |
| | Comments: | | | | | |
| 2. | Was the layout of the assessment easy to read? | | | | | |
| | Comments: | | | | | |
| 3. | Were the statements clear? | | | | | |
| | Comments: | | | | | |
| 4. | Were there any grammatical or spelling errors? | | | | | |
| | *(Please mark on the document or note here specifically)* | | | | | |
| | Comments: | | | | | |
| 5. | Does the assessment fulfill the data collection needs of the study as defined in the Statement of the Problem and the Research Goals (attached)? | | | | | |
| | Comments: | | | | | |

Your feedback is very important to the validity and objectivity of this assessment.
Thank you for your time and effort in testing and editing this assessment.

Sarah J. Martin, PhD Candidate
PhD Candidate – Occupational and Technical Studies Career and Technical Education
Old Dominion University

**Expert Panel Assessment Rating Form**
**Workplace Readiness Skills (cont'd)**

## Statement of the Problem

The purpose of this study was to examine high school career and technical education teacher's knowledge of workplace readiness skills and whether that knowledge had an impact on teaching methods and instructional strategies in relation to student workplace readiness skill achievement.

## Research Questions

To guide this study the following research questions were established:

1. To what extent are career and technical education high school teachers, specifically marketing education teachers, knowledgeable of workplace readiness skills?
2. What teaching methods and instructional strategies did teachers report to deliver the workplace readiness skills?
3. How successful were the students in obtaining competence in workplace readiness skills?
4. Is there a correlation between teacher knowledge and student attainment of workplace readiness skills?

**Appendix F**

**Teacher Survey**

Purpose of Survey

This survey will be used to help identify possible teaching credentials, methods, strategies, and beliefs that may influence achievement on Workplace Readiness Skills (WRS) Assessments. Results from this survey will be linked to individual CTE student assessment scores to help determine if certain teaching credentials, methods, strategies, and beliefs produce higher WRS assessment scores.

Statement of Confidentiality

The individual answers given on this survey are confidential and will only be viewed by the researcher, Sarah Martin. All significant findings will be reported by course (Marketing, Fashion Marketing) only with the exception being more sensitive findings that may be easily linked to individual teachers. These findings will be reported anonymously (not by course). Additionally, no names will be presented in the report. Lastly, the answers you provide will not be shared with building administration or used for faculty evaluation purposes.

## Faculty Background

1. Name (ID number)_____

2. Program Area_____

3. Specialization (s) (Marketing, Fashion, etc...) _____

4. How many years, including this year, have you been teaching in your program area (include years from other school divisions)? _____

5. How many years, including this year, have you been teaching in your specialization area? _____

6. Do you have any professional work experience in your specialization area (other than the required hours or internship for CTE teaching licensure)?
   a. Yes
   b. No
      If you answered **no**, proceed to question 8

7. How many years of professional work experience do you have in your specialization area?
   a. 0-2 years
   b. 3-5 years
   c. 6-9 years
   d. 10 or more years

8. What is the highest level of education you have earned?

   a. Associate Degree
   b. Bachelor Degree
   c. Master Degree
   d. Specialist Degree
   e. Advanced Degree (graduate degree that does not increase your salary)

9. Are you a Career and Technical Education National Board Certified Teacher or are you in the process of becoming a Career and Technical Education National Board Certified Teacher?
   a. Yes
   b. No
   c. In the process of becoming a Career and Technical Education National Board Certified Teacher

## Faculty Beliefs on WRS

10. Circle the letter that best corresponds with your feelings concerning WRS skills. I personally feel the teaching of WRS is:

       a.  equally as important as the teaching of technical skills.

       b.  important, but not as important as the teaching of technical skills.

       c.  more important than the teaching of technical skills.

       d.  not important at all.

11. Rank each of the following 13 WRS in the order you believe is most important for CTE completers to demonstrate upon graduation. Give a 1 to the skill that you feel is most important, 2 the second most important, and so on until you have ranked all 13 WRS.

    \_\_\_\_ Demonstrate **writing skills** on a level required for employment

    \_\_\_\_ Demonstrate **computer literacy** on a level required for employment

    \_\_\_\_ Demonstrate **reading skills** on a level required for employment

    \_\_\_\_ Demonstrate **math skills** on a level required for employment

    \_\_\_\_ Demonstrate **speaking and listening skills** on a level required for employment

    \_\_\_\_ Demonstrate **reasoning, problem-solving, and decision making skills**

    \_\_\_\_ Demonstrate understanding of the **"big picture"**

    \_\_\_\_ Demonstrate a **strong work ethic**

    \_\_\_\_ Demonstrate a **positive attitude**

    \_\_\_\_ Demonstrate **independence and initiative**

    \_\_\_\_ Demonstrate **self-presentation skills**

    \_\_\_\_ Maintain **satisfactory attendance** on the job

    \_\_\_\_ Participate as a **team member** to accomplish goals

## WRS Teaching Strategies and Methods

**For all of the questions below, you should only focus on what you have been doing for the last two years of teaching (2006-2007 & 2007-2008).**

12. Circle the letter that best corresponds with your teaching method concerning the 13 WRS.
    a. I do not cover the 13 WRS in my courses
    b. I only teach the WRS that are relevant to my courses
    c. I teach all the 13 WRS

**If you answered a̲., you are finished with the survey. Thank you for your participation!**

13. When would a student in your specialization area be exposed to WRS?
    a. In the first course in the course sequence (Example: Marketing I)
    b. In the last course in the course sequence (Example: Advanced Marketing)
    c. In all courses within a course sequence
    d. I am not sure since I get students from other CTE teachers in my program area

14. In a course where you would teach WRS, when would you cover the WRS?
    a. Towards the beginning of the school year
    b. Towards the end of the school year
    c. At various planned times during the school year
    d. Whenever it seemed appropriate
    e. Whenever I needed a "filler" before starting a new topic or lesson

15. Since the implementation of Opportunity Inc's WRS educational program in fall 2006, have you changed the way you teach the 13 VA WRS to your students?
    a. Yes
    b. No
    c. No because this is my first year teaching

16. Included in the curriculum is a DVD and CD which includes tools such as lessons, handouts, and power points that could be used to help incorporate the 13 WRS into the curriculum. When teaching the 13 WRS, do you regularly use the information and tools on the CD?
    a. Yes
    b. No
       If you answered **no**, please go to question 20

17. What tools on the WRS CD do you use? (Circle all that apply)
    a. Activities
    b. Handouts
    c. Lesson plans
    d. Assessment questions
    e. Power Points

18. When teaching WRS, do you use teaching tools that you have developed yourself?
    These tools may also be additional materials you use in conjunction with
    Opportunity Inc's Tools.
    a. Yes
    b. No

19. If you answered yes in question 18, please list what teaching tools you have
    developed.

    _____

    _____

    _____

20. When teaching WRS, do you usually inform the students that you are
    demonstrating/teaching/covering a WRS?
    a. Yes
    b. No

21. Below are methods and strategies that some teachers use to incorporate the WRS
    into their curriculum. Thinking back over the last two school years, circle all the
    methods and strategies, if any, that you have used to teach WRS to these potential
    completers.

    a. I have "WRS classes", in which I devote the entire class time to one of the 13
       WRS.
       i. If you have these "classes", how many times during a semester would
          you do this?_____
    b. I have my students develop and maintain a WRS portfolio.
    c. I have my students do WRS projects or assignments for each of the 13 skills.
    d. I have my students do WRS project or assignments for the skills I feel are
       important.
    e. I schedule 13 separate WRS lessons throughout the school year to cover the
       skills.
    f. I have students maintain a video or audio library of their WRS
       accomplishments.

g. I have students work in teams or groups to accomplish WRS assignments, projects, and/or activities.

h. I use games when teaching some of the WRS.

i. I bring professionals from the workplace in to the classroom to discuss WRS with the students.

j. I mention the WRS during lectures and/or activities when it seems appropriate.

k. I assign each student a professional mentor to help teach the WRS.

l. I use the methods I selected, but I also do the following:

_____

_____

_____

m. I use none of these methods, but I do the following:

_____

_____

_____

## WRS Skills Covered or Reiterated Last Year (2007-2008)

22. Check all of the WRS you covered or reiterated last year (Sept 2007 – June 2008) with this potential set of completers.

_____ Demonstrate **writing skills** on a level required for employment

_____ Demonstrate **computer literacy** on a level required for employment

_____ Demonstrate **reading skills** on a level required for employment

_____ Demonstrate **math skills** on a level required for employment

_____ Demonstrate **speaking and listening skills** on a level required for employment

_____ Demonstrate **reasoning, problem-solving, and decision making skills**

_____ Demonstrate understanding of the **"big picture"**

_____ Demonstrate a **strong work ethic**

_____ Demonstrate a **positive attitude**

_____ Demonstrate **independence and initiative**

_____ Demonstrate **self-presentation skills**

_____ Maintain **satisfactory attendance** on the job

_____ Participate as a **team member** to accomplish goals

**End of Survey**
**Thank You for Your Participation!**

# Appendix G

## Results of Workplace Readiness Skills Teacher Assessment

*Results of Workplace Readiness Skills Teacher Assessment*

| Skill Area | Teacher | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Reading | 100 | 60 | 80 | 100 | 60 | 100 | 80 | 60 | 80 | 100 |
| Math | 89 | 78 | 78 | 78 | 100 | 89 | 78 | 66 | 56 | 100 |
| Writing | 100 | 100 | 75 | 100 | 88 | 75 | 100 | 100 | 100 | 88 |
| Speaking and Listening | 63 | 88 | 100 | 88 | 63 | 75 | 88 | 100 | 88 | 88 |
| Computer Literacy | 67 | 83 | 83 | 67 | 83 | 67 | 100 | 83 | 83 | 83 |
| Reasoning, Problem-Solving, and Decision Making | 86 | 29 | 71 | 86 | 71 | 71 | 86 | 71 | 71 | 71 |
| Understanding the Big Picture | 67 | 100 | 83 | 100 | 83 | 83 | 100 | 50 | 83 | 83 |
| Work Ethic | 83 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Positive Attitude | 88 | 88 | 63 | 88 | 100 | 88 | 88 | 100 | 100 | 88 |
| Independence and Initiative | 100 | 88 | 88 | 100 | 100 | 100 | 100 | 100 | 100 | 88 |
| Self-Presentation | 100 | 100 | 100 | 100 | 85 | 92 | 92 | 100 | 100 | 100 |
| Attendance | 100 | 100 | 67 | 83 | 100 | 83 | 100 | 100 | 83 | 83 |
| Team Member | 70 | 80 | 90 | 80 | 80 | 90 | 100 | 90 | 70 | 100 |
| Total Assessment Score | 86 | 84 | 83 | 90 | 86 | 86 | 93 | 86 | 86 | 90 |

# Appendix H

## Correlation Analysis between Teacher and Student Workplace Readiness Skills Assessments Scores

*Correlations among Virginia's 13 Workplace Readiness Skills- Teacher and Student Assessment Scores*

| | | Student Scores | | | | | | | | | | | | | Student Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | |
| 1 | Reading | -0.067 | 0.960 | -0.026 | -0.065 | -0.014 | 0.068 | 0.001 | -0.045 | -0.046 | -0.006 | -0.004 | -0.113 | 0.079 | 0.003 |
| 2 | Math | 0.036 | 0.122 | 0.037 | 0.107 | 0.043 | 0.083 | 0.148 | 0.021 | 0.057 | -0.060 | 0.016 | -0.064 | 0.031 | 0.075 |
| 3 | Writing | -0.083 | -0.086 | 0.002 | -0.009 | 0.093 | -0.035 | -0.117 | 0.059 | -0.044 | 0.043 | -0.057 | 0.057 | 0.011 | -0.028 |
| 4 | Speaking and Listening | 0.031 | -0.041 | 0.020 | -0.185* | -0.110 | -0.054 | -0.041 | -0.017 | 0.016 | 0.037 | 0.052 | 0.112 | -0.044 | -0.028 |
| 5 | Computer Literacy | 0.011 | -0.031 | 0.066 | -0.005 | 0.069 | -0.103 | 0.008 | 0.072 | -0.050 | 0.000 | -0.014 | 0.002 | -0.046 | 0.001 |
| 6 | Problem-Solving | -0.047 | 0.163* | -0.021 | 0.033 | 0.049 | 0.083 | 0.076 | -0.023 | -0.086 | 0.093 | 0.043 | -0.092 | 0.041 | 0.067 |
| 7 | Big Picture | -0.017 | -0.039 | 0.075 | 0.033 | 0.118 | -0.039 | -0.139 | 0.004 | 0.042 | -0.016 | 0.005 | 0.045 | .196* | 0.030 |
| 8 | Work Ethic | 0.022 | -0.023 | 0.071 | -0.036 | -0.032 | -0.075 | -0.016 | -0.076 | 0.089 | -0.005 | 0.090 | 0.079 | 0.131 | 0.033 |
| 9 | Positive Attitude | -0.090 | -0.050 | -0.005 | 0.073 | 0.060 | -0.037 | -0.013 | -0.017 | -0.009 | -0.014 | -0.035 | -0.040 | 0.057 | -0.013 |
| 10 | Independence and Initiative | -0.082 | 0.095 | -0.018 | 0.127 | 0.099 | 0.049 | 0.023 | -0.042 | -0.075 | 0.109 | 0.019 | -0.084 | 0.096 | 0.062 |
| 11 | Self-Presentation | -0.006 | -0.103 | -0.050 | -0.214* | -0.127 | -0.019 | -0.099 | 0.014 | -0.002 | -0.028 | -0.037 | 0.079 | -0.107 | -0.101 |
| 12 | Attendance | -0.039 | -0.034 | 0.031 | 0.105 | 0.113 | -0.018 | -0.004 | 0.069 | -0.025 | 0.032 | -0.053 | 0.007 | -0.014 | 0.015 |
| 13 | Team Member | 0.016 | 0.121 | 0.092 | -0.078 | -0.024 | -0.011 | 0.118 | -0.007 | -0.005 | 0.036 | 0.069 | -0.025 | 0.024 | 0.065 |
| | Teacher Total | -0.100 | 0.101 | 0.064 | -0.010 | 0.117 | 0.008 | -0.001 | 0.005 | -0.062 | 0.070 | 0.022 | -0.054 | 0.143 | 0.065 |

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

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## PUBLICATIONS

Martin, S. (2008). Virginia's workplace readiness skills: Adding relevance for the 21$^{st}$ century. *Iota Lambda Sigma Journal for Workforce Education, 1*(1), p.30-38.

## PRESENTATIONS

Martin, S. (July, 2009). *Implementing workplace readiness skills in secondary education.* Presented to the Franklin Chamber of Commerce, Franklin, VA.
Martin, S. (June, 2009). *Using data to adjust instruction.* Presented at the MBA Research Conference - Conclave, Cincinnati, Ohio.
Martin, S. (June, 2007). *Virginia's workplace readiness skills: Adding relevance for the 21$^{st}$ century.* Presented at the MBA Research Conference - Conclave, Nashville, TN.

## PROFESSIONAL DEVELOPMENT

### LEADERSHIP
- Virginia Association of Career and Technical Education Administrators
  - New Administrator's Workshop Facilitator *(2004 – present)*
  - Past President *(2007-08)*
  - President *(2006-07)*

- o President-elect *(2005-06)*
- o Vice President *(2004-05)*
- o Secretary *(2002-04)*
- o Regional Representative *(2001-02)*
- Virginia State Plan Carl D. Perkins Vocational and Technical *(2007-08)*
- Virginia DECA Board of Trustees *(October 2003-May 2006)*
- Differentiated Instruction Training Team, Virginia Beach City Public Schools *(2004 – present)*

## AFFLIATIONS
- Virginia Association of Career and Technical Education
- Virginia Association of Career and Technical Education Administrators
- Virginia Association of Marketing Educators (VAME)
- Marketing Education Association (MEA)
- Association of Career and Technical Education
- Association for Supervision and Curriculum Development

## PROFESSIONAL EXPERIENCE

## EDUCATION EXPERIENCE

**Administrative Coordinator, Office of Technical and Career Education, Virginia Beach Public Schools Virginia Beach, VA** *(April 2000 - present)*
- Federal Grant Manager – Carry out the federal guidelines surrounding the Carl D. Perkins grant
- Data Collection – Responsible for reporting data to VDOE: enrollment (duplicated and non duplicated counts), completer information (including follow-up survey), industry certification
- Marketing Education Coordinator – responsible for curriculum development, professional development training, textbook adoption, instructional support to Marketing Education Teacher/Coordinators

**Career Connections Coordinator, Maryland State Department of Education Baltimore, MD** *(June 1998 - March 2000)*
- Provide technical assistance and leadership to local school systems and community colleges for Career and Technology Program development
- Initiate improvements in accordance with State and federal regulations
- Serve as primary contact for assuring that CTE programs remain in compliance with the Carl D. Perkins Vocational and Applied Technology Education Act, State Categorical funding and Tech Prep initiatives
- Facilitate development and implementation of a comprehensive School-to-Careers system

**Marketing Education Teacher/Coordinator, Hurst-Euless-Bedford ISD Bedford, Texas** *(October 1995 – May 1998)*

- Teacher/Coordinator - Planned and implemented lessons and activities for all levels of Marketing, placed students in training stations, conducted on-the-job training and evaluations, community surveys, created and conducted a summer job training workshop for high school students
- Marketing Internship Coordinator - Created the first Internship program for L.D. Bell High School and Bell Helicopter-Textron, placed students in the Commercial Marketing, Engineering, and Training and Development departments
- Senior Class Sponsor - Coordinated officer elections, assisted in leadership development, organized senior prom and graduation, conducted fundraising events

**Marketing Education Teacher/Coordinator, Virginia Beach City Public Schools Virginia Beach, VA** *(May 1989 – September 1995)*

- District DECA Advisor – Coordinated leadership activities for Virginia Beach high school DECA chapters, planned and conducted the Officer Training Conference, District Leadership Conference, and event manager for State Leadership conference.
- Assistant Student Activities Coordinator – Responsible to the Student Activities Coordinator, assisted in verifying student-athlete eligibility, operation of athletic events, academic program, club and class activities
- Senior Class Sponsor – Coordinated officer elections, assisted in leadership development, organized senior prom and graduation, conducted fundraising events
- Head Swim Coach – provided quality swim instruction with reference to stoke mechanics, goal setting and team unity
- National Conference Presenter – Delivered a workshop on "How to Teach the At-Risk High School Student" Conclave (National Marketing Conference) in Milwaukee, WI

## ADULT EDUCATION EXPERIENCE

**Marketing Instructor, Adult Learning Center and Open Campus, Virginia Beach Public Schools Virginia Beach, VA** *(February 1989 – June 1992)*

- Structured the marketing course taught at the Adult Learning Center to fit the needs of the at-risk student (diploma and GED seeking)
- Created and implemented a Marketing course for the alternative school, Open Campus

**Adjunct Faculty, Old Dominion University Norfolk, VA** *(May – August 1989)*

- Developed units of study for an industry related Advertising course concentrating on the creating and development of advertising campaigns for degree seeking students in the Darden College of Education

## INDUSTRY EXPERIENCE

**Training Consultant, Bell Helicopter Textron Hurst, TX** *(June – July 1997)*
- Developed an internship curriculum to be used for summer and college interns
- Created presentation materials for the Latin America Capture Process training

## REFERENCES

**Dr. Patrick M. Konopnicki**, Director, Technical and Career Education, Virginia Beach City Public Schools. 757.648.6180 patrick.konopnicki@vbschools.com

**Dr. Christine Caskey,** Associate Superintendent, Department of Curriculum and Instruction, Virginia Beach City Public Schools. 757.263.1400 christine.caskey@vbschools.com

**Ms. Jeanne-Marie Holly**, Program Manager Systems Branch, Division of Career and Technology Education, Maryland State Department of Education. 410.767.0600 jmholly@msde.state.md.us