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An Investigation of the Validity of Selected Themes in the Career Perspectives Inventory (CPI)

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AN INVESTIGATION OF THE VALIDITY OF SELECTED THEMES IN THE CAREER PERSPECTIVES INVENTORY (CPI)

Sharon Gherity

April 2001

MASTERS THESIS
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I'd like to take this opportunity to thank some of the people that have helped me get to this point in my education. My thanks go out to my parents who have always encouraged me to seek success. Dr. Kelli Peck-Parrott and Dr. Lorraine Alston for being great advisors, mentors and teachers during my time at Grand Valley. Dr. John Zaugra and the Grand Valley State University Counseling and Career Development Center who provided me the testing materials for this project as well as the assistantship that sparked my interest in career development.

Sharon Marie Gherity
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ABSTRACT

The Career Perspectives Inventory (CPI), a recently developed career inventory examining ten different career development areas was investigated for concurrent validity using the My Vocational Situation (MVS) inventory for correlation. A second phase of this study examined the development exhibited between study participants of differing college academic standing. One hundred first through fifth year college students participated in this study. Results of research question one indicated there was moderate correlation for four of the five themes in common between the CPI and MVS (career decision-making, self-knowledge, career attitudes, career information) and some correlation between the fifth theme (goal planning). Results from research question two indicated that there was an overall decrease in scores between first and second year students on six of the ten themes examined by the Career Perspectives Inventory. Further study needs to be conducted in order to better assess sources of error and the magnitude of differences exhibited in this small study population.
CHAPTER I: Proposal

Problem Statement

Many career development inventories exist, but no one inventory provides a complete diagnostic to assess an individual’s aggregate career development. A new test, the Career Perspectives Inventory (CPI), has recently been developed which attempts to assess an individual’s career development and prescribes ways to advance development along its ten themes. The effectiveness and validity of this test is not known yet, but it is hypothesized that this new test will be more effective in determining an individual’s overall career development because it explores ten themes as opposed to most previous tests which only explore one to three themes.

The purpose of this study has two research questions: 1. Does a correlation between selected themes on the Career Perspectives Inventory (CPI) and corresponding items on the My Vocational Situation (MVS) exist? 2. Are there differences in responses, between participants on the CPI, based on their reported academic standing?

Importance and Rationale

This study will investigate the concurrent validity and effectiveness of selected themes in the CPI through correlation of the results of each theme with corresponding items from the MVS (Holland, Daiger & Power, 1980) inventory that are similar to the themes in the CPI. According to work done by Holland, Daiger and Power (1980) during development and a subsequent study by Perosa and Perosa
(1997), the MVS has been shown to have a high degree of reliability and a moderate degree of validity in measuring an individual’s current vocational situation.

Students coming to college may have many questions about their future careers and what they must do in order to succeed in college and ultimately life. Counselors often use objective assessments to collect information about a student’s needs. Use of these assessments allows the counselor to spend more time exploring issues and creating strategies to eliminate those needs (Sampson, Peterson, Reardon, & Lenz, 2000). If validated, the CPI could become an important advancement in the tools available to assess career development concerns of college students. Currently, most students seeking career counseling must take several tests such as the Eureka, MVS, the Values Scale, and Career Development inventory, in order to get comparable information that the CPI attempts to provide. Even then, no other inventory really investigates the themes of diversity as it relates to career development, life roles and career information. Having so many themes available in one test is desirable for busy practitioners as the time it takes to administer and score one test, as opposed to many tests, is substantially decreased. Administering only one test also helps the practitioner by providing one cogent set of scores as opposed to several sets of scores that may or may not be on comparable scales. Because of these features, this test may have applications for career counselors that previous tests have not been able to accomplish.

**Background**

The Career Perspectives Inventory was developed by Dr. John Zaugra using
knowledge gained from work as a career counseling practitioner and from
dissatisfaction in other inventories and tests available to help students assess their
career development. Rather than cite all of the conflicting theories on each of the
themes of this test, the theory for this test was developed through using public
information sources to define terms used in describing the themes. For example, time
management can be defined as utilizing time purposefully and effectively. Taking that
further, utilizing, purposefully and effectively are also defined, as well as key words
in each of those definition sets and so on until a complete picture of the meaning of
the theme was developed. All of this information has been incorporated into
justifying the importance of the theme (personal communication, January 2001).

Subject areas for this inventory were developed by asking a number of career
counselors to propose subject areas for inclusion in this inventory. The most common
of those responses were developed into themes for this test. Once enough test items
for each theme were developed, these same career counselors were also asked to read
through all items and to rank the ten "best" items for inclusion in the final version of
the inventory (personal communication, January 2001).

Many other career development inventories exist, but most only assess
between one and three career development themes. This test, if validated, should
provide practitioners with another tool to help students develop and maintain
meaningful careers. This test should also be a more comprehensive assessment of
career development because investigates many more characteristics that contribute to
an individual's career development.
Statement of Purpose

The purpose of this study is divided into two research questions: 1. Does a correlation between selected themes on the Career Perspectives Inventory (CPI) and corresponding items on the My Vocational Situation (MVS) exist? 2. Are there differences in responses, between participants on the CPI, based on their reported academic standing? This study will pilot the CPI and administer the MVS inventory to a convenience sample of 100 Grand Valley State University students.

The ten themes of the CPI are as follows: Goal Planning (GP), Career Decision Making (CDM), Career Responsibility (CR), Self-knowledge (SK), Career Attitude (CA), Career Diversity (CD), Career Motivation (CM), Career Exploration (CE), Life Roles (LR), and Career Information (CI). All themes on the CPI will not be correlated with the MVS due to lack of similar items available on the MVS.

Concurrent Validity

Research question one of this study will assess concurrent validity of themes using responses from individuals who have taken both the CPI and MVS. Results from related items from the MVS, will be correlated against the results from the comparable theme on the CPI to assess the concurrent validity of each theme. The themes that are available to compare between these inventories are goal planning, career decision-making, self-knowledge, career attitudes, and career information.

Correlation between the CPI and MVS will be as follows: Goal planning scores will be correlated to items 2, 8, 14, and 17 on the MVS. The career decision-making theme will be correlated to items 1, 9, 18 and 20d on the MVS. Self-
knowledge scores will be correlated with items 4, 7, 15 and 16 on the MVS. The career attitude theme will be correlated with items 3, 6, 10 and 13 on the MVS. Career information will be correlated with items 11, 19a, 19b, 19c on the MVS. If a positive correlation exists, scores from the CPI will be similar to the scores of the selected items in the MVS.

Academic Standing

Research question two will assess scores from study participants for each of the CPI's ten themes. These scores will be examined across levels of academic standing (first year through fourth year students) of study participants, self-reported at the time of testing. This phase of the project will be accomplished by separating out scores from individuals taking the CPI by academic standing. If the CPI is an accurate assessment of a student's career development, scores on the CPI should increase as the development of the student increases. All results from individuals taking the CPI from a particular academic standing will be pooled together to look at the mean and standard deviation of scores for each theme.

Results from the CPI themes are tabulated in a percentile score from 0-100 with 100 being the highest possible score. Each test item is given weight based on a Likert scale including strongly disagree, disagree, uncertain, agree, strongly agree scale where agree or strongly agree are the desired response to the items. The My Vocational Situation inventory is scored based on whether the individual taking the test chooses true or false with false being the desired response.
Key Terms

- Career development is the term used to discuss where an individual is on their path towards a satisfying and mature career. This development occurs over time and progresses or changes over time.
- Inventory is a career development assessment of strengths or weaknesses in a person’s job skill development.
- Career test is synonymous with inventory.
- Theme is a specific area of career development that is examined in depth in the CPI.
- Goal planning (GP) is planning for and making informed choices about one’s career path through formulation of goals and steps to achieve those goals.
- Career Decision Making (CDM) is making decisions about career choices after gathering, analyzing, and synthesizing information and narrowing those choices down to one or two choices.
- Career Responsibility (CR) is being accountable for one’s own choices and decisions by completing tasks in a timely manner through effort.
- Self-knowledge (SK) is understanding one’s abilities, attitudes, interests, skills, and values so that one can make choices to fit one’s individual needs and wants.
- Career Attitude (CA) is having respect, esteem, consideration for others, willingness to cooperate, and enthusiasm for achievement, learning and employment.
- Career Diversity (CD) is the understanding that differences and distinctions
between people like cultural identity, preferred lifestyles and disabilities play important roles in determining the way one looks at career choices.

- Career Motivation (CM) is the tendency or drive for people to act in positive manners to achieve goals and standards.
- Career Exploration (CE) is the process of searching and identifying careers that match one's interests, abilities and values.
- Life Roles (LR) are the inborn factors that determine who an individual becomes, such as students, parents, workers, and citizens. Whatever the dominant role in one’s life at a particular moment in time, determines how one looks at and sees the world of work.
- Career Information (CI) is the knowledge that is available for individuals to determine viable career opportunities. Knowing what information is out there and how to access it is crucial to career growth and development.

**Limitations**

This project is not attempting to address the validity of each of the 100 items in the CPI, nor is it attempting to show a high degree of reliability. It is merely investigating validity as it relates to several themes in on the CPI with corresponding items on the MVS inventory. While this is an initial look into the validity of this assessment, it will by no means be a complete study of the validity of this test. This project is also not attempting to show that the use of this test over time will increase career development in students, those projections may only be possible in future studies.
CHAPTER II: Literature Review

Literature Review

Growth and development into adult life often requires college students to assess their abilities, interests and values. There has been considerable research conducted concerning the career development process of college students. Studies have focused on anything from the development of measures that focus on various career development themes to identifying career development patterns among sub-populations present on college campuses. This review of literature will briefly discuss the history of career guidance. It will also explore the development and usage of the following career development themes: goal planning, career decision-making, career responsibility, self-knowledge, career attitudes, career diversity, career motivation, career exploration, life roles, and career information. More specifically, this review will highlight the importance of each of these themes as they relate to career development and this study. Finally, a review of the literature available on test development and validity as it relates to test or inventory development will be included.

History of Career Guidance

Career guidance and career assessment has been an integral part of student development for a long time. According to Kapes, Matlock-Hetzel, Martinez and Borman (1996), career assessment has been around since the late 1800’s when Frank Parsons and Hugo Munsterberg started the career guidance field. Since those early
days, there have been many new names that have added their knowledge to the foundation that Parsons and Munsterberg laid. From those modest beginnings, career guidance has developed into an important component of education, especially in the last 30 years when federal legislation brought career guidance to the forefront of American society (Kapes, Matlock-Hetzel, Martinez & Borman, 1996).

Frank Parsons has often been considered the reason for the development of career guidance (Kapes, Matlock-Hetzel, Martinez & Borman, 1996). Originally educated as a civil engineer, Parsons was also a writer of many social reform oriented books, a lawyer, and an educator in his lifetime (Kapes, Matlock-Hetzel, Martinez & Borman, 1996). In 1908, Parsons became Director of the Vocation Bureau, the first of many centers devoted to “aiding young people in choosing occupations, preparing themselves for it and finding jobs in it” (Davis, 1969, p. 113). Parsons developed a three-part conceptual model for the career development process which is still in use today (Kapes, Matlock-Hetzel, Martinez & Borman, 1996). These steps are: understanding yourself including aptitudes, abilities and interests; knowledge of occupations and the decision-making process itself (Kapes, Matlock-Hetzel, Martinez & Borman, 1996). Parsons applied science to the assessment of individual interests by using a subjective assessment called the Personal Record and Self-Analysis Survey (Kapes, Matlock-Hetzel, Martinez & Borman, 1996).

Hugo Munsterberg was a colleague of Frank Parsons on the faculty at Harvard and also an industrial psychologist by trade (Kapes, Matlock-Hetzel, Martinez & Borman, 1996). Munsterberg developed the first psychological test to predict
occupational success in certain types of industrial jobs (Kapes, Matlock-Hetzel, Martinez & Borman, 1996). Unlike Parsons who thought an interview process was the key to trustworthy information for use in career guidance, Munsterberg was convinced that psychological testing was the only way to yield accurate information (Kapes, Matlock-Hetzel, Martinez & Borman, 1996). In later years, Munsterberg worked with several hundred manufacturing firms to develop questionnaires for use in determining mental traits essential to good workers (Kapes, Matlock-Hetzel, Martinez & Borman, 1996).

From the foundation which Parsons and Munsterberg laid forth at the beginning of the twentieth century, many other practitioners have added knowledge to the field of career development. Today there are more than 50 career development tests, in various forms available for use with different types of clients in career counseling (Kapes, Matlock-Hetzel, Martinez & Borman, 1996). In the early 1970’s many of these tests were developed because of federal legislation supporting vocational education for all individuals, especially those with disabilities and women who had been traditionally ignored by career development efforts (Kapes, Matlock-Hetzel, Martinez & Borman, 1996).

A number of themes have been found to be important factors in the career development process. These themes have been identified by practitioners as important to this process. Themes that will be discussed include: goal planning, career decision-making, career responsibility, self-knowledge, career attitudes, career diversity, career motivation, career exploration, life roles, and career information.
Goal Planning

Goal planning has long been an integral component of career development. According to Kompelien (1996), thirty-six percent of Americans have followed a definite career plan. The literature suggested the important issues of goal planning were: the forms these plans take, competencies needed for successful planning, career testing in relation to goal planning and components of comprehensive career plans.

There has been considerable discussion as to the competencies needed for successful goal planning. Kraus and Hughey (1999), Kompelien (1996), and Barker and Satcher (2000) believed information gathering was one of the most important factors in goal planning. Kraus and Hughey (1999) also contended self-analysis, and problem solving were as important or more important than information gathering. Kompelien (1996) also stated making connections between the content of courses and a student’s future plans were an important factor in goal planning. Barker and Satcher (2000) explained that traditionally, the main sources of information gathering used in goal planning were the Dictionary of Occupational Titles (DOT) and the Occupational Outlook Handbook (OOH) which were inadequate for students to make informed choices. In dissent of the previously mentioned competencies, Hartung (1997) believed gaining career decision-making skills as the only path leading to successful goal planning.

Research suggested that goal planning occurred in a variety of forms. According to Kompelien, (1996) schools that were effective in using career planning were also successful in building bridges of communication with students and parents.
Herr (1982) believed goal planning must occur through development of comprehensive and longitudinal plans that have content designed to equip students with the attitudes, knowledge, and skills needed to anticipate and act on career-related tasks. Perosa and Perosa (1997) thought of these plans as three part processes beginning with thoughts about careers, moving through searching for a career and ending with actually starting that career. Levinson, Ohler, Cawell and Kiewra (1998) thought of these plans a little differently in that there were five dimensions to goal planning: preparation, explorations, information gathering, decision making, and reality orientation. Sampson, Peterson, Reardon and Lenz (2000), believed this planning needed to be written in format and include personal and demographic data, interest aptitude data obtained from formal assessment tools, and career/educational goals.

Various authors believed that career testing was an important component to successful goal planning. Hartung (1997) has shown in studies that when a student’s scores have not increased with age or experience then goal-planning interventions are needed. According to Sampson et al. (2000), career testing was effective in goal planning when students could not articulate the factors affecting career problem solving and decision making. Objective measures have created standard sets of strategies for providing counseling interventions to solve goal-planning problems. Perosa and Perosa (1997) believed in using career testing as a means to facilitate effective goal planning. Herr (1982) went as far as to say that using career testing to
assess goal planning provided counselors with multiple ways to intervene in career development without confining them to a one-to-one framework.

Based on the studies by Sampson et al. (2000), Hartung (1997), Kompelien (1996) and Perosa and Perosa (1997) goal planning is an important factor in career development. Students who develop coherent and comprehensive educational plans take more ownership of their career paths. These students have also been more successful in their career choices because they have made informed and planned decisions.

**Career Responsibility**

The literature suggested that locus of control, self-efficacy, active and proactive participation and family contribute to career responsibility in college students. Research suggested positive self-efficacy and active participation in career development activities were the most important factors in developing career responsibility. Being involved in one's own career decisions and future makes an individual responsible for their own career choices, thereby increasing their career responsibility. Active participation seemed to be the key to developing responsibility in both career and life decisions.

Locus of control refers to self-appraisals regarding the degree to which an individual believes that development was either internally or externally derived. Luzzo, Funk, and Strang (1996) have shown that when a student has a more internal locus of control over their career development it is in a large part due to their acceptance of responsibility over their career decisions. Although most research has
concurred with Luzzo, Funk and Strang (1996), Bandura (1977) noted that an internal or external locus of control does not necessarily determine a student’s self-efficacy or resulting behavior.

Bandura (1997) described self-efficacy as judgments of how well one can execute actions required to deal with prospective situations. Luzzo, Hitchings, Retish and Shoemaker (1999) believed that self-efficacy, as it related to career development, was not a passive trait or characteristic, but a dynamic aspect of the self-esteem that interacts with the environment and individuals. Kraus and Hughey (1999) said the level of a student’s self-efficacy was directly related to their ability to develop and make responsible career decisions. To the extent that weak self-efficacy restricts career development and systematic efforts to promote self-efficacy may be necessary for responsibility in making career decisions to shift toward the student (Kraus & Hughey, 1999). Jurgens (2000) found that treatment interventions were effective in increasing career self-efficacy and responsibility of participants in their career development pursuits.

Students who have mastered career responsibility tend to be proactive in pursuing career development planning. Barker and Satcher (2000) believed that continuous learning was an integral component of career success and those students who took responsibility for their own learning achieved more career success than those who looked to others for making personal career choices. Educators and counselors who have stayed current about workplace trends and career information sources available were best able help students learn responsibility (Kraus & Hughey,
By staying current with trends and information, counselors have been able to pass this knowledge on to their students who will in turn be able to access this information on their own, thus having taken ownership for the information important to each individual.

Active participation was another important factor in establishing a student's career responsibility. According to Luzzo, McWhirter and Hutcheson (1997), students who worked in occupations similar to their eventual career goal may have a more internal career locus of control, higher levels of academic performance, and greater career maturity. Perosa and Perosa (1997) believed that participating in career development tasks increased the readiness of adolescents and young adults to make career decisions associated with progress and satisfaction in occupational careers. Students who have been actively involved in creating educational plans and participating in work experience programs have created and engaged in career responsibility (Kompelien, 1996). Active participation in work experience programs was usually beneficial, but it has also caused problems. Luzzo, McWhirter and Hutcheson (1997) found, as the number of hours employed per week increased, it negatively influenced both year-to-year persistence in college and completion of a bachelor's degree. There was also an inverse relationship between hours worked per week and a student's grade point average (Luzzo, McWhirter, & Hutcheson, 1997).

Family interactions and family support have been an important factor in a student's development of career responsibility. Zachar and Leong (1997) said that students today are pressured to choose career specializations earlier and earlier which
can actually inhibit a student from taking responsibility for their career decision-making. Larson and Wilson (1998) agreed that family interaction patterns may inhibit career decision-making which has been important for an individual being responsible for their career choices. Guerra and Braungart-Rieker (1999) found students placed high importance on their father's approval of major choice. Students majoring in business or engineering, which are traditionally more masculine majors, indicated more acceptance from their fathers, whereas those in the humanities said their fathers were not as accepting. If a father disapproves of their child's career choices, the student may be more conflicted about career choices and find it difficult to take responsibility for their own career choices. Hartung (1997) found that individuals who participated and thought positively about home and family roles, appeared to possess more career maturity and knowledge which positively affected their development of career responsibility.

**Career Attitudes**

Family, self-efficacy, skills, connections and external and internal barriers have all affected students' attitudes towards career development. A positive attitude towards the world of work means a student has a greater chance of finding career success (Levinson, Ohler, Caswell & Kiewra, 1998). Selecting a college major is a difficult choice, a positive attitude towards decision making can make this an easier choice (Guerra & Braungart-Rieker, 1999). Guerra and Braungart-Rieker (1999) also believed that ego identity status was predictive of having a positive career attitude.
Family can greatly affect an individual’s attitude toward the world of work. As stated previously in the career responsibility theme, research suggested family plays an important role in career development. Career attitudes were found to be affect by family interactions in the same ways as was stated previously.

Levinson, Ohler, Caswell and Kiewra (1998) have shown that the cognitive (ability to reason) and affective (ability to act) dimensions of career decision-making have taken into account attitudes toward career development. Or in other words, reasoning and acting on career development concerns positively affected career attitudes. Active participation in career development processes allows for reasoning and thought into the world of work and positively affects self-esteem which is linked to positive career attitudes (Levinson, Ohler, Caswell & Kiewra, 1998).

A student’s self-efficacy and locus of control were important to having positive attitudes toward career development. Individuals that believed growth was primarily internally derived, have more personal pride and self-esteem (Luzzo, Funk, & Strang, 1996). Positive self-esteem was important because believing one is capable of doing tasks and that one is the creator of his or her own destiny created positive attitudes that led to successful careers. Luzzo and Hitchings et al. (1999) concurred and went on to say being able to judge and have confidence in executing courses of action required to deal with situations correlates with having a positive attitude towards careers. Kraus and Hughey (1999) stated that to the extent weak self-efficacy expectations may restrict career development, systematic efforts to promote self-efficacy may be necessary to create positive career attitudes in students. They
believed that educators must teach students the attitudes and competencies needed for career choice readiness and self-efficacy was a relevant construct to consider when modifying these attitudes.

Another area of the literature relevant to career attitudes and their involvement in career development was that of the skills needed to develop appropriate career attitudes. According to Barker and Satcher (2000), all students needed to be able to locate, evaluate and act upon information about further education. Understanding, embracing and having a positive attitude toward the need for continuous learning throughout our careers was an integral component of career success (Barker & Satcher, 2000). Building upon that notion, Barker and Satcher (2000) also suggested that knowing how and where to seek information for ongoing training and professional development will become even more important as careers evolve at an increasingly rapid pace. Kompelien (1996) suggested that students who see the relevance between what they are doing in school and careers have more positive attitudes towards career development and are more successful in the long term.

Career attitudes were in a large part related to future success because when students were motivated, they were more likely to achieve higher academic success (Kompelien, 1996). It was crucial that counselors and teachers enable students to make connections between the content of courses and their future plans. Luzzo, McWhirter, and Hutcheson (1997) indicated that students working in jobs related to their career interests were likely to believe more strongly than other students that they were in control of their futures. When students made the connections between what
they were doing and how it related to their careers, they had more positive attitudes toward the future.

Studies by Prince (1997), Leong and Hartung (1997), and Perosa and Perosa (1997) have indicated that some individuals encountered a larger number of barriers toward having positive career attitudes. Discrimination, harassment, stereotyping, oppression, and homophobia within families and school systems were all considered barriers to positive career attitudes (Prince, 1997). Undue pressure from families was also an important barrier (Leong & Hartung, 1997). Lack of availability to educational resources and occupational information also affected career attitudes (Perosa & Perosa, 1997).

Career Diversity

Examining career diversity was another important factor to consider in overall career development. The literature suggested definitions of diversity affected career decisions, as well as the diversity each person experienced in life. Research has centered around these types of diversity: cultural and/or racial, sexual orientation, gender, and economic status. Diversity as it related to careers affected the ways people deal with their environment and the choices they made regarding their future career paths.

The diversity present in society often has influenced career plans and decisions. Belief systems, cultural traditions, modeling, experience, skills, age, gender and deficits that differentiate each person may be reflected in attitudes toward career development. Herr (1982) suggested acknowledgment of diversity especially needed
to be included in theories of behavior and theories of intervention. Levinson, Ohler, Caswell and Kiewra (1998) have identified several diversity-related factors that affected career choice and placed certain people at risk for experiencing career choice difficulties. These included low intelligence, poor access to education, cultural isolation, functional limitations, social isolation, low/high intelligence compared with family/peers, and economic situation.

Cultural or racial differences have influenced the perceived availability of career options for individuals. Perrone, Perrone, Chan, and Thomas (2000) reported an individual’s work environment affected learning experiences and influenced career-related beliefs and actions. Cultural diversity also affected how clients conceived work and influenced their attitudes toward seeking help for career issues. Underutilization of services and resources often occurred with culturally diverse students (Guerra & Braungart-Rieker, 1999). Culturally sensitive resources were not available for these diverse clients, and for those speaking languages other than English, bilingual services were not offered. Cultural mistrust or systems distrust was also present for some of these individuals (Leong & Hartung, 1997). Guerra and Braungart-Rieker (1999) also stated that familial influences may have encouraged or discouraged utilization of resources.

Gays, lesbians, bisexual and transgendered people were often grouped into one nonethnic minority. Prince (1997) contended this grouping did a disservice to the issues and characteristics that distinguish these groups from one another and has often led to increased misunderstandings of the career needs of diverse people. By breaking
out of traditional models in ways that are specific to the lives of these populations, all people will be more cognizant of how sexual orientation contributes to career diversity. Sexual identity development and societal or environmental barriers affected the career choices these populations made. Prince (1997) suggested establishing a level of trust and mutual respect throughout society to increase the diversity that enhances careers and work environments.

Whether male or female, there have been huge distinctions between genders in society. Blunt and Richard (1998) found that work values did not differ between genders, but they did find females attached a greater importance than males to values and life roles. It was important to acknowledge the differences in gender when considering career diversity because gender may play a factor in the types of employment an individual seeks. Perosa and Perosa (1997) found that gender was also unrelated to career development attitudes, but was related to knowledge and attitudes towards the world-of-work. Women have tended to choose careers that society considered acceptable to their gender, even when these individuals would have been better suited for more challenging and fulfilling occupations (Guerra & Braungart-Rieker, 1999).

According to Herr (1982), the marginalized in society were not a homogeneous group as differences in ethnicity influenced both work values and adult life roles. By treating diversity as another component to career development and taking into consideration the vast differences in cultures and lifestyles that exist, people are treated as individuals rather than stereotyping them into certain careers.
Prince (1997) discussed how differences in culture and lifestyle influenced many of the values adults bring to the world of work and treating everyone the same was doing a disservice to society. Only when society has recognized the needs of every person and every marginalized group, will there be parity in providing career development to all (Prince, 1997).

**Career Motivation**

Motivation toward completion of career development tasks and movement forward in life were important components of career development. The literature suggested familial influences, personal development including identity formation and environments were important to developing motivations towards constructive career development. According to Guerra and Braungart-Rieker (1999), commitment to career choice was likely to be present in individuals who were motivated to make independent choices, but who were also willing to seek assistance in making those choices.

Barker and Satcher (2000) indicated that continuous learning was an integral component of career success and implementation of career development programs are needed for students. These programs need to motivate students to become proficient in seeking out information related to training and development necessary for career success (Barker and Satcher, 2000). Hodkinson (1998) indicated those who had a more individualist locus of control tended to have a greater sense of opportunities available to them as choices in the labor market. Possession of an internal locus of
control indicated students who had more career maturity should also be more motivated in seeking appropriate career-related opportunities.

Environmental influences have also been a component affecting career motivation. Key characteristics of society, limited access to occupational information and opportunities were factors that negatively affected career motivation (Prince, 1997). According to Larson and Wilson (1998), anxiety levels between parents and children regarding career choices also have had negative affects on career motivation. Larson & Wilson (1998) suggested that family income levels and differences in age were not to blame for these anxiety levels which created career motivation problems. The problem seemed to lie in the confidence level parents had in their child’s ability to make informed and appropriate career decisions. Sampson, Peterson, Reardon and Lenz (2000) have said lacking the motivation and confidence necessary to make appropriate career choices may also be a function of the support and information available to the individual. Providing more support for assisting individuals to effectively use career resources will help motivate them to make appropriate career decisions.

**Career Information**

According to Kompelien (1996), 72% of working Americans said they would try to get more career planning information if they could start over again. This statistic may be interpreted to mean almost three-fourths of working adults believed the information provided or was available to them was inadequate to make informed career decisions. The literature suggested certain competencies, types of information
and guidance from mentors and role models were needed for students to make informed and appropriate career decisions.

According to Luzzo and Hitchings et al. (1999), students who did not participate in career development activities during high school may be unaware of similar types of career exploration and planning services offered at colleges and universities. Mentors and role models must help students locate and use career information from an early age so these students are aware of all the resources available (Luzzo, Hitchings, Retish & Shoemaker, 1999). Luzzo and Hitchings et al. (1999), also stated students with disabilities reported having problems locating and using career exploration tools because they were not exposed to these preparation activities earlier in life. This lack of prior exposure seemed to be because academic or physical interventions had taken a priority over career exploration and preparation activities that other students had the opportunity to utilize.

Students should be provided with the information and guidance necessary to make well-informed career choices. Students must learn certain competencies in order to be successful in locating and using career information. Kraus and Hughey (1999) believed these competencies included accurate self-appraisal, the ability to locate and gather occupational information, goal selection and goal development problem solving skills. Barker and Satcher (2000) also commented on these competencies as a student’s ability to assess their skills, abilities and interests. When a student was able to look objectively at their skills, abilities and interests, available career information made sense and was more easily located (Barker & Satcher, 2000).
These students also knew more quickly whether their interests, abilities and skills were in tune with the requirements for a particular career (Barker & Satcher, 2000). Students who have explored their own self-knowledge also have the information available that allows for critical evaluation of available research.

Two federal documents have been developed that critically evaluate the skills and competencies needed in today's workplace. These documents are the Secretary's Commission on Achieving Necessary Skills (SCANS) and National Career Development Association (NCDA) guidelines. These reports outlined the need for students to engage in self-assessment and career exploration tasks throughout their educations. These reports also indicated the ability to locate information available on the world wide web will become a more important competency for students in coming years (Barker & Satcher, 2000). Students also needed exposure to the information and resources available through campus and community career services providers and how those services can help them make career decisions (Jepsen, 2000).

Through a variety of mediums, individuals can explore the content areas for career information. These content areas include: occupational information, self-knowledge, and decision skills. Publications, audiovisual aids, programmed instructional materials, computer-based systems, interviews with experts, simulated work situations, directed exploration experiences and on the job tryouts can serve as ways to gain information about careers (Jurgens, 2000). Sampson, Peterson, Reardon and Lenz (2000) also noted, individuals with low verbal ability may have difficulty
using career information resources and may need additional support in effectively using career information and participating in career development activities.

A recent study has shown that parents were considered to be the primary source of career guidance and career information for young people, yet parents were typically unprepared for this role in the career development process (Kompelien, 1996). They may also hold views of education and training requirements for employment that lead to misinformation about career development, which may be more harmful for students than having a total lack of information available (Kompelien, 1996). Students can be skeptical enough about the world-of-work, but also exposing them to inaccurate information causes heightened skepticism.

**Career Decision-Making**

Identity development, parental involvement, societal influences, and self-efficacy all affected career decision-making among young people. Barker and Satcher (2000) stated that providing students with the information and guidance necessary to make well-informed career choices leads to confident career decision-making skills. Guerra and Braungart-Rieker (1999) noted that career indecision was predicted to a greater degree by identity development and positive self-efficacy than by any other factors involved in career decision-making.

According to Luzzo, Funk and Strang (1996) indecision, as a measure of career development related to parental variables. Students who experienced their mothers as having been more encouraging of independence in childhood experienced less career indecision than those who found their mothers to be more overprotective
Guerra & Braungart-Rieker, 1999). Support by the mother was particularly important in decision-making as well as the individual’s development of ego identity was predictive of career decision-making (Guerra & Braungart-Rieker, 1999). Luzzo, Funk and Strang (1996) also stated that locus of control’s role in college students’ career development was also predictive by the parental relationship. Students who have been taught that achievement occurs through hard work were better able to make career-related decisions.

Career decision-making self-efficacy has been defined as an individual’s confidence in her or his ability to effectively engage in career decision-making tasks and activities (Luzzo, Hitchings, Retish & Shoemaker, 1999). Career decision-making self-efficacy was relevant when addressing the career development needs of students. Weak self-efficacy expectations may restrict career development and systematic efforts to promote self-efficacy may be necessary. Career indecision has been characterized by students who were unsure of a college major or their future career. Learning career decision-making skills and addressing self-efficacy led to less career indecision (Kraus & Hughey, 1999).

There were several models explaining the stages that decision-makers go through to develop career decision-making skills. According to Perosa and Perosa (1997), there were four stages that decision-makers go through to develop career decision-making skills. These stages were thoughts of change, assessing the risks to change, gathering information for the change and finally making the change. Decision-makers used their knowledge and cognitive abilities to solve problems.
Another decision-making model was based on four questions: “Are the risks serious if I do not change? Are the risks serious if I do change? Is it realistic to hope to find a better solution? Is there sufficient time to search and deliberate?” (Perosa & Perosa, 1997, p 152) According to Sampson, Peterson, Reardon and Lenz (2000), use of some type of readiness assessment maximized a student’s decision-making capabilities by providing an objective assessment of their needs and where they are in the decision-making process.

Career decision-making self-efficacy was examined in relation to the level of congruence between college students’ career interests and their current occupation (Luzzo, McWhirter & Hutcheson, 1997). Results indicated students employed in occupations related to their career interests had higher levels of career decision-making self-efficacy. Decision-making was marked by assessing the extent an individual has acquired the necessary knowledge and skills to make intelligent and realistic career choices (Levinson, Ohler, Caswell & Kiewra, 1998). Decision-making readiness was marked by a student’s ability to communicate their understanding of careers and the choices they have made.

Previous research found background variables showing young adult gender and class in college predicted decision-making problems (Larson & Wilson, 1998). Family of origin income was not related to career decision problems and age was not related to career decision problems. There was growing recognition of the importance of family of origin dynamics for career decision making in young adults and the usefulness of a Bowenian family system perspective in career counseling (Larson &
Wilson, 1998). Bowenian family systems theory was based upon the concept that emotion was mechanism of intergenerational transmission of functional and dysfunctional patterns at both the family and individual levels (Larson & Wilson, 1998). According to Larson and Wilson (1998), anxiety levels were also the mechanism for creating fears and rejecting autonomy. This theory has been used to explain how family interactions affect how students view career decision-making in the context of family relationships. Students also learn how the decisions they make in school and the courses they take impact their own future (Kompelien, 1996).

**Self Knowledge**

Understanding one’s own beliefs, values and attitudes helped to define the issues that will be important in an individual’s career development. This self-knowledge was influenced by family, identity formation and maturity. A student’s exploration of their sense of self and formation of opinions and ideas separate from those of their parents are the first steps in identity development. This process of personal investigation may aid in the career decision process and in turn this exploration may help students in overall identity formation (Guerra & Braungart-Rieker, 1999).

Assessment was one tool that aided students in their identity development. Assessment was important because it allowed students to learn more about themselves and explore interests, abilities and values. The My Vocational Situation inventory contains a section on vocational identity and its role in career development (Holland, Daiger & Power, 1980). This tool helped students assess the types of
information they may need in order to make effective career decisions. The Values Scale was also sometimes used to assess identity formation in students. This assessment investigated self-knowledge in twenty-one different areas (Peroa & Peroa, 1997).

Competencies needed in the development of self-knowledge include accurate self-appraisal, gathering occupational information relevant to interests and abilities, feasible goal selection, and making future plans (Kraus & Hughey, 1999). Students often do not have high aspirations for themselves and have no idea where they are going in life (Kompelien, 1996). Readiness for making educational and vocational choices correlated to an individual’s sense of self-knowledge (Hartung, 1997). Individuals with no direction in life may need remedial, preventive or developmental assistance when serious deficits exist in areas such as self-knowledge and the world of work (Hartung, 1997). Developmental assistance involved helping individuals achieve their full potential for growth via activities such as values clarification and interpersonal skills training.

Career maturity was indicative of an individual’s ability to make appropriate career choices, including awareness of what is required to make a career decisions and the degree to which one’s choices are both realistic and consistent over time (Levinson, Ohler, Caswell & Kiewra, 1998). Herr (1982) contended positive self-concept, knowledge of resources and preferred life styles were also competencies needed for accurate self-knowledge. An effort should also be made to include
working with social and emotional concerns as a component of self-knowledge (Perrone, Perone, Chan & Thomas, 2000).

Career Exploration

Career exploration may help students with their career development concerns. Barriers encountered, competencies and assessment were the common themes of career exploration as it related to career development. Career exploration should begin in early childhood and continue throughout an individual’s life because everyone learns throughout life and career development is continuous (Kompelian, 1996).

“Rather than directing, prescribing to, or pressuring their children, parents should be supportive of their children’s independent career exploration and decision making” (Kinnier, Brigman, & Noble, 1990, p. 311). There were also racial differences in the amount of encouragement to be independent and explore career opportunities children received from their parents (Guerra & Braungart-Rieker, 1999). These differences included the information available to these children, parents perceived abilities of their children and the parents level of encouragement given for participating in career exploration activities. Students with disabilities reported significantly lower levels of career decision-making self-efficacy because they have not had as much experience with career exploration.

The National Career Development Association (NCDA) guidelines described specific skills and career development competencies required for workers to be competitive in today’s labor market (Barker & Satcher, 2000). According to these
guidelines, students must acquire appropriate knowledge and competencies through
career exploration dictated by the changing needs of the workplace (Barker &
Satcher, 2000). Knowledge and understanding of competencies occurs by assessing
their skills, abilities and interests (Barker & Satcher, 2000). A person’s career
concerns and the developmental tasks that he or she confronts were related to the
knowledge available and the competencies needed for a particular occupation (Perosa
& Perosa, 1997). Career exploration activities provided students opportunities to
alleviate career concerns and assess their fit with particular occupations.

Self-assessment and career exploration were necessary in creating dynamic
guidance programs. Development of customized career planning programs for
college-bound, work-bound, and undecided students that assess each student’s needs
are a component of the NCDA guidelines. Acquisition of workplace skills and career
development competencies were an important part of the school experience (Barker
& Satcher, 2000). One to one counseling, group counseling and self-administered
computer interventions can be effective means for assessment. Assessment helped to
decrease career indecision and personal indecision in both group and individual
vocational counseling participants. Computer systems have been examined as a way
to assist the undecided student and are becoming commonplace at many academic
institutions (Jurgens, 2000). Some of the programs were built around specific clusters
of career development tasks to be of primary significance at different chronological
life periods or at particular transition points (Herr, 1982).
Life Roles

Attending college often requires that students move away from their families for the first time. For many students this was their first real experience with the life role of being an independent adult. Often other life roles such as being a parent, being a worker and being a citizen were repeatedly experienced for the first time during or after college attendance. It has been daunting for students to realize the multiple roles they must play in life (Super, Osborne, Walsh, Brown & Niles, 1992).

Adult life roles were examined from three perspectives: participation, commitment, and role values (Blunt & Richards, 1998). Anxiety in families and individuals served to regulate the amount of emotional closeness and distance within the family that affected life role attitudes (Larson & Wilson, 1998). Females attached greater importance than did males to life roles. Relationships between ethnically diverse families and the career decision-making process of young adults have been found to have significant impact on life role decisions.

Super (1990) developed the concept of the Career Rainbow that has helped to describe the life career of a person from birth until death. Life span and life space were formed by nine major roles: child, pupil-student, leisurite, citizen, worker, spouse, homemaker, parent and pensioner or annuitant (Super, 1990). Understanding these roles helped individuals make career development decisions about the relative importance each role may have in their life at a given point in time.

Ten important themes related to career development have been introduced. Looking at these themes in the context of career assessment, test development and
validity must be discussed. In the next sections, the steps to developing and validating a career assessment measure will be discussed.

**Test Development**

There were five steps to the test development process including: test conceptualization, test construction, test tryout, item analysis and test revision (Cohen, Montague, Nathanson & Swerdlik, 1988). Conceptualization of a test begins with deciding what kind of test is needed and what type of scale it should measure its content around (Cohen, Montague, Nathanson & Swerdlik, 1988). Test construction usually takes place in stages and at this point test items are written and shared with knowledgeable colleagues for evaluation. Once an expert evaluation has been taken into consideration, tryout of the test in its current form is warranted (Cohen, Montague, Nathanson & Swerdlik, 1988). Generally a sample of at least 100 participants is needed investigate item analysis. Each item and each theme the test is measuring should be analyzed for fit into the test as a whole (Cohen, Montague, Nathanson & Swerdlik, 1988). Finally test revision takes place from the data obtained in the item analysis and the test may then go back to the tryout stage to assess the changes made (Cohen, Montague, Nathanson & Swerdlik, 1988).

According to Kompelien (1996), of the career testing measures available today, no test provides a large enough scope to be used as the only assessment for students seeking career planning assistance. Common complaints from practitioners have included: Having to interpret many tests in order to give a client a complete picture of their career guidance needs; Using several tests and not having the results
be on scales which are easy to correlate frustrating both client and counselor in interpretation; and the time it takes to administer and score multiple tests (Kapes, Matlkok-Hetzel, Martinez & Borman, 1996).

Test development was an important part of the career development process and assessment measures used in this process. One concept during the test development process that becomes important was the process of showing validity. This concept was important because validity shows practitioners how well the test measures what it was supposed to measure.

Validity

According to Cronbach and Meehl (1955), validity was divided into four types: predictive, concurrent, content and construct validity. Each type of validity has had its common uses as the literature will discuss. More importantly, the steps researchers use to demonstrate validity will be discussed.

Construct validity was important in tests and assessments because things like aptitude and achievement were considered constructs. Kelinger (1973) defined a construct as a concept that has been deliberately and consciously invented or adopted for a special scientific purpose. In validating a construct, measure of variance needs to be taken into consideration. The sources of variance are composed of trait variance, method variance and random error variance (Cote & Buckley, 1988).

Content validity refers to a judgement on how adequately a test samples behavior representative of the universe of behavior the test was designed to sample. Content validity was usually measured by asking a panel of experts to rate the skill or
knowledge measured by each item (Cohen, Montague, Nathanson, & Swerdlik, 1988). Content validity has usually been the first step toward validating a new assessment measure.

Concurrent validity measures the relationship between test scores and a criterion at the same point in time. According to Cohen, Montague, Nathanson and Swerdlik (1988), a criterion has been defined as a standard or test on which a judgment or decision is based. With concurrent validity, the magnitude of the validity is a function of the reliability of the criterion and the reliability of the test at a given point in time. Reliability of a test is a function of how dependable the criterion and the test is over time. High reliability means that a test is dependable at producing the same score whenever it is administered under the same sets of conditions present. In this study, concurrent validity was measured between the Career Perspectives Inventory (CPI) and the My Vocational Situation (MVS) inventory where the MVS inventory was the criterion measure.

According to Cohen, Montague, Nathanson and Swerdlik (1988), predictive validity measured the relationship between test scores and a criterion at a future point in time, or, in other words, how accurately scores on the test predicted some future criterion measure. For example, college admission test scores may serve to predict freshman grade-point averages, and as such are a form of predictive validity. Predictive validity was necessary when tests have been used to show a relationship between performance in the present and what performance at a future time will be.
Summary

The history of the career guidance field, themes important to career guidance, test development and validity have been introduced. These topics are important to the investigation of the Career Perspectives Inventory conducted during this study. In the following chapters, this study will be discussed in-depth and results will be presented and discussed.
Chapter III: Methodology

Purpose

Of the many career development inventories in existence no one inventory provides a complete diagnostic to assess an individual’s aggregate career development. A new test, the Career Perspectives Inventory (CPI), has recently been developed which attempts to assess an individual’s career development while also prescribing ways to advance development along its ten themes. The effectiveness and validity of this test is not known yet, but it is hypothesized that this new test will be more effective in determining an individual’s overall career development because it explores ten themes as opposed to most previous tests which only explore one to three themes.

This study has two research questions: 1. Does a correlation between selected themes on the Career Perspectives Inventory (CPI) and corresponding items on the My Vocational Situation (MVS) exist? 2. Are there differences in responses, between participants on the CPI, based on their reported academic standing? Each question was designed to investigate properties of the Career Perspectives Inventory and begin validating this test.

Participants

Participants for this study were 100 undergraduate students of Grand Valley State University who volunteered to participate in this study by completing the Career Perspectives Inventory, which included a short self-reported demographic
information section, and the My Vocational Situation inventory. Data collection took place during the Winter 2001 semester. To answer the first research question, all participant responses were grouped together across each of the selected themes to determine if a correlation existed between the My Vocational Situation items which corresponded to selected themes on the Career Perspectives Inventory. Research question two consisted of grouping participant responses by academic level to investigate the levels of development exhibited on the CPI as academic standing changed.

**Design and Instrumentation**

The survey instruments being used in this study were the Career Perspectives Inventory (Zaugra, 2001) (See Appendix A), and the My Vocational Situation Inventory (Holland, Daiger & Power, 1980) (See Appendix B). The CPI consists of 100 questions assessing ten themes and the MVS contains 20 questions assessing various vocational issues. The MVS was used because it had been previously validated, the high number of themes available for comparison with the CPI and the ease of administering this test.

Five themes on the Career Perspectives Inventory were compared with similar items on the My Vocational Situation inventory to examine relationships between answers of participants taking both inventories. Items were chosen based on likeness of questions between the two instruments and were evaluated by several career counselors to ensure that there was agreement on the likeness between test items chosen for correlation. The five themes available in both tests were: goal planning,
career decision-making, self-knowledge, career attitudes, and career information.

The first research question assessed concurrent validity of the five corresponding themes using responses from individuals who had taken both the CPI and MVS. The first research question was chosen because knowing a test has validity provides the practitioner information about the reliability and effectiveness of using this inventory with clients. Research question two assessed the differences in scores among study participants groups by self-reported academic standing. The second research question was chosen because a test that can show development over time provides the user a way to measure an individual’s progress in acquiring skills and competencies needed for success.

As noted in Tables 1-5, the following correlations between the CPI and MVS were examined: the goal-planning theme was correlated to items 2, 8, 14, and 17 on the MVS. The career decision-making theme was correlated to items 1, 9, 18 and 20d on the MVS. The self-knowledge theme was correlated with items 4, 7, 15 and 16 on the MVS. The career attitude theme was correlated with items 3, 6, 10 and 13 on the MVS. Career information was correlated with items 11, 19a, 19b, and 19c on the MVS. Existence of a correlation between the two tests results if responses from the CPI are similar to the responses of the selected items on the MVS. Additionally, Tables 1-5 illustrate corresponding questions between the CPI and MVS.
Table 1

Comparable Items Between the CPI and MVS for Goal Planning

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPI</strong></td>
<td><strong>MVS</strong></td>
</tr>
<tr>
<td>1. Career planning requires having goals</td>
<td>2. I am concerned that my present interests may change over the years</td>
</tr>
<tr>
<td>11. Evaluating our strengths and weaknesses is important to identifying goals</td>
<td>8. Making up my mind about a career has been a long and difficult problem for me</td>
</tr>
<tr>
<td>21. Goals cause us to learn</td>
<td>14. I would like to increase the number of occupations I could consider</td>
</tr>
<tr>
<td>31. Career goals are personal</td>
<td>17. I have known what occupation I want to follow for less than one year</td>
</tr>
<tr>
<td>41. Preparing for career goals requires organized efforts</td>
<td></td>
</tr>
<tr>
<td>51. Goals give direction to our career alternatives</td>
<td></td>
</tr>
<tr>
<td>61. Individual plans lead to achieving goals</td>
<td></td>
</tr>
<tr>
<td>71. What we do gives meaning to our goals</td>
<td></td>
</tr>
<tr>
<td>81. Goal planning requires doing things</td>
<td></td>
</tr>
<tr>
<td>91. Others respect us for having goals</td>
<td></td>
</tr>
</tbody>
</table>

Note: CPI= Career Perspectives Inventory, MVS= My Vocational Situation

Table 2

Comparable Items Between the CPI and MVS for Career Decision-Making

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPI</strong></td>
<td><strong>MVS</strong></td>
</tr>
<tr>
<td>2. Career decision making is a difficult task</td>
<td>1. I need reassurance that I have made the right choice of occupation</td>
</tr>
<tr>
<td>12. Occupational information is helpful for making career choices</td>
<td>9. I am confused about the whole problem of deciding on a career</td>
</tr>
<tr>
<td>22. Gender plays a role in career decision making</td>
<td>18. I can't understand how some people can be so set about what they want to do</td>
</tr>
<tr>
<td>32. Career indecision leads to dropping out of school</td>
<td>20d. An influential person in my life does not approve of my vocational choice</td>
</tr>
<tr>
<td>42. Career decision making is a logical and a rationale process</td>
<td></td>
</tr>
<tr>
<td>52. Life values play important roles in career decision making</td>
<td></td>
</tr>
<tr>
<td>62. Career choices are influenced by family values</td>
<td></td>
</tr>
<tr>
<td>72. Career decision making requires a compromise among variables</td>
<td></td>
</tr>
<tr>
<td>82. Your age plays an important role in deciding upon a career</td>
<td></td>
</tr>
<tr>
<td>92. Exploring difference cultures improves career choice selection</td>
<td></td>
</tr>
</tbody>
</table>

Note: CPI= Career Perspectives Inventory, MVS= My Vocational Situation
### Table 3

**Comparable Items Between the CPI and MVS for Self Knowledge**

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPI</strong></td>
<td>4. I have a working knowledge of my interests, abilities, and values 14. Understanding my traits is important to career planning 24. I know how to accomplish things in class 34. I know how to begin my class assignments 44. I am generally confident in my career decisions 54. My writing skills are “good enough” for most jobs 64. I work best by setting goals 74. Culture plays a role in my life as a worker 84. I have a sense of purpose and direction in life 94. Personal information and career information is useful for career planning</td>
</tr>
<tr>
<td><strong>MVS</strong></td>
<td>15. My estimates of my abilities and talents vary a lot from year to year 4. I don’t know what my major strengths and weaknesses are 7. I need to find out what kind of career I should follow 16. I am not sure of myself in many areas of life</td>
</tr>
</tbody>
</table>

*Note: CPI= Career Perspectives Inventory, MVS= My Vocational Situation*

### Table 4

**Comparable Items Between the CPI and MVS for Career Attitudes**

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPI</strong></td>
<td>5. Career attitudes influence how we work with others 15. Attitudes affect how others view us 25. Our efforts determine if work tasks are completed on time 35. Group harmony shapes our career attitudes 45. Working well with others is an example of cooperation 55. Career attitudes are influenced by our culture 65. What we read shapes our career attitudes 75. Understanding feedback influences how we work 85. Loyalty is an important quality in employee-employer relationships 95. Attitudes influence our performance and achievement</td>
</tr>
<tr>
<td><strong>MVS</strong></td>
<td>3. I am uncertain about which occupation I could perform well 6. If I had to make an occupational choice right now, I am afraid I would make a bad choice 10. I am not sure that my present occupational choice or job is right for me 13. I am uncertain about which occupation I would enjoy</td>
</tr>
</tbody>
</table>

*Note: CPI= Career Perspectives Inventory, MVS= My Vocational Situation*
Table 5

Comparable Items Between the CPI and MVS for Career Information

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI</td>
<td>10. Differences between public and private employment are vital to making choices</td>
</tr>
<tr>
<td>CPI</td>
<td>20. Using job information projections leads to improved decision making</td>
</tr>
<tr>
<td>CPI</td>
<td>30. Web pages are useful sources of career information</td>
</tr>
<tr>
<td>CPI</td>
<td>40. Job shadowing is often thought of as a source for career information</td>
</tr>
<tr>
<td>CPI</td>
<td>50. Informational interviewing is a means to acquire career information</td>
</tr>
<tr>
<td>CPI</td>
<td>60. The Dictionary of Occupational titles is useful to learn about job duties and tasks</td>
</tr>
<tr>
<td>CPI</td>
<td>70. Newspapers and magazines are good sources of career information</td>
</tr>
<tr>
<td>CPI</td>
<td>80. Resumes reflect our career accomplishments</td>
</tr>
<tr>
<td>CPI</td>
<td>90. Where you work might be more important for job satisfaction than salary</td>
</tr>
<tr>
<td>CPI</td>
<td>100. Interests are a basis for understanding jobs</td>
</tr>
<tr>
<td>MVS</td>
<td>11. I don't know enough about what workers do in various occupations</td>
</tr>
<tr>
<td>MVS</td>
<td>19b. I need information on what kinds of people enter different occupations</td>
</tr>
<tr>
<td>MVS</td>
<td>19c. I need more information about employment opportunities</td>
</tr>
<tr>
<td>MVS</td>
<td>19d. How to get necessary training in my chosen career</td>
</tr>
</tbody>
</table>

Note: CPI= Career Perspectives Inventory, MVS= My Vocational Situation

Similarity occurred if questions for each of the themes on both tests were answered in the same manner. The items from the same themes on both tests should be comparable. Theme items from the CPI answered agree or strongly agree would have corresponded to the items on the MVS as mostly false answers if high correlation had existed. If low correlation existed, items on the CPI answered agree or strongly agree would have corresponded to items on the MVS as mostly true answers. High correlation could also have occurred if items on the CPI were answered with disagree or strongly disagree and if corresponding MVS were answered were mostly true. Low correlation would also have occurred if items on the CPI were answered disagree or strongly disagree with corresponding MVS were answered mostly true. According to Gay and Airasian (2000), a correlation coefficient of 0.60 was
considered adequate for group prediction purposes and for test development anything above (±) 0.5 was considered to be moderate correlation because of the many factors involved when working with human subjects.

**Academic Standing**

In order to answer research question two, scores from study participants for each of the CPI’s ten themes were assessed. Scores for each of the themes were examined across levels of academic standing (first, second, third and fourth year students) of study participants. Academic standing was self-reported by each study participant at the time of testing. At this point, study participant results on the CPI were separated by academic standing and compared to assess if development was measurable over the four years of college using the CPI. If the CPI was an accurate assessment of a student’s career development, scores on the CPI should have increased as academic development of the student increased. Means and standard deviations of scores for each theme were examined.

**Data analysis**

Results from the Career Perspectives Inventory themes were tabulated into a percentile score from 0-100 with 100 being the highest possible score. Raw scores for each theme of the CPI were between 0-50 with 50 being the highest score. Each test item was given weight based on a Likert-type scale including strongly disagree (1), disagree (2), uncertain (3), agree (4), strongly agree (5) scale where agree or strongly agree were the desired responses to the test items. Unanswered items on the CPI were automatically given a score of zero.
Results from selected themes from the My Vocational Situation inventory were scored based on whether the test taker chose true (1) or false (0), with false being the desired response. Scores for each theme of the MVS were between zero and four with four being the highest possible scores. Unanswered items were pulled from inclusion all calculations.

For research question one of the study, correlation coefficients were tabulated for each of the five themes being compared between the CPI and MVS. These coefficients were determined using the raw scores from the CPI and MVS. Negative correlation coefficients were expected due to the difference in scoring between the two inventories. A high score [agree (4) or strongly agree (5) on most questions] on the CPI was the desired outcome whereas a low score [number of true (1) answers] on the MVS was the desired outcome.

For research question two of the study, the mean and standard deviation for each theme across levels of academic standing were tabulated. Academic standing was determined using the self-report information provided by study participants at the time of inventory completion. Each of the ten themes on the CPI were examined in this part of the study. Means and standard deviations for first year, second year, third year and fourth year students were calculated for each of the themes.

Microsoft Excel was used for data analysis of both research questions and Standard formulas within Excel for correlation coefficients, means and standard deviations were used throughout this study. Research question one used calculations of correlation coefficients as the method to analyze the data. Mean and standard
deviations were used to analyze the data for research question two.

This chapter discussed the materials and methods used in this study as well as analysis instruments used. Career Perspectives Inventory and My Vocational Situation data were collected and analyzed. Chapter Four will discuss these results and implications related to answering the research questions posed.
Chapter IV: Results

Research Question One

There were 100 participants in this study. Corresponding items on the CPI and MVS were compared to determine if concurrent validity existed between the two tests. Themes on the CPI and MVS compared were: goal planning, career decision-making, self-knowledge, career information and career attitudes.

Results from study participants were correlated using Microsoft Excel to determine correlation coefficients for each of the themes being studied in-depth. A negative correlation coefficient was expected if a correlation between the CPI and MVS existed. This negative coefficient was expected because of the difference in the ways the CPI and MVS are scored. The CPI operates on a 1-5 scale for each question, with 5 being the most desired answer, while the MVS operates on a true (1)/false (0) scale where false (0) was the desired answer. A high score on the CPI should result in a low score on the MVS. Questions left blank by study participants were scored as a 0 on the CPI and were discarded on the MVS.

Correlation coefficients were used to determine the relationship between two data sets containing numbers. Correlation coefficients can range from +1 to -1 and the larger the number, the higher correlation. Plus or minus refers to the type of relationship present. A minus sign indicates that as one data set increases the other decreases, while a positive number indicates that as one data set increases the other one data set also increases. According to Gay and Airasian (2000), a correlation
coefficient of 0.60 is considered adequate for group prediction purposes, but not considered totally reliable or necessarily adequate for individual prediction purposes. Gay and Airasian (2000) also commented that for most social sciences research, including test development, anything above (±) 0.5 is considered to be moderate correlation because there are so many factors involved when working with human subjects.

Table 6

<table>
<thead>
<tr>
<th>Theme</th>
<th>Correlation Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal planning</td>
<td>-0.492</td>
</tr>
<tr>
<td>Career decision-making</td>
<td>-0.572</td>
</tr>
<tr>
<td>Self-knowledge</td>
<td>-0.615</td>
</tr>
<tr>
<td>Career information</td>
<td>-0.526</td>
</tr>
<tr>
<td>Career attitudes</td>
<td>-0.520</td>
</tr>
</tbody>
</table>

Note: CPI = Career Perspectives Inventory and MVS = My Vocational Situation

Goal Planning

Goal planning items on the MVS were tallied and compared with totals from the goal planning theme on the CPI to determine if there was correlation between the two tests on this theme. As shown in table 6, the correlation coefficient between the MVS and CPI for goal planning was found to be -0.492. This was considered low to moderate correlation.
Career Decision-Making

To determine if there was correlation between the two tests on the career decision-making theme, item totals from the MVS were compared with totals from the career decision-making theme on the CPI. As shown in Table 6, the correlation coefficient for career decision-making between the MVS and CPI was found to be -0.572. This was considered moderate correlation.

Self-knowledge

Self-knowledge items on the MVS were totaled and compared with scores from the self-knowledge items on the CPI to determine if there was correlation between the two tests. The correlation coefficient shown in Table 6 for self-knowledge between the MVS and CPI was found to be -0.615. This was considered moderate correlation.

Career Information

Career information items on the MVS were tallied and compared with totals from the career information items on the CPI to determine if there was correlation between the two tests. As shown in Table 6, the correlation coefficient for career information between the MVS and CPI was found to be -0.526. This was considered moderate correlation.

Career Attitudes

To determine if there was correlation between the two tests on the career attitudes theme, item totals from the MVS were compared with totals from the career attitudes theme on the CPI. As shown in Table 6, the correlation coefficient for career
attitudes between the MVS and CPI was found to be -0.520. This was considered moderate correlation.

**Research Question Two**

There were 99 useable participant surveys for addressing research question two. One participant was eliminated because the individual reported being a fifth year or greater student. A sample of one was not sufficient to determine an average or a standard deviation for fifth year students, thus the data point was eliminated. Of the participants, there were 44 first year students, 14 second year students, 23 third year students, and 18 fourth year students. Using Microsoft Excel, means and standard deviations for each theme and academic level were calculated. Means determined the average score for a set of numbers and the standard deviation provided a way to determine how closely the mean matches the composition of the sample. High standard deviations suggested there was high variability in the sample whereas low standard deviations suggested most sample points fell near the reported mean.
### Table 7
Averages and Standard Deviations of CPI Themes Based on Year in School

<table>
<thead>
<tr>
<th>Theme</th>
<th>Year in school (n)</th>
<th>Average ±SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 (44)</td>
<td>2 (14)</td>
</tr>
<tr>
<td>Goal planning</td>
<td>76.41 ± 10.9</td>
<td>77.00 ± 10.19</td>
</tr>
<tr>
<td>Career decision-making</td>
<td>68.36 ± 11.45</td>
<td>71.43 ± 10.74</td>
</tr>
<tr>
<td>Career responsibility</td>
<td>76.32 ± 9.95</td>
<td>76.29 ± 11.2</td>
</tr>
<tr>
<td>Self-knowledge</td>
<td>77.14 ± 8.35</td>
<td>74.29 ± 7.72</td>
</tr>
<tr>
<td>Career attitudes</td>
<td>78.45 ± 8.18</td>
<td>76.71 ± 10.43</td>
</tr>
<tr>
<td>Career diversity</td>
<td>70.48 ± 8.27</td>
<td>71.86 ± 10.57</td>
</tr>
<tr>
<td>Career motivation</td>
<td>72.23 ± 9.7</td>
<td>72.57 ± 10.33</td>
</tr>
<tr>
<td>Career exploration</td>
<td>78.59 ± 9.74</td>
<td>76.71 ± 7.51</td>
</tr>
<tr>
<td>Life roles</td>
<td>73.82 ± 9.82</td>
<td>73.00 ± 6.46</td>
</tr>
<tr>
<td>Career information</td>
<td>76.09 ± 9.03</td>
<td>73.57 ± 8.71</td>
</tr>
</tbody>
</table>

Note: SD= Standard Deviation, n= number of participants, CPI= Career Perspectives Inventory

**Goal Planning**

For the goal planning theme on the CPI, there was an increase across academic standing between first and fourth year students from 76.41 to 83.44, or an increase of 7.03 points. There was a high standard deviation ranging from 4.76 to 10.9 between results in each sample showing that although there was an increase in CPI scores, it was not significant. As seen in Table 7, there was a small increase in averages between each group of students across academic standing.

**Career Decision-Making**

There was an increase across academic standing between first and fourth year students from 68.36 to 74.56, or an increase of 6.2 points for the career decision-
making theme on the CPI. There was a high standard deviation ranging from 9.4 to 11.45 between results in each sample showing although there was an increase in scores, it was not significant. As shown in Table 7, there was a small increase in averages between first and second year students, but there was a small decrease between second and third year students. Between third and fourth year students there was an increase in CPI scores.

Career Responsibility

For the career responsibility theme on the CPI, there was an increase across academic standing between first and fourth year students from 76.32 to 81.33, or an increase of 5.01 points. There was a high standard deviation ranging from 5.52 to 11.2 between results in each sample showing although there was an increase in CPI scores, it was not significant. As shown in Table 7, there was a slight decrease in averages between first and second year students, but there was an increase between second and third year students and again a small increase between third and fourth year students in CPI scores.

Self-Knowledge

There was an increase across academic standing between first and fourth year students from 77.14 to 83.00, or an increase of 5.86 points for the self-knowledge theme on the CPI. There was a high standard deviation ranging from 7.27 to 8.35 between results in each sample showing although there was an increase in CPI scores, it was not significant. As shown in Table 7, there was a decrease in averages between first and second year students, but there was an increase between second and third
year students and a small increase between third and fourth year students in CPI scores.

Career Attitudes

For the career attitudes theme on the CPI, there was an increase across academic standing between first and fourth year students from 78.45 to 83.33, or an increase of 4.88 points. There was a high standard deviation ranging from 6.17 to 10.43 between results in each sample showing although there was an increase in CPI scores, it was not significant. As shown in Table 7, there was a decrease in averages between first and second year students, but there was an increase between second and third year students and a small increase between third and fourth year students in CPI scores.

Career Diversity

There was an increase across academic standing between first and fourth year students from 70.48 to 74.22 or an increase of 3.74 points for the self-knowledge theme on the CPI. There was a high standard deviation ranging from 4.67 to 10.57 between results in each sample showing although there was an increase in CPI scores, it was not significant. Shown in Table 7, there was an increase in averages between first and second year students and between second and third year students, but there was a slight decrease between third and fourth year students.

Career Motivation

For the career motivation theme on the CPI, there was an increase across academic standing between first and fourth year students from 72.23 to 82.78, or an
increase of 10.55 points. There was a high standard deviation ranging from 8.2 to 10.33 between results in each sample showing although there was an increase in CPI scores, it was not significant. As shown in Table 7, there was an increase in averages between each group of students across academic standing.

Career Exploration

There was an increase across academic standing between first and fourth year students from 78.59 to 82.33, or an increase of 3.74 points for the career exploration theme on the CPI. There was a high standard deviation ranging from 6.97 to 9.74 between results in each sample showing although there was an increase in CPI scores, it was not significant. Table 7 showed there was a decrease in averages between first and second year students and an increase between second and third year students and between third and fourth year students.

Life Roles

For the life roles theme on the CPI, there was an increase across academic standing between first and fourth year students from 73.82 to 77.89, or an increase of 4.07 points. There was a high standard deviation ranging from 6.46 to 12.65 between results in each sample showing although there was an increase in CPI scores, it was not significant. As shown in Table 7, there was a decrease in averages between first and second year students and an increase between second and third year students, as well as an increase between third and fourth year students.
Career Information

There was a decrease across academic standing between first and fourth year students from 76.09 to 75.22, or a decrease of 0.87 points for the career information theme on the CPI. There was a high standard deviation ranging from 8.17 to 9.19 between results in each sample showing although there was an increase in CPI scores, it was not significant. As shown in Table 7, there was a decrease in averages between first and second year students and between second and third year students, but there was a slight increase between third and fourth year students.

Summary

Research question one found there was a significant correlation between the CPI and MVS. Although the results from question two did not as clearly answer the question posed as did the results from question one, it is still worthwhile to examine these results. The next chapter will discuss the results found for both research questions in this study and implications for future research.
Chapter V: Discussion

Research Question One

The following will discuss the results that were found in response to question one and the implications for further research. Areas discussed will include significance of correlation coefficients, error associated with tests and implications for validity. Areas needing further research are also discussed.

Based on the correlation coefficients between the MVS and CPI for each of the selected themes, there was moderate correlation between scores on these tests. According to Gay and Airasian (2000), a correlation coefficient of 0.60 is considered adequate for group prediction purposes, but not considered totally reliable or necessarily adequate for individual prediction purposes. Gay and Airasian (2000) also commented that for most social sciences research, including test development, anything above (±) 0.5 is considered to be moderate correlation because there are so many factors involved when working with human subjects. Correlation coefficients below (±) 0.5 may also be considered significant if a higher degree of error or other circumstances exist within the tests (Gay & Airasian, 2000).

In this study, career decision-making, self-knowledge, career information and career attitudes had moderate correlation between themes on the CPI and MVS with correlation coefficients between -0.52 and -0.615. Goal planning had a correlation coefficient of -0.492, which was below the (±) 0.5 correlation coefficient needed for
moderate correlation, but it may still be considered significant based on research mentioned previously (Gay & Airasian, 2000).

Based on the correlation coefficients, some inferences may be drawn. Some concurrent validity between the selected themes on the CPI and MVS was found. Themes studied where moderate correlation occurred were: career decision-making, self-knowledge, career information and career attitudes themes which had correlation coefficients of -0.572, -0.615, -0.526 and -0.520 respectively. The moderate correlation coefficients found were important because based on the information from Gay and Airasian (2000), this correlation was adequate for group prediction purposes. Goal planning did not satisfy the 0.5 correlation coefficient test, but it still may be considered significant due to a possible higher degree of error between the MVS and CPI. One possible explanation for the lower correlation coefficients was items within the goal planning theme on one or both tests were not measuring the same construct. Another possible explanation for the lower correlation coefficient within goal planning was the limited sample size. Small differences between tests and individuals when samples were small, may create large errors (Nunnelly, 1978).

Sources of Error

Some of the possible sources of difference between the two tests which would lower correlation coefficients were test items measuring different things, variations between study participants, or small sample size. Under certain circumstances these sources of difference may cause large amounts of error. Further research would need
to be completed in order to measure the effect these potential sources of error may have on correlation coefficients.

To determine whether test items were measuring the same construct, one would have to run a principle components analysis (PCA) on the data sets to see which plane or planes the data sets were revolving around. This analysis should be used to determine whether items within the CPI and MVS are measuring the same things as well as determining if the same constructs are being measured between the two tests. If all items for each theme measured the same construct, this possible source of error could be eliminated. If items all within each theme were not measuring the same construct, test revision would be needed because error associated with correlation coefficients would be the fault of the survey questions.

Another source of error could be due to participant variation because people may differ greatly in their maturity and development even if they have the nearly same age or academic standing. Small differences in age and academic standing may greatly affect development and maturity. Developmentally, a first year student and a fourth year student have significantly different needs (Levinson, Ohler, Caswell & Kiewra, 1998).

Finally, if the sample size was not large enough, small differences between participants may have large effects on correlation coefficients. When sample sizes are small, it may amplify small difference in responses creating artificially high variability (Nunnely, 1978). To reduce this perceived variability, increased sampling
should occur. Gay and Airasian (2000) suggested populations of 5,000 or above should sample between 400 and 500 people.

Some of these future research areas may also help to clarify the results within this study for research question two. If test design was at fault for the level of correlation coefficients being closer to (±) 0.5 than (±) 1.0, it may also have contributed to the lack of consistency between scores across academic standing within research question two. In any case, further study is needed to verify concurrent validity in order for the Career Perspectives Inventory to become a widely used assessment.

Research Question Two

The results found related to research question two and implications for further research will be discussed. Topics for discussion are significance of means and standard deviations for each theme across academic standing level and error within each theme. Possible future areas of research will also be discussed. Table 7 in the previous chapter summarizes information about each of the themes across level of academic standing.

Means and Standard Deviations

For six of the ten themes on the CPI, there was a decrease in the mean of the scores between first and second year students. This phenomena occurred for the themes of career responsibility, self-knowledge, career attitudes, career exploration, life roles and career information. Although not considered statistically significant because of the high standard deviations between data sets, there are some inferences
that may be drawn. Geraghty (1996) suggested students who persisted until their second year obtained a better understanding and awareness of themselves and their career needs, thereby increasing their level of career concerns and decreasing the level of career development exhibited. First year students endured a high number of changes such as moving away from home, dealing with college academics and adult responsibility which allowed for greater awareness of their career needs during their second year of college (Super, Osborne, Walsh, Brown & Niles, 1992).

Goal planning was the only theme that increased steadily over all four years. While not considered significant because of the high standard deviations, there was an overall increase in means between first and fourth year students. Orndorff and Herr (1996) pointed out, regardless of other factors present, most students participated in goal planning on some level throughout their lives. Whether formal or informal, goal planning in relation to careers was important.

For the career decision-making theme there was a small decrease in the scores between second and third year students. Orndorff and Herr (1996) explained that choosing a major may cause some career decision-making issues that were not present earlier. Students were often forced into choosing a major before they were ready and once they realized the wrong decision was made, it caused anxiety and other related problems (Orndorff, & Herr, 1996). At Grand Valley State University, students must declare their major by the end of their second year which may be evident in the decreases in means between second and third year students.
Career diversity decreased slightly between third and fourth year students. Some causes for this decrease could be due to students in their final year beginning to look for employment and realizing they did not know enough about the opportunities available to them or have familial or cultural influences that cause changes in plans (Mohr, Eiche & Sedlacek, 1998). Further investigation would have to take place in order to confirm this possible reasoning.

Career motivation scores increased slightly between first and second year students and by a large amount between second and third year students and again between third and fourth year students. Although not considered significant amounts because of the high standard deviations, this increase in means may be indicative of change caused by choices students are forced to make in their second and third years of college. As with the career decision-making theme mentioned previously, this shift in motivation may be explained through the choosing of a major (Orndorf & Herr, 1996). Once a student has chosen a major, many other factors are involved. Many majors require practical experience through internships which may motivate students to excel in their chosen field (Luzzo, McWhirter & Hutcheson, 1997).

Career information scores dropped several points between the first and second year students and again between the second and third year students. According to Geraghty (1996), students just starting college may have had a smaller picture of the information available related to careers than students who were farther along in their academic programs. Geraghty (1996) also said, later in their academic programs, students realized they have needs for career information. Delayed acknowledgement
of needing career information may provide explanation for the decreased scores on the CPI between students in their first year through third years.

Error within themes

Of the 99 participants used in research question two, there were 44 first year students, 14 second year students, 23 third year students, and 18 fourth year students. As a result, although there were students in each of the classifications, the samples were difficult to compare because of the large difference in sample size. Another issue was that samples were not large enough to allow for variability within each theme and academic level. Because sample sizes for second, third and fourth year students were not very large, a few data points outside of the mean increased the standard deviation significantly. Due to the discrepancy in sample sizes between levels of academic standing, it was difficult to accurately compare themes across academic standing.

Even with the differences in sample size, it is still worthwhile to examine the results of research question two. The high variations within academic year students found in this study could be due to a number of factors. The variations may indicate that there were other significant differences between students not taken into consideration in this study. These factors might include age, GPA, major choice or ethnic and socioeconomic background.

Age may indicate a large difference on the maturity and responsibility of individuals. Differences in maturity and responsibility may cause differences in career development. According to Herr (1982), age may be a factor on the maturity
level of individuals and their ability and motivation to participate in meaningful career development activities. Participants in this study were between the ages of 18 and 25 with 18-22 being the most common ages of participants. Small differences in age created large differences in maturity level between students (Levinson, Ohler, Caswell & Kiewra, 1998). Due to the high degree of maturity difference between students of relatively close ages, age may have contributed to some of the high standard deviations.

GPA's are important because two students with other factors equal, where one is struggling in school and the other is not, may exhibit different career development concerns or needs. According to Geraghty (1999), students who have academic difficulty may not have the time or resources to participate in career development processes that other students without academic difficulty may utilize. GPA may be an indicator of how well a student is doing academically.

As with many other factors that distinguish students, their choice of major may also be indicative of the career development needs and may affect career development test scores. Major choice affected the types of employment a student sought after graduation. It also was indicative of the level of academic rigor needed to complete a program. Students in engineering have different academic needs than those in English which also affects their career development needs (Sampson, Peterson, Reardon & Lenz, 2000). This factor has importance when considering test scores between individuals with other factors similar, but who have chosen vastly different majors.
Differences in background including socioeconomic, ethnic, and geographic may also have caused differences in achievement on career development inventories. Family beliefs (Larson & Wilson, 1998), academic preparation (Kompelien, 1996), and access to resources (Perosa & Perosa, 1997) all may play a part in how a student scores on a development measure. Overall, age, GPA, major, ethnic and socioeconomic background might be significant factors when determining linear progression of career development, however this study did not take these factors into account.

Assumptions were made that the ten themes on the Career Perspectives Inventory should have shown an increase in development between students at different points in their academic careers. This assessment was made based on previous research available. Based on the results from this study, development may not occur in a linear progression. According to Super, Osborne, Walsh, Brown and Niles (1992), career development has often been thought of as having a peak, but recent findings suggested career development may have no peak, one peak or several peaks. Based on this recent research, if development does not occur in a linear progression, comparisons between students with different levels of academic standing may be irrelevant.

**Future Research**

The size and scope of the sample in this study was a limiting factor in obtaining the type of information desired to answer research question one. A larger sample for future studies would be a benefit because it would allow for a more
accurate representation of the variability between study participants. More selective sampling would also help to ensure that equal numbers of first year through fourth year students were used as well as eliminating some of the sampling error that may be present. Equal samples across academic standing would help to provide more comparative data. Age, GPA, major choice or ethnic and socioeconomic background would also be beneficial factors to take into consideration in future studies.

Another research focus that might be helpful for further studies would be to do a longitudinal study. Question two of this study focused on looking at difference in development between students with differences in academic standing. Because people may differ vastly, it might be more helpful to look at differences in test scores of selected individuals over a period of time. For example students could be tested at the beginning and end of their first year or every year during their academic career from their first to last year in college. This would show whether over time, the Career Perspectives Inventory may be predictive of career development.

Studying students who are either decided or undecided about their college major or career choice could be another area of focus for future research. Students who are more decided about career choices may need different services and programs than those who are undecided about their futures. This test may be able to serve as a diagnostic tool to assess specific areas of need and alleviate roadblocks that may impede success.

Perhaps most importantly, further piloting of the Career Perspectives Inventory is also needed. Piloting allows the researcher to gain information regarding
the fit of items within the test. Each item should be examined for its predictive validity.

Conclusion

Research question one asked whether a correlation between selected themes on the Career Perspectives Inventory (CPI) and corresponding items on the My Vocational Situation (MVS) existed. Results from the investigation of this question indicated there was a moderate correlation between the CPI and MVS for the career decision-making, self-knowledge, career information and career attitudes themes and low to moderate correlation between the CPI and MVS for goal planning.

Research question two asked whether there were differences in responses, between participants on the CPI, based on their reported academic standing. Results from the investigation of this question indicated there were no significant differences in scores between levels of academic standing across themes due to high standard deviations. Some inferences were made regarding increases and decreases in means within themes across level of academic standing, however further research is needed.

Additionally, further research is needed to validate the Career Perspectives Inventory and provide a degree of reliability for practitioners wishing to use this assessment. Career assessment instruments take time to validate due to the high number of subjects needed to assess its predictive validity and reliability. In any case, further study is needed to verify concurrent validity in order for the Career Perspectives Inventory to become a widely used assessment.
References


Appendix A

Please note: Taking this career survey is a voluntary decision. You do not have to complete this career survey. Return it to the test administrator. Nonparticipation in the career assessment will not result in differential treatment by staff members of the Counseling Center. If you have questions or concerns, please contact [1] Dr. John Zaugra of the Counseling Center at 895 - 3266 or [2] Professor Paul Huizenga of the Biology Department at 895 - 2472 or 895 - 2470.

Career Perspectives Inventory
Directions: Please read the statements carefully. Use the following scale to show your degree of agreement with each statement:

Use a pencil to blacken in the oval which contains the number showing how much you agree with each statement. Be certain to pencil in the oval. Don't stray. Be honest and have a good assessment experience.

SD = Strongly Disagree  D = Disagree  U = Uncertain  A = Agree  SA = Strongly Agree

1. Career planning requires having goals
2. Career decision making is a difficult task.
3. I am responsible for my class assignments.
4. I have a working knowledge of my interests, abilities, and values.
5. Career attitudes influence how we work with others.
6. A person's background influences selecting career alternatives.
7. Being enthusiastic is essential for career development.
8. Exploring career fields is vital for making choices.
10. Differences between public and private employment are vital to making career choices.
11. Evaluating our strengths and weaknesses is important to identifying goals.
12. Occupational information is helpful for making career choices.
13. My class productivity is effective.
14. Understanding my traits is important to career planning.
15. Attitudes affect how others view us.
16. Individuals have multiple potentials.
17. Individuals cause their own success.
18. Talking to workers is a way of exploring jobs.
19. Work requires life long learning and education.
20. Using job information projections leads to improved decision making.
21. Goals cause us to learn.
22. Gender plays a role in career decision making.
23. Meeting my obligations is satisfying.
24. I know how to accomplish things in class.
25. Our efforts determine if work tasks are completed on time.
26. Women and men work successfully in the same occupation.
27. Income is a source of motivation for some individuals.
28. Researching occupations leads to learning about career fields.
29. An example of a life role is that of a classroom teacher.
30. Web Pages are useful sources of career information.
31. Career goals are personal.
32. Career indecision leads to dropping out of school.
33. I value choosing my classes in school.
34. I know how to begin my class assignments.
35. Group harmony shapes our career attitudes.
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</thead>
<tbody>
<tr>
<td>36. Classifying individuals may limit employment opportunities.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>37. Motives change when we learn new skills.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>38. Job shadowing is a way of exploring career fields.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>39. Being productive is an important worker role.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>40. Job shadowing is often thought of as a source for career information.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>41. Preparing for career goals requires organized efforts.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>42. Career decision making is a logical and a rationale process.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>43. I cause my own failure.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>44. I am generally confident in my career decisions.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>45. Working well with others is an example of cooperation.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>46. The ability to speak a foreign language is an advantage for employment.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>47. Sources of career information are diverse.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>48. Career networks help our understanding of businesses.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>49. What we do in life shapes our career decisions.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>50. Informational interviewing is a means to acquire career information.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>51. Goals give direction to our career alternatives.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>52. Life values play important roles in career decision making.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>53. Engaging in tasks helps me fulfill my responsibilities.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>54. My writing skills are &quot;good enough&quot; for most jobs.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>55. Career attitudes are influenced by our culture.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>56. Career opportunities are affected by our gender.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>57. Career motivation is purposeful.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>58. Internships are excellent activities to examine career alternatives.</td>
<td>SD</td>
<td>D</td>
<td>U</td>
<td>A</td>
<td>SA</td>
</tr>
</tbody>
</table>
59. Age is an important aspect of our life role.

60. The Dictionary of Occupational titles is useful to learn about job duties and tasks.

61. Individual plans lead to achieving goals.

62. Career choices are influenced by family values.

63. I complete my responsibilities in a timely manner.

64. I work best by setting goals.

65. What we read shapes our career attitudes.

66. People of color have limited career opportunities.

67. Wanting to plan for the future is essential for career development.

68. Examining relations between school and work is beneficial.

69. Women and men can work at similar jobs.

70. Newspapers and magazines are good sources of career information.

71. What we do gives meaning to our goals.

72. Career decision making requires a compromise among variables.

73. I create my own success as a worker.

74. Culture plays a role in my life as a worker.

75. Understanding feedback influences how we work.

76. Disabilities limits career choices.

77. Mentors help us achieve our goals.

78. Joining job clubs is a way of learning what people do on the job.

79. Gender influences assigned job roles.

80. Resumes reflect our career accomplishments.

81. Goal planning requires doing things.
82. Your age plays an important role in deciding upon a career.  
83. I am comfortable in developing my career plans.  
84. I have a sense of purpose and direction in life.  
85. Loyalty is an important quality in employee-employer relationships.  
86. Cultural awareness is important for job interviewing.  
87. Summer employment causes us to move forward to seek other jobs.  
88. Networking is a worthwhile means of contacting people about jobs.  
89. Understanding career values influences our thoughts about family roles.  
90. Where you work might be more important for job satisfaction than salary.  
91. Others respect us for having goals.  
92. Exploring different cultures improves career choice selection.  
93. Being responsible is OK.  
94. Personal information and career information is useful for career planning.  
95. Attitudes influence our performance and achievement.  
96. Engaging in diversity hinders career decision making.  
97. Our culture motivates us.  
98. Public employment agencies provide people with local career information.  
99. Personal attitudes influence our community relations.  
100. Interests are a basis for understanding jobs.
Appendix B

my vocational situation

Name __________________________ Date _______ M _ F _ Age _______
Education completed ______________ Other ________________________

List all the occupations you are considering right now.

_________________________________   _________________________
_________________________________   _________________________
_________________________________   _________________________
_________________________________   _________________________
_________________________________   _________________________

Try to answer all the following statements as mostly TRUE or mostly FALSE. Circle the answer that best represents your present opinion.

In thinking about your present job or in planning for an occupation or career:

1. I need reassurance that I have made the right choice of occupation. T F
2. I am concerned that my present interests may change over the years. T F
3. I am uncertain about the occupations I could perform well. T F
4. I don't know what my major strengths and weaknesses are. T F
5. The jobs I can do may not pay enough to live the kind of life I want. T F
6. If I had to make an occupational choice right now, I am afraid I would make a bad choice. T F
7. I need to find out what kind of career I should follow. T F
8. Making up my mind about a career has been a long and difficult problem for me. T F
9. I am confused about the whole problem of deciding on a career. T F
10. I am not sure that my present occupational choice or job is right for me. T F
11. I don't know enough about what workers do in various occupations. T F
12. No single occupation appeals strongly to me. T F
13. I am uncertain about which occupation I would enjoy. T F
14. I would like to increase the number of occupations I could consider. T F
15. My estimates of my abilities and talents vary a lot from year to year. T F
16. I am not sure of myself in many areas of life. T F
17. I have known what occupation I want to follow for less than one year. T F
18. I can't understand how some people can be so set about what they want to do. T F
For questions 19 and 20, circle the Y if your answer is YES, the N if your answer is NO.

19. I need the following information:
   - How to find a job in my chosen career. Y N
   - What kinds of people enter different occupations. Y N
   - More information about employment opportunities. Y N
   - How to get the necessary training in my chosen career. Y N

Other: ____________________________________________

20. I have the following difficulties:
   - I am uncertain about my ability to finish the necessary education or training. Y N
   - I don’t have the money to follow the career I want most. Y N
   - I lack the special talents to follow my first choice. Y N
   - An influential person in my life does not approve of my vocational choice. Y N

Anything else? ______________________________________

Other comments or questions: ____________________________________________

________________________________________

Consulting Psychologists Press, Inc.
www.cpp-db.com  800-624-1765
February 20, 2001

Sharon Gherity
Counseling and Career Development Center
204 STU

RE: Proposal #01-137-H

Dear Sharon:

Your proposed project entitled Career Perspectives Inventory Validation Investigation has been reviewed. It has been approved as a study, which is exempt from the regulations by section 46.101 of the Federal Register 46(16):8336, January 26, 1981.

Sincerely,

Paul A. Huizenga, Chair
Human Research Review Committee
Human Review Research Committee
Grand Valley State University
Allendale, MI 49401
February 5, 2001

To: Review Committee
Fr: John Zaugra, Ed. D.
   Counseling and Career Development Center
Re: Sharon Gherity

Permission is granted to Sharon Gherity to use the Career Perspectives Inventory [CPI] to collect data for her GVSU Master's of Education thesis. She will assist in the data tabulation and validation of the CPI.

The CPI consists of ten different career themes with questions linked to each theme. The purpose of the inventory is to assist students to report on their affective career abilities. The career themes include: goal planning, career decision making, career responsibility, self-knowledge, career attitudes, career diversity, career motivation, career exploration, life roles, and career information.

Sharon is currently enrolled in Ed 695 Research Methods where she has discussed her thesis proposal with appropriate School of Education faculty.

It is my expectation that once her thesis has been completed, it will be cataloged with the GVSU library.
GRAND VALLEY STATE UNIVERSITY  
ED 695 DATA FORM  

NAME: Sharon Gherity  

MAJOR:  
- Ed tech  
- Elem. Ed  
- Elem. LD  
- CSAL  
- Ed Leadership  
- G/T Ed  
- Sec LD  
- Read/Lang. Arts  
- Sec/Adult  
- Early Child  
- SpEd PP  

TITLE: An Investigation of the Validity of selected themes in the Career Perspectives Inventory (CPI)  

PAPER TYPE: (Choose only 1)  
- Project  
- Thesis  

SEM/YR COMPLETED: Winter 2001  

Using the ERIC thesaurus, choose as many descriptors (5-7 minimum) to describe the contents of your paper.  

1. Validity  
2. Career Development  
3. Career Assessment  
4. Decision-Making  
5. Career Inventory  
6. Test Development  
7. Career Guidance  
8.  
9.  
10.  

ABSTRACT: Two to three sentences that describe the contents of your paper.  

This study investigated the concurrent validity of the Career Perspectives Inventory using the My Vocational Situation Inventory for correlation and examined development exhibited between study participants of differing academic standing. Results indicated there was moderate correlation between themes in common between the CPI and MVS.
Grand Valley State University  
School of Education  
Assessment for EDG 695/EDR 695/EDS695  
Research Applications  

Student Name: Sharon Gherity  
Social Security #: 473-92-3540

CHAPTER ONE: Student Faculty
(Objective 2 An understanding of current issues in their field)

Demonstrates in-depth understanding of at least one issue in their field.
1. Describe why this problem/issue is worthy of study. 1-2  
2. Identify resources that strengthen the case. 1-2  
3. Give succinct history of the problem/issue. 2-3  
4. Describe options for addressing the problem/issue. 1-5  
5. Articulate why the option selected was chosen. 4-7

CHAPTER TWO
(Objective 1 An understanding of the recent research in their field)  
(Objective 4 Demonstrate the ability to critically analyze and synthesize existing and emerging knowledge and pedagogy in their major area.)

6. Includes recent and seminal sources in review of literature. 8-37  
7. Includes statement of generalization that are supported by the cited research. 8-37  
8. Finds, integrates and evaluates related work (compare/contrast, categorize). 8-37  
9. Provides a summary of their literature. 8-37

CHAPTER THREE
(Objective 3 Demonstrate the effective use of research methods appropriate to their field of concentration.)  
(Objective 5 The ability to communicate concepts germane to their major area effectively to others through various kinds of literacy e.g. numeracy, graphics, printed text, computers and electronic data.)  
(Objective 6 Demonstrate the ability to adapt their work to the needs of their clients.)

10. Gives insight into the methods of other researchers. 38-66  
11. Systematic and comprehensive description of the development/design of the project. 38-46  
12. Communicates findings in the context of past work. 56-66  
13. Written in a style that address the needs of the clients (students, teachers, administrators, parents, school board etc.) 1-71  
14. Provides recommendations for further research and/or dissemination. 64-66

Faculty Signature: [Signature]  
Date Reviewed: 5-29-01