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Self-Efficacy and Academic Success of Integrated and Segregated Emotionally Impaired Adolescents

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SELF-EFFICACY AND ACADEMIC SUCCESS OF INTEGRATED AND SEGREGATED EMOTIONALLY IMPAIRED ADOLESCENTS

by

Jerry William Davisson

A Dissertation Submitted to the Faculty of The Graduate College in partial fulfillment of the requirements for the Degree of Doctor of Education Department of Educational Leadership

Western Michigan University Kalamazoo, Michigan June 1992
SELF-EFFICACY AND ACADEMIC SUCCESS OF INTEGRATED AND
SEGREGATED EMOTIONALLY IMPAIRED ADOLESCENTS

Jerry William Davisson, Ed.D.
Western Michigan University, 1992

In this study, levels of self-efficacy and levels of academic success of emotionally impaired adolescents in both integrated and segregated settings were analyzed. The data were analyzed to determine if placement setting (integrated or segregated) impact: self-efficacy levels, academic success levels, and the relationship between self-efficacy and academic success.

Subjects were selected from two junior high schools within Macomb County, Michigan. The integrated junior high educated emotionally impaired students with nonimpaired students and the segregated junior high educated emotionally impaired students with only other emotionally impaired students. Eleven students from the integrated junior high and 28 students from the segregated junior high were selected for this study. Brookover's (1962) Self-Concept of Ability Scale was administered to all 39 students. Grade point averages of the succeeding two 10-week marking periods were obtained from student records and calculated.

Findings support the hypothesis that levels of self-efficacy are higher among emotionally impaired adolescents in a segregated setting than in an integrated setting. No conclusion can be drawn about difference in academic success levels of emotionally impaired
adolescents between segregated and integrated settings, as well as a relationship between self-efficacy and academic success in either placement setting.
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Jerry William Davisson
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CHAPTER I

INTRODUCTION

For generations, educators have believed in a positive relationship between student self-concept and performance in school. The assumption has been that students who felt good about themselves and their ability were also students who would achieve good grades (Purkey, 1970). Students who display behavior problems in the classroom often are assumed to possess negative self-concepts (do not feel good about themselves in general) (Kirk & Gallagher, 1979). Numerous research studies have reported positive relationships between general self-concept and academic success (Bledsoe, 1967; Campbell, 1965; Williams & Cole, 1968). Byrne (1982) reported that there are multiple facets of self-concept, one of which is academic self-concept (an individual's belief in his or her ability to succeed in an academic setting). Academic self-concept has a substantially higher correlation with academic success (individual's performance in an academic setting) than with general self-concept (Byrne, 1982; Shavelson & Bolus, 1982). Brookover (1959) discovered and labeled this facet self-concept of ability and became the first to investigate its relationship to academic success. In literature, academic self-concept (Byrne, 1982; Marsh, 1986) and self-concept of ability (Brookover, Paterson, & Shailer, 1962) are used synonymously with self-efficacy. Self-efficacy is defined as the personal
beliefs of an individual about his or her capabilities to organize and implement actions necessary to attain designated levels of performance (Bandura, 1982). Academic success has a substantially higher positive correlation with self-efficacy than with general self-concept (Byrne, 1982; Shavelson & Bolus, 1982). Inflated self-efficacy has been reported among homogeneous groups (Brookover, 1979; Drews, 1962; Schurr & Brookover, 1967; Towne & Joiner, 1966).

In a study of Michigan elementary schools: (a) predominantly black and (b) predominantly white, Brookover (1979) reported a - .549 correlation between schools' mean self-efficacy and schools' academic success. Predominantly black schools' mean self-efficacy was significantly higher than predominantly white schools' mean self-efficacy; whereas, predominantly black schools' mean academic success was significantly lower than predominantly white schools' mean academic success. Brookover speculated that the student placed in a low ability group assesses himself or herself higher in reference to his or her group members than if placed in a heterogeneous group; whereas, a student placed in a high ability group assesses himself or herself less able in comparison to his or her group members. In an attempt to explain why the special class setting has not resulted in improved academic performance among the educably mentally impaired (EMI), Towne and Joiner (1966) posited that placement in the special class (among other EMI students) causes a detrimental influence on self-efficacy. However, findings of their study indicated that special class placement had a positive influence on self-efficacy. Schurr and Brookover (1967) extended this research to
examine if the initial positive effect on the EMI's self-efficacy is only temporary. They concluded that there were no significant changes in self-efficacy after the initial first year of special class placement. Why is there this contradiction in the relationship between self-efficacy and academic success among integrated and segregated EMI settings? Schurr and Brookover (1967) contended that it may be that teachers in the special classroom are less academically orientated than teachers in the regular classroom. Does this negative relationship between self-efficacy and academic success exist among segregated emotionally impaired (EI) settings also?

An educational system within a society tends to mirror the underlying political philosophy of that society. In a democracy, education mirrors the belief that the state exists for the welfare of the individual. This implies an opportunity for all children to receive an education that meets their individual needs (Kirk, cited in Schurr & Brookover, 1967).

Federal mandate Public Law 94-142, the Education for All Handicapped Children Act (1975), assures all handicapped children a free appropriate public education emphasizing special education and related services designed to meet their unique needs. Public Law 94-142 (1975) also mandates that handicapped children are to be placed in the least restrictive environment (among nonhandicapped children to the greatest extent possible) and that the placement of handicapped children into special classes or separate facilities should occur only if individual needs cannot be met with supplementary aids and services.
Federal mandate Public Law 94-142 (1975) has had a major influence on the educational system. Instead of having a unified educational system (educating all children according to their individual needs), a dual education system exists (special education and regular education). Labels are placed on students in order to remove them from the regular classroom and to place them into the special classroom to provide for the handicapped student needs (Kirk & Gallagher, 1979). Kirk and Gallagher contended that teacher colleges were challenged to provide schools with specially trained teachers to work with the special education student; and thus, two distinct classifications of educators (regular and special) were established. Regular educators are academically orientated and are continually attempting to bring all children up to grade level; whereas, special educators emphasize the necessity for creating an environment for development of emotional health rather than for academic achievement, thus creating an atmosphere in the special classroom of less pressure to learn academics than would be experienced in the regular classroom (Kirk & Gallagher, 1979).

The absence of studies involving emotionally impaired students in regard to self-efficacy may be due to Wood and Lazarus's (1988) contention that increased emphasis is placed on the affective domain rather than the cognitive domain. This researcher, having participated in numerous individual education planning committees (IEPCs) over the past 8 years with a variety of special education teachers and administrators, has observed that teachers of the emotionally impaired continually write individualized programs to enhance
student general self-concept, but neglect to observe and record student self-efficacy. Public Law 94-142 (1975) requires that students labeled emotionally impaired have an individualized educational program allowing them to work at their own level, regardless of placement in a regular classroom or special classroom. Wood and Lazarus (1988) contended that in addition to affective developmental needs, emotionally impaired students need a strong academic curriculum, comparable in scope and sequence to the education received by any other student.

Statement of the Problem

In the 1990s more school systems will provide unified programs, with full inclusion of all students regardless of handicap, being educated in the regular school setting among nonhandicapped students. If full inclusion is imminent and special school settings are on the way out, then how will this trend influence the emotionally impaired adolescent in regards to self-efficacy and his or her academic success? Are self-efficacy levels among EI adolescents different between a segregated setting (special school) and an integrated setting (regular school)? Are academic success levels among EI adolescents different between a segregated setting and an integrated setting? Is there a direct positive relationship between self-efficacy and academic success among EI adolescents in an integrated setting? Is there a direct positive or negative relationship between self-efficacy and academic success among EI adolescents in a segregated setting? Is there a difference in relationships among

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self-efficacy and academic success between EI adolescents in a segregated setting and EI adolescents in an integrated setting?

Need and Significance of Study

No research data have been found which investigated self-efficacy and its relationship to academic success among emotionally impaired students. This study of student self-efficacy and academic success among students placed in a segregated educational setting compared to students placed in an integrated educational setting could assist school districts, principals, and teachers in determining under what conditions students would be more likely to achieve academic success, as well as whether self-efficacy should even be monitored among the emotionally impaired student. Findings of this study will add to the body of knowledge in literature and may provide a "springboard" for further research.

Organization of the Study

Presented within Chapter I are the introduction, the statement of the problem, the need and significance of the study, and the organization of the study.

Presented in Chapter II are the review of literature and presentation of the research hypotheses.

Presented in Chapter III are the method and procedures used to conduct the study. The research hypotheses are listed and a description of the setting, subjects, and sources of data, along with procedures of collecting, organizing, and analyzing the data are
described.

Presented in Chapter IV are the findings of the study.

Presented in Chapter V are recommendations for further research and implications for educators.
CHAPTER II

REVIEW OF LITERATURE

The purpose of this chapter is to review selected literature to
the concept of self-efficacy. The review of literature is divided
into seven sections: (1) self-concept versus self-efficacy, (2)
variables associated with self-efficacy, (3) the relationship be­
tween self-efficacy and academic success, (4) classroom placement
and self-efficacy, (5) statement of the hypotheses, and (6) a review
of instruments that measure self-efficacy. In a seventh section, a
summary of the chapter is provided.

Self-Concept Versus Self-Efficacy

Self-concept is the perception of oneself, more specifically,
the attitudes, feelings, and knowledge about one's skills, abili­
ties, appearance, and social acceptability (Jersild, 1965; LaBenne &
Greene, 1969). Although this definition is widely accepted, there
is no clear and universal definition of self-concept in the litera­
ture (Hansford & Hattie, 1982; LaBenne & Greene, 1969; Wylie,
1974a). This confusion of the conceptualization of self-concept in
the literature has made its way into the schools in which teachers,
 principals, and superintendents rely on self-concept instruments to
measure student perceptions of oneself in general. The confusion in
the meaning of self-concept that clouds the mind of the educator is

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that self-concept is predictive of academic success. Unfortunately, definitions of self-concept are not being used in a consistent manner.

Byrne (1984) referred to self-concept as a multidimensional construct, having a general facet and a more specific academic facet (perception of academic ability). Byrne (1982), studied the general self-concept and academic self-concept of 929 high school students (Grades 9-12) in relationship to academic success and reported: (a) a correlation of .16 between general self-concept and academic success and (b) a correlation of .41 between academic self-concept and academic success. Academic self-concept with a .41 correlation with academic success is greater than general self-concept with a .16 correlation with academic success. Although these findings report a relationship between general self-concept and academic success, a greater relationship is reported between self-efficacy and academic success. If schools are interested in enhancing students' academic success, then student self-efficacy should also be monitored.

Self-efficacy is used in place of Byrne's (1982) academic facet of self-concept to avoid confusion between general and academic self-concept. Self-efficacy is defined as personal beliefs of an individual about his or her capabilities to organize and implement actions necessary to attain designated levels of performance (Bandura, 1982). As early as 1959, Brookover studied the notion of a separate and more specific facet of self-concept which he termed self-concept of ability. Brookover (1959) defined self-concept of
ability as the individual's assessment of his or her competency to carry out the behaviors appropriate for the role. This definition is synonymous to self-efficacy.

Whether people respect themselves or feel good about themselves in general does not mean they are competent in any specific area (Brookover, 1969). Brookover (1959) hypothesized that self-concept of ability was a functionally limiting factor in school learning. In reviewing the literature the first study involving self-efficacy (self-concept of ability) and the relationship to academic success was initiated in 1960 by Brookover (Brookover et al., 1962). By 1960, Brookover had designed and developed a scale designed to measure what he perceived self-efficacy (self-concept of ability) to be (Brookover et al., 1962).

During the late 1970s and throughout the 1980s, the multidimensionality of self-concept was explored and emphasized, recognizing multiple facets of self-concept including self-efficacy (academic self-concept) (Marsh, 1986b). Empirical studies have identified multiple facets of self-concept (Marsh, 1986b; Marsh, Smith, Barnes, & Butler, 1983; Marsh, Barnes, Cairns, & Tidman, 1984). Byrne (1982) reported that academic success was substantially more correlated with self-efficacy (academic self-concept) than with general self-concept. Self-efficacy (academic self-concept) can be interpreted as distinct although correlated with general self-concept (Byrne, 1982; Shavelson & Bolus, 1982).
Variables Associated With Self-Efficacy

Self-efficacy can influence or be influenced by achievement. Student performance, whether successful or failing, conveys information about how well one is achieving, which can influence self-efficacy (Schunk, 1989). Environmental factors, such as feedback on student performance, influence self-efficacy (Schunk, 1989). Before a student strives to perform certain role behaviors, he or she must assume some probability that he or she will be successful to some minimal degree (Brookover, 1975). Schunk (1989) emphasized the importance of outcome patterns on self-efficacy. Many successful or failure experiences impact how a student perceives himself or herself. The student that has experienced limited success and perceives little progress in school, especially starting at an early age, tends to have a lower self-efficacy than the student experiencing continuous success who perceives progress being made in school. Attributions of perceived influence of success and failures are important to self-efficacy (Schunk, 1989). Achievement is often linked to such causes as effort, ability, and task difficulty (Frieze, cited in Schunk, 1989). Although children attribute effort as the primary cause of outcomes, with development, ability attributions become increasingly important influences on expectancies while effort attributes decline in importance (Harari & Covington, cited in Schunk, 1989). Success achieved through much effort should raise self-efficacy less than success achieved through little effort, implying poorly developed skills (Bandura, cited in Schunk, 1989).
Bridgeman and Shipman (1978) concluded from a study of 404 children from predominantly low-income areas that student self-efficacy develops as a reaction to, rather than as an influence of, academic success. Student self-efficacy as it pertains to various academic areas sets limits on the subjects one chooses to take (Brookover, 1975). For example, a student who believes he or she has low ability in mathematics is less likely to register for a mathematics class unless it is required. On the other hand, a student who believes he or she has high ability in mathematics is more likely to register for mathematics classes beyond what is required. Schunk (1989) contended that student aptitudes (general abilities, skills, strategies, attitudes, personality characteristics, and interests) and a student's prior experiences in school (teacher interactions and time spent on subjects) all influence student self-efficacy.

Task engagement variables—(a) instructional purpose, (b) content difficulty, (c) instructional context, (d) instructional events, (e) exposure to models, (f) goal setting, and (g) rewards—influence student self-efficacy (Schunk, 1989). Instructional purpose refers to uses a student believes he or she will make of the material learned (Marx, cited in Schunk, 1989). A student who is informed that he or she must give an oral presentation to demonstrate what has been learned may experience anxiety if uncomfortable speaking in front of a class, therefore, possibly leading him or her to a low self-efficacy. On the other hand, the same student, if informed that he or she must take an essay exam to
demonstrate learning, may experience less anxiety if comfortable with his or her writing skills, therefore, possibly leading him or her to high self-efficacy.

Content perceived to be difficult by a student can lead to low self-efficacy; this includes student beliefs about the type of cognitive processing required by the content (Schunk, 1989). For example, a student that perceives learning from audiovisual aids to be easier than written materials may have a high self-efficacy when audiovisual aids are used. The instructional context, that is, the physical and social environments, and instructional format influence student self-efficacy (Schunk, 1989). For example, a student who perceives that he or she can learn more in a small group setting than in a large class setting would have a higher self-efficacy when cooperative learning strategies (small group) are used and a lower self-efficacy when large class activities are used. Often a student, particularly a student with academic disabilities, requires specific strategies in order to succeed in school. When a student is placed into a classroom in which teacher strategies do not accommodate the student fears and learning style, he or she may be destined for failure in that setting.

Instructional events—including teacher explanations, presentation of materials, and student activities— influence self-efficacy (Schunk, 1989). Information presented in an organized means that enables students to understand the material is more apt to enhance self-efficacy and their chances to succeed than material presented in an unorganized means. Schunk (1989) warned teachers who provide
too much assistance that, although they may improve student skills, they do little to raise student self-efficacy. This may have implications in regards to a dual educational system including both special education and regular education. The special educator is accused of coddling the student, that is, fostering dependence, while the regular educator is accused of being insensitive to the individual needs of the student.

Performance feedback (informing students how they are doing) influences self-efficacy in students (Schunk, 1989). Students with self-management skills that enable them to self-check, self-record, and self-reinforce experience less impact by performance feedback from the teacher (Schunk, 1989).

Students who observe classmates with similar or slightly higher competence perform tasks successfully tend to believe that they, too, can succeed. Students who observe a teacher demonstrating a task successfully may or may not believe that they can succeed in the task, depending on how far advanced they perceive the teacher's competency level to be above their own (Schunk, 1989).

A student who participates in setting his or her own academic goals and actively pursues those goals may experience heightened self-efficacy while observing the goal progress (Schunk, 1989). Goals set by the teacher or learning disabled student enhance mathematical achievement and self-efficacy more than when goals are not set (Schunk, 1985). Public Law 94-142 (Education for All Handicapped Children Act, 1975) mandates that all handicapped students have individualized programs designed to meet their needs.
Rewards tied to actual performance enhance academic success and self-efficacy (Schunk, 1989). Performance-contingent rewards lead to more rapid problem solving, as well as higher skill and self-efficacy, compared with task-contingent rewards and unexpected rewards (Schunk, 1989).

Classroom Placement and Self-Efficacy

Brookover and Passalacqua (1981) speculated that student reference groups influence student self-efficacy. In a study in which subjects were selected from three stratified randomly sampled Michigan public elementary schools: (1) white, (2) black, and (3) higher and lower white socioeconomic schools, Brookover (1979) reported that individual self-efficacy scores are highly and significantly correlated with individual academic success. Higher socioeconomic status schools had slightly higher self-efficacy than lower socioeconomic status schools and self-efficacy in black students in predominantly black schools was significantly higher than predominantly white schools (Brookover, 1979). However, when comparing schools' mean self-efficacy with schools' mean academic success, a -.549 correlation (Pearson product) was reported (Brookover, 1979). Predominantly black schools' mean self-efficacy was significantly higher than predominantly white schools' mean self-efficacy; whereas, predominantly black schools' mean academic success was significantly lower than predominantly white schools' mean academic success (Brookover, 1979). Brookover (1979) speculated that the student who is placed in a low ability group assesses himself or herself higher
in reference to his or her group members than if placed in heterogeneous groups; whereas, a student placed in a high ability group assesses himself or herself less able in comparison to his or her group members. The variance between low and high ability groups would be lower if placed in undifferentiated ability groupings (Brookover, 1989).

Few studies exist that examine self-efficacy among the special education students. A student with learning difficulties may be placed in a variety of settings: a regular classroom, a resource room, a self-contained room, a segregated setting, and/or a combination of these settings. Brookover (1979) contended that the result of homogeneous settings influencing student self-efficacy may have implications for the special education student in particular. In a study of ninth grade English students, the low ability students (grouped homogeneously) expressed higher self-efficacy than similar students grouped heterogeneously (Drews, 1962). In a study of educably mentally impaired (EMI) students, self-efficacy was reported higher among the EMI students placed in a special education class (segregated setting) than when transferred to a regular classroom (integrated setting) (Schurr & Brookover, 1967). Although these studies report similar findings regarding self-efficacy and low ability students in segregated settings, no studies involving the emotionally impaired student (EI) and self-efficacy have been found. The absence of studies involving EI students in regard to self-efficacy may be due to Wood and Lazarus's (1988) contention that increased emphasis is placed on the affective domain rather than the
cognitive domain. Wood and Lazarus (1988) contended that in addition to affective developmental needs, EI students need a strong academic curriculum, comparable in scope and sequence to the education received by any other student. Students are referred and diagnosed as possessing an emotional impairment as defined by the Michigan State Board of Education in Michigan Public Act 451 as amended July 1, 1987:

The emotionally impaired shall be determined through manifestation of behavioral problems primarily in the affective domain, over an extended period of time, which adversely affect the person's education to the extent that the person cannot profit from regular learning experiences without special education support. The problems result in behaviors manifested by one or more of the following characteristics:

(a) Inability to build or maintain satisfactory interpersonal relationships within the school environment.

(b) Inappropriate types of behavior or feelings under normal circumstances.

(c) General pervasive mood of unhappiness or depression.

(d) Tendency to develop physical symptoms or fears associated with personal or school problems.

Students that have been labeled EI often have had many experiences of failure in school. Failure experiences, limited success, and a perception of little progress in school all can lower one's self-efficacy (Schunk, 1989). Schunk (1989) contended that self-efficacy is influenced by the instructional context, that is, the physical and social environments. EI students are placed in special classrooms and schools (small class size) as well as regular
integrated classrooms (large class size). These placements are likely to have an influence on the EI student self-efficacy.

Statement of the Hypotheses

The preceding review of the literature has established a theoretical foundation for the need to investigate the relationship between self-efficacy and academic success among integrated and segregated emotionally impaired adolescents. Five hypotheses have been constructed which were tested by this study. The development of these hypotheses has been based on the review of the literature as explained after each hypothesis below.

Hypothesis 1: Self-efficacy levels are higher between emotionally impaired adolescents in a segregated setting than in an integrated setting.

Research findings from Brookover (1979), predominantly white schools compared with predominantly black schools; Towne and Joiner (1966), educably mentally impaired students in special class setting compared with regular class setting; Schurr and Brookover (1967), educably mentally impaired students in special class setting; and Drews (1962), low ability students in special class setting compared with regular class setting, all support this hypothesis. The main thrust of this hypothesis is to test whether this phenomenon (inflated self-efficacy) occurs in a setting in which students are segregated not due to lack of cognitive skills, but due to poor skills in the affective domain.
Hypothesis 2: Levels of academic success differ between emotionally impaired adolescents in a segregated setting and in an integrated setting.

Students labeled emotionally impaired that are placed in special classrooms often have less emphasis placed on the academic domain than the affective domain (Kirk & Gallagher, 1979; Wood & Lazarus, 1988). Lower academic expectations may result in lower levels of academic success. Teachers in the regular classroom tend to place more emphasis and have higher academic expectations (Kirk & Gallagher, 1979; Towne & Joiner, 1966; Wood & Lazarus, 1988). Higher academic expectations may result in higher levels of academic success. Although special classrooms were designed to enhance the special education students' chance to succeed academically, students placed in special class placements do not exhibit greater academic success levels (Schurr & Brookover, 1967). Special class teachers have the training that regular class teachers have plus additional training in behavior management and individualized instruction (Hasizi, Rice, & York, 1979). Class size is remarkably lower in the special classroom than in the regular classroom. With specialized teachers in smaller group settings, the emotionally impaired student would appear to this researcher to display fewer behavior problems, thus concentrate on succeeding academically to a greater extent than with emotionally impaired students in the regular classroom.

Hypothesis 3: There is a direct relationship between self-efficacy and academic success among emotionally impaired adolescents in an integrated setting.
Numerous studies report a significant positive correlation between self-efficacy and academic success in a regular school setting (Brookover & Paterson, 1964; Byrne, 1984, 1986; Darakjian, 1985; Lent, 1984; Shavelson & Bolus, 1982). This hypothesis tests specifically the relationship between self-efficacy and academic success among emotionally impaired adolescents in a regular school setting (integrated). Although all the subjects are emotionally impaired, self-efficacy represents the belief in one's academic abilities within a particular setting or reference group. In this case the setting is integrated, thus supporting this hypothesis. If this hypothesis is found to be supported, educators can be encouraged that measuring self-efficacy of the emotionally impaired student is as important as with the regular student. If this hypothesis is not supported, further investigation into the emotionally impaired perception of reference groups may be needed.

Hypothesis 4: There is an inverse relationship between self-efficacy and academic success among emotionally impaired adolescents in a segregated setting.

Special education students may perceive their abilities higher when compared with other special education students than when compared with students in the regular classroom (Coleman, 1983; Schunk, 1989; Strang, Smith, & Rogers, 1978). Brookover (1979) reported a significant negative correlation between self-efficacy and academic success among segregated populations. These results led Brookover and Passalacqua (1981) to speculate that reference groups influence student self-efficacy. Brookover (1979) contended that the result
of homogeneous settings influencing student self-efficacy may have implications for the special education student in particular. The purpose of this hypothesis was to test whether a relationship is present between self-efficacy and academic success among emotionally impaired students in a segregated setting. In a result of an inverse relationship existing the inflated self-efficacy phenomenon might be promoted. Educators might look at additional data, that is, student's locus of control or sense of futility. However, if findings report a direct relationship the inflated phenomenon theory will not be supported. Further research into teaching styles and grading procedure used might be necessary.

**Hypothesis 5**: The relationship between self-efficacy and academic success differs among emotionally impaired adolescents in a segregated setting and in emotionally impaired adolescents in an integrated setting.

The purpose of this hypothesis is to test whether the relationship between self-efficacy and academic success is different among different placement settings and reference groups for the emotionally impaired student. The literature review has consistently found a difference, but among low academic ability groups (Brookover, 1979; Drew, 1962; Strang, Smith, & Rogers, 1978; Towne & Joiner, 1966). If this hypothesis is found to be supported, then educators should take into consideration the possible ramifications on self-efficacy and academic success by the setting emotionally impaired students are placed. Further research into variables, that is, instructional techniques used, secondary impairments, duration of EI
label, significant others, locus of control, and teacher grading procedures, would be needed. If this hypothesis is not supported, then data will exist that refute the literature regarding homogeneous settings and its effect on self-efficacy and academic success of emotionally impaired students.

A Review of Instruments That Measure Self-Efficacy

In reviewing various instruments that measure self-efficacy (academic self-concept and self-concept of ability) throughout literature it became necessary to narrow the search by specifying characteristics that would be important for the population for which this study is intended. The instrument should (a) measure the student's belief in his or her ability to perform in a general academic setting, (b) be a valid measure of the above stated belief, (c) have high internal reliability, and (d) be simplistic and short to account for the population's possible short attention span.

Four instruments were discovered that met the first, second, and third characteristics above. They are: (a) Academic Self-Concept Scale, (b) Dimensions of Self-Concept, and (c) the Self-Description Questionnaire. Only one in the opinion of this researcher met all four characteristics above and that is the General Self-Concept of Ability Scale. Below is a description of these four scales.
Academic Self-Concept Scale

The Academic Self-Concept Scale (ASCS, cited in Reynolds, Ramirez, Magrina, & Allen, 1980) was developed as a measure of self-efficacy for college students. The final form of the ASCS consisted of 40 items using a 4-point Likert-type response format. The reliability was estimated at .91 based on Cronbach's coefficient alpha. Validity was established by correlating the ASCS with student grade point averages and with their scores on the Rosenberg Self-Esteem Scale. The ASCS correlated .40 ($p < .001$) with grade point average and .45 ($p < .001$) with the Rosenberg scale. The Rosenberg scale correlated -.01 with grade point average. These data lend support to the reliability and validity of ASCS as a measure of self-efficacy (Reynolds et al., 1980).

Dimensions of Self-Concept

Dimensions of Self-Concept (DOSC, cited in Lehn, Vladovic, & Michael, 1980) consists of five academic self-concept scales (dimensions). Each scale consists of 14 items using a 5-point Likert scale. The five scales (dimensions) include: (1) Level of Aspiration, (2) Anxiety, (3) Academic Interest and Satisfaction, (4) Leadership and Initiative, and (5) Identification Versus Alienation. The DOSC, when used with junior high and high school students, had a reliability range of .80 to .90. Dimension 1 (Level of Aspiration) and Dimension 3 (Academic Interest and Satisfaction) were reported as the most valid predictors of academic success (grade point
average) out of the five dimensions. A combination of a cognitive measure (a reading test) and one or more of the scales in the DOSC would seem to yield a more valid prediction of academic success than DOSC alone (Lehn et al., 1980).

The Self-Description Questionnaire

The Self-Description Questionnaire (SDQ, cited in Marsh et al., 1984) consists of seven facets of preadolescent self-concept derived from Shavelson's model. These consist of four nonacademic facets and three academic facets. The three academic facets of self-concept are reading, mathematics, and general school. These self-efficacy (academic self-concept) scales are reliable (coefficient alphas in the .80 to .90 range) and are moderately correlated with measures of corresponding academic abilities and primary school teacher perceptions (Marsh et al., 1984).

General Self-Concept of Ability Scale

The General Self-Concept of Ability Scale (GSCAS) was developed in 1962 by Brookover and his associates. This original scale was designed for junior high school and high school age students. This scale has been used in previous studies involving segregated populations (Brookover, 1979; Schurr & Brookover, 1967; Towne & Joiner, 1966). The scale has been modified for use with elementary students as well as post-high school students. Brookover (1989) referred to the elementary form as the Self-Concept of Academic Ability Scale (SCAAS). The scales have a reading level of third grade (Brookover,
The original scale (GSCAS) consists of eight items using a 5-point Guttman type scale, ranging from A, an indication of high self-efficacy, to E, an indication of low self-efficacy. The GSCAS measures student self-efficacy (the individual assessment of his or her ability to learn in the school context) in comparison to relevant others in the school (Brookover, 1989). Internal reliability of the GSCAS (secondary scale) was .82 for eighth grade males and .84 for eighth grade females using the Hoyt coefficient (Brookover, 1989). Reproducibility was above .90 as measured by the Guttman scale analysis (Paterson, cited in Brookover, 1989). Brookover cautioned users that although internal consistency appears acceptable, the scale does not measure a variable that is constant over time. However, in a longitudinal study Brookover et al. (1967) reported that self-efficacy scales changed significantly from year to year and that these changes were related to changes in perceived parents', friends', and teachers' evaluations of their ability as well as changes in student grades. In a study involving secondary students, Brookover et al. (1962) reported a correlation of .5 between self-efficacy (self-concept of ability) and mean school grades, and .4 when IQ scores were controlled for. A .5 correlation between GSCAS and perceived expectations of parents, teachers, and peers was reported (Brookover, 1989).

Thirty years and hundreds of studies later, the Brookover General Self-Concept of Ability Scale (GSCAS) has been selected as the instrument to measure self-efficacy in the National Association of Secondary School Principals (NASSP) Comprehensive Assessment of
School Environments (CASE) model (Halderson et al., 1988). The GSCAS has a quality that the other scales lack and that is one of simplicity and shortness in length. This may be the reason many studies involving the mentally impaired used this instrument. When using an instrument with a population of emotionally impaired adolescents, it is imperative in this researcher's opinion to take into account their possible short attention span. This instrument, when read aloud, takes between 5 and 10 minutes to complete.

Summary

This chapter has made the distinction between self-efficacy and self-concept, both of which have been used erroneously in literature. A review of self-efficacy and associated variables has been presented. Researchers have concluded that self-efficacy has a significant positive correlation with academic success. For segregated populations, research findings have shown a significant negative correlation between self-efficacy and academic success. Although a few studies have been reported using special education students in segregated settings, no studies using emotionally impaired adolescents were found. Five hypotheses have been offered based on the review of literature and this researcher's experience in teaching the emotionally impaired in a segregated setting.
CHAPTER III

METHOD

This chapter is a presentation of the method and procedures used in this study. Contained within are research hypotheses as presented in the previous chapter; a description of the setting; subjects; sources of data; and procedures of collecting, organizing, and analyzing the data.

Research Hypotheses

The following five research hypotheses were tested by procedures as described in this chapter.

Hypothesis 1: Self-efficacy levels are higher between emotionally impaired adolescents in a segregated setting than in an integrated setting.

Hypothesis 2: Levels of academic success differ between emotionally impaired adolescents in a segregated setting and in an integrated setting.

Hypothesis 3: There is a direct relationship between self-efficacy and academic success among emotionally impaired adolescents in an integrated setting.

Hypothesis 4: There is an inverse relationship between self-efficacy and academic success among emotionally impaired adolescents in a segregated setting.
Hypothesis 5: The relationship between self-efficacy and academic success differ among emotionally impaired adolescents in a segregated setting and emotionally impaired adolescents in an integrated setting.

Setting

Two junior high schools in different school districts within the same metropolitan area in the midwestern United States were selected for this study. The community that both these schools service is considered to have a low to moderate socioeconomical status with a majority of its inhabitants considered lower-middle-class. Both junior high schools enroll students in Grades 7 through 9, with student ages ranging from 12 to 15. The two schools both fall under the same county, state, and federal regulations regarding the education of special education students. In both schools the students attend for 185 days with summers and holidays off. Both schools offer the core academic classes (English, mathematics, science, and social studies) and grade on a 4.0 system.

The two junior high schools differ in the way the students are grouped, population served, and the diversity of staff. These two schools were found by this researcher to be the most similar settings, while at the same time offering the groupings needed to conduct the study.
**Integrated Setting**

This junior high is considered a regular public school in which students with all abilities attend (handicapped and nonhandicapped). The uniqueness of this junior high over others is the way it integrates the special education student among the nonhandicapped student. Special education teachers and ancillary staff work with the regular teacher to meet the needs of all the children in the classroom. A high priority is made to place special education students in classrooms with regular education students. This school has 1,000 students in all, with 96 labeled as special education students, 11 of which are specifically labeled emotionally impaired. Although emotionally impaired students spend the majority of the time in regular classrooms, they often have contact with a special education teacher at least once a day. The hallways, library, cafeteria, clubs, and sports are all additional opportunities for emotionally impaired and regular students to mingle.

**Segregated Setting**

This setting is a segregated junior high for emotionally impaired students. All students have at least one thing in common and that is they are all labeled emotionally impaired. There are 85 students in all, 48 of which attend full time. There are 8 to 10 students per teacher and two paraprofessionals in each classroom. Any sports activities, clubs, lunch time, and hallway time are among other emotionally impaired students. Ancillary services are also...
available in the building. The staff all have been trained in dealing with behavior problems. The core academic classes (English, mathematics, science, and social studies) are all taken by all the students.

Subjects

Subjects screened in the integrated junior high included all the emotionally impaired students that attend the school. All 11 students met the criteria below and were included in this study. All 85 students were screened in the segregated junior high. Out of those 85, 48 met all the criteria excluding parental and student consent. Parental and student consent was received from 28 of the 48 students, and these 28 were selected as subjects for this study. Parental and student consent forms were sent out twice with follow-up phone calls. Of the 20 that chose not to return consent forms, 11 were due to the parents' unwillingness to allow their son or daughter to participate and 9 were due to the student's unwillingness to participate. The researcher is unaware of any instances in which both parent and child refused to cooperate. Concern for the representativeness of this segregated population prompted the formulation of a three-person panel including the principal, assistant principal, and teacher consultant. This panel agreed that the 20 students that could not get parental and student consent were represented in the 28 selected. The panel concluded that the majority of students excluded from the study had parents that are in general uncooperative with the school. However, they were surprised by the
inclusion of some other students whose parents also are uncooperative with the school. For inclusion in the study, students had to meet the following criteria: (a) diagnosed as emotionally impaired for a minimum of one year, (b) an IQ of 75 or higher, (c) between 12 and 15 years of age, (d) enrolled in the educational setting for minimum of 10 weeks or one card marking period, (e) parental and student consent, and (f) students either attend the integrated school or the segregated school full time.

Sources of Data

In this study there were two sources of data: (1) the General Self-Concept of Ability Scale measuring self-efficacy and (2) student grade point average information from student records measuring academic success.

General Self-Concept of Ability Scale

The General Self-Concept of Ability Scale (GSCAS) was selected to measure student self-efficacy for this study. This original scale was designed for junior high school and high school age students (Brookover et al., 1962). The scales have a reading level of third grade (Brookover, 1989). The GSCAS consists of eight items using a 5-point Guttman scale, ranging from A (an indication of high self-efficacy) to E (an indication of low self-efficacy). Points are calculated accordingly, A = 5, B = 4, C = 3, D = 2, and E = 1. Scores for all eight items are summed. Total scores range from 8 points (low self-efficacy) to 40 points (high self-efficacy). The
GSCAS measures student self-efficacy (the individual assessment of his or her ability to learn in the school context) in comparison to relevant others in the school (Brookover, 1989).

Internal reliability of the GSCAS was .82 for eighth grade males and .84 for eighth grade females using the Hoyt coefficient (Brookover, 1989). Reproducibility was above .90 as measured by the Guttman scale analysis (Paterson, cited in Brookover, 1989). Although internal consistency appears acceptable, Brookover (1989) emphasized that the scale does not measure a variable constant over time. Brookover (1989) reported the GSCAS to correlate .5 with grade point average, without controlling for IQ, .4 when controlling for IQ, and a .5 correlation with perceived expectations of parents, teachers, and peers.

The GSCAS was selected to measure self-efficacy in this study for a variety of reasons: (a) The GSCAS measures one's assessment of academic ability in general; (b) the GSCAS is simplistic and short in length (5 to 10 minutes) necessary for potential short attention spans; (c) has validity and acceptable internal reliability; and (d) has been used with segregated setting, in particular among special education students.

Grade Point Average

In this study grade point average was used to measure academic success. The grade point average was calculated at the end of the two 10-week marking periods. Only grades of courses that are academic in nature were included. Courses academic in nature include:
English, mathematics, science, and social studies. The academic grades were taken from the student report cards. The grade point average was calculated by adding up each of the student's points for every academic course taken during the two 10-week grade marking periods and dividing by the number of academic grades given. Grade point average was calculated by using a 4-point system (A = 4.0, A- = 3.7; B+ = 3.3, B = 3.0, B- = 2.7; C+ = 2.3, C = 2.0, C- = 1.7; D+ = 1.3, D = 1.0, D- = 0.7; E = 0; NC = 0; and CR = 2.0).

Procedures

Collection of Data

A letter was sent to the superintendent of the two school districts involved explaining the purpose of the study and asking permission to survey student self-efficacy as well as collect grade point averages from student records for emotionally impaired students in the specific junior high schools. Once permission was granted for the study, the principal of each school was asked for a list of students that met the list of set criteria. A meeting was set up in which the parental and student consent forms could be handed out to the 11 students that met all the criteria from the integrated junior high school. The principal of the segregated school instructed the teachers to hand out the parental and student consent forms to the 48 students that met all the criteria. With follow-up phone calls and sending home repeated consent forms, permission for all 11 students of the integrated school was attained.
The 11 students selected from the integrated school and the 28 students selected from the segregated school were given the General Self-Concept of Ability Scale prior to the end of the first grade marking period individually by this researcher. Each student was reassured verbally that all individual data collected would remain confidential. Each instrument had the student code number at the top. Both the directions and questions were read aloud by this researcher to control for any possible reading difficulties. For each of the eight questions, the student received 1 to 5 points depending on how he or she answered the question ($A = 5$, $B = 4$, $C = 3$, $D = 2$, and $E = 1$). Points for all eight items were calculated with a possible score from 8 (low self-efficacy) to 40 (high self-efficacy).

Copies of the student report cards for all students involved in the study were collected in order to determine the grade point averages. A 4.0 point scale was used to calculate student grade point average (high academic success--$A = 4$, $A- = 3.7$; $B+ = 3.3$, $B = 3.0$, $B- = 2.7$; $C+ = 2.3$, $CR = 2.0$, $C = 2.0$, $C- = 1.7$; $D+ = 1.3$, $D = 1.0$, $D- = 0.7$; $E = 0$; NC = 0--low academic success). Grade point average was calculated by adding all the points for each academic grade (English, mathematics, science, and social studies) and then dividing by the number of grades.

**Organization of Data**

All data collected from specific students were treated confidentially. Each name was given a number, that is, students from an
integrated setting had an I in front of it (I1, I2, etc.) and stu-
dents from a segregated setting had an S in front of it (S1, S2, etc.). A master list was kept by the researcher that listed the
student and the code numbers. Self-efficacy scores (as measured by
GSCAS) were recorded using Data Organization Form A for both the
integrated setting and the segregated setting. Academic success
scores (as measured by grade point average) were recorded on Data
Organization Form B for both the integrated and segregated setting.
On Data Organization Form C both self-efficacy and academic success
scores were matched by code number for both integrated and segre-
gated settings.

Analysis of Data

The analysis of data will be explained by first reviewing each
of the hypotheses to be tested, and then by stating the appropriate
analysis that was performed.

Hypothesis 1: Self-efficacy levels are higher between emotion-
ally impaired adolescents in a segregated setting than in an inte-
grated setting.

Individual student self-efficacy scores from the eight-item
General Self-Concept of Ability Scale (GSCAS) for both the inte-
grated setting (11 students) and the segregated setting (28 stu-
dents) were collected. Each item was worth between 1 and 5 points
with a total possible score for all eight items between 8 (low self-
efficacy) and 40 (high self-efficacy). A mean score for each set-
ting was calculated. As suggested by Welch (cited in Hinkle,
Wiersma, & Jurs, 1979) a formula that measured the significant differences between two means when the populations are a different size was used to test this hypothesis. A one-tailed t test for independent means at an alpha level of .05 was used to test the null hypothesis that there is no difference in self-efficacy levels between emotionally impaired adolescents in a segregated setting and in an integrated setting against the alternate hypothesis that self-efficacy levels are higher for emotionally impaired adolescents in a segregated setting than in an integrated setting.

**Hypothesis 2:** Levels of academic success differ between emotionally impaired adolescents in a segregated setting and in an integrated setting.

Individual academic success scores measured by grade point average (GPA) of only academic classes (English, mathematics, science, and social studies) for two marking periods were calculated. Total potential scores ranged from 0 to 4.0. A mean score for each setting was calculated. As suggested by Welch (cited in Hinkle et al., 1979), a formula that measures significant differences between two means when the populations are unequal was used to test this hypothesis. A two-tailed t test for independent means at an alpha level of .05 was used to test the null hypothesis that there is no difference in levels of academic success between emotionally impaired adolescents in a segregated setting and in an integrated setting against the alternate hypothesis that levels of academic success differ between emotionally impaired adolescents in a segregated setting and in an integrated setting.
Hypothesis 3: There is a direct relationship between self-efficacy and academic success among emotionally impaired adolescents in an integrated setting.

The relationship was analyzed using the raw score formula for the Pearson correlation coefficient (Hinkle et al., 1979). A one-tailed test for correlated means at an alpha level of .05 was used to test the null hypothesis that there is no relationship between self-efficacy and academic success among emotionally impaired adolescents in an integrated setting against the alternate hypothesis that there is a positive relationship between self-efficacy and academic success among emotionally impaired adolescents in an integrated setting.

Hypothesis 4: There is an inverse relationship between self-efficacy and academic success among emotionally impaired adolescents in a segregated setting.

The relationship was measured by using the raw score formula for the Pearson correlation coefficient (Hinkle et al., 1979). A one-tailed test for correlated means at an alpha level of .05 was used to test the null hypothesis that there is no relationship between self-efficacy and academic success among emotionally impaired adolescents in a segregated setting against the alternate hypothesis that there is an inverse relationship between self-efficacy and academic success among emotionally impaired adolescents in a segregated setting.

Hypothesis 5: The relationship between self-efficacy and academic success differ among emotionally impaired adolescents in a
segregated setting and emotionally impaired adolescents in an integrated setting.

The difference between the two correlation coefficients was analyzed by using the two sample correlation coefficients computed from data from two independent samples formula in Hinkle et al. (1979). A two-tailed Fischer z test of the statistical significance of the difference between two correlation coefficients at an alpha level of .05 was used to test the null hypothesis that there is no difference in the relationship between self-efficacy and academic success among emotionally impaired adolescents in a segregated setting and emotionally impaired adolescents in an integrated setting against the alternate hypothesis that the relationship between self-efficacy and academic success differ among emotionally impaired adolescents in a segregated setting and emotionally impaired adolescents in an integrated setting.

Summary

This chapter presented a list of hypotheses to be tested; a description of the setting; subjects; sources of data; and procedures used to collect, organize, and analyze the data. The next chapter will address the findings of this study.
CHAPTER IV

FINDINGS

In this chapter, data from both self-efficacy and academic success of emotionally impaired adolescents among a segregated and an integrated setting are analyzed. Computation of the data was done both by this researcher by hand and by computer using the Lotus 3.0 software package.

The results of the study are presented in this chapter. Included in the chapter are: (a) information on the reliability of the General Self-Concept of Ability Scale (GSCAS, Brookover, 1962) used to measure self-efficacy, (b) findings on the planned data analysis for each of the five hypotheses as presented in Chapter III, and (c) a summary of the findings.

General Self-Concept of Ability Scale

The General Self-Concept of Ability Scale was individually distributed to and collected from a total of 39 emotionally impaired adolescents from two different settings (segregated, 28; integrated, 11). The eight questions on the scale had a split-half reliability of .53 corrected to .69 using the Spearman-Brown prophecy formula cited in Isaac & Michael (1981, p. 174). The reliability coefficients are summarized in Table 1.
Table 1
Corrected Split-Half Reliability for the
General Self-Concept of Ability Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Split-half reliability</th>
<th>Split-half corrected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odd</td>
<td>13.69</td>
<td>.53</td>
<td>.69a</td>
</tr>
<tr>
<td>Even</td>
<td>14.56</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

aCorrected using Spearman-Brown formula.

The Hypotheses

Hypothesis 1: Self-Efficacy and Placement Setting

Employed was a one-tailed t test on independent means (sample size is different among the settings) for the data collected from a total of 39 students in both the integrated and segregated setting. A significant difference in scores on the General Self-Concept of Ability Scale at an alpha level of .05 was found to exist between the two settings. The critical values of the test statistics are +/- 1.699. Using a procedure found in Hinkle et al. (1979), the null hypothesis is rejected since the observed value of t (1.975) exceeds the critical value of the test statistic 1.699. These findings support Hypothesis 1 that self-efficacy levels are higher between emotionally impaired adolescents in a segregated setting than in an integrated setting. These findings are summarized in Table 2.
### Table 2

Self-Efficacy and Placement Setting

<table>
<thead>
<tr>
<th>Setting</th>
<th>Mean self-efficacy</th>
<th>n</th>
<th>Standard deviation</th>
<th>df</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segregated</td>
<td>29.04</td>
<td>28</td>
<td>3.99</td>
<td>29</td>
<td>1.975*</td>
</tr>
<tr>
<td>Integrated</td>
<td>26.82</td>
<td>11</td>
<td>2.76</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note.** One-tailed test.

* p < .05.

**Hypothesis 2: Academic Success and Placement Setting**

Employed was a two-tailed t test on independent means (different size samples) for the data collected from a total of 39 students from an integrated and a segregated setting. No significant difference in grade point average (academic success) at an alpha level of .05 was found to exist between the segregated and integrated setting. The critical values of the test statistics are +/- 2.040. Using the procedure found in Hinkle et al. (1979), the null hypothesis would be retained since the observed value of t (1.8443) does not exceed the critical value of the test statistic 2.040. These findings do not support Hypothesis 2 that levels of academic success differ between emotionally impaired adolescents in a segregated setting and in an integrated setting. These findings are summarized in Table 3.
Table 3
Academic Success and Placement Setting

<table>
<thead>
<tr>
<th>Setting</th>
<th>Mean academic success</th>
<th>n</th>
<th>Standard deviation</th>
<th>df</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segregated</td>
<td>2.28</td>
<td>28</td>
<td>0.83</td>
<td></td>
<td>1.844*</td>
</tr>
<tr>
<td>Integrated</td>
<td>1.85</td>
<td>11</td>
<td>0.58</td>
<td>29</td>
<td></td>
</tr>
</tbody>
</table>

Note. Two-tailed test.

*p > .05.

Hypothesis 3: Relationship Between Self-Efficacy and Academic Success Among the Integrated Setting

Data from both student self-efficacy (GSCAS) and student academic success (GPA) among the integrated setting were correlated using the raw score formula for the Pearson product-moment correlation coefficient as found in Hinkle et al. (1979). A negative correlation coefficient of -.381 between self-efficacy and academic success among the integrated setting was found to exist. Referring to the critical value of correlation coefficients table in Hinkle et al. (1979) for 9 degrees of freedom, the sample correlation of -.381 does not exceed the tabled value of +.521 for a one-tailed test at a .05 alpha level. Thus, the null hypothesis was retained at the .05 alpha level; therefore, the difference between the sample correlation coefficient -.381 and the null hypothesis that $r = 0$ is not sufficient enough to discount sampling error. These findings do not support this hypothesis that there is a positive relationship...
between self-efficacy and academic success among emotionally im-
paired adolescents in an integrated setting.

**Hypothesis 4: Relationship Between Self-Efficacy and Academic Success Among the Segregated Setting**

Data from both student self-efficacy (GSCAS) and student aca-
demic success (GPA) among the segregated setting were correlated using the raw score formula for the Pearson product-moment correlation coefficient found in Hinkle et al. (1979). A positive correlation coefficient of .364 was obtained between self-efficacy and academic success among the segregated setting. Referring to the critical value of correlation coefficients table in Hinkle et al. (1979) for 26 degrees of freedom, the sample correlation of +.364 does not exceed the tabled value of -.317 using a one-tailed test at a .05 alpha level. The null hypothesis was retained; hence, the difference between sample correlation coefficient +.364 and the null hypothesis that $r = 0$ is not sufficient to discount sampling error. These findings do not support the hypothesis that there is an in-
verse relationship between self-efficacy and academic success among emotionally impaired adolescents in a segregated setting.

**Hypothesis 5: Relationship Between Self-Efficacy and Academic Success and Placement Setting**

The difference in the correlation coefficients between the integrated setting and the segregated setting was analyzed using the formula for two independent samples found in Hinkle et al. (1979, pp. 224-225).
Employed was a two-tailed Fischer z test at a .05 alpha level. The standard error of the statistic -1.924 did not exceed the critical value of the test statistic +/-2.038. The difference between the observed statistic $r_1 - r_2 = -.781$ and the hypothesized corresponding parameter is not sufficient to discount sampling error. This researcher concludes with 95% confidence that the interval (-.046, .923) contains the difference between $p_1$ and $p_2$. These findings do not support this hypothesis that the relationship between self-efficacy and academic success differs between emotionally impaired adolescents in a segregated setting and emotionally impaired adolescents in an integrated setting.

Summary

A split-half reliability coefficient of .69 (as corrected by Spearman-Brown Prophecy formula) was reported for the General Self-Concept of Ability Scale used in this study. Only one out of the five hypotheses was supported with significant findings at an alpha level of .05. Hypothesis 1 was supported reporting that self-efficacy levels are higher among emotionally impaired adolescents in a segregated setting than in an integrated setting. Conclusions and recommendations will be addressed in Chapter V.
In this study student self-efficacy and academic success were analyzed among emotionally impaired adolescents within two different settings (segregated and integrated). Three purposes of this study were to determine: (1) whether there were differences in student self-efficacy and student academic success between the two placement settings, (2) the relationship between student self-efficacy and student academic success within each of the two placement settings, and (3) whether there was a difference in relationships of student self-efficacy and student academic success among placement settings. The discussion based on the findings of this study is divided into sections: (a) a discussion of the findings as they relate to each of the five hypotheses, (b) implications for educators, and (c) recommendations for future research.

Discussion of Hypotheses

Hypothesis 1

Hypothesis 1: Self-efficacy levels are higher between emotionally impaired adolescents in a segregated setting than in an integrated setting.

The findings were in support of this hypothesis as measured by Brookover's (1962) General Self-Concept of Ability Scale. The
self-efficacy levels of emotionally impaired adolescents within the segregated setting are higher than the self-efficacy levels of emotionally impaired adolescents within the integrated setting. These results concur with findings in studies by Brookover (1979), Schurr and Brookover (1967), and Drews (1962) that self-efficacy is higher among students placed in homogeneous or segregated settings than students placed in heterogeneous or integrated settings. Although the findings support previous research findings regarding placement setting and self-efficacy, speculation on the reason still exists. In literature, Brookover (1979) suggested the reason may be due to an inflated self-efficacy phenomenon. The inflated self-efficacy phenomenon is described when students assess their academic ability higher when compared to students similar in ability than when compared to students with varied ability.

This study was unique in that it involved students that were grouped by their ability to cope emotionally within a school setting rather than by academic ability. An argument could be made that students that experience emotional difficulties to the extent that they must be labeled as emotionally impaired within an academic school setting have also most likely had numerous negative experiences within the school setting. Schunk (1989) suggested that negative and failure experiences lower student self-efficacy. For the inflated self-efficacy phenomenon to be considered a possible reason that Hypothesis 1 was supported by findings of this study, it appears to this researcher that the academic success levels of each setting must be examined and discussed. Other questions regarding
teaching styles used, locus of control, perceived reference group, and significant others arise.

**Hypothesis 2**

**Hypothesis 2:** Levels of academic success differ between emotionally impaired adolescents in a segregated setting and in an integrated setting.

The findings were not in support of this hypothesis as measured by student grade point average of courses academic in nature (mathematics, English, science, and social studies). The academic success levels of emotionally impaired adolescents within the segregated setting are not found to be different than the academic success levels of emotionally impaired adolescents within the integrated setting. The difference in academic success levels among the two settings was not sufficiently large to discount sampling error. Therefore, no conclusion can be drawn about one setting nurturing academic success more than the other setting among emotionally impaired adolescents.

**Hypothesis 3**

**Hypothesis 3:** There is a direct relationship between self-efficacy and academic success among emotionally impaired adolescents in an integrated setting. Support for this hypothesis was not found. The results are inconclusive.
Hypothesis 4

Hypothesis 4: There is an inverse relationship between self-efficacy and academic success among emotionally impaired adolescents in a segregated setting. Support for this hypothesis was not found. The results are inconclusive.

Hypothesis 5

Hypothesis 5: The relationships between self-efficacy and academic success differ among emotionally impaired adolescents in a segregated setting and in emotionally impaired adolescents in an integrated setting. Support for this hypothesis was not found. The results are inconclusive.

By the nature of using students under age 18, both student and parent consent are necessary for participation in the study. The labeling of a student as emotionally impaired by a school district can impact a parent's and student's sensitivity towards research. In the integrated setting, all 11 students that met the criteria, had both student and parent consent to participate in this study. However, in the segregated setting, 9 students refused to participate and 11 of the students could not obtain parental consent to participate in the study. Precautions were taken to minimize the volunteer sample bias. Parents were notified both by letter and phone, and school staff supported and helped encourage participation in the study. Once all attempts were made to get student and parental consent, a panel of three staff members stated that the 20
students were representative among the 28 students participating in the study.

By individualizing the distribution of the General Self-Concept of Ability Scale (GSCAS), a change in student's reference group might have occurred. What this researcher thought was a good method of controlling the environment by individually giving the GSCAS may have also created an environment that could change the student's reference group. One might score differently among classroom peers than when alone.

The sizes of both settings are small, especially the integrated setting of 11. The uniqueness of the population increased the difficulty to find appropriate settings within a geographic area that also were conducive to this researcher's contacts, time restraints, economic restraints, and confidentiality restraints.

The General Self-Concept of Ability Scale had a split half reliability coefficient of .69 corrected by the Spearman Brown Prophecy formula. This is lower than the internal reliability of .82 reported by Brookover (1989).

Academic grade point average was used to measure academic success. Many variables affect student grades: attendance, tardiness, suspensions, discipline methods, and teacher grading methods. Grade point average was based on courses that are academic in nature for two 10-week grade marking periods. A longer period of time would have been better; however, with this population, they are moved in and out of programs frequently. Grade point average (GPA) was chosen for two reasons, most of the research involving the GSCAS also
used GPA, and both settings used different achievement tests.

A potential reason for not detecting a direct relationship as expected between self-efficacy and academic success in the integrated setting may be due to the emotionally impaired adolescents' sense of futility, locus of control, and other such difficulties within the regular classroom. Although emotionally impaired students are educated alongside regular (nonimpaired) students, the label still follows them. The teacher and classmates may be frustrated, sympathetic, or even empathetic with the student's behavior in the classroom, which may affect their expectations of the student's ability to succeed academically, thus possibly impacting both the level of academic success and level of self-efficacy of the emotionally impaired student. Teaching styles are less likely to be tailored to the emotionally impaired student in the regular classroom as in the special setting, therefore, possibly creating a disparity between level of self-efficacy and level of academic success.

A potential reason for not detecting an inverse relationship as expected between self-efficacy and academic success in the segregated setting may be due to the notion that emotionally impaired students perceive their ability in comparison with classmates. Since they are among only students that are emotionally impaired, self-efficacy may be inflated. Teaching styles are more likely to be tailored to the emotionally impaired student in the special setting. Greater emphasis may be placed on enhancing student social skills and vocational skills versus academic skills. These are all plausible reasons for not detecting an inverse relationship as expected.
This study was different from other self-efficacy and academic success studies in that students were selected by deficiencies in the affective domain rather than the cognitive domain. This may be a reason why expected relationships within each setting and a difference between relationships among settings were not detected. The one commonality that students had was the label of emotionally impaired. Students labeled emotionally impaired often have learning disabilities which might be perceptual in nature.

Implications for Educators

The importance of this study is in its use by educators seeking to understand the relationship of academic success and variables that may influence emotionally impaired students' level of academic success. Self-efficacy is only one variable, but has been reported in literature as having significantly positive relationships with academic success among regular students (nonhandicapped); however, this study found no significant relationship with academic success among emotionally impaired students regardless of setting. The finding of a significant difference in student self-efficacy between the two settings does, however, indicate that the way emotionally impaired students are grouped within an educational setting impacts how they perceive their academic ability. These findings can be a springboard for further research regarding placement effects on the emotionally impaired student. Both regular educators and special educators should be sensitive to the environmental setting in which emotionally impaired students are placed.
Recommendations for Future Research

Future research is needed regarding the educational setting in which emotionally impaired students are placed. Does the placement of emotionally impaired students among other emotionally impaired students enhance one's self-efficacy, thus enhancing one's level of academic success? Does the placement of emotionally impaired students among other emotionally impaired students with teachers and support staff specifically trained, equipped, and motivated to work with such students enhance one's level of academic success; thus, enhancing one's self-efficacy?

Future studies involving the emotionally impaired might look at four groups: (1) full-time segregated, (2) part-time segregated and part-time integrated, (3) full-time integrated, and (4) nonhandicapped students. Large sample size is needed for each group. Other variables to be observed along with self-efficacy and academic success are: locus of control, duration of emotionally impaired label, secondary impairments, IQ, attendance, and classroom management strategies. If grade point average is used, consideration might be given to teachers' history of grading procedures.

Replication of this study is also recommended, but only with a larger sample size for both groups and in different kinds of settings. Age groups other than adolescents need to be studied. Instead of a larger sample size from each individual setting, this researcher recommends that students be selected from a greater number of individual settings to test the same hypotheses. A random
sample might be selected from both integrated and segregated settings throughout the county, state, or country. Various types of integrated settings—vocational, team teaching, and cooperative learning sites—might be considered in future research. Various types of segregated settings—self-contained rooms, day treatment, and hospital sites—might be considered in future research.

The General Self-Concept of Ability Scale could be adapted to the emotionally impaired population. The removal of two items involving college and professions may make a considerable difference. The instrument could be adapted to specific academic areas versus general academic areas.

A longitudinal study might be conducted in which student self-efficacy is monitored beginning at age 5 up through high school graduation (nonhandicapped and handicapped). Analysis of effects of labels, placement setting, duration of label, and IQ could be recorded.
Appendix A

Correspondence With Superintendents

55
Dr. John Garner, Superintendent
East Detroit School District
19200 Stephens
East Detroit, MI 48021
Re: Request for Use of Existing Data and
   Request to Administer "Self-Concept of
   Academic Ability Scale"

Dear Dr. Gardner:

I am a doctoral student at Western Michigan University and I am currently working on my dissertation. My study which investigates the relationship of self-efficacy and academic success among emotionally impaired adolescents in segregated and integrated programs has been approved by my doctoral committee. I am requesting permission to use data from designated student's records and to administer, or have administered, the "Self-Concept of Ability Scale".

The population I wish to study are students that have been labeled emotionally impaired at Oakwood Junior High School (integrated setting) and students at a junior high center program (segregated setting). All the students that meet the preset criteria at Oakwood Junior High would be selected (approximately 10 to 20 students). Student confidentiality would be maintained by the use of a coding system.

This study attempts to investigate: 1) The relationship between self-efficacy and academic success among emotionally impaired adolescents. 2) The effect placement setting (segregated or integrated) may have on both student self-efficacy and student's academic success.

The data to be collected includes: Date of birth, duration of EI label, IQ, attendance and grade point average. "Letters of Permission of Informed Consent" from both the parents and the students involved in the research project will be secured.

If possible, would you please respond in writing so the approval becomes part of my documentation. I will contact your office for an appointment to discuss this request and any of your concerns or ideas. Thank you for your time and consideration of this request.

Sincerely,

Jerry W. Davisson
Teacher--Assist. Principal
Macomb Intermediate Schools
Neil E. Reid High School
469-1590
Dr. Joseph Nicita, Superintendent
Macomb Intermediate School District
44001 Garfield Road
Mt. Clemens, MI 48044-1497

Re: Request for Use of Existing Data and
Request to Administer "Self-Concept of
Academic Ability Scale"

Dear Dr. Nicita:

I am a doctoral student at Western Michigan University and am currently working on my dissertation. My study which investigates the relationship of self-efficacy and academic success among emotionally impaired adolescents in segregated and integrated programs has been approved by my doctoral committee. I am requesting permission to use data from designated students' records and to administer, or have administered, the "Self-Concept of Ability Scale".

The population I wish to study are students at Rockwell Junior High School (segregated setting) and students at a junior high school in a local school district in Macomb county (integrated setting). A random sample of approximately 10 to 20 students would be selected of the total population meeting the preset criteria at Rockwell Junior High. Student confidentiality would be maintained by the use of a coding system.

This study attempts to investigate: 1) The relationship between self-efficacy and academic success among emotionally impaired adolescents. 2) The effect placement setting (segregated or integrated) may have on both student self-efficacy and student's academic success.

The data to be collected includes: Date of birth, duration of EI label, IQ, attendance and grade point average. "Letters of Permission of Informed Consent" from both the parents and the students involved in the research project will be secured.

If possible, would you please respond in writing so the approval becomes part of my documentation. I will contact your office for an appointment to discuss this request and any of your concerns or ideas. Thank you for your time and consideration of this request.

Sincerely,

Jerry W. Davisson
Teacher—Assistant Principal
Macomb Intermediate Schools
Neil E. Reid High School
469-1590

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October 19, 1990

Jerry W. Davisson
Teaching Assistant Principal
Neil E. Reid High School
Macomb Intermediate School District

Dear Jerry:

I am in receipt of your letter containing two requests:

Use of Existing Data
Administer "General Self-Concept of Ability Scale"

You wish to use data obtained through your study of students labeled Emotionally Impaired at Oakwood Junior High School of the East Detroit School District during the 1990-1991 school year as research for your doctoral program.

As I indicated to you in our phone conversation, you have my approval on the condition that you secure Letters of Permission of Informed Consent from parents of the students involved in your research project.

Sincerely,

Mary Kay Chuckran
Special Services Director

/sks
TO: Jerry W. Davisson, Asst Teaching Principal, Neil Reid School
FROM: Don Thomas, Director Center Programs
SUBJECT: Dissertation Request
DATE: October 25, 1990

I am approving your request to use the existing data and administer the "Self Concept of Academic Ability Scale" for your dissertation study for Western Michigan University.

Please keep the signed parental forms on file and send me a copy of the results of the study.

I wish you luck on your dissertation.

cc: Walt Osmond
Appendix B

Letter to Parents and Consent Forms
December 17, 1990

Dear Parents,

I am conducting a research study through the College of Education at Western Michigan University, involving two Macomb County school districts. Your son or daughter has been selected to participate in this study that will take place this winter. Participation is voluntary and students will not be penalised in any way for not participating. Each student will be assigned a number for coding to ensure confidentiality.

On , 1991 the "Self-Concept of Ability Scale will be administered. The Scale takes about 20 minutes to answer 8 questions and will be read out loud to each student. This will take place during the normal school day. There will be no interruption in school services other than the 20 minutes needed for the administration of the "Self-concept of Ability Scale". Some information will be needed from records, i.e. grade point average, birthdate and attendance.

Your son or daughter’s participation in this study will provide an opportunity for self-reflection of his or her ability to perform in school.

Approval by both you and your son or daughter to participate is required. Please sign the attached consent and assent forms and return as soon as possible.

If you have any questions or concerns, please telephone me at Neil Reid High School, Monday - Friday, 7:00 a.m. - 2:15 p.m. at 469-1590.

Thank you for your time and cooperation.

Sincerely,

Jerry W. Davisson
My son or daughter __________________________________ has permission to participate in your study. I understand that the "Self Concept of Ability Scale" will be administered to him or her.

I agree that Mr. Jerry Davisson may examine my son or daughter's school file for information, i.e. grade point average, birthdate, and attendance. I understand that my son or daughter's name will be coded with a number to ensure confidentiality.

I reserve the right to rescind my permission for my son or daughter to participate in this study at any time prior to: A) review of my child's school file or B) administration of the "Self Concept of Ability Scale".

__________________________
Parent/Guardian Signature  Date

I __________________________ give my permission to participate in your study. I understand that the "Self Concept of Ability Scale" will be administered to me.

I agree that Mr. Jerry Davisson may examine my school file for information, i.e. grade point average, birthdate, and attendance. I understand that my name will be coded with a number to ensure confidentiality.

I reserve the right to rescind my permission to participate in this study at any time prior to: A) review of my school file or B) administration of the "Self Concept of Ability Scale".

__________________________
Student Signature  Date
Appendix C

Data Collection Forms
ORGANIZATION FORM A

STUDENT SELF-EFFICACY

Setting:

<table>
<thead>
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<th>Code #</th>
<th>Self-efficacy</th>
</tr>
</thead>
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<table>
<thead>
<tr>
<th>Code #</th>
<th>Academic success</th>
</tr>
</thead>
</table>

ACADEMIC SUCCESS

Setting:

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**ORGANIZATION FORM C**

**SELF-EFFICACY AND ACADEMIC SUCCESS**

<table>
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<tr>
<th>Code #</th>
<th>Self-efficacy</th>
<th>Academic success</th>
</tr>
</thead>
</table>
Appendix D

Approval Letter From Human Subjects
Institutional Review Board
Date: December 6, 1990
To: Jerry William Davisson
From: Mary Anne Bunda, Chair
Re: HSIRB Project Number 90-10-25

This letter will serve as confirmation that your research protocol, "Self-Efficacy and Academic Success of Integrated and Segregated Emotionally Impaired Adolescents," has been approved after full review by the HSIRB. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the approval application.

You must seek reapproval for any change in this design. You must also seek reapproval if the project extends beyond the termination date.

The Board wishes you success in the pursuit of your research goals.

xc: Edgar Kelley, Educational Leadership

Approval Termination: December 6, 1991
Appendix E

Letter Giving Permission to Use
Self-Concept of Ability Scale
August 14, 1991

Mr. Gary Davisson
2121 Hawthorne
Gross Pointe Woods, MI 48236

Dear Mr. Davisson:

You have my permission to use our Self-Concept of Ability Scale in your research.

Please give us credit in the report and let me know your findings.

Cordially,

Wilbur B. Brookover
Professor Emeritus

WBB/ff
BIBLIOGRAPHY


71


Piers-Harris Children's Self-Concept Scale. Educational and Psychological Measurement, 44, 1025-1030.


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