PERCEIVED ATTITUDES OF THE SELF-CONCEPT OF DROPOUTS WHO RETURNED TO AN ALTERNATIVE EDUCATION SCHOOL AND COORDINATED VOCATIONAL ACADEMIC EDUCATION STUDENTS

DISSERTATION

Presented to the Graduate Council of the University of North Texas in Partial Fulfillment of the Requirements

For the Degree of

DOCTOR OF EDUCATION

By

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Denton, Texas
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The problem of this study was to determine if there were differences in perceived attitudes of self-concept between young people who returned to alternative education after dropping out of public education and educationally dis-advantaged at-risk youth in Coordinated Vocational Academic Education (CVAE) classes as measured by the Piers-Harris Children's Self-Concept Scale.

The hypotheses formulated for the study predicted no significant difference in mean attitude self-concept scores of returned dropouts to alternative schools and CVAE students enrolled in junior high school preemployment laboratories and high school students enrolled in Cooperative Education classes as measured by the Piers-Harris scale; and no significant change in mean attitude self-concept scores of former dropouts enrolled in alternative education centers and CVAE students as measured by the Piers-Harris scale over a two-month period utilizing an extended Solomon Four-Group Design, with and without the treatment.

The scale was administered to 351 students from junior high and high school CVAE classes in Ector County
(Odessa), Fort Stockton, and Midland Independent School Districts and alternative schools in Denton, Fort Stockton, Midland and Odessa, Texas. The self-concept scores were treated for significance by an analysis of variance.

Findings were that all groups tested scored within the age range, junior high school CVAE students scored lowest, but not significantly lower ($p > .05$); and junior high school CVAE students, alternative school students, and high school CVAE students all had a slight increase in self-confidence scores over the two-month period. All null hypotheses were retained.

It was concluded that, overall, junior high school CVAE students, former dropouts who returned to an alternative school, and high school CVAE students possessed positive self-concepts that were above the national mean for the scale; and that CVAE classes enhance the self-concept of academically disadvantaged students in Cooperative Education classes.
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CHAPTER I

INTRODUCTION

Dropout is the current buzzword for educators in Texas and throughout the United States. Almost every educational publication contains an article or reference to dropouts and the at-risk youth who are the potential dropouts of tomorrow (Peng and Takai 1983, 7). This coverage of the failure of public education is a weekly issue in news publications such as Time, Newsweek, and U.S. News and World Report. Thus, educationally disadvantaged youth are being examined, discussed, and studied as never before in America's educational history. The number of dropouts and disadvantaged youth are recognized as a national crisis (Barro and Kolstad 1987, 3).

The economic aspects of dropouts and at-risk students are being studied and analyzed by all facets of the educational community today, with additional emphasis being placed on vocational education. Dropouts are viewed as a very costly loss of vocational and intellectual talent (Azcoito and Viso 1987, 17). Dropouts who work at minimum wage represent an economic loss and must be subsidized because their income places them below the poverty level if they have a family. This becomes a great economic drain if they must be supported entirely by public funds because they are unable to be employed (Barr and Knowles 1987, 37).
Voluminous research exists on the dropout problem but no studies have been conducted on the perceptions of self-concept of the young people who have returned to an alternative education program. The at-risk students' studies have attempted to find ways to prevent these students from dropping out of school (Pallas 1987, 33). It is recognized that students with positive self-concepts are more likely to finish school than those with poor self-concepts (Bhaerman, Belcher, and Merz 1986, 211). One of the programs in Texas public schools that serves the at-risk youth who are educationally disadvantaged is the Coordinated Vocation Academic Education (CVAE) program (Intercultural Development Research Association 1986, 4).

Statement of the Problem

The problem of this study is to determine if there are differences in perceived attitudes of self-concept between young people who have returned to alternative education after dropping out of public education and the educationally disadvantaged at-risk youth who are in Coordinated Vocational Academic Education classes.

Purpose of the Study

The purpose of this study is to determine (1) if there are differences in perceived attitudes of self-concept between young people who dropped out of public education and have returned to alternative programs and academically
disadvantaged CVAE youth who are still enrolled in junior high school preemployment laboratories and high school Cooperative Education classes as measured by the Piers-Harris Children's Self-Concept Scale, and (2) if there is any comparison between the scores of students in CVAE classes that provide information as to the educational worth of the CVAE program in regard to self-concept.

Hypotheses

The following hypotheses were developed for the purpose of this study.

1. There will be no significant difference in the mean attitude of self-concept scores of the returned dropouts to alternative schools and the CVAE students enrolled in junior high school preemployment laboratories and high school students enrolled in Cooperative Education classes as measured by the Piers-Harris Children's Self-Concept Scale.

2. There will be no significant difference in the mean attitude self-concept score between male and female members of each category as measured by the Piers-Harris Children's Self-Concept Scale.

3. There will be no significant difference in the mean attitude self-concept score between males and females in different age groups within each category as measured by the Piers-Harris Children's Self-Concept Scale.
4. There will be no significant change in the mean attitude self-concept scores of former dropouts now enrolled in alternative education centers and CVAE students as measured by the Piers-Harris Children's Self-Concept Scale over a two-month period utilizing an extended Solomon Four-Group Design with and without the treatment.

Significance of the Study

The at-risk student is the product of educational, cultural, and social problems which combine to lead to the decision to leave an educational setting which offers little success and a great amount of frustration and failure (Coleman and Hoffer 1987, 71). Some of the educational problems of the at-risk student include alienation from school programs, isolation within school, deficiencies in basic skills, inability to be attentive and follow directions, lack of study skills, failure to meet academic demands of required programs, disruptive and aggressive behavior in the classroom, high absenteeism and chronic truancy, non-participation in school activities—especially extracurricular, friendship with dropouts, failure to learn from traditional instruction, failure to begin or complete assignments on time, inability to concentrate, limited vocabulary, and failure to achieve success in any academic or extracurricular activity at school (Cunningham and Putzstuck 1988).
Cultural problems that the at-risk student must confront are, first and foremost, poverty; incoherent and weak family structures; alcohol or drug abuse within the family as well as a potential personal problem; delinquency; adolescent parenthood, especially females; minority status; and the need to work to contribute to family finances (Committee for Economic Development 1987).

Social problems of the at-risk youth include a lack of coping skills, lack of problem-solving skills, lack of interpersonal skills, lack of respect for authority figures, low self-esteem, depression, unhappiness, nervousness and hyperactivity, withdrawal, need for immediate gratification of wants and desires, parental neglect, a feeling of rejection, and conformity due to peer pressure (Linebarger 1985).

The Texas Legislature characterizes students at-risk of dropping out of school, in House Bill 1010, with poor academic performance on the Texas Educational Assessment of Minimum Skills (TEAMS) in the third, fifth, seventh, ninth, and eleventh grades; drug or alcohol abuse; delinquency; limited English proficiency; enrollment in compensatory education; pregnancy; sexually, physically, or psychologically abused; learning disabled; chronic absenteeism; and lack of motivation (Cunningham and Putzstuck 1988).

Additional characteristics of at-risk students include low self-esteem, family problems, parents who dropped out of
school, siblings who are dropouts, and emotional problems (Intercultural Development Research Association 1986, 4).

The at-risk category is relatively new to the educational scene when compared to the concept of the educationally disadvantaged. The educationally disadvantaged were identified in New York City in the 1950s. The play, and later movie, *West Side Story* depicts educationally disadvantaged youth of the 1950s, at-risk youth of the 1980s, and the classic dropout of both periods with the production number, "Gee, Officer Krupke!" The lyrics of this number tell of home problems with alcoholic and drug abusing parents and grandparents, the lack of love and nourishing in the home environment, physical child abuse, friends that dropped out of school and are unemployed, and social and criminal problems with juvenile authorities (Bernstein and Sondheim n.d., 4).

In educational terminology, yesterday's educationally disadvantaged youth is today's at-risk youth. In the 1950s, New York designed and implemented the Higher Horizons Program and the Demonstration Guidance Project for New York City to help the educationally disadvantaged become successful (Ekstrom et al. 1987). These programs had an impact on educators' thinking in the 1960s.

President Lyndon Baines Johnson sought to create a Great Society for America by waging his War on Poverty. Education became a primary weapon in the waging of this war.
Under Johnson's administration, sixty educational bills were enacted to help every facet of education, but the majority were to help the educationally disadvantaged (Johnson 1971, 214-217). President Johnson devised a simple equation: 

\[ \frac{A}{2} \times B = P. \]

A represented a state's average expenditure per pupil, B represented the number of poor school children in a local school district, and P represented the federal grant to the district. This was Johnson's old federal formula used by Congress for aid to impacted areas. This formula applied to the poverty-stricken rural areas of the South and the urban ghettos of the North. The Elementary and Secondary Education Act started massive federal aid to education and provided for mandatory aid for the educationally disadvantaged (Kennedy, Jung, and Orland 1986). The Economic Opportunity Act of 1964 led to Operation Headstart, Upward Bound, and the Job Corps for disadvantaged youth of America. These acts provided federal intervention for the preschool poverty stricken, for the disadvantaged to be enriched and employed during summer vacation, and vocational education for the disadvantaged youth who had dropped out (Johnson 1971).

Federal education monies provided to the states funded studies to identify the educationally disadvantaged and to devise programs to make them educationally successful. One of the findings of such a study was that the students had negative perceptions of themselves (Hammond and Howard 1986, 53). A 1966 study found that self-concept scores of the
educationally disadvantaged may indicate that positive role models in vocational education classes can help the students’ self-concept improve (Ekstrom et al. 1987, 32). Another study indicates that schools should be flexible and should meet the individual needs of the disadvantaged student in the affective domain in order to be successful in the cognitive domain (Rader 1986, 17). If self-concept is not nurtured, the educationally disadvantaged youth drop out of school for lack of success (Manis 1984).

The 1970s' educational research emphasizes the importance of the student's perception of his or her self-concept to educational success. Positive self-concept greatly enhances student success and conversely, negative self-concept inhibits success (Sears and Sherman 1964, 172). In one study, educationally disadvantaged boys compared themselves to the mentally retarded and other special education students rather than to the rest of the students. Naturally this comparison produced a distorted self-concept which could not be maintained once the student left the protected environment of school and entered the world of work (Lewis, Hayes, and Lewis 1986).

The 1980s have seen renewed emphasis on educationally disadvantaged youth. In October 1983, the amended Job Training Partnership Act (JTPA) of 1982 (Public Law 97-300) replaced the Comprehensive Employment and Training Act (CETA). JTPA became the major employment and training
provider for the federal government. Public Law 97-300 changed the funding arrangement with local education agencies by providing a larger role to the states (Linebarger 1985). The states have administrative authority for the training programs and to the private sector which has equal responsibility along with local government in planning and implementing programs. In Texas, the governor designated thirty-four geographic areas as Service Delivery Areas (SDA) for the delivery of JTPA services, programs, and activities to economically disadvantaged individuals. Each Service Delivery Area must have a Private Industry Council (PIC) to serve the community-based organization as a body for oversight of the planning, implementation, and evaluation of JTPA-funded programs. The PIC determines whether to conduct programs or contract with other agencies or institutions to provide services to the economically disadvantaged (Linebarger 1985).

The Carl D. Perkins Vocational Education Act of 1984 (Public Law 98-524) replaced practically all past federal vocational education legislation. This act emphasizes provision of vocational services to groups that have traditionally been underrepresented in vocational education. These are the disadvantaged, handicapped, nontraditional occupations for males and females, single parents and homemakers, criminal offenders--both juvenile and adult,
individuals with limited English proficiency, and adults who need to be trained or retrained. The states are required to spend 57 percent of the basic vocational grant to meet these needs. The other basic funding of Public Law 98-524 is program improvement, innovation and expansion of services (Linebarger 1985).

PL 98-524 funds, through the Job Training Partnership Act, can be used to provide services and training to young adults who drop out of school. Section 123 funds of the JTPA were used to fund four programs for dropouts. Three of these programs were located in one Service Delivery Area to provide academic training leading to a General Education Development (GED) or training for employment.

In 1985, the Permian Basin Regional Planning Commission, a community-based organization, established a school for young adults between the ages of sixteen and twenty-one who had dropped out of school. A building was leased, an administrator and staff were hired, and the decision was made to use the Comprehensive Competencies Program of instruction. The Comprehensive Competencies Program was developed by Robert Taggart's Remediation and Training Institution of Washington, D.C. (Taggart 1983).

In December 1986, the Midland Independent School District negotiated a contract with the Permian Basin Regional Planning Commission to provide an alternative
school, based in a shopping center, for dropouts between the ages of sixteen and twenty-one. The Midland center also contracted with Taggart's Remediation and Training Institution to use the Comprehensive Competencies Program to provide computer-based, individualized instruction to prepare the students for the GED, academic remediation, and pre-vocational training. In March 1987, the Fort Stockton Independent School District also contracted with the Permian Basin Regional Planning Commission to provide a school for dropouts. In 1987, North Texas State University contracted with the North Texas Regional Planning Commission to provide educational, social, and vocational training for pregnant female dropouts between the ages of sixteen and twenty-one.

Students from these four alternative schools were given the Piers-Harris Children's Self-Concept Scale to determine their self-concepts. This was the basis of a comparative study with the at-risk youth in CVAE classes of Midland, Odessa, and Fort Stockton.

Definition of Terms

At-risk youth are those students who are at risk of dropping out of school because of educational, economic, cultural, and social problems. These students must be served with federal vocational funds in the "disadvantaged" category for vocational education.
Community-Based Organization (CBO) is a non-profit organization which is capable of providing job training services to the economically disadvantaged.

Coordinated Vocational Academic Education (CVAE) is a special vocational program designed to meet the needs of the educationally disadvantaged in Texas. The title of this program is a misnomer because there is no longer an academic function in the basic skills. These courses are either preemployment laboratories for the seventh, eighth, ninth, and tenth grades or Cooperative Education programs for students at least sixteen years of age who work at least fifteen hours each week.

Dropouts who have returned to an alternative education school are students who have returned to a nontraditional school to increase their basic skills in order to get a General Education Development certificate, preemployment skills, or improve their basic educational skills. These students can be enrolled in vocational or academic training at a community college or go to work.

Educationally disadvantaged vocational student is an academically unsuccessful student. These students usually have poor attendance, poor basic academic skills, poor communication skills, and have poor self-concepts in regard to academic subjects. These students do not have special education limitations. They do have economic or academic disadvantages that hinder their success in regular school
programs. The "educationally disadvantaged" classification means that the student is not or can not succeed in a regular academic or vocational program and the reason for this failure is the fact that the student is disadvantaged.

**Job Training Partnership Act (JTPA)** is federal legislation passed in 1982 to provide job training and services to the educationally disadvantaged through the states and Community-Based Organizations, Service Delivery Areas, and Local Education Agencies.

**Local Education Agency (LEA)** is a public school district in Texas with an elected board of education to make policy within the guidelines of the Texas Legislation, the State Board of Education, and the Texas Education Agency.

**Mainstreamed** means that the educationally disadvantaged youth are placed in regular classes with other students rather than segregated in special classes.

**Piers-Harris Children's Self-Concept Scale** is a test constructed by Ellen V. Piers and Dale B. Harris to measure the self-concepts of youth in the fourth to twelfth grades.

**Self-concept** is the way in which individuals perceive themselves, their self-worth, and their ability to be accepted, and to be successful in life.

**Self-esteem** is used synonymously with self-concept.

**Service Delivery Area (SDA)** is one of thirty-four areas in Texas designated by the governor in 1983 to provide JTPA
programs, services, and activities to the economically disadvantaged.

Delimitations

The following delimitations apply to this study.

1. This study is delimited to Coordinated Vocational Academic Education students in junior high school pre-employment laboratories, high school students in cooperative education classes, and dropouts who have returned to alternative education schools in Midland, Ector County (Odessa), Fort Stockton, and Denton, Texas.

2. This study is delimited to Alternative Schools in Denton, Odessa, Fort Stockton, and Midland. Coordinated Vocational Academic Education classes are delimited to classes in Midland, Ector County Independent School district, and Fort Stockton.

3. This study is delimited to CVAE students who are in the eighth, ninth, tenth, eleventh, and twelfth grades.

4. This study is delimited to students who have a signed permission form from their parents unless they are eighteen years old.

5. This study is delimited to students who voluntarily complete the Piers-Harris Children’s Self-Concept Scale.

Basic Assumptions

The following assumptions are made regarding this study.
1. The sample included all socioeconomic groups in similar proportion to the communities.

2. The students answered the Piers-Harris Children's Self-Concept Scale honestly.

3. The students met state qualifications for placement in the Coordinated Vocational Academic Education classes.

4. The Coordinated Vocational Academic Education teachers met certification requirements.

5. The students had the reading ability necessary to successfully read the Piers-Harris Children's Self-Concept Scale.

Instrument

The Piers-Harris Children's Self-Concept Scale was designed, in 1969, to use the child's own conscious perceptions of himself or herself rather than using second-hand observations of teachers or parents. This scale has been standardized longitudinally and cross-sectionally for grades four to twelve. The reading level is third grade and students are asked to answer the questions with a simple "yes" or "no." The scale is subtitled, "The Way I Feel About Myself" and is composed of eighty items and six subscales. The subscales are (1) physical appearance and attributes, (2) anxiety, (3) intellectual and school status, (4) behavior, (5) happiness and satisfaction, and (6) popularity. One-half of the questions are worded to produce a positive
self-concept and the reminder are negative. The scale is unidimensional (Piers 1984).

The scale is not biased according to sex or grade differences. It can be used with the educationally disadvantaged because it does not correlate unduly with social desirability (Piers 1984).

When the Piers-Harris Children's Self-Concept Scale was developed, Piers reported reliability coefficients ranging from .72 to .93. The internal consistency using the Kuder-Richardson Formula 21 was reported to be from .78 to .93. The test-retest reliability was .71 to .96, with retest intervals of a few weeks to six months (Piers 1984).

Studies on the reliability of the Piers-Harris scale have been conducted with a variety of populations. The internal consistency of the scale is relatively high. Alpha coefficients of .90 to .91 have been reported by male and female populations, and reliabilities of .88 to .93 have been recorded for males and females using the Kuder-Richardson Formula 20. High internal-consistency measures have been found with special populations, including the learning disabled (Smith and Rogers 1978) and American Indians (Lefly 1974).

The test-retest reliabilities were established in normal populations (Shavelson and Bolus 1982), learning-disabled students (Smith et al. 1978), and in children from
different ethnic backgrounds, including Black and Mexican-American children (Platten and Williams 1979), Mexican-American migrant workers (Henggeler and Tavormina 1979), and native American children (Lefly 1974).

The Piers-Harris Children's Self-Concept Scale has a section labeled Validity Considerations. The complete set of validity indicators is scanned to determine if any apply. There are two types of validity checks considered: first, threats to validity associated with relevant moderator variables such as grade level or ethnic group membership; and second, invalid responses due to random or systematic response biases (Piers 1984).

Population

The population of this study included all CVAE students in the Midland Independent School District, Ector County Independent School District, and the Fort Stockton Independent School District plus the population of the Alternative Schools for dropouts in Midland, Odessa, Fort Stockton, and Denton, Texas. CVAE students on the eighth- and ninth-grade levels spend two hours per day in CVAE and four hours in regular classes. High school students in vocational cooperative CVAE classes spend one hour in CVAE class and three to four hours in regular classes. Cooperative students are employed a minimum of three hours per school day and
receive on-the-job training. Alternative schools have a three-hour time block each day for instruction.

**Selection of the Sample**

The sample was selected on the basis that Coordinated Vocational Academic Education students were educationally disadvantaged according to state guidelines. Students were required to have signed parental permission forms in order to take the test and be included in the study. Each student had the option not to take the Piers-Harris. Students in the alternative schools met criteria for at-risk youth. Each member of the sample remained anonymous and was randomly chosen by the use of a table of random numbers. The two groups were listed alphabetically and then randomly selected for participation in this study.

**Research Design**

The basic research design was an extended Solomon Four-Group conducted on alternative education students and junior high and high school CVAE students. The first administration of the Piers-Harris Children's Self-Concept Scale was in March 1988, and the second measurement was taken in May 1988. Former dropouts and CVAE students were divided into three groups. There were three categories and six groups. Two of the groups took a post-test of the Piers-Harris Children's Self-Concept Scale only. There was a random selection for each subject in each group.
Table 1 represents the March 1988 pre-test and the May post-test. \(O\) represents the research instrument's observation. \(X\) represents the treatment in the CVAE classrooms.

<table>
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<td>(X)</td>
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<td>CVAE</td>
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<td>(X)</td>
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The research instrument was administered to small groups of twenty or fewer students. The directions were read aloud to each group as the students read them. Students were allowed to ask questions prior to the testing procedure.
Variables

Coordinated Vocational Academic Education classes were the independent variable. The Piers-Harris Children's Self-Concept Scale overall score was the dependent variable.

The control group was made up of former dropouts in alternative education at Midland, Odessa, Fort Stockton, and Denton. The experimental group was made up of CVAE students enrolled at Midland, Odessa, and Fort Stockton.

Procedures for Analysis of Data

The Piers-Harris Children's Self-Concept Scale data were treated statistically for significance of difference between the mean scores of the control and experimental groups. A statistical analysis of variance was used. The hypotheses were tested at the .05 level of significance.
CHAPTER II

REVIEW OF RELATED LITERATURE

Self-concept and the disadvantaged student have been linked in educational research since the 1950s. President Johnson's Great Society envisioned educational institutions as a vehicle to solve the nation's social ills (Johnson 1971, 113). This national awareness of the disadvantaged urban student led to massive research into methods to help these students overcome factors which contribute to their status as academic and vocational failures.

One area of research was the comparison of standardized test scores. Clark's study was the first to show that urban schools, especially those serving poverty-stricken minorities, performed at levels of two and one-half to three years below national norms (1965, 121). This educational deficiency continued until the disadvantaged student dropped out of school or graduated with a diploma that did not reflect actual high school achievement. Educational problems discovered by Clark included a negative attitude toward school, excessive school absences, student vandalism of schools, students who were in conflict with the juvenile justice authorities, and a large dropout rate.

These attitudes and behaviors were immediately recognized as a reflection of a negative or poor self-concept
held by disadvantaged students (Clark 1965, 14). If a goal of education is to modify attitudes that are deterrents to learning, then programs are needed to rectify the attitudes and behaviors of disadvantaged students. There was a drive to provide new teaching materials, such as audio-visual equipment, for each classroom. Next there was the development of low reading level, high interest, minority recognition literature. It was decided that administrators and teachers must become aware of the importance of self-concept to a student's learning; therefore, funds were made available for teacher in-service training. The schools had to determine when and how more positive self-concepts could be shaped, especially for disadvantaged youth who were at risk of dropping out of school (Conrath 1988, 36-40). This last strategy to improve education resulted in numerous self-concept studies of the aspects of educational psychology, school counseling, vocational-career guidance, administration, and even psychotherapy. All of these disciplines are being used today in order to formulate a program to create positive self-concepts to keep at-risk students from dropping out of school (Gruskin and Campbell 1987, 3).

Self-Concept Theories

In December 1940, Carl Rogers, a professor of psychology at Ohio State University, delivered an address at the
University of Minnesota entitled "Newer Concepts in Psychotherapy" (Rogers 1951, 72). This was the birth of the person-centered theory of psychology. The person-centered theory is based on the nondirective technique of counseling which focuses on the self. Rogers defined self-concept as an organized pattern of perceptions of the self by the individual. This concept consisted of perceptions of one's characteristics and abilities, relation of self to others and the environment, values associated with experiences and objects, and the actualization of the individual's desires and goals (Rogers 1951, 136). When Rogers' person-centered theory was extended to the field of education it became known as student-centered teaching (Holdstock and Rogers 1983, 189).

Jersild contends that the school is second only to the home as the place where social forces influence a child's attitudes toward himself and his attitudes of self-acceptance or self-rejection. The individual's self-concept is the composite of thoughts and feelings which constitute a personal awareness of his or her individual existence, and a conception of who and what he or she is. The grades, the relationships with teachers and peers, and the failures and successes that a student experiences within the school setting have a profound impact on the student's self-concept (Jersild 1952, 90-98). Jersild contends that the failures, the reminders of limitations, and the
rejection that children face at school are often artificial and forced. These may have the effect of humiliating the student by depreciating self-worth in a manner that does society no good and the student's self-concept great harm. Therefore, Jersild contends that teachers' attitudes and behaviors must reflect caring and nourishing of students' concept of self (Jersild 1952).

Maslow developed a hierarchy of needs to explain external and internal motivations for an individual's behavior during the 1950s. The culminating thrust in Maslow's hierarchy of needs is the need for self-actualization, which is the driving force in the development of an individual's personality. A student with a poor self-concept is limited in achievement of self-actualization. The self has to be respected as capable by the individual before he or she can achieve self-actualization. Experientially-empty and experientially-rich classifications are separated by great self-awareness and the ability of the individual to perceive his or her own signals. Maslow believes that it is "this characteristic of experiential richness which needs to be taught and developed" (1968, 74-83).

Another self-concept theory that was developed in the 1950s is the social self-concept of Combs (1952, 669-673). He contends that self-concept is a product of society
through the interrelationships and interactions that the individual has with other individuals. These relationships and interactions produce the individual's personality. A person's self-concept or the way that he or she feels about self is directly related to the way that others accept or react to him or her (Combs 1952).

Bernard contends that a central problem of individual development concerns the way in which an individual perceives self. The individual's behavior reflects the influence of external and social forces. The individual's coping ability with these external and social forces impacts self-concept and consequently personality development (1970, 27-38).

In the 1960s, Glasser advocated schools without failure, based on the concept that students respond in a more positive way to rewards and success than to punishment and failure. His experimental school in California emphasizes student success in every academic and social endeavor. Glasser believes that the way a student feels about self is directly related to successful performance in school. Thus, self-concept is externally imposed by the school setting and failure begets failure with a low self-concept while success begets success with a high self-concept. The nourishing aspect of teachers within the schools is stressed in order to help students develop high self-esteem (Glasser 1969, 130-138).
Campbell's research into the literature concluded that a student's self-concept makes a decided difference in both the student's achievement and behavior (1967), 510-515). He considers self-concept as a vital key to all behavior. Campbell proposes actions to be used in the classroom that "redefine and refine our understanding of the role of a person's self-picture in his behavior. It cannot reasonably be ignored, nor can dealing with it be left to outside 'experts'" (1967, 515). Campbell's advocation of self-concept development to educational theory has been well received in many circles.

LaBenne and Green's research shows that children usually behave in the manner in which the teacher perceives them—brilliant but careless, handsome but dull, average but mischievous, talented but lazy. This forerunner of what became known as self-fulfilling prophecy concludes that "until a student is presented with other evidence and experiences, he will remain incarcerated in these pockets of self-concept" (1969, 87). LaBenne and Green feel that disadvantaged students' belief in an inability to successfully learn reading, writing, spelling, and mathematics causes them to avoid learning experiences that could enhance their self-concept (1969, 26-29).

Franco's study in the 1960s revealed that teachers are often in conflict with themselves regarding their role in public education (1971, 23). Teachers are torn between
teaching knowledge and skills and helping students to be successful through improving their self-concepts. Franco concludes that teachers must be helped to understand that they can teach the students to have a positive concept of self because the self-concepts are a result of their experiences—successful or otherwise.

The importance of the self-concept of students in educational theory and practice for administrators is summed up by Silberman. He states, "a principal's real objective is in educating children who feel good about themselves and their schools" (Silberman 1971, 101).

Sarokon, in 1986, stated that students' self-concept is a very important variable in academic success. Therefore, an effective principal works to develop the students' self-concepts for academic and social advancement (1-5).

Deutsch argues that failure of students in school is a failure of the school as well as the home and community environment. Therefore, school leadership must emphasize student success in learning and all other social activities (1968, 33).

Pitts' research confirmed his hypothesis that self-concept is greatly affected by "(1) experiences, especially interpersonal experiences which generate positive feelings and a sense of value and worth; (2) competence in areas that are valued by the individual and others;
(3) self-actualization or the realizations of one's own potentialities" (Fitts 1971, i).

Bledsoe's study stresses the fact that the teacher must accept each student as a unique individual worthy to himself or herself and capable of accomplishments. Bledsoe acknowledges that this would not be an easy task, but must be done by the teacher to help students improve their concept of self (1967, 436-438).

Schmuck concludes that as teachers and students act and react toward each other, they indicate how they feel about each other. The students' views of themselves, their abilities, their likability, and their general worth are greatly influenced by their teachers' actions and reactions. Therefore, "these feelings or evaluation of himself make up a student's self-esteem, which is clearly related to his utilization of academic potential and his future occupational and educational operations" (1976, 17).

Lackey indicates that students with poor academic self-concepts tend to remain unsuccessful in academic school work (1981, 1). Walker contends that students with high self-concept are much less affected by failure and are willing to try again when they fail than students with low self-concepts. Students with low self-concepts quickly accept failure as permanent (1978, 198-201). Self-concept also affects the establishment of a student's educational standard. Fryans states that students with high academic self-concepts set
high standards for themselves and conversely, low academic self-concept students set low standards for personal achievement (Fryans 1980, 37).

Another aspect of student self-concept concerns vocational self-concept. Parson's Theorms of Vocational Education state that an appropriate vocation selection is the result of an understanding of self, as well as an understanding of one's abilities, aptitudes, interests, resources, and ambitions (Parsons 1908, 5).

Second only to Parsons in the development of vocational educational theory is Super. He believes that the students' choices of vocations are expressions of the types of persons they perceive themselves to be. This is an implementation of self-concept. The choice of a vocation is seen as an attempt to achieve self-actualization appropriate to one's self-concept (Super 1957, 81-82).

Thus, one could conclude that the disadvantaged student with a low academic self-concept does not aspire to the professions--physician, lawyer, engineer--because of a lack of success in academic subjects. These students have eliminated themselves from the high-status vocations and seem willing to accept the lowest paying jobs. Many times these young people become dropouts from the work place as well as from the school place.

Roe developed a theory of vocational selection based on the influence of the family on the student. The family
is instrumental in the individual's vocational choice. Families with high vocational status produce children who choose high status careers. Conversely, low status families of educationally disadvantaged students do not encourage their children to choose high status occupations. Roe believes that the individual's self-concept has a direct influence on job selection (1957, 213-217).

**Development of Self-Concept Measurement Scales**

While the psychological concept of self dates from the start of the twentieth century, the self-concept measurement scales date from the late 1940s (Lackey 1981, 21). However, by 1960, Wylie found that 144 different instruments had been developed to measure self-concept (1961, 99). It is interesting to note that the vast majority of self-concept measurement scales are developed for research. The self-concept scores are used in clinical and counseling as well as psychological and educational research. These scales are most effective when used as a part of a battery of tests rather than as a single instrument (Piers 1984, 18).

In the early 1960s, Fitts developed the **Tennessee Self-Concept Scale** using a Likert-type scale. He divided his scale into categories of attitudes about physical self, moral-ethical self, personal self, family self, and social self (Fitts 1964, 16). High scores on the scale indicate a
high self-concept and, conversely, low scores indicate a low self-concept.

Taylor developed a Q-Sort Self-Concept Scale for his research. This allows the individual students to state their views. This is then followed by a statement of how the student would like to appear or act. There are eleven categories from negative to positive, with the respondent listing "least like me" to "most like me" (Taylor 1955, 205).

In 1969, Piers and Harris published the Piers-Harris Children's Self-Concept Scale. The Piers-Harris is similar to the Tennessee Self-Concept Scale in that it is divided into categories regarding behavior, school status, physical appearance, anxiety, popularity, and happiness and satisfaction (Piers 1984, 6). The Piers-Harris Children's Self-Concept Scale uses a "yes" or "no" forced choice format rather than the multiple-choice Likert-type scale used in the Tennessee Self-Concept Scale.

Self-concept scales rely on the individual to make statements of how he or she views self rather than depending on the observations of parents, teachers, psychologists, or peers. It is recognized that this self reporting can be distorted. Many students deliberately slant their response to reflect what they perceive as the right answer. This is based on what they believe to be socially acceptable answers rather than expressing their true feelings. A few students
slant their responses to all negative answers in order to get attention from counselors, teachers, or parents. However, researchers believe that the vast majority of students who deliberately give wrong answers tend to answer everything in a positive manner rather than a negative manner. All self-concept scales attempt to build safe-guards into the instrument to give it validity against all-positive or all-negative answers. Therefore, a very high self-concept score may not truly reflect a positive self-concept, but low self-concept scores truly reflect low self-concepts (Piers 1984, 14-15).

**Stability of Self-Concept**

Coopersmith's research found that while the idea of self is open to change and can be altered, it must be understood that the self is relatively resistant to change. He states that, "once established it apparently provides a sense of personal continuity over space and time and is defended against alteration, diminution, and insult" (1967, 61). Leckey states that "we can influence the pupil to change his behavior in order to preserve his mental integrity, but not in order to prepare himself to make a material success" (1945, 255).

LaBenne and Green believe that teachers must understand that "self-concepts are not unalterably fixed but rather are modified by every life experience through at least the
maturing years (1969, 14). Self-concept can be modified through positive social experiences, but this is a difficult task, especially during adolescence.

Bloom's developmental plateaus suggest that change comes only with difficulty once a plateau has been reached (1965, 218). Many times it is easier for the individual to maintain his or her concept of self than to change. Through remedial and therapeutic techniques students can view their characteristics in a more "socially acceptable or even in socially approved ways" (Bloom 1965, 223).

Piers states that self-concept has a tendency to be stable during adolescence and is subject to relatively small change. Piers' findings stress that self-concept scales alone should not be considered significant unless there is a very large change in several areas (1984, 23).

Good and Brophy maintain that teachers can help students build high self-esteem by communicating positive expectations and attitudes as well as giving positive feedback. However, it is recognized that powerful self-concepts are resistant to change through short-term or artificial intervention (1986, 114-115). Klinger and McNelly believe that any change in a student's self-concept has to be gradual and affect not only those self-concepts but personal characteristics and the behavior on which the concepts are based (1976, 126-136).
A study published in 1988 reaffirms findings since the 1940s regarding the stability of the adolescent self-concept. Street reached the same conclusion as Purkey (1970), that not all traits used to describe self are of equal importance to the individual (Schmuck 1976, 450). Closely held self-concepts are difficult to change. Lowe proposed that parts of self-concept are central to the self and highly resistant to change (1961, 325-336). Combs and Snygg suggest that perceptions of self vary widely in their importance or value to the individual (1959, 28-34). The less important aspects of the self are subject to change from testing to testing, and therefore are highly unstable (Street 1988, 315-324).

The Educationally Disadvantaged or At-Risk Student

The number of educationally disadvantaged students that are at risk of becoming school leavers or dropouts is a debated percentage at best. One task force, using figures from the Current Population Survey by the United States Bureau of the Census, states that 3,789 youngsters leave school each day that it is in session (Gruskin and Campbell 1987, viii). Needless to say, this figure has caught the attention of the United States Department of Education, the various superintendents' organizations, the United States Congress, and practically all of the state legislatures. State after state has passed legislation to prevent students from dropping out of school and for recovering dropouts to
either the regular schools or alternative schools. The Texas Legislature passed House Bill 1010 in 1987 entitled, "The Dropout Reduction Act."

The Texas bill was a response to an alarming 33 percent dropout rate. This legislation mandated that each school district designate an at-risk coordinator to maintain an accurate calculation of dropout rates and to coordinate remedial and support programs for dropouts. Each district is to identify high risk students in grades seven through twelve before they become potential dropouts. The Texas Education Agency was ordered to increase the coordination of existing state and federal programs and make dropout prevention a priority (House Bill 1010 1987, 2-4).

The concept of the disadvantaged student had its origin in New York City in the 1950s. President Johnson's Great Society placed emphasis on education to break the poverty-cycle. Through its requirements to match federal funding, the United States Congress influenced much state legislation (Johnson 1971, 214-219). This was especially true with vocational legislation and compensatory education which were designed to aid educationally disadvantaged students (Bailey and Stadt 1973, 149).

The educationally disadvantaged student is identified as one who suffers from social, economic, or cultural deficiencies that interfere with the student's ability to function in the school environment. President Johnson
tried to rectify these deficiencies with an early childhood intervention program known as Headstart (Johnson 1971).

Throughout the 1960s and 1970s, research viewed the educationally disadvantaged student as a potential school dropout (Behrens and Vernon 1980; Bernard 1970; Gadzella and Fournet 1976; Novak 1976; Purkey 1970). In the 1980s, educationally disadvantaged students became at-risk youth in the Carl Perkins Act of 1984. These at-risk youth, who are tomorrow's dropouts, possess very definable characteristics. These characteristics are taken from studies of students who dropped out of school.

Research by the Department of Education found that the best single predictor of students who drop out is poor academic performance. Students who make Ds and Fs drop out with much greater frequency than A and B students. Students who fail one or more years are more likely to drop out of school than those who progress on academic schedule. Students in general and vocational tracks are more inclined to drop out than those in the academic track. Students who hold almost full-time jobs are more likely to drop out than those who work fifteen hours during the school week or do not work at all (Gruskin and Campbell 1987, 6).

Other characteristics shared by at-risk youth and dropouts are aberrant behaviors. Students who are chronically truant, who have been suspended from school more than once for disciplinary reasons, and have been
involved in the juvenile courts have a higher-than-average chance of dropping out. Thus, students' behavior while attending school can be an indicator as to their probability of successfully completing high school (Gruskin and Campbell 1987, 12).

Demographically, school leavers are easily categorized. Males drop out more than females. American Indians, Hispanics, and Blacks drop out more than Whites, who drop out more than Asian-Americans. Students who have a parent who dropped out are at greater risk than those whose parents graduated from high school or college. Urban schools have more dropouts than rural schools, which have more dropouts than suburban schools. Students from homes that do not monitor their activities or demand study-time have a greater chance of dropping out. Single-parent homes produce a higher dropout rate than two-parent homes. Teens that receive no encouragement from family or community members are more likely to drop out. Teens whose peer group members have dropped out very seldom graduate. Teenage mothers and teen fathers leave school in higher percentages than adolescents without children (Schmuck 1976, 12-17).

However, the most common demographic predictor of dropouts is poverty. Students from the lower one-third in family income are much more likely to drop out than those from middle- or upper-income bracket families. It
should be noted that when socioeconomic factors are controlled, the differences across racial, ethnic, and geographic lines blur (Penning, 1987, 26-28).

A composite of the research regarding educationally disadvantaged students and at-risk youth in order to prevent their dropping out of school can be divided into six strategies. First, society must intervene early so that identification can start in the elementary schools. Second, a positive school climate for positive and successful learning must be created. Third, schools must set high expectations for student achievement. Fourth, schools must select and develop strong teachers. Fifth, schools must provide a broad range of instructional programs. Sixth, schools must initiate collaborative efforts with parents and the community to develop dropout prevention programs (Gruskin and Campbell 1987, 7-9).

The Texas Education Agency's Standard Application System Form 309 R89, which states the rules and regulations for both state and federal vocational education funding, defines the criteria for disadvantaged students placed in Coordinated Vocational Academic Education classes. The disadvantaged student is classified solely on the basis of being academically disadvantaged. The student must be one or more years behind his age group in three or more academic classes or in the bottom 25 percent of a nationally-standardized achievement test (1988, 26-34).
Former criteria for admission to a Texas CVAE class included the student with poor communication skills, as indicated by failing or low grades in English, social studies, or mathematics. Students with poor attendance or chronic tardiness were included in the criteria as well as students with poor self-concepts as exhibited by a lack of personal goals. Students who failed classes because they disliked the teachers, had improper study skills or had improper guidance also qualified for CVAE classes (Preston 1974, 1). Until 1977, a student could qualify for CVAE classes by being from a family eligible for Aid to Families with Dependent Children or by being a recipient of the subsidized lunch program (Texas State Plan for Vocational Education 1976, 4). As the State Compensatory Education Program expanded in Texas, this program took control of most of the CVAE criteria for provision of services to students.

**Review of Related Studies**

Many studies have been conducted which deal with various aspects of self-concept. However, very few studies have investigated the self-concept of educationally disadvantaged vocational students. No studies were found which compared educationally disadvantaged students in CVAE classes with dropouts who returned to an alternative school to seek a General Education Development certificate, pre-vocational
skills, or basic education skills, in regard to their self-concepts as measured by self-concept scales.

Research has established that classroom environment can affect an educationally disadvantaged student's self-concept. Needless to say, there exists a debate over the efficacy of the heterogenous and the homogeneous classroom. The Education of All Handicapped Children Act of 1973 opted for the heterogenous classroom whenever possible with the concept of mainstreaming. However, Simpson states that schools must be flexible in meeting the needs of educationally disadvantaged students. Schools must meet self-concept needs for success. If there are no special programs to help educationally disadvantaged students to meet their needs, then students may drop out of school with few skills (Simpson 1969, 170-178).

One argument for the CVAE program has been that the treatment academic classroom teachers give to the educationally disadvantaged students differs from that given high achievers. Weinstein and Middlestadt conclude that students perceive differential treatment of low and high achievers and that students are aware of the difference in treatment regardless of sex, grade level, or student perception of self-concept. Weinstein and Middlestadt conclude that teachers provide less time for response when questioning educationally disadvantaged students than successful academic students (1979, 429).
Cooper studied possible differences in self-concepts of regular students, educationally disadvantaged, and mainstreamed learning-disabled students. He used the Tennessee Self-Concept Scale and the School Morale Inventory to measure self-concepts of students. Cooper concluded that educationally disadvantaged students have a lower self-concept than regular students or mainstreamed learning-disabled students. Therefore, he advocates that the educationally disadvantaged be mainstreamed (1980, 18).

Valenzuela studied the relationships of self-concept, intelligence, academic achievement, and socioeconomic status among Hispanic students. He found no significant correlation between self-concept and intelligence quotient, socioeconomic status, or academic achievement (1971).

Crites' study of educationally disadvantaged students found that when placed in vocational programs, they could enhance their self-concept in CVAE classes. He found that positive role models helped students to improve their self-concept (1969, 200).

Summary

This chapter presents the major theories on self-concept and research conducted in regard to the self-concepts of educationally disadvantaged students in vocational classes. Vocational self-concept theories are also discussed. The characteristics of at-risk youth are given
as are the various demographics of students who are at-risk of dropping out of public schools.

In researching the literature, no studies were found that compare the self-concepts of educationally disadvantaged students enrolled in CVAE classes and students who dropped out of school and returned to off-campus alternative schools to continue their education.

This research was conducted, first, to see if any significant differences exist between the junior high CVAE students, the high school CVAE students, and the former dropouts who had returned to an alternative school in regard to their self-concepts as measured by the Piers-Harris Children's Self-Concept Scale. Second, this investigation was conducted in order to determine if any significant changes occurred with the control group in regard to perceived self-concept.
CHAPTER III

METHODOLOGY

This chapter contains descriptions of Coordinated Vocational Academic Education programs, the methodology used, subjects tested, alternative education centers, and the instrument and methods used for analysis of the data. The research for this study uses an extended Solomon Four-Group Design (Gay 1987, 223-231) tested with a one-way analysis of variance (Ferguson 1981, 234-250). This study was conducted within the Ector County (Odessa) Independent School District, Fort Stockton Independent School District, and Midland Independent School District during the spring semester of the 1987-1988 school year as well as the alternative education centers in Odessa and Denton, Texas.

Subjects

The subjects of this research project were divided into three categories with two groups each. The first group consisted of the Coordinated Vocational Academic Education (CVAE) students in middle or junior high schools in Ector County (Odessa) Independent School District, Fort Stockton Independent School District, and Midland Independent School District. Students were between fourteen and seventeen years of age. Coordinated Vocational Academic Education students
received two hours of preemployment training per day. CVAE students in Cooperative Education classes in high schools of Ector County, Fort Stockton, and Midland Independent School Districts comprised the second group. These CVAE students were enrolled in grades ten, eleven, and twelve.

The third group consisted of dropouts from public schools who had returned to alternative schools for General Educational Development, basic education skills, or preemployment training. Two of the alternative schools were conducted by the public education system—Fort Stockton and Midland Independent School Districts. In Odessa, Texas, a city of 110,000, the Permian Basin Alternative Education Center provided the subjects while in Denton a federal grant under Section 123 of the Job Training Partnership Act (JTPA) provided an alternative school for mothers and pregnant youth who were school leavers. This alternative education center is located on the campus of the University of North Texas.

Table 2 provides the demographics used in this research project regarding program category, sex of the subjects, and age of the subjects.

The total number of students by groups included 121 CVAE middle or junior high school students, 101 CVAE Cooperative Education students, and 129 Alternative Education students. A total of 351 students participated in the study.
# TABLE 2

## DEMOGRAPHICS OF THE STUDY

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The CVAE middle or junior high school students attended two-hour preemployment classes in general construction trades, general mechanical repair, or office duplication practices. While there was at least one opposite-sex student in each class (i.e., a girl in the general construction trades and general mechanical repair and a boy in office duplication practice) the classes were primarily single sex in make-up. The students then attended basic education classes as defined by State Compensatory Education (SCE) such as basic reading, basic mathematics, basic science or Texas Educational Assessment of Minimum Skills (TEAMS) remediation reading, writing, or mathematics. The
remainder of the school day the students were mainstreamed into regular academic or elective classes.

High school CVAE Cooperative Education students receive one hour of vocational instruction each day and work for a minimum of fifteen hours per school week in a cooperative training program. CVAE Cooperative Education students attend basic State Compensatory Education (SCE) classes such as correlated language arts, fundamentals of mathematics, pre-physical science, pre-biology, SCE consumer mathematics, SCE computer mathematics, or the Texas Educational Assessment of Minimum Skills remediation classes. Coordinated Vocational Academic Education students must meet the same state graduation requirements as non-CVAR students.

Students who returned to the alternative schools after having dropped out of public school receive three hours of instruction per day in preparation for the General Education Development examination, to improve their basic skills level, or to gain preemployment skills. The four alternative schools were funded with Section 123 JTPA funds through regional planning commissions. A specific age requirement at the Fort Stockton, Midland, and Permian Basin alternative schools was that clients at these schools be sixteen years of age or older. Since the Denton alternative center deals with young mothers and pregnant girls, there was no minimum age limit, provided the girl had quit public school as a result of her pregnancy or having to care for
her child. All of the students at the alternative centers were educationally disadvantaged and met the criteria for at-risk youth, since they had already dropped out of school.

The criteria for selecting the subjects were (1) the CVAE students were designated by the Texas Education Agency as educationally disadvantaged and were at-risk students, while the alternative education students meet both classifications (Standard Application System 1988, 26); (2) each student chose to participate in this study; and (3) each student under eighteen years of age who took the Piers-Harris Children's Self-Concept Scale had a signed parental permission form.

Data Gathering Instrument

The instrument used for determining the subjects' self-concepts was the Piers-Harris Children's Self-Concept Scale, subtitled "The Way I Feel About Myself." The scale is designed to help students define their self-concept. The Piers-Harris defines self-concept as "a relatively stable set of self-attitudes reflecting both a description and an evaluation of one's behavior and attitudes" (Piers 1984, 1).

The Piers-Harris Children's Self-Concept Scale was developed by Ellen V. Piers and Dale B. Harris in 1969 using Jersild's work with children. The Piers-Harris focuses on children's conscious self-perceptions of how
they view themselves rather than attempting to infer how they feel about themselves from observations by teachers, parents, or counselors. The test consists of eighty statements on a third-grade reading level about how the child perceives himself or herself in relation to behaviors. A dichotomy yes or no response is given and the scale takes ten to twenty minutes to complete. The Piers-Harris is constructed with approximately one-half the items phrased toward higher self-concept and one-half toward lower self-concept. The scale has been validated for children in grades four to twelve (Piers 1984, 7).

The Piers-Harris Children's Self-Concept Scale is not biased according to sex or grade differences and has been standardized both longitudinally and cross sectionally. According to Buros, the Piers-Harris can be used with educationally disadvantaged students because it does not unduly correlate with social desirability (Buros 1972, 304-306).

The Kuder-Richardson Formula 21 was used to establish the internal consistency with the resulting coefficient ranging from .78 to .93. Test-retest reliability by Piers-Harris was established for the general population to be .73 (Piers 1984, 53).

Rogers and Smith used the Piers-Harris Children's Self-Concept Scale with eighty-nine educationally disadvantaged students to see if they would score lower
because of unreliability of test taking. The conclusion was reached that educationally disadvantaged children did not score lower (1977, 556-557).

A major consideration in using the Piers-Harris for this study was the reading level. The third-grade level is low enough that all of the students could read and comprehend the test. Another major consideration was that fewer than thirty minutes were required to finish the test.

Control Group

Alternative education students served as the control group for this research project. The alternative education students indicated in interviews that they realized that education is an essential ingredient to a successful career. Their return to an educational setting and their attendance was voluntary. Most students had encouragement from a parent to return for additional educational skills or for a General Education Development certificate.

Experimental Group

Students enrolled in the CVAE classes in the middle or junior high schools were designated as the experimental group. These young CVAE students were enrolled in a general construction trades, general mechanical repair, or office duplication practices laboratory for two hours each day. This was their first encounter with a preemployment
program. These CVAE students were required to meet the same requirements as the high school CVAE students. The requirements are:

Students enrolled in coordinated vocational academic education must be one or more years below grade level in achievement in three or more academic courses, or below grade level as evidenced by a score at or below the 25th percentile on a standardized test at the time of enrollment [Texas Administrative Code, p. 9(e)] (Standard Application System 1988, 26-27).

The high school CVAE Cooperative students were pursuing general education diplomas rather than college preparatory courses. In their cooperative training work stations, most of the jobs were considered low-skill with the accompanying low pay. The jobs were listed with the eight-digit Texas Education Agency's Occupational Code from 12620101 to 12620171, with the designation of helper or assistant with each of the job titles. However, it must be noted that even though the students were educationally disadvantaged and were working at low-status jobs, they were still attending school and working daily at their jobs.

CVAE Programs in Texas

In 1965, Texas responded to President Johnson's War on Poverty by creating the Coordinated Academic and Vocational Education program for the educationally disadvantaged youth. This program was designed to provide vocational training to the educationally disadvantaged, combined with a remedial program so that those who could not succeed in either the
regular academic or vocational classes would have specific help. The academic program was an integral part of Coordinated Academic and Vocational Education at first (Galvan and Turman 1975, 43).

The Texas Education Agency changed the name of the program because of the connotation of the acronym CAVE and the resulting jokes about "cavemen." Thus, Coordinated Vocational Academic Education was created. The next Texas Education Agency change was the dropping of the state funding for the academic aspect of the program. The academic component was replaced by the State Compensatory Education programs of basic education and later Texas Education Assessment of Minimum Skills remediation classes.

Common characteristics of CVAE students are primarily the lack of success in academic classes and lack of success in extracurricular activities. A major deficiency possessed by CVAE students is the inability to read or comprehend near their grade level. The vast majority of CVAE students also have poor communication skills, both verbal and written. A majority of CVAE students are from low income or welfare recipient homes and are economically and educationally disadvantaged.

**Collection of Data**

Subjects were divided into a pre-test and post-test group and a post-test-only group. The *Piers-Harris*
Children's Self-Concept Scale was administered to the pre-test and post-test group in March 1988 and in May 1988. The post-test-only group took it in May 1988.

Table 3 indicates the number of students in each program who took the Piers-Harris Children's Self-Concept Scale as a pre-test and post-test or the post-test only. The response was excellent in the middle or junior high schools and alternative schools. Two teachers at one of the five high schools in the study resisted the idea that their students take the Piers-Harris because they feared a negative response to some of the questions. A majority of the students did cooperate by taking the scale and participating in the treatment.

<table>
<thead>
<tr>
<th>Program</th>
<th>Pre-Test</th>
<th>Post-Test</th>
<th>Post-Test-Only</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>CVAE Middle or Jr. High</td>
<td>22</td>
<td>27</td>
<td>32</td>
<td>40</td>
</tr>
<tr>
<td>CVAE Coop.</td>
<td>20</td>
<td>29</td>
<td>25</td>
<td>27</td>
</tr>
<tr>
<td>Alternative</td>
<td>26</td>
<td>23</td>
<td>48</td>
<td>32</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>68</strong></td>
<td><strong>79</strong></td>
<td><strong>105</strong></td>
<td><strong>99</strong></td>
</tr>
</tbody>
</table>
The number of students enrolled in the CVAE classes is small as are the enrollments in the alternative schools. Therefore, all students enrolled in these classes were given the opportunity to participate in the study. Originally 201 students were selected for the pre-test-post-test group, but because 13.9 percent moved, finished their General Education Development work, began full-time employment, or dropped out of school prior to post-testing during the last two weeks in May, 173 were included.

Students were given the scale in groups of twenty or less. The scale administrator read the directions from the Piers-Harris Manual and answered students' questions. It was stressed that the questionnaire was not a test and that there were no right or wrong answers. Honesty was urged since the scale assures anonymity. Students were asked to designate their age, sex, class, and teacher. The same instructions were given to all students.

**Analysis of Data**

The data collected from the CVAE students and the alternative schools through the Piers-Harris Children's Self-Concept Scale were statistically analyzed through the use of analysis of variance and analysis of covariance. A test of significance was given for each analysis of statistics.
Hypothesis 1: There will be no significant difference in the mean attitude of self-concept scores of the returned dropouts and the Coordinated Vocational Academic Education students in junior high preemployment classes and high school Cooperative Education classes as measured by the Piers-Harris Children's Self-Concept Scale. This hypothesis was analyzed with analysis of variance. Students from the three groups were compared with each other, the male students were compared with males in other program units, and female students were compared across programs.

Hypothesis 2: There will be no significant difference in the mean attitude self-concept scores between male and female members of each group as measured by the Piers-Harris Children's Self-Concept Scale. A one-way analysis of variance was used to compare females with males in the same programs.

Hypothesis 3: There will be no significant difference in the mean attitude self-concept scores between males and females in different age groups within each category as measured by the Piers-Harris Children's Self-Concept Scale. Subjects from each age group were compared with subjects of the same sex in other programs. Females and males were then compared according to the same age grouping.

Hypothesis 4: There will be no significant change in the mean attitude of self-concept scores of dropouts now enrolled in alternative education centers and Coordinated
Vocational Academic Education students as measured by the Piers-Harris Children's Self-Concept Scale over a two-month period utilizing an extended Solomon Four-Group Design. An analysis of covariance was used for this hypothesis. The subjects were compared according to sex and program.

Summary

This chapter presents the methodology, subjects, programs from which the data were extracted, demographics of the subjects, data-gathering instrument, collection of the data, and analysis of the hypotheses. An analysis of data discussed in this chapter appears in Chapter IV.
CHAPTER IV

ANALYSIS OF THE DATA

This chapter contains an analysis of the data gathered in the administration of the Piers-Harris Children's Self-Concept Scale to junior high school Coordinated Vocational Academic Education (CVAE) students in preemployment laboratories, high school CVAE students in Cooperative Education classes, and students who dropped out of public school and returned to an alternative school. The data were gathered in March and May 1988 in the Midland Independent School District, the Ector County Independent School District, the Fort Stockton Independent School District, and alternative education centers in Odessa and Denton, Texas. This chapter is divided into two sections: (1) a restatement of the null hypotheses, and (2) an analysis of the scores from data gathered using the Piers-Harris Children's Self-Concept Scale.

Restatement of the Null Hypotheses

The following hypotheses were formulated to carry out the purpose of this study.

1. There will be no significant difference in the mean attitude of self-concept scores of returned dropouts and CVAE students in junior high school preemployment laboratories and high school Cooperative Education classes as
measured by the Piers-Harris Children's Self-Concept Scale.

2. There will be no significant difference in mean attitude self-concept scores between male and female members of each category as measured by the Piers-Harris Children's Self-Concept Scale.

3. There will be no significant difference in mean attitude self-concept scores between males and females in different age groups within each category as measured by the Piers-Harris Children's Self-Concept Scale.

4. There will be no significant difference in mean attitude self-concept scores of dropouts now enrolled in alternative education centers and CVAE students as measured by the Piers-Harris Children's Self-Concept Scale over a two-month period utilizing an extended Solomon Four-Group Design with and without treatment.

Analysis of the Data

Data obtained from the administration of the Piers-Harris Children's Self-Concept Scale were statistically analyzed using the analysis of variance and covariance. Each hypothesis was analyzed.

Hypothesis 1: There is no significant difference in mean attitude of self-concept scores of returned dropouts and CVAE students in junior high school preemployment laboratories and high school Cooperative Education classes
as measured by the Piers-Harris Children's Self-Concept Scale. Data obtained from the May 1988 administration of the Piers-Harris Children's Self-concept Scale were analyzed by a one-way analysis of variance. Tables 4 and 5 present the results of the analysis of data.

TABLE 4

PIERS-HARRIS CHILDREN'S SELF-CONCEPT SCALE MEAN ATTITUDE SCORES OF STUDENTS IN JUNIOR HIGH CVAE CLASSES, HIGH SCHOOL CVAE CLASSES, AND ALTERNATIVE SCHOOLS

<table>
<thead>
<tr>
<th>Program</th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVAE 8-9</td>
<td>121</td>
<td>54.50</td>
<td>12.33</td>
<td>1.12</td>
<td>11-77</td>
</tr>
<tr>
<td>CVAE 10-12</td>
<td>101</td>
<td>57.33</td>
<td>10.87</td>
<td>1.08</td>
<td>23-72</td>
</tr>
<tr>
<td>Alternative School</td>
<td>129</td>
<td>56.79</td>
<td>10.61</td>
<td>.93</td>
<td>28-77</td>
</tr>
<tr>
<td>Total</td>
<td>351</td>
<td>56.15</td>
<td>11.34</td>
<td>.68</td>
<td>11-77</td>
</tr>
</tbody>
</table>

Data in Table 5 indicate that academically disadvantaged students just entering CVAE classes had a lower mean score (54.50) than high school CVAE classes (57.33) or former dropouts who had returned to an alternative school (56.15). The range of scores of the three groups did not vary greatly when one considers that one sixteen-year-old junior high female scored eleven and the next lowest junior high score (a sixteen-year-old male) was twenty two.
It should be noted that the statistical mean self-concept of disadvantaged students in CVAE classes and former dropouts as measured by the Piers-Harris Children's Self-Concept Scale is above the national mean of 53.0.

When the statistics presented in Table V were evaluated by an analysis of variance, there was not a significant difference in self-concepts of the three groups.

**TABLE 5**

ANALYSIS OF VARIANCE FOR PIERS-HARRIS CHILDREN'S SELF-CONCEPT SCALE MEAN ATTITUDE SCORES OF STUDENTS IN TWO CVAE PROGRAMS AND ALTERNATIVE SCHOOLS

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Variance Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Group</td>
<td>523.878</td>
<td>2</td>
<td>261.939</td>
</tr>
<tr>
<td>Within Groups</td>
<td>44459.815</td>
<td>348</td>
<td>127.758</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>44983.692</strong></td>
<td><strong>350</strong></td>
<td><strong>128.525</strong></td>
</tr>
</tbody>
</table>

\[ F = 2.050 \quad p = 0.130 \]

Analysis of variance in Table 5 documents the absence of a significant difference in mean attitude self-concept scores of junior high CVAE students in preemployment classes, high school CVAE students in Cooperative Education classes, and former dropouts who have returned to alternative schools.
Hypothesis 2: There is no significant difference in the mean attitude self-concept score between male and female members of each category as measured by the Piers-Harris Children's Self-Concepts Scale.

It is possible that differences in maturity levels between males and females during adolescence could affect the development of self-concept. This hypothesis was tested through a series of comparisons. Males in the three educational categories were compared. Table 6 reports the data used to make this comparison.

<table>
<thead>
<tr>
<th>Program</th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVAE 8-9</td>
<td>67</td>
<td>56.46</td>
<td>10.90</td>
<td>1.33</td>
<td>22-76</td>
</tr>
<tr>
<td>CVAE 10-12</td>
<td>67</td>
<td>57.46</td>
<td>11.43</td>
<td>1.40</td>
<td>23-72</td>
</tr>
<tr>
<td>Alternative School</td>
<td>55</td>
<td>57.85</td>
<td>11.11</td>
<td>1.50</td>
<td>38-77</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>189</td>
<td>57.22</td>
<td>11.11</td>
<td>0.81</td>
<td>22-77</td>
</tr>
</tbody>
</table>

\[
\frac{F}{p} = 1.991 \quad p = 0.144
\]

Data in Table 6 indicate that males who were former dropouts and returned to an alternative school had a higher mean score (57.85) than high school CVAE students in
Cooperative Education classes (57.46) or junior high school CVAE students in preemployment classes (56.46). Table 7 reports the data of male students for any significant difference in self-concepts of the three groups.

**TABLE 7**

ANALYSIS OF VARIANCE FOR PIERS-HARRIS CHILDREN'S SELF-CONCEPT SCALE MEAN ATTITUDE SCORES OF MALE STUDENTS IN THREE EDUCATIONAL PROGRAMS

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Variance Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>64.517</td>
<td>2</td>
<td>32.258</td>
</tr>
<tr>
<td>Within Groups</td>
<td>23138.150</td>
<td>186</td>
<td>124.399</td>
</tr>
<tr>
<td>Total</td>
<td>23202.667</td>
<td>188</td>
<td>123.418</td>
</tr>
</tbody>
</table>

\[ F = 0.259 \]

The female students' self-concept scores, as measured by the Piers-Harris Children's Self-Concept Scale, in the three categories were analyzed to determine if there was a significant difference in their mean attitude scores. This comparison is presented in the data shown in Table 8 and 9.

Table 9 presents the analysis of variance for female self-concept scores. Female students of CVAE junior high preemployment classes, CVAE high school Cooperative Education classes, and former dropouts who returned to an alternative school had no significant differences in their
TABLE 8
PIERS-HARRIS CHILDREN'S SELF-CONCEPT SCALE MEAN ATTITUDE SCORES OF FEMALES IN THE THREE EDUCATIONAL CATEGORIES

<table>
<thead>
<tr>
<th>Program</th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVAE 8-9</td>
<td>54</td>
<td>52.06</td>
<td>13.61</td>
<td>1.85</td>
<td>11-77</td>
</tr>
<tr>
<td>CVAE 10-12</td>
<td>34</td>
<td>57.06</td>
<td>9.82</td>
<td>1.68</td>
<td>33-72</td>
</tr>
<tr>
<td>Alternative School</td>
<td>74</td>
<td>56.00</td>
<td>10.22</td>
<td>1.19</td>
<td>32-75</td>
</tr>
<tr>
<td>Total</td>
<td>162</td>
<td>54.91</td>
<td>11.51</td>
<td>.90</td>
<td>11.77</td>
</tr>
</tbody>
</table>

TABLE 9
ANALYSIS OF VARIANCE FOR PIERS-HARRIS CHILDREN'S SELF-CONCEPT SCALE MEAN ATTITUDE SCORES OF FEMALES IN THREE EDUCATIONAL CATEGORIES

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Variance Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>684.895</td>
<td>2</td>
<td>342.448</td>
</tr>
<tr>
<td>Within Groups</td>
<td>20628.716</td>
<td>159</td>
<td>129.740</td>
</tr>
<tr>
<td>Total</td>
<td>21313.611</td>
<td>161</td>
<td>132.383</td>
</tr>
</tbody>
</table>

\( F = 2.639 \)

mean self-concepts at the 0.05 level. Junior high female students had the lowest score (52.6), while former dropout females were next (56.00), and high school CVAE Cooperative students had the best self-concepts (57.06).
Students were compared by sex and program to determine if there was a significant difference in the mean attitude self-concept scores between females and males in the same category. The data in Table 10 present comparisons between females and males in three educational categories.

**TABLE 10**

PIERS-HARRIS CHILDREN'S SELF-CONCEPT SCALE MEAN ATTITUDE SCORES OF FEMALES AND MALES IN THREE EDUCATIONAL CATEGORIES

<table>
<thead>
<tr>
<th>Program</th>
<th>Mean Score</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Females</td>
<td>Males</td>
</tr>
<tr>
<td>CVAE 8-9</td>
<td>52.06</td>
<td>56.46</td>
</tr>
<tr>
<td>CVAE 10-12</td>
<td>57.06</td>
<td>57.46</td>
</tr>
<tr>
<td>Alternative School</td>
<td>56.00</td>
<td>57.85</td>
</tr>
</tbody>
</table>

Data in Table 10 reveal no significant difference in the mean attitude self-concept scores between females and males in any of the three educational categories. High school CVAE Cooperative Education students were more similar in self-concept scores (females, \( \bar{X} = 57.06 \); males, \( \bar{X} = 57.46 \)) than the two other groups. Females (\( \bar{X} = 52.06 \)) and males (\( \bar{X} = 56.46 \)) in junior high school CVAE preemployment classes had the lowest mean self-concept scores. The largest difference between females and males was also in junior high school
CVAE preemployment classes with a difference of 4.40 points. However, this was not significant at the 0.05 level.

Data in Tables 7 through 10 indicate no significant difference in the mean attitude self-concept scores between females and males in junior high school CVAE preemployment classes, high school CVAE Cooperative Education classes, and former dropouts who returned to an alternative school as measured by the Piers-Harris Children's Self-Concept Scale. There were no significant differences at the 0.05 level in any of the comparisons.

Hypothesis 3: There is no significant difference in the mean attitude self-concept scores between females and males in different age groups within each category as measured by the Piers-Harris Children's Self-Concept Scale. This hypothesis was tested by a series of comparisons among different age groups starting with fourteen years of age. Several comparisons are combined in tabular form to facilitate the comparison of results.

Data in Table 11 document a comparison of self-concept scores of different age groups in each of the three educational categories. As seen in Table 11, the mean attitude self-concept scores for junior high school CVAE preemployment laboratories were lower than those of former dropouts who had returned to an alternative school, which was less than those students who were enrolled in high school CVAE
**TABLE 11**

PIERS-HARRIS CHILDREN'S SELF-CONCEPT SCALE MEAN ATTITUDE SCORES OF STUDENTS IN THREE EDUCATIONAL CATEGORIES BY AGE GROUPS

<table>
<thead>
<tr>
<th>Age</th>
<th>Sex</th>
<th>CVAE 8-9</th>
<th></th>
<th>CVAE 10-12</th>
<th></th>
<th>Alternative School</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n</td>
<td>Mean</td>
<td>n</td>
<td>Mean</td>
<td>n</td>
</tr>
<tr>
<td>14 years</td>
<td>F</td>
<td>16</td>
<td>54.56</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>28</td>
<td>60.18</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>15 years</td>
<td>F</td>
<td>19</td>
<td>50.53</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>24</td>
<td>54.75</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>16 years</td>
<td>F</td>
<td>13</td>
<td>51.69</td>
<td>5</td>
<td>52.80</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>10</td>
<td>49.80</td>
<td>7</td>
<td>56.57</td>
<td>18</td>
</tr>
<tr>
<td>17 years</td>
<td>F</td>
<td>6</td>
<td>51.00</td>
<td>12</td>
<td>56.75</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>5</td>
<td>57.00</td>
<td>17</td>
<td>56.47</td>
<td>21</td>
</tr>
<tr>
<td>18 years</td>
<td>F</td>
<td>0</td>
<td>0.0</td>
<td>13</td>
<td>59.31</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>0</td>
<td>0.0</td>
<td>31</td>
<td>58.55</td>
<td>12</td>
</tr>
<tr>
<td>19 years</td>
<td>F</td>
<td>0</td>
<td>0.0</td>
<td>4</td>
<td>56.00</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>0</td>
<td>0.0</td>
<td>10</td>
<td>57.70</td>
<td>3</td>
</tr>
<tr>
<td>20 years</td>
<td>F</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
<td>51.00</td>
<td>1</td>
</tr>
<tr>
<td>21 years</td>
<td>F</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
</tr>
</tbody>
</table>

Cooperative Education courses. It is interesting to note that the three lowest mean attitude self-concept scores by age group were the oldest students to take the Piers-Harris Children's Self-Concept Scale. The two twenty-one-year-old females had $X = 42.00$; the twenty-year-old male had $X = 47.00;$
and, the three twenty-year-old females had $X = 47.47$. All six of these lowest scoring students were former dropouts who had returned to an alternative school. These twenty- and twenty-one-year-old students represent .02 percent of the total sample; therefore, their scores are not significant to this study.

Data in Tables 10 and 11 indicate no significant difference in the mean attitude self-concept scores of males and females of similar age groups in different educational categories. Twenty- and twenty-one-year-old alternative school students had the lowest mean attitude self-concept scores of any of the forty-eight groups used in the study.

As shown in Table 12, 97.7 percent of the students in this study were nineteen years of age or younger and a majority, 64.4 percent were sixteen (21.2 percent), seventeen (23.4 percent), and eighteen (19.9 percent) years of age. There was no significant difference in self-concept scores between these age groups regardless of the frequency of the age of the students within the three selected programs.

Table 13 reports the frequency of students' grade level, school classification, and school location of students who were given the Piers-Harris Children's Self-Concept Scale.

The fact that there is no statistically significant difference at the 0.05 level seems to indicate that at-risk students have very similar self-concepts regardless of age or type of program enrollment.
TABLE 12

FREQUENCY AND PERCENTAGES OF STUDENTS WHO WERE GIVEN THE PIER-S-HARRIS CHILDREN'S SELF-CONCEPT SCALE BY AGE

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>47</td>
<td>13.4</td>
<td>13.4</td>
</tr>
<tr>
<td>15</td>
<td>43</td>
<td>12.3</td>
<td>25.6</td>
</tr>
<tr>
<td>16</td>
<td>74</td>
<td>21.1</td>
<td>46.7</td>
</tr>
<tr>
<td>17</td>
<td>82</td>
<td>23.4</td>
<td>70.1</td>
</tr>
<tr>
<td>18</td>
<td>70</td>
<td>19.9</td>
<td>90.0</td>
</tr>
<tr>
<td>19</td>
<td>27</td>
<td>7.7</td>
<td>97.7</td>
</tr>
<tr>
<td>20</td>
<td>6</td>
<td>1.7</td>
<td>99.4</td>
</tr>
<tr>
<td>21</td>
<td>2</td>
<td>.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>351</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Hypothesis 4: There is no significant difference in the mean attitude self-concept scores of dropouts now enrolled in alternative education centers and Coordinated Vocational Education students in junior high school preemployment laboratories and high school cooperative education classes as measured by the Piers-Harris Children's Self-Concept Scale over a two-month period utilizing an extended Solomon Four-Group Design with and without the treatment. The treatment used in this study was a video presentation entitled "Me Power" with a series of written exercises designed to enhance students' self concepts. The Midland Independent School District's vocational counselors presented the video, counseled the randomly selected Coordinated Vocational Academic Students both in small groups and individually, and
**TABLE 13**

FREQUENCY OF GRADE LEVEL, SCHOOL CLASSIFICATION, AND SCHOOL LOCATION OF STUDENTS WHO WERE GIVEN THE PIER-S-HARRIS CHILDREN'S SELF-CONCEPT SCALE

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grade:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>43</td>
<td>12.3</td>
<td>12.3</td>
</tr>
<tr>
<td>9</td>
<td>78</td>
<td>22.2</td>
<td>34.5</td>
</tr>
<tr>
<td>10</td>
<td>43</td>
<td>12.3</td>
<td>46.8</td>
</tr>
<tr>
<td>11</td>
<td>22</td>
<td>6.3</td>
<td>53.0</td>
</tr>
<tr>
<td>12</td>
<td>36</td>
<td>10.3</td>
<td>63.2</td>
</tr>
<tr>
<td>Alternative</td>
<td>129</td>
<td>36.8</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>351</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School Classification:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior High</td>
<td>121</td>
<td>34.5</td>
<td>34.5</td>
</tr>
<tr>
<td>Senior High</td>
<td>101</td>
<td>28.8</td>
<td>63.2</td>
</tr>
<tr>
<td>Alternative</td>
<td>129</td>
<td>36.8</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>351</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ft. Stockton</td>
<td>19</td>
<td>5.4</td>
<td>5.4</td>
</tr>
<tr>
<td>Ector CISD</td>
<td>64</td>
<td>18.2</td>
<td>23.6</td>
</tr>
<tr>
<td>Midland ISD</td>
<td>139</td>
<td>39.5</td>
<td>63.2</td>
</tr>
<tr>
<td>Ft. Stockton Alt.</td>
<td>34</td>
<td>9.7</td>
<td>87.2</td>
</tr>
<tr>
<td>Midland ISD Alt.</td>
<td>32</td>
<td>9.1</td>
<td>96.3</td>
</tr>
<tr>
<td>Denton Alt.</td>
<td>13</td>
<td>3.7</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>351</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

provided written exercises. These activities took most of three class periods. A total of 123 students in the junior high school and high school CVAE classes received this treatment.
This hypothesis was tested by three analyses of covariance and three analyses of variance. Table 14 presents data showing the total pre-test-post-test group. Table 15 provides data for female students in the pre-test-post-test group. Table 16 provides a comparison of males in the pre-test-post-test group. Data in Table 17 report all treated students in the post-test. Table 18 reports all of the females who received the treatment in the post-test. Table 19 includes treated males in the post-test.

**TABLE 14**

**ANALYSIS OF COVARIANCE OF PIERS-HARRIS CHILDREN'S SELF-CONCEPT SCALE MEAN ATTITUDE SCORES OF STUDENTS IN THREE EDUCATIONAL CATEGORIES**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>Sign. of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariates (Pre)</td>
<td>13755.351</td>
<td>1</td>
<td>13755.351</td>
<td>487.546</td>
<td>0.00</td>
</tr>
<tr>
<td>Main Effects (Prog)</td>
<td>13.932</td>
<td>1</td>
<td>13.932</td>
<td>0.494</td>
<td>0.483</td>
</tr>
<tr>
<td>Explained</td>
<td>13769.283</td>
<td>2</td>
<td>6884.642</td>
<td>244.020</td>
<td>0.000</td>
</tr>
<tr>
<td>Residual</td>
<td>4175.591</td>
<td>148</td>
<td>28.213</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17944.874</td>
<td>150</td>
<td>119.632</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data in Table 14 reveal that the significance for F of the main effects of the analysis of covariance is 0.483 for...
the three educational categories. This is not significant at the .05 level.

The data in Table 15 indicate that the significance for $F$ of the main effects of the analysis of covariance is 0.970 for females in all three educational categories. This is not significant at the 0.05 level of significance.

**TABLE 15**

ANALYSIS OF COVARIANCE OF PIERS-HARRIS CHILDREN'S SELF-CONCEPT SCALE MEAN ATTITUDE SCORES OF FEMALE STUDENTS IN THREE EDUCATIONAL CATEGORIES

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>$F$</th>
<th>Sign. of $F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariates (Pre)</td>
<td>5974.205</td>
<td>1</td>
<td>5974.205</td>
<td>275.832</td>
<td>0.000</td>
</tr>
<tr>
<td>Main Effects (Prog)</td>
<td>0.031</td>
<td>1</td>
<td>0.031</td>
<td>0.001</td>
<td>0.970</td>
</tr>
<tr>
<td>Explained</td>
<td>5974.236</td>
<td>2</td>
<td>2987.118</td>
<td>137.912</td>
<td>0.000</td>
</tr>
<tr>
<td>Residual</td>
<td>1386.212</td>
<td>64</td>
<td>21.660</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7360.448</strong></td>
<td><strong>66</strong></td>
<td><strong>111.522</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data in Table 16 document the significance for $F$ of the main effects of the analysis of covariance is 0.396 for males in all educational categories. This is not significant at the 0.05 level of significance.

Data in Table 17 reveal that the significance for $F$ of the main effects and the treated to be 0.775 in all
### TABLE 16
ANALYSIS OF COVARIANCE OF PIER-S-HARRIS CHILDREN'S SELF-CONCEPT SCALE MEAN ATTITUDE SCORES OF MALE STUDENTS IN THREE EDUCATIONAL CATEGORIES

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>Sign. of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariates (Pre)</td>
<td>7694.035</td>
<td>1</td>
<td>7694.035</td>
<td>224.415</td>
<td>0.000</td>
</tr>
<tr>
<td>Main Effects (Prog)</td>
<td>24.933</td>
<td>1</td>
<td>24.933</td>
<td>0.727</td>
<td>0.396</td>
</tr>
<tr>
<td>Explained</td>
<td>7718.968</td>
<td>2</td>
<td>3859.484</td>
<td>112.571</td>
<td>0.000</td>
</tr>
<tr>
<td>Residual</td>
<td>2777.068</td>
<td>81</td>
<td>34.285</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10496.036</strong></td>
<td><strong>83</strong></td>
<td><strong>126.458</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TABLE 17
ANALYSIS OF VARIANCE FOR PIER-S-HARRIS CHILDREN'S SELF-CONCEPT SCALE MEAN ATTITUDE SCORES OF STUDENTS IN THREE EDUCATIONAL CATEGORIES BY POST-TREATED

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>Sign. of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treated</td>
<td>10.517</td>
<td>1</td>
<td>10.517</td>
<td>0.082</td>
<td>0.775</td>
</tr>
<tr>
<td>Explained</td>
<td>10.517</td>
<td>1</td>
<td>10.517</td>
<td>0.082</td>
<td>0.775</td>
</tr>
<tr>
<td>Residual</td>
<td>44973.175</td>
<td>349</td>
<td>128.863</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>44983.697</strong></td>
<td><strong>350</strong></td>
<td><strong>128.525</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
educational categories. This is not significant at the 0.05 level.

Data in Table 18 indicate that the significance for $F$ of the main effects of the analysis of variance is 0.611 for females in the post-treated category. This is not significant at the 0.05 level of significance.

**TABLE 18**

**ANALYSIS OF VARIANCE FOR PIERS-HARRIS CHILDREN'S SELF-CONCEPT SCALE MEAN ATTITUDE SCORES OF FEMALES IN THREE EDUCATIONAL CATEGORIES BY POST-TREATED**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>$F$</th>
<th>Sign. of $F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treated</td>
<td>34.516</td>
<td>1</td>
<td>34.516</td>
<td>0.260</td>
<td>0.611</td>
</tr>
<tr>
<td>Explained</td>
<td>34.516</td>
<td>1</td>
<td>34.516</td>
<td>0.260</td>
<td>0.611</td>
</tr>
<tr>
<td>Residual</td>
<td>21279.096</td>
<td>160</td>
<td>132.994</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>21313.611</td>
<td>161</td>
<td>132.383</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data in Table 19 report that the significance for $F$ of the main effects of the analysis of variance is 0.789 for males in all categories. This is not significant at the 0.05 level of significance.

Data in Tables 14, 15, 16, 17, 18, and 19 indicate that there was not a significant change in either females or males in junior high school preemployment laboratories.
TABLE 19

ANALYSIS OF VARIANCE FOR PIERS-HARRIS CHILDREN'S
SELF-CONCEPT SCALE MEAN ATTITUDE SCORES OF
MALES IN THREE EDUCATIONAL CATEGORIES
BY POST-TREATED

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>Sign. of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treated</td>
<td>8.884</td>
<td>1</td>
<td>8.884</td>
<td>0.072</td>
<td>0.789</td>
</tr>
<tr>
<td>Explained</td>
<td>8.884</td>
<td>1</td>
<td>8.884</td>
<td>0.072</td>
<td>0.789</td>
</tr>
<tr>
<td>Residual</td>
<td>23193.782</td>
<td>187</td>
<td>124.031</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>23202.667</td>
<td>188</td>
<td>123.418</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

in CVAE classes, high school Cooperative Education CVAE classes, and former dropouts who returned to an alternative school.

The results of this study support previous research which maintains self-concept among students tends to be relatively stable. Coopersmith's statement, "once established it [self-concept] apparently provides a sense of personal continuity over space and time and is defended against alteration, diminution, and insult" (1967, 61), is verified with academically disadvantaged students from fourteen to twenty-one years of age in three Texas independent school districts and four alternative schools. The findings of Bloom (1965), Good and Brophy (1986), LaBenne and Green (1969), Piers (1984, and Street (1988) regarding
the stability of self-concept among students are strengthened by the findings of this study.
CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS,
AND RECOMMENDATIONS

This chapter provides a brief summary of the study. Also included are the findings from which conclusions were drawn, and recommendations made.

Summary

This study was designed to compare the perceived attitudes of self-concept of students entering Coordinated Vocational Academic Education (CVAE) preemployment laboratories, students who had been in junior high CVAE programs and were presently in a high school Cooperative Education program to work part-time, and students who were at risk and had dropped out of the public school but had returned to an alternative school to work on a General Education Development (GED) certificate. The following hypotheses were formulated to achieve this purpose.

1. There will be no significant difference in the mean attitude self-concept scores of junior high students in CVAE preemployment laboratories, high school CVAE students in Cooperative Education, and former dropouts who have returned to an alternative school to work on a GED
2. There will be no significant difference in mean attitude self-concept scores between female and male students in junior high CVAE programs, high school CVAE Cooperative programs, and former dropouts who returned to an alternative school to work on a GED certificate as measured by the Piers-Harris Children's Self-Concept Scale.

3. There will be no significant difference in mean attitude self-concept scores between females and males in different age groups within each category as measured by the Piers-Harris Children's Self-Concept Scale.

4. There will be no significant difference in mean attitude self-concept scores of dropouts enrolled in alternative education centers and CVAE students as measured by the Piers-Harris Children's Self-Concept Scale over a two-month period utilizing an extended Solomon Four-Group Design, with and without treatment.

Chapter II contains a description of the characteristics of academically disadvantaged students and two of the CVAE programs in Texas. This chapter also contains vocational theories of self-concept and theories of stability of self-concept.

Procedures used to study junior high CVAE students, high school CVAE students, and former dropouts who returned to an alternative school are described in Chapter III.
Students were identified by the types of programs they were enrolled in during the spring semester of 1988. Three hundred fifty-one students completed the Piers-Harris Children's Self-Concept Scale to provide data for this study.

Random samples of students were taken from the rolls of junior high schools in three cities, high school students in three cities, and alternative schools in four cities. The hypotheses were the basis for the study. Means, square of means, standard deviations, ranges, $F$ values, and $P$ values were used to present the results of data from the Piers-Harris Children's Self-Concept Scale. A series of tables provides a comparison of scores of students in junior high school, high school, and alternative schools by school level, sex, and age. Scores were analyzed statistically by an analysis of variance and covariance.

**Findings**

Findings from this study include the following:

1. All groups tested scored within the average range on the Piers-Harris Children's Self-Concept Scale. Junior high school CVAE students scored lowest on the instrument but not significantly lower. Former dropouts who were attending an alternative school scored higher than junior high CVAE students. High school CVAE Cooperative students had the highest mean self-concept. The null hypothesis was retained.
2. Both female and male junior high CVAE students scored lower on the Piers-Harris Children's Self-Concept Scale than the other two groups. However, they did not score significantly lower than males or females in the high school CVAE group or in the alternative school group. The null hypothesis was retained.

3. When students were compared by age, junior high students scored lower than the alternative group or the high school CVAE group on the Piers-Harris Children's Self-Concept Scale. Their scores were not significantly lower than their counterparts of the same age group in the two other groups. The null hypothesis was retained.

4. The junior high CVAE group of students, alternative school students, and the high school CVAE group of students all had a slight increase in self-confidence scores on the Piers-Harris Children's Self-Concept Scale over the two-month period. None of the groups had a significant change in self-concept scores. The null hypothesis was retained.

Conclusions

The following conclusions are drawn on the basis of the findings of this study.

1. Overall, junior high school CVAE students in pre-employment laboratories, high school CVAE students in Cooperative Education, and former dropouts who had returned to an alternative school to work on a GED certificate
possessed positive self-concepts that were above the national mean for the Piers-Harris Children's Self-Concept Scale.

2. Females in the junior high school group had the lowest self-concept scores but they were not significantly lower than the other groups.

3. Coordinated Vocational Academic Education classes enhance the self-concept of academically disadvantaged if they are in Cooperative Education classes. The success that students enjoy in the academic portion of their class plus success experienced on the job as they are being trained and paid, enhances their self-concept.

Recommendations

National attention to at-risk students since 1984 has caused Texas to focus on the effectiveness of CVAE programs. According to the Master Plan for Vocational Education in Texas, the seventh- and eighth-grade CVAE programs are being abolished after the 1988-1989 school year. The Texas Education Agency is also doing a study on the effectiveness of high school CVAE programs to determine if they serve disadvantaged youth of Texas in a meaningful way. Based on research literature and the results of this study, the following recommendations are made:

1. A unit of study to enhance Coordinated Vocational Academic Education students' self-concepts should be
included within the Coordinated Vocational Academic Education curriculum.

2. Coordinated Vocational Academic Education teachers should be chosen on the basis of how much they care for the success of their students. They must care enough to demand that their students be successful and then provide instructional strategies to ensure that they are academically and socially successful.

3. Coordinated Vocational Academic Education teachers should adapt their curriculum to emphasize reading, writing, and mathematics. This is necessary to help students pass the Texas Educational Assessment of Minimum Skills.

4. Coordinated Vocational Academic Education teachers should give written examinations on a regular basis after they have taught students how to successfully take meaningful examinations.

5. A longitudinal study should be conducted on the self-concepts of students identified as educationally disadvantaged in elementary grades. Self-concept must be enhanced by students becoming more academically successful in elementary school and therefore limiting the need to offer Coordinated Vocational Academic Education in Texas.
PARENTAL CONSENT FOR INDIVIDUAL ASSESSMENT  
(Strictly Confidential)

I am asking for your permission to assess your child in his/her Coordinated Vocational Academic Education classes. I will be conducting a research project designed to assess how your child perceives himself/herself in relation to other members of his/her class. The student will be administered the Piers-Harris Children's Self-Concept Scale to establish his/her self-concept. This information can then be used to help find out what some of your child's educational needs are.

Your child will be given this assessment only if he/she chooses to do so. This will be given during the class period and should take only fifteen to twenty minutes. To preserve confidentiality, only a number will appear on the test and no names will be used in any part of the study. Only data generated by the students will be used in the research project. The results from this class will be compared with data from two other school districts.

Your decision whether or not to allow your child to participate will in no way affect your child's standing in his/her class. At the conclusion of the study, a summary of group results will be made available to all interested parents and teachers. If you have any questions or desire further information, please call me at (XXX) XXX-XXXX. Thank you in advance for your cooperation and support.

Sincerely,

Tex Paris

THIS PROJECT HAS BEEN REVIEWED BY UNIVERSITY OF NORTH TEXAS COMMITTEE FOR THE PROTECTION OF HUMAN SUBJECTS.

I do grant permission for my child __________________ to participate in this project.

I do not grant permission for my child __________________ to participate in this project.

Parent/Guardian's Signature
REFERENCE LIST


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