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**Career development assessment of at-risk students: Implications
for a dropout prevention model**

Enzor, Harriet Leigh, Ph.D.

The University of North Carolina at Greensboro, 1991

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CAREER DEVELOPMENT ASSESSMENT OF AT-RISK STUDENTS:
IMPLICATIONS FOR A DROPOUT PREVENTION MODEL


by

Harriet Leigh Enzor

A Dissertation Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of Requirements for the Degree
Doctor of Philosophy

Greensboro
1991

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APPROVAL PAGE

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1991 by Harriet Leigh Enzor

ENZOR, HARRIET LEIGH, Ph.D Career Development Assessment of At-Risk Students: Implications for a Dropout Prevention Model. (1991) Directed by Dr. Larry Osborne. 121pp.

Career development of at-risk and non-at-risk students was assessed using the Career Development Inventory (Thompson & Lindeman, 1981), The Saliency Inventory (Nevill & Super, 1986a) and The Values Scale (Nevill & Super, 1986b) to provide recommendations for dropout prevention programs.

Super's Career Development Assessment Model was used as a framework to investigate career development in relation to socioeconomic status, race, gender, role commitment and values of at-risk students compared to non-at-risk students.

The total sample size was 93 participants. For the at-risk group, there were 13 ninth-graders and 20 10th-graders from Gillespie Park Education Center, an alternative school for at-risk students in Greensboro, North Carolina, including 13 black females, 14 black males, three white females and three white males. The majority of these students ranked from below average to low socioeconomic status. Sixty non-at-risk 10th-graders were randomly selected from the four Greensboro public high schools, including 19 black females, 11 black males, 16 white females, 12 white males, one Asian female and one East Indian male. The majority of these students ranked from average to high in socioeconomic status. Both groups averaged in ages from 15 to 16.

ANOVA's conducted to investigate the effect of socioeconomic status, race, gender, and at-risk on career development showed that students in below average socioeconomic status, black and at-risk of dropping out of school students had less information for making appropriate career decisions and were limited in their knowledge of the working world as compared to average to high socioeconomic status, white and non-at-risk students. Socioeconomic status had no effect on commitment to studying, working, community service, home and family or leisure. At-risk students were significantly less committed to community service and leisure roles than were non-at-risk students.

Pearson correlations indicated that role commitment and values significantly correlated with one or more career development areas: Career Planning, Career Exploration, Career Decision Making and World of Work Information. Socioeconomic status did not correlate with values at the .000 level of significance. The Kolmogorov-Smirnov two-sample test revealed no significant differences in values between at-risk and non-at-risk students.

ACKNOWLEDGMENTS

I wish to thank my committee, Dr. Larry Osborne, Dr. Rita O'Sullivan, Dr. William Purkey, Dr. Rebecca Smith, and Dr. Anthony DeCasper, particularly Dr. Osborne, my chairman. I would like to thank Dr. Donald E. Super for sharing his expertise in the area of career development. I wish to also thank Ms. Tamara Morgan and the students and staff at Gillespie Park Education Center, Dudley, Page, Smith, and Grimsley High Schools for their assistance in the collection of data. A special thanks goes to my family for their continuous support throughout this endeavor.

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CHAPTER I
INTRODUCTION

Assisting students in the successful completion of high school and facilitating their future career success has become an increasing concern for educators and researchers.

In 1983, the National Commission on Excellence in Education reported that 87% of pregnant teens were high school dropouts and 52% of dropouts were unemployed or receiving welfare. The resulting cost to the American public was \$75 billion in welfare benefits and lost tax revenue. Sixty percent of prison inmates were high school dropouts, with each inmate costing approximately \$15,000 a year to house. The report further stated that the solution of the dropout problem and eliminating the unnecessary spending that goes with it would enable the United States to wipe out the entire national debt by 1990 (Kunisawa, 1988).

Programs have been implemented in school systems for the purpose of trying to keep at-risk students from dropping out of school. For example, vocational classes are offered to students in the 11th- and 12th-grades. However, at-risk students usually drop out before reaching the 11th-grade (Ekstrom, Goertz, Pollack, & Rock, 1986; Hammack, 1986; Lotto, 1982) and are typically in a general education track, not a vocational track (Lotto, 1982; Mertens, 1986).

According to Lotto (1982), there is no clear-cut evidence that placement in vocational education classes is a strong enough deterrent for holding students in school. In addition, vocational programs and job placement programs provide limited instruction to students about understanding a constantly changing economic society (Kunisawa, 1988) and the educational coping skills to compete in such a society (Hamilton, 1986).

Forrest (1986) stated that society continues to become increasingly complex and technological. Without adequate academic skills and appropriate career development, students at risk of dropping out will find themselves within a society where future success is limited, if at all possible (Cairns, Cairns, & Neckerman, 1987; Wehlage & Rutter, 1986). Students who drop out have two choices in the world of work: either no employment or underemployment (Alpert & Dunham, 1986; Fine, 1986; Wehlage & Rutter, 1986). The dropout becomes trapped in a low paying job with little prestige (Alpert & Dunham, 1986; Wehlage & Rutter, 1986). These dropouts enter the world of work ill equipped to find rewarding careers. Jobs that were previously available to the unskilled dropout are becoming obsolete because high technology demands have increased the need for more highly skilled workers. This limits the opportunity of the dropout to find satisfying and productive employment (Hamilton, 1986; Wehlage & Rutter, 1986).

At-risk students have interrelated problems. These students have limited resources for appropriate career development, therefore limiting their possibilities for successful employment and successful careers (Ekstrom et al., 1986; Mann, 1986). To understand this special population of at-risk students, it is imperative to know their aspirations, values, life style and environment (Crites, 1981; Fine, 1986). Educators have a responsibility to work with these students early in their development by helping them to start thinking about themselves, their interests, values and the process of occupational and self exploration (Fine, 1986; Wehlage & Rutter, 1986). Research has suggested that at-risk students have difficulty making decisions (O'Sullivan, 1988), implementing career plans (Fine, 1986; Wehlage & Rutter, 1986) and are exposed to limited resources (Cairns et al., 1987). These students need help in assessing their career preferences, potential, values and life direction (Forrest, 1986).

Research Problem

The purpose of this research study was to (1) assess the relationship between socioeconomic status, race, gender, role commitment and values as independent variables and the four scales of the Career Development Inventory as dependent variables for at-risk and non-at-risk 10th-grade students, (2) investigate the differences between the career maturity level, as measured by the Career Development

Inventory, of those students identified as at-risk and the career maturity level of non-at-risk students, (3) investigate the differences between role commitment, as measured by The Salience Inventory, of at-risk and non-at-risk students, (4) examine the differences between values, as measured by The Values Scale, of at-risk and non-at-risk students, (5) examine the relationship between career maturity and dropping out of school, (6) examine the relationship between role commitment and dropping out of school, (7) assess the relationship between values and dropping out of school and (8) assess the four scales of the Career Development Inventory (Career Planning, Career Exploration, Decision Making and World of Work), the five role commitment scales of The Salience Inventory and The Values Scale scores as predictive variables of dropping out. This study was conducted at Gillespie Park Education Center, an alternative school in Greensboro, North Carolina and at the four area accredited traditional Greensboro City high schools.

All of the issues covered by these research questions including career maturity, role commitments and values come under the heading of career development. Career maturity, an aspect of career development, is based on an individual's makeup or traits, how and why one behaves in certain ways, the information one has to make appropriate career decisions, the degree of motivation for work or for a career

and the access to information about occupations (Nevill & Super, 1986b; Super, 1983). Role salience, another aspect of career development, is measured by how much importance one attaches to work roles, study roles, home-and-family roles, community roles and leisure activity roles (Super & Nevill, 1984). Values are also an aspect of career development. According to Nevill and Super (1986b), values influence life choices and interests. An individual's attitude toward life choices affects one's satisfaction toward those life choices (Nevill & Super, 1988). Assessing these values helps predict what an individual may choose for a career (Nevill & Super, 1986b). Because much of the research on career maturity, role commitment and values has been limited to the traditional high school population, it has been suggested that more research be conducted on special populations, such as the at-risk of dropping out of school population (Ryan & Levinson, 1988; Super & Nevill, 1984).

Nature of the Study

The intent of this research study was to examine the career maturity, role commitment and value differences between at-risk students and non-at-risk students using the Career Development Inventory, The Salience Inventory and The Values Scale inventory and to suggest implications for counseling and guidance programs based on the results. The data were to be used to compare students who had dropped out

of school prior to second semester and those students who stayed for the 1989-1990 school year.

Need for the Study

The dropout phenomenon is a complex problem. Data obtained from Computer Services, Greensboro Public Schools, Greensboro, North Carolina, indicated Gillespie Park Education Center, an alternative school, continues to have a high rate of dropouts. Table 1 illustrates the number of 10th-grade dropouts over a six year period.

At-risk students at Gillespie Park Education Center receive basic instruction in classes required for high school graduation (GPEC Handbook, 1988). Instruction takes place during the afternoon and evening from 2:00 p.m. to 8:00 p.m. There are limited electives to choose from and no foreign languages or advanced level sciences, English or mathematics classes are offered.

Career assessment and vocational education are limited at the school. Without adequate academic skills and appropriate career development assessment, at-risk students will find themselves in a society where future success is limited (Cairns et al., 1987), trapped in low level paying jobs with little prestige (Alpert & Dunham, 1986) and will suffer frustration and indignity (Wehlage & Rutter, 1986).

Significance of the Study

Data collected for this study can be used to help plan career education programs that would meet the needs of

TABLE 1

10th-Grade Dropout Rate for Gillespie Park

<u>Year</u>	<u>Enrollment</u>	<u>Number of Dropouts</u>	<u>Percent</u>
82-83	222	121	55%
83-84	183	119	65%
84-85	179	94	53%
85-86	215	110	51%
86-87	197	112	57%
87-88	172	107	62%

at-risk students. This study will provide information to school systems to increase awareness and knowledge of the career development of at-risk students. This information can be used to develop dropout prevention programs for the purpose of increasing the at-risk students' chances for success in achieving career aspirations, increasing their knowledge of career opportunities and their chances of successfully competing in a continuously changing high technological society.

Definition of Terms

The following key terms are operationally defined and refer to the dependent and independent variables used for this study and their method of measurement.

At-Risk Student

The "at-risk student" refers to students attending Gillespie Park Education Center. These students are usually returning dropouts, potential dropouts, underachievers, working students and teen parents. The regular school setting is inadequate to meet their needs. These students are referred to Gillespie Park Education Center based on a needs assessment conducted by the school-based assessment committee or by the school principal. Needs assessments outline academic difficulties, behavior problems and special circumstances, such as pregnancy.

Non-At-Risk Student

The "non-at-risk student" refers to a group of randomly

selected 10th-grade students attending the four area traditional accredited Greensboro City high schools. It is recognized that some of this randomly selected sample may also include unidentified at-risk students who may be attending a traditional four year high school.

Dropouts

Dropouts are those students who withdraw from school before successfully completing graduation requirements and have indicated no plans to reenter or to transfer to another school. These students are assigned a W-2 code by the Greensboro Public Schools. For this study, dropouts are those 10th-grade students who do not return to school for second semester, which begins the month of January.

Career Development

Career development is a lifelong developmental process that involves the relationship of education, work, home and community (Ryan & Levinson, 1988). Career development includes occupational awareness, career planfulness, career exploration, career decision making, life role commitments and values in life (Super, 1983). Changes take place in career development as one gets older, (Super, 1980), as one's social responsibilities increase (Thompson & Lindeman, 1981) and as one's self-concept develops (Gottfredson, 1981).

Career Maturity

Career maturity is one aspect of career development.

Career maturity can be viewed as a developmental process occurring over an individual's life-span (Super, 1980). Career maturity, or readiness, can be measured by the Career Development Inventory (Super, 1983). This inventory consists of five basic scales: Career Planning, Career Exploration, Decision Making, World of Work Information and Knowledge of Preferred Occupational Group (Thompson & Lindeman, 1981).

Role Commitment

Role commitment is based on how committed one is to work, home, school, community or leisure. The level of commitment to these roles, which affects career maturity, can be measured by The Salience Inventory (Nevill & Super, 1986b, Super, 1983). Role commitment, as measured by The Salience Inventory, is the degree to which one considers these roles important (Super & Nevill, 1984).

Values

Values, as measured by The Values Scale, relate to what one seeks or hopes to find in life. Values influence life choices and interests. Assessing these values may help one understand and even predict what an individual may choose for a career (Nevill & Super, 1986b).

Socioeconomic Status (SES)

Socioeconomic status was assessed by information collected from a Personal Data Form. The Form was developed for the purpose of collecting personal, demographic

information and to assess socioeconomic status. Questions are asked on job titles and duties of each parent and of the parent's highest grade completed in school. Parent occupations are coded according to the Occupational Level Scale, Hamburger's (1958) revision of the Warner Scale (Warner, Meeker, & Eells, 1949). The highest parental level is assigned as the socioeconomic status of the student (Super & Nevill, 1984). The Occupation Level Scale (Hamburger, 1958) is found to be the best single scale for measuring socioeconomic status (Nevill & Super, 1988).

Age

Age was obtained from the student's Personal Data Form. Students were asked to report their date-of-birth on the Form.

Sex/Race

This information was coded according to the system used by the Greensboro Public Schools, obtained from the student's Personal Data Form. White male is coded 01; White female 02; Black male 03; Black female 04; American Indian male 05; American Indian female 06; Asian male 07; Asian female 08; Hispanic male 09; and Hispanic female 00.

Organization of the Study

Chapter 2 consists of a review of the related literature. The review is divided into five sections: an overview of the dropout phenomenon, a profile of at-risk

students, a discussion of how career development is assessed, a section on the assessment of career development of at-risk students and a description of programs for keeping at-risk students in school.

The methodology used in this study and the research questions asked, the sample used, the sampling procedures, the inventories used for collecting information on career maturity, role commitment, and values, procedures to collect data, the analyses of the data and the limitations of the study are discussed in Chapter 3. The Results of the study are presented in Chapter 4 and a discussion of these findings is found in Chapter 5.

CHAPTER II

REVIEW OF LITERATURE

This review of literature has five sections. An overview of the dropout phenomenon is presented in the first section. This includes national, state and city reported dropout information and dropout identification issues. Information on at-risk students, including a characteristic profile of their personal characteristics, home-and-family issues, school issues and employment is presented in the second section. The third section includes information on career development assessment, including Super's (1983) developmental model of career assessment. Information on the assessment of career development for at-risk students is found in the fourth section. The fifth and final section includes an overview of programs in progress that have been developed to assist at-risk students and dropouts with academic and career success.

An Overview of the Dropout Phenomenon

National Reports

In 1985, 4.3 million students between 16 and 24 years of age dropped out of school. This included 500,000 who were white, 700,000 black and 100,000 of other ethnic origins. Sixteen percent were male and 12% were female (Barber, 1987). In 1986, the national dropout rate was

around 13.36% to 13.5% (Barber, 1987) and had increased to 25% in 1989 (Perry, 1989). This indicates that the national dropout rate continues to rise.

North Carolina State Reports

A 1983 statewide study found approximately 26% of these students entering the 9th-grade dropped out of school before graduating (North Carolina State Department of Public Instruction, 1986). Approximately 22,813 (6.7%) of North Carolina's high school students dropped out in the 1986-1987 school year. The State estimated the dropout rate to be 30% for males and 21% for females. Twenty-seven percent of the black student population were dropouts and twenty-four percent of the white student population dropped out (North Carolina Board of Education (NCBE), 1988).

North Carolina has become so concerned about the dropout problem that the North Carolina State Board of Education and the North Carolina State Department of Public Instruction have made dropout prevention a priority. The North Carolina General Assembly passed special legislation for the 1986-1987 fiscal year, allocating funds for the continuation of dropout prevention programs that had previously been funded by private foundations (Anderson & Drew, 1986).

The North Carolina State Legislature continues to act on issues that will increase the probability of keeping at-risk students in school. For example, a bill has been

introduced that would require all North Carolina youths to attend school until graduation or until the age of 18 ("Bill Limits," 1987). Another example is Senate Bill 81 and companion House Bill 123, which address delaying dropouts from getting driver's licenses (Harmon, 1987).

Greensboro City Reports

According to the 1988 North Carolina statistical dropout rate profile (North Carolina Board of Education, 1988), Greensboro had an estimated dropout rate of 7.6% for the 1986-1987 school year. This rate was greater than the State dropout rate of 6.7%. The annual dropout rate for the regular high school population in the 1986-1987 school year was 3.9%. Gillespie Park Education Center, an extended day program designed to keep at-risk students in school, had a 64.6% dropout rate. This means that 290 out of 449 at-risk students dropped out of the extended day program. These estimated dropout rates did not include the number of students who dropped out over the summer (NCBE, 1988).

For the 1987-1988 school year, 565 students dropped out of school. These students were more likely to be black males who had serious attendance problems, had been retained in the same grade at least once and dropped out in the 9th- or 10th-grade. These dropout students were enrolled in a general education course of study and had no future plans after leaving school (Harmon, 1989).

Identifying the At-Risk/Dropout

Much of the dropout data used in identifying at-risk students or profiling dropouts comes from national data collected by census bureaus or the National Center for Education Statistics (NCES). According to the NCES study, which began in 1980, the dropout rate is higher for males, higher for 11th-graders and higher for students whose grades are D's and below. White southerners are more likely to drop out than whites in other regions. Black southerners are less likely to drop out than blacks in other regions (Ekstrom, Goertz, Pollack, & Rock, 1986).

When the NCES report is compared to dropout data collected from large cities, the profile differs. Large cities, such as San Diego, Miami, Boston and Los Angeles report their dropouts are usually Hispanic or Black males, mostly dropping out around the 10th-grade (Hammack, 1986).

The procedures for identifying, defining and counting dropouts vary from state to state and school district to school district (Morrow, 1986). This variation limits the ability to generalize from other studies to the needs of local communities concerning their dropout problem (Morrow, 1986; Rumberger, 1986).

Problem identification and needs assessment of at-risk students should be a priority (Panizo, Cuevas, & Llabre, 1987). Many states are beginning to develop more comprehensive definitions and identification procedures for

the purpose of effective program development and more accurate data collecting procedures for State accountability (Shea & Kelly, 1987).

In summary, there are three dropout issues that continue to be a concern: (1) the dropout rate continues to increase year to year, (2) the inability of school systems to use similar dropout prevention programs from system to system because of varied procedures used to define and count dropouts and (3) the lack of individual needs assessment for identifying at-risk students.

The At-Risk Student

A consistent theme emerges in the research related to at-risk students and dropouts regarding their personal characteristics, home-and-family situations, school related issues and employment. At-risk students are more likely to experience prison sentencing (Alpert & Dunham, 1986), multiple pregnancies (Rossa, 1986), public welfare (Cairns et al., 1987) and unemployment (Fine, 1985, 1986).

Personal Characteristics

At-risk students are characterized as having low self-esteem (Timberlake, 1982; Wehlage & Rutter, 1986), a low self-image (Forrest, 1986) and a lack of positive self-identity (Ekstrom et al., 1986; Hedman, 1984). Their personalities are viewed as being fragile (Conrath, 1986) and feelings of being threatened or rejected (Little & Thompson, 1983; Pawlovich, 1985) may result in them becoming

hostile and defiant (Conrath, 1986; Pawlovich, 1985).

At-risk students have difficulty conforming to societal rules, regulations and guidelines (Anderson & Limoncelli, 1982; Lotto, 1982; Pawlovich, 1985; Poole & Low, 1982). Non-conforming is seen as a severe behavior problem which precipitates multiple school suspensions (Wehlage & Rutter, 1986), getting into trouble with the law (Polk, 1984) and possible drug use (Friedman et al., 1985).

Locus of control is another area where at-risk students have difficulty (Ekstrom et al., 1986; Fine, 1986; O'Sullivan, 1988; Poole & Low, 1981; Wehlage & Rutter, 1986). These at-risk students have a limited sense of control over plans, choices, circumstances or their futures. This problem is compounded by a lack of decision making ability (Anderson & Limoncelli, 1982; O'Sullivan, 1988).

Delaying gratification is another problem area. These at-risk students see little promise in becoming successful in school or in a career (Fine, 1985, 1986; Kunisawa, 1988; O'Sullivan, 1988). They see no value in completing high school (Fine, 1985) or how success can be obtained through an education (Kunisawa, 1988). These students express little value in self or their surroundings and demonstrate a lack of positive expectations in life (Kunisawa, 1988; Poole & Low, 1982; Wehlage & Rutter, 1986).

For the pregnant teen, there is little success in school and in finding worthwhile employment (Fine, 1985; Rossa, 1986). The National Longitudinal Survey of Labor Market Experience revealed that between 1979 and 1982, 2.7 million girls dropped out of school. One million dropped out of school for family reasons. Forty-five percent were pregnant, thirty-seven percent left school to get married and eighteen percent left school to look after younger siblings (Mann, 1986). The more family support given and school services provided, the more likely these adolescent mothers and fathers will complete high school (Rossa, 1986).

Home-and-Family Issues

Many at-risk students come from minority, low socio-economic, single parent families (Fine, 1985; Poole & Low, 1982). The family structure is disorganized (Anderson & Limoncelli, 1982), insecure and non-nurturing (Anderson & Limoncelli, 1982; Poole & Low, 1982). The family is usually living from crisis to crisis (Anderson & Limoncelli, 1982; Pawlovich, 1985). These families demonstrate a lack of encouragement for high aspirations (Pawlovich, 1985; Poole & Low, 1982) and are limited in providing information on career opportunities (Poole & Low, 1982).

Parents are often unwilling and/or unavailable to meet with school personnel due to feelings of intimidation, cultural barriers, holding down more than one job or simply

a lack of concern (Anderson & Limoncelli, 1982; Crites, 1981; Pawlovich, 1985; Poole & Low, 1982).

Rossa (1986) found three types of family situations when researching adolescent mothers. The first type was when teen pregnancy occurred in the home and the family usually provided support, but further aspirations were considered unimportant. Another type was where the family was not supportive and the teen parent was usually unable to return to continue an education. The third type was where the family provided strong support and encouraged high aspirations, but a second child by the teen caused an overwhelming breakdown in the support system.

All of these at-risk students are caught up in a family life cycle that becomes difficult to break (Cairns et al., 1987).

School Related Issues

At-risk students are perceived as low achieving (Cairns et al., 1987; Fine, 1985; Lotto, 1982; Poole & Low, 1982), low performing (Lotto, 1982; Poole & Low, 1982) and defeated learners (Conrath, 1986). These students are found to be of average intelligence (Anderson & Limoncelli, 1982), but differ in learning styles compared to the non-at-risk student. At-risk students function better in the evenings and respond more effectively to movement, tactile and auditory teaching strategies (Gadwa & Griggs, 1985). These students are motivated to learn (Fine, 1986; Gadwa & Griggs,

1985), but become easily bored with structure (Gadwa & Griggs, 1985). These at-risk students feel threatened by the traditional school environment and become hostile to how learning is presented (Conrath, 1986). Truancy or skipping school is one way they avoid the threat and the fear of being nameless (Conrath, 1986; Little & Thompson, 1983; Wehlage & Rutter, 1986).

According to Wehlage & Rutter (1986), the outcome of public schooling is to (a) acquire self-development, (b) learn to control circumstances, (c) make rational decisions, (d) learn self-management and (e) experience opportunities by applying knowledge and skills. This school experience is a critical factor in the adolescents' development of self-concept and self-identity (Alpert & Dunham, 1986).

One of the most frequently stated reasons given by dropouts for leaving school is their dislike of school (Fine, 1985; Pawlovich, 1985). Somewhere during the educational experiences of these at-risk students, the educational system failed to meet their needs before they dropped out (Hedman; 1984; Kunisawa, 1988; Wehlage & Rutter, 1986). Dropouts express boredom with school and see no value in the high school diploma (Alpert & Dunham, 1986; Fine, 1985; Kunisawa, 1988; O'Sullivan, 1988). These dropouts do not see education as a means for future success. They feel rejected and, therefore, reject the system (Pawlovich, 1985).

Kunisawa (1988) stated that educators have failed to teach at-risk students responsibility, the value of hard work, commitment and gratification delay of career success through an education. Educators lack awareness of the severity of the at-risk problem (O'Sullivan, 1988; Poole & Low, 1982). There is poor communication between students and teachers (Uhrmacher, 1985), failure to positively reward (Conrath, 1986) and failure to perceive the students' individuality (Hedman, 1984; Uhrmacher, 1985).

The 1983 National Center for Education Statistics report revealed a general discontent over teacher/student relationships. Students rated teacher interest and discipline effectiveness low. These students felt they received negative messages about themselves from the school environment. The report also indicated at-risk students did have greater discipline problems than did other students, with black students acquiring more serious disciplinary school problems (Wehlage & Rutter, 1986).

To understand this special population of at-risk students and to provide adequate, effective programs for keeping at-risk students in school, it is imperative to know their aspirations, values, life styles, career awareness and environment (Crites, 1981; Fine, 1986). At-risk students must be given the opportunity to look at themselves in relation to career and educational opportunities. Educators must help students make the connection between

education and success (O'Sullivan, 1988). Students need encouragement to establish goals and be given the opportunity to attain those goals (Wehlage & Rutter, 1986). Education must be designed to meet the needs of a changing, high technological society (Kunisawa, 1988; Mann, 1986a; Wehlage & Rutter, 1986). The educational design must meet the personal, cultural, economic and career needs of at-risk students (Kunisawa, 1988).

Employment Issues

Society continues to become increasingly complex and technological (Forrest, 1986; Kunisawa, 1988). Without adequate academic skills and appropriate career development, at-risk students will find themselves in a society where future success is limited (Cairns et al., 1987; Fine, 1986; Kunisawa, 1988; Wehlage & Rutter, 1986).

Students who drop out of school, or students at risk of dropping out, have two choices in the world of work: either no employment or underemployment (Alpert & Dunham, 1986; Fine, 1986; Wehlage & Rutter, 1986). These students become trapped in low level paying jobs with little prestige (Alpert & Dunham, 1986; Cairns et al., 1987; Mann, 1986a). They have difficulty finding and holding jobs and their job choices are not unlike other family members (Cairns et al., 1987), such as the father or the welfare single mother who sets the cycle for the socio-economic level of the family (Cairns et al., 1987; Fine, 1985, 1986).

These at-risk students enter the world of work ill prepared for finding rewarding work (Kunisawa, 1988; Mann, 1986a). Jobs that were previously available to the unskilled dropout are becoming obsolete because high technology requires highly skilled workers (Hamilton, 1986; Kunisawa, 1988; Wehlage & Rutter, 1986).

In conclusion, these at-risk students have many interrelated problems. They are limited in developing a positive self image, limited in experiencing family cohesiveness and support, lack positive school experiences and are restricted in the possibility of achieving future success.

Career Development Assessment

Career development is a lifelong, developmental process that changes with one's life stages (Ryan & Levinson, 1988; Super, 1980). Super (1980) views career development as a "life-span," "life-space" occurrence. Behaviors associated with a variety of life-roles, such as worker, homemaker and student, both influence and reflect an individual's career development. These influences that affect one's career development begin in childhood and are strengthened or weakened during adolescence (Super & Bowsbey, 1981). Gottfredson (1981) views career development as a process of adjustments that occur from early childhood through young adulthood. She further explains that career decision making

and occupational aspirations correspond with one's self-concept development.

Super (1983) stated that classical career assessment procedures involve four stages: 1) preview of data on hand, 2) use of additional test data on interests and abilities, 3) reviewing data to make tentative interpretations and predictions and 4) follow-up. He views this classical model of assessment as based on the assumption that individuals are aware enough about choices to make appropriate career decisions.

According to Super (1980, 1983), career maturity, an aspect of career development, involves several elements: 1) Planfulness, involving locus of control, anticipation of the future and self esteem; 2) Exploration, which addresses questions of life-career roles of students, worker, homemaker, citizen, leisurite, and awareness and use of resources; 3) Information, or the acquired knowledge of the world of work, occupational preference and life-career roles; 4) Decision making, which is the ability to apply learned skills to career decision problems; and 5) Reality orientation, involving self-knowledge, self-concepts, career goals and major life roles.

Super's (1980) developmental viewpoint and work led to career development assessment, defined as career readiness or career maturity (Super, 1983). His Career Development Inventory has been found to effectively measure some of the

elements of career maturity (Nevill & Super, 1988; Super & Nevill, 1984; Thompson & Lindeman, 1981).

Other aspects of career development are one's commitment to life roles and what one values in life (Nevill & Super, 1988; Super, 1983; Super & Nevill, 1984). These values, commitments, goals and roles, such as student, worker and homemaker, are shaped and influenced by parents at an early age (Bradley, 1982; Gottfredson, 1981; Super, 1983; Super & Bowsbey, 1981).

To assess the importance of life roles, such as worker, student and homemaker, The Saliency Inventory was developed (Nevill & Super, 1986a; Super, 1983; Super & Nevill, 1984). The Saliency Inventory provides an objective and reliable assessment of career commitment along with the relationship it may have with other career maturity elements, such as career planning, career exploration, decision making and occupational knowledge (Nevill & Super, 1986b).

The Values Scale was developed (Nevill & Super, 1986b) to assess the importance of what one values or hopes to find in life roles. The Values Scale provides a reliable assessment of what satisfactions an individual may look for in life with respect to multiple values. Knowing what individuals value helps in predicting what careers they may choose (Nevill & Super, 1986b).

With career maturity, role saliency and values being important in career development assessment, Super (1983)

proposed a new developmental model to supplement existing matching models. Table 2 illustrates this model. Super & Nevill (1984) used the new developmental model as a framework to investigate the relationship work role salience had with the career maturity of high school students from varied socioeconomic backgrounds. Results of their study indicated that work participation and work commitment were intercorrelated. Work salience was found to correlate with career maturity attitudes, but not with cognitive career maturity. They also found that values expectations in work and work commitment were highly correlated. Socioeconomic status was found to have no relationship with career maturity. Females and males in grades nine and 10 scored similarly in career maturity; females in the upper years of high school scored higher in cognitive career maturity than males, but did not differ in career maturity attitudes.

In a study with university students, Nevill and Super (1988) found a high correlation between career maturity and work commitment. Commitment to work was found to affect both career development attitudes and knowledge. The study revealed that females tended to be more committed to work than males, although males participated in work more than females. Females participated more in, and were more committed to, home than were males. As in the study with high school students, socioeconomic status was found to have no relationship with career maturity. The study

TABLE 2
Super's Developmental Assessment Model

-
- Step I. PREVIEW
- A. Assembly of Data on Hand
 - B. Intake Interview
 - C. Preliminary Assessment
- Step II. DEPTH-VIEW: Further Testing?
- A. Work Salience
 - 1. Relative Importance of Diverse Roles
 - a. Study
 - b. Work and Career
 - c. Home and Family
 - d. Community Service
 - e. Leisure Activities
 - 2. Values Sought in Each Role
 - B. Career Maturity
 - 1. Planfulness
 - 2. Exploration Attitudes
 - 3. Decision-Making Skills
 - 4. Information
 - a. World of Work
 - b. Preferred Occupational Group
 - c. Other Life-Career Roles
 - 5. Realism
 - C. Level of Abilities and Potential Functioning
 - D. Field of Interest and Probably Activity
- Step III. ASSESSMENT OF ALL DATA
- A. Review of All Data
 - B. Work Salience
 - C. Career Maturity
 - D. Matching and Prediction
 - 1. Individual and Occupations
 - 2. Individual and NonOccupational Roles
 - E. Planning Communication with Counselee, Family, and Others
- Step IV. COUNSELING
- A. Joint-Review and Discussion
 - B. Revision or Acceptance of Assessment
 - C. Assimilation by the Counselee
 - 1. Understanding the Present Stage and Next Stage of Development
 - 2. Understanding the Meanings of Work and Other Life Roles
 - 3. Exploration for Maturing?
 - 4. Exploration in Breadth for Crystallization?
 - 5. Exploration in Depth for Specification?
 - 6. Choice of Preparation, Training or Job Objectives?
 - 7. Searches for Job and Other Outlets for Self-Realization?
 - D. Discussion of Action Implication and Planning
 - 1. Planning
 - 2. Execution
 - 3. Follow Up for Support and Evaluation
-

Super, D. E. (1983). Assessment in career guidance: Toward truly developmental counseling. Personnel and Guidance Journal, 31, p. 559.

further reported that role salience was related to gender. Females tended to not see work as an outlet for personal values to the degree that males did.

The new developmental career assessment model (Super, 1983) not only produced a less static career development profile, but also addressed the counselor's role in how to meet the needs of the counselee. Research suggested a need for more extensive career assessment before implementing intervention strategies (Gottfredson, 1981; Larson, Heppner, Ham, & Dugan, 1988). Extensive assessment would allow counselors to implement the most appropriate method of intervention (Gottfredson, 1981; Jepsen, Dustin, & Miars, 1982; Ryan & Levinson, 1988).

In conclusion, career development is a continuous process of making choices in life. These are later influenced by life experiences, such as parent interaction, school involvement and social activity. These influences shape an individual's evolving attitudes, values, interests and self-concepts. Assessing an individual's career development is vital for the development of adequate and successful career counseling programs to meet individual needs, increase self-awareness and increase the possibility of experiencing future success.

Career Development Assessment of At-Risk Students

It has been stated that influences affect career development beginning in early childhood and that career

development is strengthened or weakened in adolescence (Bradley, 1982; Gottfredson, 1981; Super, 1983; Super & Bowlsbey, 1981).

At-risk students lack the opportunity to explore various life roles or to explore career options because of limited resources (Poole & Low, 1982). For career development to be successful, there must be a combined effort at home and at school toward preparing these at-risk students for future success. There is a lack of communication between parents and the school due to the fact that these parents are often unwilling and/or unavailable to meet with school personnel because of feelings of intimidation, cultural barriers or lack of concern (Anderson & Limoncelli, 1982; Crites, 1981).

Career choices, values and life roles are influenced by home and family (Super, 1980). For at-risk students, complex problems occur within the home and are passed on through the student's life (Cairns et al., 1987). These complex problems may interfere with appropriate career development and, therefore, restrict career success (Alpert & Dunham, 1986; Cairns et al., 1987). These students have less opportunity in the home and the community to develop the understanding and skills to break the cycle of limited opportunity (Alpert & Dunham, 1986; Cairns et al., 1987; Kunisawa, 1988).

With the at-risk population suffering from multiple problems at home and at school compounded by societal economic difficulties, racism and sexism (Kunisawa, 1988), it is evident that at-risk students' educational experiences are negative and their future success possibilities are grim (Alpert & Dunham, 1986).

At-risk students develop problems with identity, locus of control and the inability to delay gratification (Ekstrom et al., 1986; Fine, 1986; Kunisawa, 1988; Wehlage & Rutter, 1986). These students have difficulty making decisions (O'Sullivan, 1988), implementing career plans and are exposed to limited career information (Cairns et al., 1987). They need assistance in assessing their career preferences, potential and life directions (Fine, 1986).

Career development is based on individual needs, readiness, motivation and resources (Super, 1983). Career maturity is an aspect of this development. Role salience and values in life are other aspects of career development. Much of the assessment involving career maturity, role commitment and values has been limited to traditional high school populations. Therefore, it has been suggested that more research be conducted on special populations, such as at-risk students (Ryan & Levinson, 1988; Super & Nevill, 1984).

In summary, increasingly high dropout rates and high rates of unemployment are two reasons to assess career

development of at-risk students. Career assessment targets problem areas, such as level of decision making, career planning, exploration, knowledge of the world of work, role commitment and values. Prevention methods and early intervention based on this career assessment may result in reducing the dropout rate and increase at-risk students' chances of success.

Programs in Progress

Successful dropout prevention programs have four common characteristics: 1) they separate potential dropouts from other students; 2) they have strong career components; 3) they utilize out-of-classroom learning; and 4) they have intensive, small group, individualized instruction, low teacher-student ratios and offer more counseling than ordinary schools (Hamilton, 1986).

A Dialog computer search on dropout prevention programs was conducted through the UNC-Greensboro library. The search yielded a small number of reports and very few of them offered both a program description and data indicating program effectiveness.

The following are several programs implemented for the purpose of assisting at-risk students to stay in school.

Cities in Schools

This program is a national business-and-schools partnership that integrates work experience and academic study in a caring environment. Initially, partnerships

were termed "street academies" and were funded exclusively by major corporations, such as Union Carbide, McGraw-Hill and IBM (Kunisawa, 1988). Cities in Schools began as a coordinated effort of school districts, governmental departments and community organizations to meet the needs of at-risk students. In Pennsylvania, where the Cities in Schools program originated, there was an increase from four sites to 14 sites during the 1987-88 school year (Holmes, 1988).

Career Ladder: Core Curriculum

This program was initiated in the Middletown, Connecticut Public Schools. The program objectives include instruction in independent living, career exploration, job seeking, interviewing, consumer skills, life-styles and future trends. The Career Ladder program involves at-risk students, students with learning disabilities and students who are educably mentally handicapped (Connecticut State Board of Education, 1985).

The Career Intern Program

This program was initiated by the Opportunities Industrialization Centers of America in Philadelphia, Pennsylvania in 1972. It is an alternative high school for dropouts and at-risk students. The program design involves three phases: career awareness, career exploration and career specialization. The program has been continuously supported by businesses, schools, the community, parents and

and researchers (Opportunities Industrialization Centers of America, Inc., 1982).

Ohio's Occupational Work Adjustment Program

This is a vocationally oriented program for 14 and 15 year-old at-risk students. The objective of this program is to reorient these students for successful completion of a vocational or academic high school. These students are assisted with finding jobs and attend special classes that provide instruction in job and social skills, mathematics and language arts. Students are diagnosed according to academic needs and individual educational plans are developed from these diagnoses (Glaser & Kley, 1982).

Model High School - College Linkage Program

This program is designed as an alternative program to reduce absenteeism in four high schools in Bronx, New York. Sixty ninth-graders attend the Bronx Community College to experience career education and academic improvements. The curriculum involves remedial reading and mathematics, oral communication skills and career exploration. Program evaluation showed an increase in school attendance, improved oral communication and gained career knowledge (Lieberman, 1979).

Teenage Parent Program

The TAPP program is a school based program which helps pregnant teens continue their regular classes while learning about parenting, infant care and personal health care.

Medical services are also provided (Kunisawa, 1988; Rossa, 1986).

In-School Suspension

In-school suspension is designed for those students who need to be given opportunities to develop self-discipline required for the school's academic program. It is an alternative to out-of-school suspension. This program provides a learning environment within the school for those students who tend to acquire out-of-school suspensions (North Carolina State Department of Public Instruction, 1987).

Job Placement Centers

These centers are designed to meet individual needs of at-risk students and students who drop out. The centers provide education/work experiences and transition from school into the world of work (North Carolina State Department of Public Instruction, 1987).

Alternative Schools

This program provides an alternative learning approach for at-risk students and dropouts. These schools attempt to create an environment more conducive to learning for those students who have difficulty in the traditional school setting. Academic instruction is given individually or in small groups (North Carolina Department of Public Instruction, 1987).

Extended Day School

This is an alternative education program designed to provide at-risk students and dropouts 16 to 21 years of age with the opportunity to complete high school. Classes are scheduled in the late afternoon and evening to accommodate the working student. The program emphasizes preparing students for employment upon completion of high school (North Carolina Department of Public Instruction, 1987).

Career Guidance Project K-12

This project is a model designed to develop knowledge and skills in self awareness and career exploration for kindergarten through 12th-grade students. This program was found to be quite effective in assisting at-risk students by implementing elements of career development early in their school experiences (National Diffusion Network, 1988).

Project Discovery

Project Discovery is a systematic approach to prevocational exploration for students 12 years of age and above. Students participate in developing and discovering career interests. This project was evaluated and found to be effective in assisting at-risk students in career exploration (National Diffusion Network, 1988).

Not all of these aforementioned programs developed for at-risk students include a combination of an academic assistance component and a career development component which, according to Hamilton (1986), are characteristics of

successful dropout prevention programs. There is little mention of extensive individual career development assessment, which is necessary to adequately meet the individual needs of at-risk students. There is also little mention of early intervention. In essence, early intervention, extensive assessment and multi-component programs may keep at-risk students in school, increase their chances for developing a positive outlook for the future and increase their chances of future success.

Based on this review of literature, it is clear that the dropout problem continues to be a national concern as well as a local concern. The dropout rate continues to rise and the attempts of school systems to address the problem are largely ineffective. Students that are at-risk of dropping out of school have multiple interrelated problems which limit the at-risk student's ability and opportunities to be involved with positive life experiences. Because career development is influenced by these life experiences, at-risk students are at a disadvantage for developing appropriate skills in career planning, career exploration, decision making, knowledge of the world of work, knowledge of preferred occupations and developing values or commitments. Much of the research has indicated at-risk students are black males from low socioeconomic backgrounds who drop out of school around the 10th-grade and have difficulty finding employment.

To increase the possibility of future success for these at-risk students, programs need to include academic assistance, extensive career development assessment and provide the opportunity for these students to become more aware of themselves, their interests, their ideas and career choices that are appropriate for them.

CHAPTER III

METHODOLOGY

This chapter contains a description of the methods used in this study to:

1. Assess career development in relation to socioeconomic status, race, gender, role commitment and values of at-risk students;
2. Examine the differences between the career development of at-risk students and the career development of non-at-risk students;
3. Examine the differences between the role commitment of at-risk students and the role commitment of non-at-risk students;
4. Investigate the differences between the values of at-risk students and the values of non-at-risk;
5. Compare the differences between career maturity of those students who dropped out and those students who stayed in school;
6. Compare the differences between role commitment of those students who dropped out of school and those students who stayed in school;
7. Examine the differences between values of those students who dropped out of school and those students who stayed in school;

8. Examine the four scales of the Career Development Inventory as predictive variables of dropping out of school;

9. Assess the scales of The Salience Inventory as predictive variables of dropping out of school;

10. Assess the scales of The Values Scale as predictive variables of dropping out of school.

The chapter also includes the research questions and hypotheses tested; a description of the subjects and population sample, sampling procedures and instruments used; a description of the procedures used for collecting and analyzing the data; and a discussion of the limitations of the study.

This study was to seek answers to the following research questions:

1. What is the relationship between socioeconomic status, race, gender, role commitment, and values and the four scales of the Career Development Inventory?

2. How do career maturity level, role commitment and values of at-risk students differ from career maturity level, role commitment and values of non-at-risk high school students?

3. What differences are there between career maturity level, role commitment and values of those students who drop out of school and career maturity level, role commitment and values of those students who stay in school?

4. How effective are the four levels of career maturity, as measured by the Career Development Inventory, role commitment, as measured by The Salience Inventory, and values, as measured by The Values Scale, in predicting school dropouts?

Utilizing Super's (1983) new developmental assessment model, this study profiled the career maturity, role commitment and values of at-risk students as compared to non-at-risk high school students.

Hypotheses

Due to the lower than expected number of subjects, some of the statistical tests planned had to be changed. To address the research questions, the following hypotheses were tested at a .05 level of significance:

Five hypotheses were tested to answer the first research question.

1. Socioeconomic status will have a main effect on the four Career Development Inventory scales, the five role commitment scores from The Salience Inventory and the scores from The Values Scale.

2. There will be a significant difference between black students' and white students' scores on each of the four Career Development Inventory scales.

3. There will be a significant difference between the scores of females and males on each of the four Career Development Inventory scales.

4. There will be a significant correlation between The Saliience Inventory commitment scales and the four scales of the Career Development Inventory for the total sample.

5. There will be a significant correlation between The Values Scale scores and the four scales of the Career Development Inventory for the total sample.

To address research question two, the following hypotheses were tested at a .05 level of significance:

6. At-risk students will score significantly lower on all scales of the Career Development Inventory compared to non-at-risk students.

7. At-risk students will score significantly lower on all scales of The Saliience Inventory compared to non-at-risk students.

8. At-risk students will score significantly lower on all scales of The Values Scale compared to non-at-risk students.

To address research question three, an attempt was made to test the following hypotheses:

9. Students who drop out of school prior to second semester will score significantly lower on the Career Development Inventory than those students who return second semester.

10. Students who drop out of school prior to second semester will score significantly lower on The Saliience Inventory than those students who return second semester.

11. Students who drop out of school prior to second semester will score significantly lower on The Values Scale than those students who return second semester

To address research question four, an attempt was made to test the following hypotheses:

12. Scores on the Career Development Inventory will be good predictors of dropping out of school.

13. Scores on The Salience Inventory will be good predictors of dropping out of school.

14. Scores on The Values Scale will be good predictors of dropping out of school.

Subjects

This section provides a description of the sample selection, sample size and sampling procedures used in this study.

This study was to involve all 10th-grade at-risk students who were enrolled at Gillespie Park Educational Center (GPEC) and 10th-grade non-at-risk students who were enrolled in the four area traditional accredited Greensboro City high schools.

Gillespie Park Educational Center is a unique alternative educational program designed to provide at-risk students with a different style of educational setting other than the traditional school setting. Students who attend Gillespie Park are usually dropouts, at-risk of dropping out, underachievers, working students, seniors who

need additional credit to graduate and teen parents. For these students, the regular school setting is inadequate to meet their needs (GPEC Handbook, 1988).

Sample Selection

The 10th-grade was selected because most students drop out of school before the 11th-grade (Ekstrom, Goertz, Pollack, & Rock, 1986; Lotto, 1982). The high dropout rate for 10th-grade at-risk students at Gillespie Park Educational Center over a six year period was shown in Table 1 on page 7.

Sample Size

The entire 10th-grade at Gillespie Park Educational Center was to be involved. At the time of this study, there were 83 at-risk, 10th-graders enrolled. A comparison group of 110 non-at-risk, 10th-grade students who were enrolled in the four area traditional Greensboro City high schools were randomly selected using cluster sampling by homeroom. The Greensboro City Schools required each student selected to return a signed "Permit to Participate" form prior to taking the inventories.

Prior to administering the inventories to the at-risk 10th-graders, a pilot study was done with 80 at-risk ninth-graders for reliability purposes. The pilot yielded 13 participants, which was an insufficient number to conduct a pilot test. The decision was made to include the inventory results of those 13 students with the at-risk

10th-grade since those ninth-graders were comparable to the at-risk 10th-graders in age and in at-risk characteristics, including teen pregnancy, truancy and juvenile offenses. Written parental consent was also required for participation in the pilot test.

The total sample size was 93 participants. For the at-risk group, there were 20 10th-graders and 13 ninth-graders, yielding a total of 33 at-risk participants. It was difficult to obtain parental permits required by the Greensboro City Schools from the at-risk sample group. Due to the low return rate and chronic truancy, the sample for this study was small. Out of the 163 possible at-risk participants, 43 consents were returned. Six of the 43 refused to participate, although they had returned their consent forms. Four of the 43 dropped out prior to testing sessions. Thirty-three of those 43 participated in the study. Three of those 33 participants did not complete all three inventories. One student was arrested for assault and battery, one student had to leave a session because of a serious personal health problem and one student refused to complete the session and walked out, leaving a total of 33 participants.

These at-risk students ranged in ages from 15 to 18, with the average age being 15 to 16. Five of the 33 participants were teen mothers. Twelve of the 33 participants worked full-time or part-time jobs. Seven

ranked between Levels 1 to 4 in socioeconomic status with Level 1 being high and Level 4 being average. Twenty-six fell between Level 5 (below average) and Level 7 (low). The 33 participants included 13 black females, 14 black males, three white females and three white males.

For the non-at-risk group, 60 students participated out of 110 randomly selected 10th-graders. These non-at-risk students ranged in ages from 15 to 18 with an average age of 15 to 16. None of these students indicated having children. Eleven of these students worked part-time jobs. Thirty-seven ranked between Levels 1 to 4 in socioeconomic status, which is average to high. Sixteen ranked between Levels 5 and 7, which is below average to low. There were 19 black females, 11 black males, 16 white females, 12 white males, one Asian female and one East Indian male. The total sample size for this study was 93 participants.

Instruments

Data were collected using four instruments: the Career Development Inventory, The Salience Inventory, The Values Scale and the Personal Data Form.

According to Thompson & Lindeman (1981), the Career Development Inventory (CDI) is an effective measure of career maturity. Part One of the CDI consists of four basic scales: 1) Career Planning (CP)-measures a student's attitude toward career planning, 20 items; 2) Career Exploration (CE)-measures a student's willingness to utilize

career information, 20 items; 3) Decision Making (DM)-measures how much information a student has for making appropriate career decisions in presented situations, 20 items; 4) World of Work Information (WW)-measures knowledge of career development tasks and understanding of occupations, 20 items. Part One takes approximately 40 minutes to administer and is scored on a 0 to 99 point scale. Part Two has one scale, the Knowledge of Preferred Occupational Group (PO). This scale assesses information students have about occupational groups and consists of 40 items (Thompson & Lindeman, 1981). Part Two takes approximately 25 minutes to administer and is scored on a 0 to 99 point scale.

According to Thompson and Lindeman (1981), Donald E. Super began the research for the CDI in 1951, documenting the lack of readiness for career decision making in the ninth-grade and paving the way for further testing and the development of more useful inventories.

Thompson and Lindeman (1981) reported the CDI school form was designed for grades eight through 12. They reported the vocabulary level of the first four CDI scales (Career Planning, Career Exploration, Decision Making, and Knowledge of the World of Work) is suitable for eighth-grade and above. They found the Knowledge of Preferred Occupation scale to be more suitable for 11th- and 12th-grades and may be difficult for the 10th-grade student because of

occupational terms and mature concepts. It is for this reason this study limited its assessment to the four scales of the CDI.

Thompson and Lindeman (1981) reported the internal consistency median scale reliabilities for Career Planning, Career Exploration and Knowledge of World of Work to be .89, .78 and .84, respectively. The median reliability estimate for Decision Making was .67. They recommended that caution should be used in interpreting scores on the Decision Making scale due to the low reliability estimate. The CDI was found to be highly stable, yielding the same coefficients over a six month period (Thompson & Lindeman, 1981).

Thompson and Lindeman (1981) reported the content and construct validity of the CDI was based on subgroup differences, such as gender, grade, program and factor structure of the instrument. The CDI was found to produce practical, reliable and content valid measures (Thompson & Lindeman, 1981).

The Saliency Inventory (SI) assesses commitment to life roles (Super, 1983). The SI is the result of Super's (1980) theory of the "life-space," "life-span" concept. This concept includes the importance of life roles, such as student, homemaker, worker, leisurite, the importance of career choices and how choices are influenced by life experiences.

The Saliency Inventory (Nevill & Super, 1986a) has 15 scales: 1) Participation in roles of Student, Worker, Citizen, Homemaker and Leisurite-assesses to what extent an individual thinks she or he will be involved in these roles, 5 scales. 2) Commitment to aforementioned roles-assesses the importance an individual attaches to these roles, 5 scales. 3) Values Expectation of aforementioned roles-assesses what an individual expects out of these roles, 5 scales. Each scale is scored on a 0 to 40 point continuum.

According to Nevill and Super (1986a), The Saliency Inventory is a self-report inventory that takes approximately 30 to 44 minutes to complete. They reported .80 reliability for internal consistency and .70 for test-retest stability. Content, construct and concurrent validity were based on work developed by an international team of researchers who reviewed cross-national literature, equating categories of items and reviewing definitions. Norms were based on national and cross-national samples (Nevill & Super, 1986a).

The Values Scales (VS) (Nevill & Super, 1986b) is a self descriptive inventory that assesses 21 values: Ability Utilization, Achievement, Advancement, Aesthetics, Altruism, Authority, Autonomy, Creativity, Economic Rewards, Life Style, Personal Development, Physical Activity, Prestige, Risk, Social Interaction, Social Relations, Variety, Working

Conditions, Cultural Identity, Physical Prowess and Economic Security. The Values Scale is scored from 0 to 21 points.

According to Nevill and Super (1986b), the object of The Values Scale is to understand the values or satisfaction that individuals seek or hope to find in life.

Nevill and Super (1986b) reported The Values Scale to have .70 reliability for internal consistency and .70 for test-retest stability. They reported content and construct validity based on work developed by the same team of international researchers who reviewed cross-national literature, equating categories of items and writing and reviewing definitions for The Salience Inventory and for The Values Scale. Factor structure of The Values Scale was found to be very similar in the samples of students in Yugoslavia, Canada, Portugal, the United States and Australia. Predictive validity continues to be examined due to the newness of the inventory. The Values Scale was normed by administering the inventory to approximately 3,000 youths and adults in the United States (Nevill & Super, 1986b).

The Personal Data Form (PDF) was developed for the purpose of collecting personal, demographic information and to assess socioeconomic levels (SES). Questions are asked on job titles and duties of each parent and of the parent's highest grade completed in school. Parent occupations are coded according to the Occupational Level Scale,

Hamburger's (1958) revision of the Warner Scale (Warner, Meeker, & Eels, 1949). The highest parental level is assigned as the SES of the student (Super & Nevill, 1984).

Procedures

The researcher met with the Principal at Gillespie Park Education Center and with the Assistant Superintendent of the High Schools and the Principals of the traditional four year accredited high schools individually and at a Principal's meeting to address the procedures for administering the instruments. Parents were informed by letter as to what this study involved, the significance of it and how the results of this study would be utilized for the benefit of the student.

The Career Development Inventory, The Salience Inventory, The Values Scale inventory and the Personal Data Form were administered to 20 at-risk 10th-graders and 13 at-risk ninth-graders at Gillespie Park Education Center. The same inventories were administered to a random cluster sampling by homeroom of 60 traditional four year accredited public high school 10th-grade students. For the students attending the traditional four year accredited high schools, testing took place in the Media Center each morning until all randomly selected students had taken the inventories. For students at Gillespie Park Education Center, testing took place in the Guidance Center conference room each evening until all students had taken the inventories. To

control for testing fatigue, tests were administered over a three day period with one inventory per day. The three day period was sufficient to test non-at-risk students, but it took approximately a four month period to test at-risk students due to low response rate of returning parental consents and to chronic truancy.

On the first day of testing, students were provided with the Personal Data Form and two number-two pencils. Instructions were given as to how to fill out the form. The researcher collected the completed Personal Data Forms, which took approximately 10 minutes to complete. Students were then provided with the Career Development Inventory booklet and an answer sheet. The researcher administered the instructions for the Career Development Inventory. Directions were given systematically as instructed by the inventory manual. The researcher collected all Career Development Inventory booklets and answer sheets. This inventory took approximately 40 minutes to complete. After completing the Career Development Inventory, students returned to their classes.

On the second day of testing, the students received The Salience Inventory booklet, an inventory answer sheet and two number-two pencils. Directions were given systematically as instructed by The Salience Inventory manual. The researcher collected completed Salience

Inventory answer sheets and booklets, which took approximately 40 minutes to complete.

On the third day of testing, the researcher distributed The Values Scale booklets and the answer sheets. Directions were given systematically as instructed by The Values Scale manual. The researcher collected completed Values Scale booklets and answer sheets. The Values Scale took approximately 40 minutes to administer. The total time needed to administer all inventories was about 2 1/2 hours, approximately 40 to 50 minutes per testing session with one testing session per day over a three day period.

The length of time the researcher spent in preparing for and coordinating the testing sessions and actually administering the tests for at-risk students at Gillespie Park was longer. The researcher met with all ninth- and 10th-grade homeroom teachers to distribute parental consent forms required by the Greensboro City Schools. Homeroom teachers distributed these daily. Students were reminded by teachers and counselors to return their forms. With the response rate low, the researcher met with students in English and math classes on several occasions to explain the importance of the study, the importance of returning the forms, and to distribute more consent forms to new students and to those students who had misplaced theirs. The return rate continued to be low. The researcher again met with students in homeroom to collect returned forms and

to redistribute others. The researcher was at Gillespie Park each evening talking with students. The researcher, teachers and counselors continued to remind students to return their parental consent forms. The researcher made numerous attempts by phone with parents requesting parental support and assistance in getting the forms returned. The parents that the researcher successfully contacted were cooperative, but the response rate continued to be low. At this point, the researcher petitioned the Greensboro City Schools requesting that a blanket letter of intent be sent to parents and/or allow the researcher to obtain verbal parental consent by phone. Both requests were denied.

The process of collecting consent forms continued over a four month period, September through December. By the end of the first semester, the researcher had collected 43 forms.

Actual testing took place over a four month period. At-risk students were chronically truant and continuously forgot about their testing sessions. It took the researcher several days to find the students to remind them of testing dates and to find the students on the day of the testing sessions. Some students would attend the sessions, some would not appear. Some students would begin a session but not complete it. Make-up days were scheduled and the same process of finding the students began again. Students

were tested as they were located, some individually, some in groups of five to seven. On two occasions the researcher made home visits to allow some students to complete their inventories. Although the researcher and the staff at Gillespie Park continued to encourage a higher response rate for consent forms and for attending testing sessions, the rate continued to be low, resulting in a small at-risk sample size.

Procedures for Data Analyses

To test Hypotheses 1-5, a canonical correlation analysis was to be conducted on the relationship between socioeconomic status, gender, race, role commitment and values as independent variables and the four scales of the Career Development Inventory: Career Planning, Career Exploration, Decision Making and Knowledge of the World of Work as dependent variables.

Due to the smaller than anticipated sample size, the statistical tests had to be changed. Hypothesis 1 was broken down into three separate analyses: an analysis of variance to test the main effect of socio-economic status on the four scores of the Career Development Inventory and on the five commitment scores of The Salience Inventory, and a Pearson product-moment correlation analysis to examine the relationship between socio-economic status and the 21 scores of The Values Scale scores.

An analysis of variance was used to test Hypothesis 2 and Hypothesis 3 for significant differences between race and gender and the scores on the Career Development Inventory.

A Pearson product-moment correlation analysis was conducted to test Hypotheses 4 and 5 to assess the correlation between The Salience Inventory scores, The Values Scale scores and the four Career Development Inventory scores.

To test Hypotheses 6-8, Chi-square analyses were to be conducted to examine the differences between the four scale scores of the Career Development Inventory, the scale scores of The Salience Inventory and the scale scores of The Values Scale of those students who have been identified as at-risk compared to the non-at-risk students.

Due to the smaller than expected sample size and a large number of variables, an analysis of variance was conducted to test Hypotheses 6 and 7 and a Pearson product-moment correlation was conducted to test Hypothesis 8, in conjunction with the Kolmogorov-Smirnov two-sample test, a non-parametric test. Descriptive statistics were collected for each analysis.

To test Hypotheses 9-11, Chi-square analyses were to be conducted to examine the differences between the four scale scores of the Career Development Inventory, the scale scores of The Salience Inventory and the scale scores of

The Values Scale of those students who had dropped out of school compared to those students who stayed in school. Of the 93 students who participated in this study, only four of those participants dropped out of school prior to second semester. This was an insufficient number to conduct an analysis. These four dropouts are discussed in detail in Chapter IV, the Results section.

To test Hypotheses 12, 13 and 14, discriminant analyses were to be conducted to identify significant predictive variables of the Career Development Inventory, The Salience Inventory and The Values Scale and dropping out of school. Again, due to the small number of dropouts in the study, analyses were not conducted because of an insufficient number of subjects.

Limitations of the Study

Although Thompson and Lindeman (1981) report the Career Development Inventory vocabulary is suitable for students in grades eight through 12, these at-risk students experienced some difficulty in reading comprehension because of low achievement. This reading comprehension difficulty may affect how these students responded to the questions asked on the inventories. At-risk students tended to ask for more clarification on instructions and word meanings than did the non-at-risk students.

Another limitation is that at-risk students did not attend school on a regular basis. Therefore, attendance

affected the number of at-risk students participating in the study.

Another limitation is due to at-risk students not returning their consent forms or missing testing sessions, even though they had returned their forms and were attending school the day of the session. This reduced the number of at-risk students participating in the study.

Another limitation is the question of instrument reliability for the at-risk population. An attempt was made to test for reliability, but there were so few participants in the pilot study that an analysis was not conducted.

Validity of at-risk responses is another limitation. At-risk students were very easily distracted by what was happening outside the testing area as well as in the testing session itself. Students were less distracted when tested with few numbers in the group.

According to the Greensboro City Schools, this group of at-risk students is representative of the at-risk population at Gillespie Park Education Center based on the eligibility to attend the alternative school. Students who attend must demonstrate excessive absenteeism, truancy, poor grades, behavior problems, multiple grade retentions, be teen parents or working students. The at-risk students in this sample demonstrated one or more of the eligibility requirements. Even so, one may question how representative this at-risk sample may be based on why some of the at-risk

students returned their consent forms and followed through on completing all the inventories and some did not. There may be differences between the at-risk students who complied and those at-risk students who did not comply. The at-risk students who did not comply may have been a more representative group for predicting dropout because of their lack of compliance. The dropout rate for Gillespie Park is approximately 50 to 60% each year, but only four students out of the 33 at-risk sample dropped out.

Results of this study can be generalized only to those students who attend the Greensboro City Schools, but they may help to refine the designs of further studies.

CHAPTER IV

RESULTS

Due to the lower than expected number of subjects, some of the statistical tests planned had to be changed. In fact, Hypothesis 1 was broken down into three separate issues:

Hypothesis 1a: There will be a main effect between socioeconomic status and the four Career Development Inventory scores.

An analysis of variance was conducted to examine the effect of socioeconomic status on Career Planning, Career Exploration, Career Decision Making and World of Work Information.

Results indicated that students from below average to low socioeconomic status scored lower on Decision Making and World of Work Information than did students from average to high socioeconomic status, but both groups had similar scores on Career Planning and Career Exploration.

There was no significant effect at the .05 alpha level between socioeconomic status and Career Planning scores ($p = .642$) or for Career Exploration scores ($p = .445$). There was a significant effect between socio-economic status, Career Decision Making, $F(6, 91) = 2.413$, $p = .033$ and World of

Work Information scores $F(6, 91) = 2.446, p = .031$ (see Table 3).

Students who ranked between socioeconomic Levels 5-7, which is below average to low, scored significantly lower on the Career Decision Making scale (mean = 25.22) than did students who ranked between Levels 1-4 (mean = 49.78). Levels 1-4 are average to high in socioeconomic status.

Results were similar for the World of Work Information scale. Students who fell between socioeconomic Levels 5-7, below average to low, scored significantly lower (mean = 42.9) than did students in the socioeconomic Levels 1-4 (mean = 54.60), average to high. Findings partially support Hypothesis 1a in that socioeconomic status had a main effect on two of the four Career Development Inventory scales.

In summary, these findings suggest that decision making skill and knowledge about finding a job and being successful in the world of work are influenced by socioeconomic status. The lower the socioeconomic status, the less information the students have for making appropriate career decisions and the more likely they are to be limited in world of work knowledge. Although students from lower socioeconomic backgrounds may think about future careers in ways similar to students from higher socioeconomic backgrounds, the students from the lower socioeconomic backgrounds tend to demonstrate limited knowledge of the

TABLE 3

Effects of Socioeconomic Status on Career Development

<u>Socioeconomic Status:</u>	<u>N</u>	<u>Career Planning</u>		<u>Career Exploration</u>	
		<u>Mean</u>	<u>St.Dv.</u>	<u>Mean</u>	<u>St.Dv.</u>
Levels:					
1 - High	10	50.0	30.5	56.5	24.4
2 - High Middle	13	58.6	27.6	59.2	32.9
3 - Above Avg.	13	61.1	32.4	79.3	27.7
4 - Average	07	43.2	33.4	69.2	27.1
5 - Below Avg.	20	53.4	23.7	60.1	28.9
6 - Low Average	11	53.2	26.5	58.7	26.1
7 - Free Lunch	18	64.5	28.5	66.9	30.0

* $p < .05$, $F(6, 91) = 2.413$

** $p < .05$, $F(6, 91) = 2.446$

world of work and limited information for making appropriate career decisions.

Hypothesis 1b: A main effect will exist between socioeconomic status and the five role commitment scores of The Saliency Inventory.

An analysis of variance was conducted to examine the effect of socioeconomic status on Commitment to Studying, Commitment to Working, Commitment to Community Service, Commitment to Home and Family and Commitment to Leisure Activities. Results indicated that socioeconomic status had no significant effect on any of the five role commitment scores at the .05 alpha level of significance. Students scored similarly in all five areas of commitment. Findings do not support Hypothesis 1b (see Table 4 for means and standard deviations).

Hypothesis 1c: There is a relationship between socioeconomic status and the 21 scores of The Values Scale. Due to the small sample size and an inordinate number of variables, the data were examined by conducting a Pearson correlation at .000 alpha level and obtaining descriptive statistics.

There was no support for Hypothesis 1c in that socioeconomic status did not correlate with any of the Value scores. Information on correlations and probability values is presented in Table 5.

TABLE 4

Effects of Socioeconomic Status on Role Commitment

	<u>Role Commitments</u>									
	<u>Studying</u>		<u>Working</u>		<u>Community Service</u>		<u>Home & Family</u>		<u>Leisure</u>	
	<u>Mean</u>	<u>St. Dv.</u>	<u>Mean</u>	<u>St. Dv.</u>	<u>Mean</u>	<u>St. Dv.</u>	<u>Mean</u>	<u>St. Dv.</u>	<u>Mean</u>	<u>St. Dv.</u>
<u>Socio-economic status:</u>										
Levels 1 - 4 (average to high)	28.0	7.9	29.3	6.8	26.7	8.0	32.0	7.8	33.7	7.0
Levels 5 - 7 (below to low)	29.9	6.9	32.0	7.0	24.5	9.9	34.4	6.4	29.8	7.4

p > .05

TABLE 5

Relationship between Values and Socioeconomic Status

<u>Values:</u>	<u>Socio-economic Status</u>	
	<u>Correlation</u>	<u>P Values</u>
Ability Utilization	-.0691	.257
Achievement	-.1049	.160
Advancement	.1932	.032
Aesthetics	.0893	.199
Altruism	.1683	.054
Authority	-.1173	.133
Autonomy	-.1399	.093
Creativity	-.0385	.352
Economic Rewards	.0519	.311
Life Style	-.0524	.310
Personal Development	-.2034	.026
Physical Activity	-.1737	.049
Prestige	-.1258	.116
Risk	.1011	.169
Social Interactions	-.1195	.128
Social Relations	-.0054	.480
Variety	-.1556	.069
Working Conditions	-.0695	.255
Cultural Identity	.0284	.394
Physical Prowess	.0796	.225
Economic Security	-.2064	.024

p > .000

In essence, these findings suggest that students from all socioeconomic backgrounds seek similar values in life.

Hypothesis 2: There will be a significant difference between black students' scores and white students' scores on the four Career Development Inventory scales: Career Planning, Career Exploration, Career Decision Making and World of Work Information.

An analysis of variance indicated there was no significant difference at the .05 alpha level of significance between Career Planning scores or Career Exploration scores. Results did indicate a significant difference in scores for Career Decision Making, $F(1, 89) = 4.013$, $p = .048$ and for World of Work Information, $F(1, 89) = 7.657$, $p = .007$.

Black students scored lower on Career Decision Making (mean = 40.263) than white students (mean = 51.168). Black students also scored lower on World of Work Information (mean = 42.298) than white students (mean = 59.971).

Information on means and standard deviations for race and career development scores is found in Table 6. Findings yield partial support for Hypothesis 2 in that black students scored significantly differently from white students on two of the Career Development scales, but not all four.

TABLE 6

Effects of Race on Career Development

	<u>Black</u>			<u>White</u>		
	<u>N</u>	<u>Mean</u>	<u>St.Dv.</u>	<u>N</u>	<u>Mean</u>	<u>St.Dv.</u>
<u>Career development:</u>						
Career Planning	57	58.2	27.0	34	52.5	30.2
Career Exploration	57	64.4	28.0	34	63.4	30.6
Decision Making	57	40.2	28.9	34	51.6*	27.3
World of Work	57	42.2	30.6	34	59.9**	31.6

* $p = .048$, $F(1, 89) = 4.013$

** $p = .007$, $F(1, 89) = 7.657$

These findings suggest that a student's skill to make appropriate decisions and the knowledge acquired as how to find a job and be successful at that job are influenced by race. Black students have less information than white students for making appropriate career decisions and are more likely to be limited in their knowledge of the world of work, although black students appear to think about their futures similarly to white students. Black students, as did the low socio-economic students in this study, demonstrated limited information for making appropriate career decisions and limited knowledge about the world of work.

Hypothesis 3: There will be a significant difference between male students' scores and female students' scores on the four scales of the Career Development Inventory: Career Planning, Career Exploration, Career Decision Making and World of Work Information.

An analysis of variance indicated there were no significant differences ($\alpha .05$) between all four of the Career Development scores and gender. Mean scores for males and females were similar for all areas of the Career Development Inventory (see Table 7). These findings give no support for Hypothesis 3.

Hypothesis 4: There will be a significant correlation between the five role commitment scores on The Salience Inventory and the four scores on the Career Development Inventory.

TABLE 7

Effects of Gender on Career Development

	<u>Female</u>			<u>Male</u>		
	<u>N</u>	<u>Mean</u>	<u>St.Dv.</u>	<u>N</u>	<u>Mean</u>	<u>St.Dv.</u>
<u>Career Development:</u>						
Career Planning	52	56.1	29.7	40	56.3*	26.2
Career Exploration	52	63.6	28.2	40	64.8*	29.7
Decision Making	52	44.2	28.8	40	45.4*	28.7
World of Work	52	49.1	32.6	40	47.9*	31.4

* $p > .05$

A Pearson product-moment correlation was conducted which indicated that there were some correlations between variables at the .05 level of significance. Commitment to Community correlated with Career Planning scores ($\underline{r} = .1916$, $\underline{p} = .034$), Career Exploration ($\underline{r} = .4155$, $\underline{p} = .000$) and with World of Work Information ($\underline{r} = .2649$, $\underline{p} = .006$). Commitment to Home and Family correlated with Career Planning ($\underline{r} = .2768$, $\underline{p} = .004$) and Career Exploration ($\underline{r} = .3717$, $\underline{p} = .000$). Commitment to Studying correlated with Career Exploration ($\underline{r} = .3972$, $\underline{p} = .000$) and with World of Work Information ($\underline{r} = .2309$, $\underline{p} = .014$). Commitment to Leisure Activities correlated with Career Exploration ($\underline{r} = .2582$, $\underline{p} = .007$) and with World of Work Information ($\underline{r} = .2656$, $\underline{p} = .005$). Commitment to Work correlated only with Career Exploration ($\underline{r} = .4155$, $\underline{p} = .002$) (see Table 8).

A regression analysis was conducted to further examine these relationships. Based on this sample, role commitment scores accounted for 2% of the variability of Career Planning scores, 21% of the variance of Career Exploration scores, 2% of the variability of Career Decision Making scores and 8% of the variability of World of Work Information scores. There is partial support for Hypothesis 4 in that each of the five role commitment scores correlated with one or more of the career development scores. None of the commitment scores correlated with Decision Making.

TABLE 8

Relationship between Role Commitment and Career Development

	<u>Career development</u>			
	<u>Career Planning</u>	<u>Career Exploration</u>	<u>Decision Making</u>	<u>World of Work</u>
<u>Role commitment:</u>				
Studying	.14	.40*	.11	.23*
Working	.13	.30*	.10	.10
Community Service	.19*	.42*	.15	.27*
Home and Family	.28*	.37*	.11	.13
Leisure Activity	.07	.26*	.13	.27*

* $p < .05$

In conclusion, this suggests that students who find importance in working, studying, home and family activities, community activities and social activities might be exposed to opportunities that may influence their attitude and cognitive development for thinking about future plans, utilizing good sources to help implement those plans, decision making skills and learning more about the world of work than those students who do not find importance in these life roles.

Hypothesis 5: There will be a significant correlation between the four scores of the Career Development Inventory and the 21 scores of The Values Scale.

Due to the large number of variables and the small sample size, a Pearson product-moment correlation was conducted which yielded results that indicated some of The Values Scale scores correlated with career development scores at .000 alpha level of significance.

There were four Values that correlated with Career Exploration: Ability Utilization ($r = .4097$, $p = .000$), Personal Development ($r = .3961$, $p = .000$), Economic Security ($r = .3763$, $p = .000$) and Achievement ($r = .3656$, $p = .000$).

There was one significant negative correlation. Physical Prowess negatively correlated with Decision Making ($r = -.3493$, $p = .000$) (see Table 9).

TABLE 9

Relationship between Values and Career Development

	<u>Career development</u>			
	<u>Career Planning</u>	<u>Career Exploration</u>	<u>Decision Making</u>	<u>World of Work</u>
<u>Values:</u>				
Ability Utilization	.30	.41*	.17	.28
Achievement	.26	.37*	.10	.20
Advancement	.16	.25	-.02	.00
Aesthetics	.10	.33	.03	.09
Altruism	.18	.50	.09	.11
Authority	.26	.27	.03	-.01
Autonomy	.19	.23	.16	.02
Creativity	.15	.37	.06	.04
Economic Rewards	.20	.25	-.08	-.03
Life Style	.17	.22	.04	.04
Personal Development	.22	.40*	.30	.26
Physical Activity	.22	.31	.00	-.00
Prestige	.08	.25	-.07	.03
Risk	.14	.15	-.19	-.25
Social Interaction	.08	.28	.04	.06
Social Relations	.16	.28	.09	.04
Variety	.16	.26	-.01	-.03
Working Conditions	.10	.32	.09	.06
Cultural Identity	.03	.36	.05	.01
Physical Prowess	.02	.04	-.35*	-.41
Economic Security	.23	.38*	.28	.31

* p = .000

A regression analysis was conducted and yielded the following results: the values scores accounted for 1% of the variability of Career Planning scores, 19% of the variability of Career Exploration ($p = .013$), 31% of the variability of Career Decision Making ($p = .003$) and 28% of the variability of World of Work Information ($p = .0011$). This partially supports Hypothesis 5 in that some of the twenty-one value scores had significant correlations (alpha .000) with some of the Career Development Inventory scores.

These findings suggest that students who seek satisfaction in life that involves using their abilities, acquiring knowledge and skill and preparing for future economic security demonstrate a higher level of career maturity than those students who prefer a life that involves physical power or strength.

Hypothesis 6: There will be a significant difference between at-risk students' scores and non-at-risk students' scores on the four Career Development scales: Career Planning, Career Exploration, Career Decision Making and World of Work Information.

An analysis of variance was conducted which resulted in no significant differences in scores on the Career Planning and Career Exploration scales. Results did indicate there were significant differences in scores on the Career Decision Making, $F(1, 91) = 17.12, p = .000$ and World of Work scales, $F(1, 91) = 29.84, p = .000$. Based on this

sample, at-risk students scored significantly lower on the Career Decision Making scale (mean = 29.156) than did non-at-risk students (mean = 53.083). At-risk students also scored lower on the World of Work Information scale (mean = 26.906) than did non-at-risk students (mean = 60.217). Table 10 illustrates means and standard deviations. These results give partial support for Hypothesis 6 in that at-risk students scored significantly differently on two of the four Career Development scales.

In summary, at-risk students compared to non-at-risk students demonstrated lower levels of cognitive career maturity. These at-risk students had limited information for making appropriate career decisions and were limited in their knowledge of the world of work. Similar limitations were demonstrated in this study by students from low socio-economic backgrounds and black students.

Hypothesis 7: There will be a significant difference in at-risk students' scores and non-at-risk students' scores on the five role commitment scales of The Salience Inventory: Commitment to Studying, Commitment to Working, Commitment to Community Service, Commitment to Home and Family and Commitment to Leisure Activities.

An analysis of variance yielded results that indicated at-risk students scored significantly lower on Commitment to Community Service and Leisure Activities than did non-at-risk students. There were no significant differences

TABLE 10

Effects of At-Risk on Career Development

<u>Career Development:</u>	<u>At-Risk</u>			<u>Non-At-Risk</u>		
	<u>N</u>	<u>Mean</u>	<u>St.Dv.</u>	<u>N</u>	<u>Mean</u>	<u>St.Dv.</u>
Career Planning	32	54.3	27.72	60	57.3	28.54
Career Exploration	32	60.3	30.16	60	66.2	28.04
Decision Making	32	29.1	27.61	60	53.0*	25.76
World of Work	32	26.9	25.91	60	60.2**	28.83

* $p = .000$, $F(1, 91) = 17.12$

** $p = .000$, $F(1, 91) = 29.84$

at the .05 level of significance between at-risk scores and non-at-risk scores for Commitment to Studying, Commitment to Working or Commitment to Home and Family.

Results did indicate a significant difference between at-risk scores on Commitment to Community Service, $F(1, 91) = 9.25$, $p = .003$ and non-at-risk scores. There were also significant differences between at-risk scores on Commitment to Leisure Activities and non-at-risk scores, $F(1, 91) = 6.91$, $p = .010$ (see Table 11).

Findings yield partial support for Hypothesis 7 in that at-risk students scored significantly differently from non-at-risk students on two of the five commitment scores.

In essence, these findings indicate that at-risk students are less likely to find importance in community service or in leisure activities than non-at-risk students.

Hypothesis 8: There will be a significant difference in at-risk students' scores and non-at-risk students' scores on the 21 scores of the The Values Scale.

Due to the large number of variables and the small sample size, the Kolmogorov-Smirnov two-sample test, a non-parametric test, was conducted. Although at-risk students' observed scores were consistently lower, the results indicated that at-risk students did not differ significantly from non-at-risk students on value scores at .000 alpha level of significance (see Table 12).

TABLE 11

Effects of At-Risk on Role Commitment

<u>Role Commitment:</u>	<u>At-Risk</u>			<u>Non-At-Risk</u>		
	<u>N</u>	<u>Mean</u>	<u>St.Dv.</u>	<u>N</u>	<u>Mean</u>	<u>St.Dv.</u>
Studying	32	28.0	8.004	60	29.5	7.448
Working	32	30.2	7.076	60	30.9	7.329
Community Service	32	21.7	8.788	60	27.6*	8.642
Home and Family	32	31.2	6.969	60	34.1	7.529
Leisure Activities	32	28.8	7.547	60	33.0**	7.142

* $p = .003$, $F(1, 91) = 9.25$

** $p = .010$, $F(1, 91) = 6.91$

TABLE 12
Relationship between At-Risk and Values

<u>Values:</u>	<u>At-Risk</u>			<u>Non-At-Risk</u>			<u>KS</u>
	<u>N</u>	<u>Mean</u>	<u>St.Dv.</u>	<u>N</u>	<u>Mean</u>	<u>St.Dv.</u>	
Ability Utilization	32	15.47	2.71	60	17.12	2.24	.28
Achievement	32	16.56	2.81	60	17.83	2.21	.21
Advancement	32	16.56	2.83	60	17.02	2.48	.15
Aesthetics	32	15.03	3.49	60	15.33	3.67	.11
Altruism	32	15.56	3.26	60	16.02	3.93	.19
Authority	32	13.03	2.83	60	13.90	3.11	.14
Autonomy	32	14.50	2.92	60	15.30	3.08	.19
Creativity	32	14.69	2.68	60	15.52	3.23	.15
Economic Rewards	32	17.03	3.12	60	17.07	2.95	.08
Life Style	32	14.91	3.37	60	15.82	2.94	.12
Personal Development	32	15.31	3.54	60	17.07	2.36	.24
Physical Activity	32	13.31	2.88	60	14.45	2.75	.19
Prestige	32	15.66	3.42	60	16.08	3.04	.10
Risk	32	11.84	3.12	60	11.82	3.82	.17
Social Interaction	32	13.06	3.64	60	14.48	3.47	.27
Social Relations	32	14.66	3.30	60	15.25	3.06	.11
Variety	32	13.94	3.18	60	14.48	3.22	.15
Working Conditions	32	15.13	3.06	60	15.83	2.83	.17
Cultural Identity	32	13.91	2.72	60	14.83	3.13	.23
Physical Prowess	32	11.16	3.17	60	9.95	3.00	.22
Economic Security	32	15.31	3.33	60	17.32	2.72	.33

$p > .000$

Due to the smaller than expected number of dropouts, analyses were not conducted for Hypotheses 9 - 14. Only four of the 93 participants dropped out of school. Those four students were in the at-risk group attending Gillespie Park Education Center. None of the students from the four area traditional high schools who participated in the study dropped out.

Case Description of Dropouts

The following gives an indepth description of those four students who dropped out:

Student A: This student was a 16 year old black female in the 10th-grade. She ranked in the Level 7, low socioeconomic status. She was not working, had one child and was six months pregnant with her second child at the time of the study. The Career Development Inventory scores ranged from 0 - 99. Based on the types of questions asked, she scored an 89 on Career Planning and a 42 on Career Exploration. She scored a two (02) on Career Decision Making and a two (02) on World of Work Information. Her scoring pattern was consistent with the total sample of at-risk students' scores. The Saliience Inventory scores ranged from 0 - 40. The student's scores indicated she found importance in work (40) and home and family (40), mōre so than in studying (25), community service (05) and leisure activities (31). The total sample of at-risk students' scored lower on Community Service and

Leisure. Her scores in these areas are consistent with the at-risk group. The Values Scale is scored on a 0 - 20 point continuum for each of the 21 scales. Her scores were consistent with the total sample of participants, and ranged from 11 to 16.

Student B: This student was a 17 year old black female in the 10th-grade. She ranked at a Level 5 socioeconomic status of below average. She was employed in a full-time job and reported having no children. Based on the types of questions asked, she scored 30 on Career Planning and 78 on Career Exploration. She scored a three (03) on the Career Decision Making scale and a seven (07) on the World of Work Information scale. Again, these scores are consistent with the at-risk group. Her commitment scores showed she found importance in studying (40), working (37), home and family (40) and leisure activity (40). She saw community service (10) as having less importance. Her low commitment score for Community Service is consistent with at-risk students' scores. Her values scores were consistent with the total sample of participants and ranged from 12 to 20.

Student C: This student was a 15 year old black female in the ninth-grade, ranking at a Level 5 socio-economic status, below average. She was working a part-time job and had no children. Her scores on the Career Development Inventory were somewhat different than the two

previous females. She scored lower on Career Planning (12) and Career Exploration (23) than she did on Career Decision Making (60) and World of Work Information (38). Her Career Decision Making scores and the World of Work scores were higher than the total sample of at-risk students' scores. She scored 39 on Commitment to Studying, 37 on Commitment to Working, a 36 on Commitment to Home and Family and a 22 on Commitment to Leisure Activity. Her Commitment to Community Service score (21) was the lowest of all her commitment scores. Her scores on the Values Scale were consistent with other participants' scores, ranging from 14 to 20. This student was on probation for truancy. She had to leave the testing session because of a serious health problem but returned for a short period of time. She completed the inventories but dropped out several weeks later.

Student D: This student was a 15 year old black male in the ninth-grade. He ranked at the Level 4 socioeconomic status, average. He was not working and had no children. He was unable to complete the Career Development Inventory due to his arrest by law enforcement officers for assault and battery. He did, however, complete The Salience Inventory and The Values Scale. His scores on The Salience Inventory ranged from 21 to 25 points out of 40. His scores were higher for Commitment to Studying (25) and to Work (25) than Commitment to Community Service (21), Home and Family (22) and Leisure Activities (21). His value scores ranged

from 10 to 17 out of a possible 20. His scores appear to be consistent with the at-risk group.

It is difficult to draw conclusions on such a small number of dropouts. Each student demonstrates certain characteristics of the typical at-risk student including teen mothers, working students, truancy problems and delinquency.

All four of the dropouts scored lower in Commitment to Community Service than any of the other commitment areas. Two out of the three who took the Career Development Inventory scored extremely low on Career Decision Making and the World of Work. All four had Value Scale scores similar to the overall sample. This profile of scores is consistent with the profile of at-risk students' scores.

CHAPTER V

DISCUSSION AND RECOMMENDATIONS

The present research investigated the differences between at-risk students and non-at-risk students in career development as measured by the Career Development Inventory, role commitment as measured by The Salience Inventory and values as measured by The Values Scale. Gender, race and socioeconomic status were examined for the total sample to determine if these variables had an affect on students' responses on the inventories. Relationships among the inventory scores were also examined.

Discussion

Career Development of At-Risk as Compared to Non-At-Risk Students

The Career Development Inventory has four scales: Career Planning, Career Exploration, Career Decision Making and World of Work Information. Each scale will be discussed separately.

Career Planning. This scale measures students' attitudes toward thinking about their futures and making career plans. Unexpectedly, the findings indicated that although at-risk students demonstrated lower observed scores, both at-risk and non-at-risk students had given a similar amount of thought to their futures and making

career plans. These findings suggest that at-risk students have similar concerns for their futures, their careers, and have similar attitudes toward making plans as non-at-risk students.

At-risk and non-at-risk students were at similar levels of involvement in career planning with most students indicating they had either made some plans but were still not sure about them, or had made some definite plans but were not sure how to carry them out.

This supports previous research that stated at-risk students have difficulty implementing their career plans and have feelings of limited choices over their plans for the future (Fine, 1986; Wehlage & Rutter, 1986).

Based on the information presented in this research study, school systems need to address the issue of career planning by developing programs that would provide adequate career counseling to assist at-risk and non-at-risk students in making appropriate career plans and provide career guidance as to how these students could implement their plans more successfully.

Career Exploration. This scale measures students' attitudes about finding and utilizing good sources of career planning information. Based on the questions asked, at-risk and non-at-risk students have similar ideas about how to investigate their interests and utilize similar sources of information.

Although at-risk students' observed scores were lower than those of non-at-risk students, the results indicated these differences were not significant. These findings suggest at-risk students have the willingness to investigate their interests and utilize career information sources similar to the non-at-risk students. Both groups demonstrated similar attitudes toward thinking and making plans, and utilizing appropriate sources.

Career Decision Making. This scale measures the amount of information students have to make appropriate choices given certain situations. At-risk students had significantly less information for making the more appropriate career decisions for sample cases than did non-at-risk students. At-risk students demonstrated limited skills and knowledge in assessing alternatives to situations and deciding what steps to take to enhance future success. These students were unaware as to what the typical cases could do to learn more about their occupational interests or what academic classes would be more helpful in preparing them for college or work. They had limited understanding as to how interests and academic successes could be utilized when making a career choice. The at-risk students had a tendency to make unrealistic educational and occupational choices for others. They had difficulty relating interests, occupational skills and education to future success.

This supports previous research which stated at-risk students have difficulty in making decisions (Anderson & Limoncelli, 1982; O'Sullivan, 1988), lack the skill to make appropriate choices (Kunisawa, 1988; Pool & Low, 1982; Wehlage & Rutter, 1986) and do not see education as a means to future success (Pawlovich, 1985).

One needs to also take into account that on which these at-risk students base their decisions. Gottfredson (1981) stated that career decision making and occupational aspirations relate to self-concept development and are influenced by home and family. If an at-risk student is bored with school, lives in poverty and has low self-esteem, he or she may feel that getting a job which pays the most money is an appropriate decision. Another student who sees college as a future option may make a decision based on that possibility.

This area needs to be investigated further. It may be of interest to investigate why these students respond to certain decision making situations the way they do and how their decisions relate to values, because at-risk students are subjected to different life experiences than non-at-risk students.

Based on this study, school systems need to provide experiences that would introduce decision making skills into the curriculum. School counselors and teachers need to be aware of and take into consideration that each student is an

individual, as was stated in previous research (Conrath, 1986; Hedman, 1984; O'Sullivan, 1988; Uhrmacher, 1985), to adequately assist the individual student with appropriate career development. Given the student's background, career decision making may be approached differently. School counselors should assess students' decision making skills and develop a program based on that assessment.

World of Work Information. This scale measures how much knowledge one has about jobs and what it takes to find and succeed at a job. As expected, at-risk students knew significantly less about the world of work than did non-at-risk. The at-risk students thus knew very little about the basic facts relevant to choosing an occupation. They did not know how they might improve their chances for college, for finding a job or how to utilize job interviews to select an appropriate occupation. These at-risk students were limited in their knowledge about job qualifications and the education and training needed for specific types of jobs.

These findings support previous research which stated that at-risk students are ill prepared to enter the world of work (Kunisawa, 1988; Mann, 1986a), have difficulty finding jobs (Cairn et al., 1987) and have limited knowledge and skills for career development (Forrest, 1986). These students must be given the opportunity to develop the

knowledge and the skills for career development for future educational and occupational success.

These findings suggest that at-risk students are limited in career knowledge. Programs to address these deficiencies should be implemented to develop needed knowledge and skills. Schools should involve these at-risk students with the business community through internships and field trips to provide more exposure to the expectations, qualifications and realities of the working world. By exposing them to the working world, they may become more aware of how education leads to a more successful career in the future.

Role Commitment of At-Risk as Compared to Non-at-Risk Students

The Salience Inventory has five role commitment scores: Commitment to Studying, Commitment to Working, Commitment to Home and Family, Commitment to Community Service and Commitment to Leisure Activities.

At-risk and non-at-risk students attach similar importance to studying, working, and home and family, but differed in commitment to community service and leisure activities.

Both at-risk and non-at-risk students felt home and family was more important than the other commitment areas. Both at-risk and non-at-risk students felt least committed

to studying and community service, respectively. Commitment to working and leisure ranked in the middle.

There were significant differing feelings toward commitment to Community Service and Leisure Activity between the at-risk students and the non-at-risk students. At-risk students did not feel community involvement was as important as did non-at-risk, nor did they commit themselves to leisure activities as much as non-at-risk students.

The at-risk students' lack of involvement with community service and with leisure activities may be due to the fact that these at-risk students in this sample attend school from 2:00 p.m. in the afternoon to 8:00 p.m. in the evenings. Almost half of these at-risk students in this study worked at a full- or part-time job. Their school and work schedule limits their involvement in and exposure to community and leisure activities. Most school related activities, such as football practice and club meetings, are usually held during the time these at-risk students are in their academic classes. Gillespie Park offers no extra-curricular activities, which limits the at-risk students' exposure to activities other than academics or work.

Non-at-risk students attend school from 8:25 a.m. in the morning to 3:25 p.m. in the afternoon, which frees the non-at-risk student to be involved in after school and community activities. Very few of the non-at-risk students

in this study worked in the afternoons, which also gives them the opportunity to be involved in extra-curricular activities.

Another reason the at-risk students expressed a lack of commitment to community service may be due to their concept of community service. Many of these students have been or are on probation for truancy or other juvenile offenses. Much of their restitution is paid off with community service. This is a forced involvement with the community. If their attitude toward this forced community service is negative, then their responses might reflect that.

The Study role was one of the least important of the five life roles for the at-risk students. It ranked one step above Commitment to Community Service. This is relevant to previous research which suggests that at-risk students dislike school (Fine, 1985; Pawlovich; 1985), feel threatened by the school environment (Conrath, 1986) and tend to reject the system (Pawlovich, 1985). At-risk students who view their Student role as having less importance than other roles may acquire less ability to develop the knowledge and skills needed for appropriate career development.

One suggestion is that, if schools are created for the sole purpose of helping the at-risk student, such as at Gillespie Park, all areas of development must be taken into account, not only academic but social. At-risk students

need assistance in developing a sense of positive interaction with the community and with leisure activities, possibly through community sponsored projects in the school setting and the implementation of extra-curricular activities. This may increase their chances of becoming more career mature by being exposed to more of the world around them.

Values of At-Risk and Non-at-Risk Students

The Values Scale was developed to assess what an individual values or what satisfactions an individual looks for in life. Career choices are based to some extent on what an individual values or thinks is important (Nevill & Super, 1986b).

At-risk and non-at-risk students attached similar importance to values. It is widely accepted that values are related to home and family (Gottfredson, 1981) and begin in childhood (Super & Bowsbey, 1981). In turn, these values influence life choices and interests (Nevill & Super, 1986b). Because of this and in conjunction with the complex problems at-risk students experience in the family, one would think that these at-risk students would be limited in their value selections. In this study, at-risk and non-at-risk students reported similar values.

Gender and Career Development

Fifty-two females and 40 males participated in this study. Previous research had indicated that females

and males in grades nine through 10 scored similarly in career development and that females in the upper high school grades tend to score higher in cognitive career development than do males, although there are no significant differences in career development attitudes (Super & Nevill, 1984). Findings from this study indicated that these ninth- and 10th-grade males and females scored similarly on all four areas of the inventory, which in part, supports the previous research. Mean scores for both male and female students were relatively low for attitudes (Career Planning and Career Exploration) and cognitive factors (Decision Making and World of Work Information) related to career development. This suggests that for this sample, males and females are at similar low levels of career maturity which may be attributed to limited career information for both male and female high school students.

Race and Career Development

For this study, there were 57 black and 34 white students. Sixty-two percent of the total sample were black. Thirty-seven percent of the total sample were white.

Findings indicated no significant difference between black students' and white students' attitudes toward thinking about the future and getting help in planning for it. This suggests black and white students appear to have

given similar thought to their futures and know where to go to get help in planning for them.

Black students demonstrated significantly less knowledge and skill than did white students in making appropriate career decisions and in information about the world of work. This may be due to the fact that 47% of the black students in this study were at-risk students at Gillespie Park, while only 17% of the white students were at-risk students. These black students made unrealistic educational and occupational choices and had less information for relating interests, occupational skills and education to future success, as did the at-risk and low socio-economic students in this study. This suggests that black students have a lower career maturity level than white students and that black students have limited information to make appropriate career decisions for selected cases and limited knowledge about the world of work.

Socioeconomic Status and Career Development

Findings for this study indicated that socioeconomic status did have an effect on the level of career development, at least for students in this sample. There were 43 students who were average to high in socioeconomic status and 49 who fell in the below average to low socioeconomic range, the lowest level on a 7-point scale.

Career Decision Making and the Knowledge of World of Work Information were the two areas of career development

significantly influenced by socioeconomic status. Students who fell between Levels 5-7 (low average to low), including black students and at-risk students in this study, had acquired significantly less knowledge and skill in making appropriate decisions and gathering information about the world of work than students who fell between Levels 1-4 (average to high). This may be due to the economically limited ability of their families to provide resources to them or provide them with the opportunity to investigate occupational opportunities. As shown in previous research, low socioeconomic families usually do less to encourage higher aspiration (Pawlovich, 1985; Poole & Low, 1982) and to provide information on career opportunities (Poole & Low, 1982). They tend to live from crisis to crisis (Anderson & Limoncelli, 1982; Pawlovich, 1985) and to have limited occupational opportunities (Cairns et al., 1987; Fine, 1985, 1986).

School systems should provide programs to assist students in developing appropriate skills and knowledge for living in a technological society. Poverty breeds poverty (Cairn et al, 1988). Students in low socioeconomic status need to be given the opportunity to break out of that cycle. Counselors, teachers and school personnel should assist these students, through curriculum, small group guidance and internships, in developing skills and knowledge needed for making appropriate career decision and to make

available the information needed to increase their knowledge of the working world.

Socioeconomic Status and Role Commitment

Socioeconomic status was found to have no relationship with how students responded to the five commitment scales: Studying, Working, Community Service, Home and Family and Leisure Activities.

These scales are designed to indicate which life roles are most important to people. According to the findings of this study, students at all socioeconomic levels are committed similarly to the various life roles. Students at Levels 1 through 4, average to high in socioeconomic status, ranked role importance as follows: Leisure, Home and Family, Working, Studying and Community Service. Leisure was the most important and Community Service the least. Students in Levels 5 through 7, which is below average to low, ranked the roles as: Home and Family, Working, Studying, Leisure, and Community Service, with Home and Family the most important and Community Service the least. Students in Levels 5 through 7 (below average to low) ranked the importance of role commitment in the same way as at-risk students: Commitment to Studying, to Leisure, and to Community Services being the least important.

Socioeconomic Status and Values

Due to the large number of value scores and the small sample size, there is little basis for establishing a

relationship between socioeconomic status and values. Participants in this study appeared to place similar importance on all of the 21 value areas.

Values have different meanings for different individuals, varying with their aspirations, life experiences and occupational goals. It is important for school systems to acknowledge these differences, to guide these students more adequately in learning about themselves by introducing self-awareness programs, providing small group discussions of values and allowing them to do self-exploration.

The Relationship between Role Commitment and Career Development

There is some support in these findings for a relationship between role commitment and career maturity. Commitment to Studying correlated positively with Career Exploration and Knowledge of World of Work. Career Exploration deals with how much one thinks about careers and Knowledge of World of Work Information deals with how much one knows about them. This suggests that finding importance in education may affect how much one may be willing to learn about occupations and utilize helpful sources.

Commitment to Work correlated with Career Exploration only. Students who think that having an occupation is important may do more investigating of how to obtain

employment and may utilize helpful sources of information to do so.

Commitment to Community Service correlated with Career Planning, Career Exploration and World of Work Information. Career Planning and Career Exploration address how much one thinks about careers, and Knowledge of World of Work Information addresses how much one knows about careers. If a student is active in the community, awareness about what goes on in the working world and what is available is more likely enhanced.

Commitment to Home and Family was found to be related to Career Planning and Career Exploration. This suggests that taking responsibilities within and related to the home and family may enhance the development of thinking about and awareness of where to go to find out about making career plans. Both at-risk and non-at-risk students in this study had similar attitudes about exploring a career and both groups ranked Commitment to Home and Family above the other role commitments.

Commitment to Leisure correlated with Career Exploration and World of Work Information. This suggests that students who find importance in sports, reading, pursuing hobbies and socializing are more aware of where to go to find information about making career plans and acquire more knowledge about the world of work than those students who do not find importance in social activities.

All of the commitment areas correlated with Career Exploration (the willingness to utilize appropriate sources to explore careers). Studying, Community and Leisure correlated with Knowledge of World of Work (the information one has about the working world). At-risk students in this study, compared to non-at-risk students, demonstrated a deficiency in the areas of knowledge acquired about the world of work and thought it less important to be involved in community and leisure activities.

This suggests that how students feel toward life roles may have an affect on the student's level of career maturity. Based on this study, the more commitment students felt toward life roles, the higher their career maturity level as shown by the significant relationship between role commitment and career development scores. Guidance programs should incorporate small group counseling to discuss issues that would enhance self-awareness and help students understand how people are influenced by the world around them.

Career Development and Values

Ability Utilization, Achievement, Personal Development and Economic Security were the four values that positively correlated with the Career Planning scores. This suggests that students who seek in life that which enables them to use all their abilities, knowledge and skills and look for economic security are more likely to develop positive

attitudes toward thinking about their future careers, which may help them acquire cognitive abilities to make appropriate career decisions and awareness of the world of work than those who do not consider these values important.

The value that had a significant negative correlation with Decision Making was Physical Prowess. This suggests that those students who feel it is important to display physical strength or power are limited in acquiring knowledge and skill to make appropriate decisions. Students who value Physical Prowess may demonstrate lower levels of career maturity than those students who seek other values in life.

Summary

The intent of this research study was to examine the career development, role commitment and value differences between at-risk students and non-at-risk students using the Career Development Inventory, The Salience Inventory and The Values Scale inventory and to provide program implications based on results.

There has been a consistent theme throughout this research. In essence, students from low average to low socioeconomic status, blacks and students who are at-risk of dropping out of school have career development deficiencies when compared, respectively, to students from average to high socioeconomic status, whites, and students who are not at-risk of dropping out of school.

All of the students in this study had similar attitudes when thinking about and getting information about careers, but differences emerged when students had to make decisions based on their thoughts about selected cases and the information they had about the world of work. At-risk, black and low socioeconomic students appear to have less information for making appropriate career decisions and are limited in their knowledge about the working world.

At-risk, black and low socioeconomic students demonstrated deficiencies in the same areas: Career Decision Making and Knowledge of the World of Work. Based on this information, school counselors need to develop school career guidance programs to provide these students with more skill development for making appropriate career decisions, more knowledge of what occupations are, what is needed to fulfill career plans and more involvement with the business world.

Values were also found to be related to career development. Students who valued Physical Prowess were found to have limited cognitive career decision making skills. Students who value Ability Utilization, Achievement, Personal Development and Economic Security were found to demonstrate more willingness to utilize career information resources than those students who did not value these areas.

Although there were no significant differences between at-risk students' and non-at-risk students' values

selections, at-risk students demonstrated deficiencies in the cognitive career development areas.

Commitment to life roles was also found to relate to career development. Students who were committed to the five life roles, studying, working, home and family, community service and leisure activity, demonstrated higher levels of career maturity than those students who were not committed. At-risk students appear to be isolated from the world around them; they attached little importance to committing themselves to community service and leisure activity. They had less information for making appropriate career decisions and limited knowledge of the world of work.

In summary, at-risk students in this study were found to have limited career decision making skills, limited knowledge of the working world, sought similar life values as non-at-risk students and placed little importance on being involved in the community or in leisure activities.

Recommendations

The following are recommendations for program development that may enhance the career development of at-risk students and possibly help reduce the dropout rate:

1. At-risk students appear to differ in their career maturity and role commitment as compared to non-at-risk students. Counselors need to know their students on an individual basis to provide adequate and appropriate career counseling services. Research suggests that the more time spent with a student in individual counseling sessions, the better the outcome (Oliver & Spokane, 1988).

2. Counselors need to be aware of the student's career development status, which means assessing the student's attitudes, knowledge and skill, interests, feelings and values periodically to detect any changes.

3. Counselors should meet with their students to discuss these assessment results to help students learn more about their strengths and weaknesses in career development and to provide follow-up information about any changes in these areas.

4. Since at-risk students appear to have limited knowledge of the world of work and resource material, counselors should have access to the most up-to-date technology and computer programs that contain information on careers, occupational trends, available employment and qualifications, college information and financial assistance

available to those who see college or technical training in their futures.

5. Since at-risk students are limited in their career decision making skills and knowledge of the working world, one way to enhance their career development would be for counselors to instruct these students in how to use these computer programs to assist them in planning and exploring careers and to increase their knowledge and skill in decision making and acquiring information about the world of work. This program should be located in an area for easy access and students should be scheduled several times during the year to use it. It would be helpful if this program were available to students during off hours, such as week-ends or when they are not attending classes or working.

6. Another way to enhance the career development of at-risk students would be for the school system to provide opportunities for these at-risk students to experience field trips and tours of the business community or community service agencies to get first hand experience in how businesses function.

7. Students should be provided with the opportunity to experience the work force through internships in a business, mentorships with business executives and internships in community service to enhance their awareness of the world around them.

8. One way to expose at-risk students to the world around them would be to invite consultants from the business community and from colleges and universities to work directly with the students by teaching them how to write resumes, fill out job and college applications, how to dress appropriately for an interview, how to ask appropriate questions during an interview and how to use the interview process to find out if a particular job is right for them.

9. Opportunities should be provided for students to get involved in vocational education classes prior to the 11th-grade. This would allow the students to experience vocational interests earlier in their schooling and would aid them in making decisions about their interests.

10. The school system needs to get businesses involved with volunteering time, talking with and encouraging these students. With limited school budgets, it would be helpful if businesses would take an interest in these students' futures by providing the necessary funding for needed materials and equipment that would enhance the academic progress and career development of these students. These students could possibly be hired by some of these businesses in the future.

11. Because at-risk students tend to be distractable, as they were when taking these inventories, counselors may consider conducting small group sessions to cut down on the distractability when discussing and guiding these students

through the process of career development. These sessions would involve skill training instruction in how to plan for a career, explore plans, make appropriate career decisions and gain information about the world of work. This would also involve assisting students in understanding how their interests and values affect their life choices.

12. Since at-risk students apparently view studying as not important, counselors and teachers should help students become more aware of the connection between academics and future success. This could be accomplished by utilizing employers from the business community to speak directly to the students on how mathematics or English relates to job skills and exactly what is expected of these students to be successful in society.

13. Because research has shown there is a lack of parental involvement in school activity, as was also true in this study, counselors, teachers and school administrators should work together to increase parental involvement by providing sessions for parents on how to encourage their child's future success and giving parents the same information that is given to the students, such as occupational trends and availability of financial assistance for further aspirations.

14. Since many of the parents of at-risk students have limited involvement with the school system, as in this study, the system needs to provide a home-school

representative that would go into the home to talk with and assist parents in how to enhance their child's future success.

15. The school system needs to incorporate aspects of career development within the academic curriculum to assist students in linking academics with career success, such as developing a class for skill training in decision making or a class to teach career development.

16. Students should be encouraged to discuss and explore their values. Counselors should conduct sessions on how values are acquired, why individuals value certain things and how values influence life choices.

17. Extra-curricular activities should be incorporated within the extended day program to help students expand and develop their interests.

18. Since it seems important for counselors to better understand their student's values, career maturity and role commitment levels to assist them with appropriate career development, counselors should follow the same group of students throughout the four years of high school to establish a closer relationship with them and their families. This would enhance the counselor's ability to provide a more adequate, appropriate and individualized counseling program that would meet the individual needs of the students.

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APPENDIX A
Personal Data Form

PERSONAL DATA FORM
(please print)

NAME _____

ADDRESS _____

SCHOOL _____ ID# _____

DATE OF BIRTH _____ AGE _____ SEX _____ RACE _____

I live with _____

Total number of people living in the home including yourself: _____

Have you ever dropped out of school? _____yes _____no

Are you employed? _____yes _____no _____fulltime _____part-time
If yes, where do you work _____

Do you have children? _____yes _____no If yes, how many? _____

Parent Information: Please describe in detail the following information about your parents.

Mother:

Father:

Occupation _____

Occupation _____

Highest grade completed:

Highest grade completed:

8th _____

8th _____

9th _____

9th _____

10th _____

10th _____

11th _____

11th _____

12th _____

12th _____

Equivalency _____

Equivalency _____

Community College (yrs) _____

Community College (yrs) _____

University (yrs) _____

University (yrs) _____

Estimated Income _____ Estimated Income _____

Please use this space to further describe your parents employment or job description:

APPENDIX B
Sample Parent Letter

(SCHOOL LETTERHEAD)

SAMPLE NOTIFICATION LETTER TO PARENTS FROM PARTICIPATING SCHOOLS

TO: Parents of 10th-grade students attending (Participating school)

FROM: (School Principal)
(Researcher)

SUBJECT: Career Development Survey

Ms. Harriet Enzor, a doctoral student at the University of North Carolina at Greensboro, and a certified school counselor for the Greensboro Public Schools is conducting a study to learn more about the career development of 10th-grade students.

(Participating School) is working with Ms. Enzor on this survey to find out what the career needs of these students are. The career assessment inventories will provide us with this information.

All 10th-grade students attending (Participating School) will be involved during the Fall, 1989. The information obtained from these inventories will be confidential. Each participating student will receive a career development profile based on the results of the inventories. This profile will assist the student in understanding their career development.

We feel this information will not only help direct the student in making appropriate career choices, but will also help in developing more effective career programs in the schools.

If you have any questions about this study, or choose for your child not to participate, please feel free to contact Ms. Enzor at P. O. Box 4142, Greensboro, N. C. 27404.

Please return the attached permission form by September 20, 1989. Thank you.

APPENDIX C
Parental Consent Form

PARENTAL PERMISSION TO PARTICIPATE
IN THE CAREER DEVELOPMENT STUDY

In order for your child to participate in this worthwhile project and receive a career development profile, you must return this signed parental consent form by September 20, 1989 to the school guidance office.

I _____ give permission
for my son/daughter, _____ to
participate in the Career Development Survey at _____
_____. I am aware that I may
(Name of School)
withdraw my child from participating in the survey at any
time.

Parent Signature

Date

(Homeroom # and Teacher)