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SELF CONCEPT AND READING ACHIEVEMENT OF THIRD
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SELF CONCEPT AND READING ACHIEVEMENT OF THIRD GRADE STUDENTS
IN SCHOOLS DIFFERING IN DEGREES OF OPENNESS

by

Jack Wayne Robinson

A Dissertation Submitted to the Faculty of the
DEPARTMENT OF ELEMENTARY EDUCATION
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In the Graduate College
THE UNIVERSITY OF ARIZONA

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THE UNIVERSITY OF ARIZONA

GRADUATE COLLEGE

I hereby recommend that this dissertation prepared under my direction by Jack Wayne Robinson entitled SELF CONCEPT AND READING ACHIEVEMENT OF THIRD GRADE STUDENTS IN SCHOOLS DIFFERING IN DEGREES OF OPENNESS be accepted as fulfilling the dissertation requirement of the degree of Doctor of Education

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Dissertation Director

5/1/74
Date

After inspection of the final copy of the dissertation, the following members of the Final Examination Committee concur in its approval and recommend its acceptance:*

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*This approval and acceptance is contingent on the candidate's adequate performance and defense of this dissertation at the final oral examination. The inclusion of this sheet bound into the library copy of the dissertation is evidence of satisfactory performance at the final examination.

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SIGNED: Jack W. Robinson

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ABSTRACT

This study investigated the relationship between student self-concept, reading achievement, and reading attitude for third-grade students in two different types of school environment--the "open" environment and the more prevalent "conventional" environment. It is a descriptive study which utilized equal numbers of third-grade students in schools equated for racial makeup, socioeconomic level of the parents, socioeducational level of the parents, and mobility factors.

The study had three major purposes: (1) to determine if student self-concept was in fact higher in schools using "more open" teaching procedures than in schools using "less open" procedures, (2) to determine if subject matter skills (specifically reading) suffered in "open" schools as a result of increased emphasis on self-concept, and (3) to determine pupil attitude toward that subject matter regardless of achievement scores.

Using an educational beliefs inventory, the target schools were chosen based on the primary teachers' ratings of their respective educational methods. A self-concept test and an inventory of reading attitude were given to each of the randomly selected students and the scores on the required Arizona third-grade reading test were obtained

for each of these same students. The means for each of the three scores were subjected to t test procedures in order to answer the following questions:

1. Is the mean for self-concept scores higher in an open educational environment than in a conventional school setting?
2. Is the mean for reading scores in an open environment on a par with those in a conventional school setting?
3. Is the mean for attitude-toward-reading scores higher in an open educational environment than in a conventional school setting?

All hypotheses were rejected as follows: (1) self-concept scores were not significantly different between the two different types of school environment, (2) reading scores were significantly different and favored the more conventional schools, and (3) reading attitude scores were not significantly different.

The strong belief expressed throughout the literature that self-concept and achievement are positively related was also checked. This was done because previous findings demonstrating this relationship had been based on studies done in "conventional" type schools. It seemed desirable to see if this relationship would hold also for schools based on the "open" philosophy. The positive

correlation did exist once again for the conventional students but, remarkably, it not only did not exist for the open students but the relationship between the two was negative. Based on the data collected during this study, it appears that, for "open" students, the more unsuccessful they are in reading the better they feel about themselves.

The implications of this study seem as follows:

1. Open school students seem overall to feel no more positive toward themselves or toward reading than do their conventional school counterparts.
2. Lower reading achievement does seem a result of the open educational environment.
3. Self-concept appears directly related to reading success in conventional schools; however, the relationship appears inverse in open schools with self-esteem suffering when achievement improves.

Many additional valid questions must be studied before one could conclude that transfer to an "open education" school is the answer for all students with negative self-concepts or that general adoption of "open" procedures would enhance self-concept only slightly while lowering the reading achievement level considerably. The findings indicate a need to (1) better define just how "open education" schools differ from other more traditional schools, (2) greatly expand research (descriptive and controlled)

with "open curricula" schools to better establish their specific strengths and their specific limitations, and (3) begin to establish and modify alternative schools, including the open ones, based on sound research findings instead of merely on subjective feelings or a lifelong "dream."

CHAPTER I

THE PROBLEM AND RELATED LITERATURE

The world hath many centers, one for each created being, and about each one it lieth in its own circle. Thou standest but half an ell from me, yet about thee lieth a universe whose center I am not but thou art. Thomas Mann, Joseph in Egypt (Lecky, 1961, p. 78).

Introduction

The purpose of this introductory chapter will be threefold: (1) to review the literature about self-concept theory and to make some determination as to the importance of pupil self-concepts within the educational setting; (2) to review the literature about open educational programs and to make some determination concerning the validity of the "open" philosophy; and (3) to review some literature about human attitudes (the focus will herein be on attitude toward reading) and to make some determination about the overall effect of student attitudes on potential achievement.

Definitions

Throughout this study, the following definitions will apply:

1. Self: "A complex and dynamic system of beliefs which an individual holds true about himself, each belief with a corresponding value" (Purkey 1970, p. 7).
2. Self-concept: "What an individual believes about himself" (Combs 1962a, p. 52).
3. Self-report: "What the subject is ready, willing, able, or can be tricked to say he is" (Combs 1962a, p. 52).
4. Open school: A school in which, for the purpose of this study, the mean of primary teacher scores on the 20 "open-not open" items of the Reschly-Sabers Educational Beliefs Inventory falls below the grand mean for all schools taking the Inventory, the greater the deviation from this grand mean, the more "open" the school.
5. Conventional school: A school in which, for the purpose of this study, the mean of primary teacher scores on the 20 "open-not open" items of the Reschly-Sabers Educational Beliefs Inventory falls above the grand mean for all schools taking the Inventory, the greater the deviation from this grand mean, the more "conventional" the school.

Self-Concept and Achievement

In recent years "there has been an enthusiastic re-birth of interest in internal and intrinsic motivating forces and cognitive and symbolic processes," especially "with reference to the dynamic importance of the self" (Purkey 1970, p. 6).

It is becoming clear that the difficulties which people experience in life are closely related to the ways in which they see themselves and the world around them. There is increasing evidence that student failures in school, as well as lack of motivation and/or commitment, are in large measure the result of faulty perception of the self and the world (Purkey 1967, p. 3). "Generally speaking, the more closely related an experience is perceived to the phenomenal self, the greater will be its effect upon behavior" (Combs 1959, p. 149). Thus perceptions of self determine the meaning of experience.

Perceptions lie inside people and cannot be directly affected. This means that the ultimate control and direction lies always within the personality of the behavior himself rather than in the external forces exerted upon him (Combs 1959, p. 7).

Since a person's statements of self-evaluation provide information about his self-concept, an achiever would appear confident and accepting of self while the non-achiever would tend not to express feelings of worth as an individual.

Teachers who would understand the behavior of their students must learn to see things from their point of view (Purkey 1970, p. 2).

Combs states that perceptions are dependent on self-concept. "People perceive what seems to them appropriate to perceive" (Combs 1959, pp. 12-13). Additionally, Snygg and Combs believe self-concept itself to be "altered and restructured by behavior and unsatisfied needs" (Snygg and Combs 1949, p. 8). A social origin for "self" is claimed by Jersild (1952). He sees important meaning for education in this "fact . . . because many of the strongest social influences are brought to bear upon the child by way of his experiences at school" (p. 11).

The failures, reminders of limitations, and the rejection which children face at school . . . may have the effect of humiliating the child by depreciating his worth in a manner that does no good to society and does him great harm. . . . The cards are stacked against many children. They are stacked when teachers . . . apply pressures which make the child feel that he is worthless in all respects because he does not happen to be a top performer in some respects (p. 91).

These "pressure or stress techniques are often applied by teachers in order to bring about the behavior or learning they desire." Only "the adequate student" can "benefit from such stress techniques" (C. F. Combs 1964, p. 50). Ruedi and West (1973) mention "grades" as one of the techniques whose "positive effect upon self concept . . . is

applicable only to the small percentage of students who achieve them" (p. 51).

Wise teachers have for generations "sensed the significant and positive relationship between a student's concept of himself and his performance in school . . . the students who feel good about themselves and their abilities are the ones who are most likely to succeed" (Purkey 1970, p. 14). Learning, in fact, might be defined as "the discovery of one's personal relationship to events and ideas" (Combs and Snygg 1959, p. 149). Purkey (1970) feels that "an idea about ourselves," once accepted, "serves to edit all incoming information and to influence our future performance" (p. 7).

That the conception of self "is a changing thing" appears unquestioned; yet both Coopersmith and Jones note that it is "a powerful influence on behavior" (Jones 1969, p. 272) which "appears to resist change" (Coopersmith 1967a, p. 21). Since the student's conception of self, once established, largely determines all his behavior "within the school setting . . . academic performance" and "behavior in general" (Snyder 1965, p. 244), educators "must be concerned with more than intellectual perception if the school is to make any contribution to improved intergroup relations" (Pounds and Bryner 1967, p. 334).

In apparent total agreement with Pounds and Bryner, Combs and Snygg (1959) stress that if education is to be

effective, it "must find ways of helping people discover the personal meaning of events for them" (p. 149). "The discovery of personal meaning," they add, "is the very essence of learning and the art of teaching is in helping people to make the discovery" (p. 385).

Self-Concept--Opinion

It is gradually becoming evident that many of life's difficulties are closely connected with the ways people perceive themselves and the world in which they live (Purkey 1970, p. 2). The literature is replete with opinion indicating agreement with this assertion by Purkey.

The self is seen to influence behavior of the individual "qualitatively" (Lumpkin 1959, p. 205). While it influences behavior, it is itself "altered and restructured by behavior" (Raimy 1943, p. 102). To change behavior takes time, however, "The attempt to hurry growth beyond a reasonable degree of acceleration may only contribute to frustration and failure" (Combs and Snygg 1959, p. 354). Since the fundamental need of man is the "maintenance and enhancement" of self, only perceptions "consistent with the perceived self" are selected (Combs and Snygg 1959, p. 153). Because the self is so stable, to effectively change self one must become involved in experiences or predicaments-- "some sort of experience consistent with existing self perceptions"--and work them through (p. 157).

The above views of Combs and Snygg that people do not behave in terms of forces actually exerted on them but rather how they perceive those forces are echoed by Purkey (1970, p. 7) and Schroder (1964, p. 63). Bruck (1957) offers additionally that "interference with mature self-concept development"--learning to see oneself as capable--will result in "disturbed or arrested learning processes" which will cause problems in school (p. 1646). Again, Purkey (1967, p. 3) agrees as do Soares, Soares, and Pumerantz (1973, p. 382).

That the self-concept deserves more emphasis in the educational process than it now receives seems evident.

Negative self-concepts of students are learned, so they can be changed. The main requirement for change is positive experiences with people and life. A child must experience acceptance for himself and success for his efforts (Mixer and Milson 1973, p. 348).

Education is today under attack. Traditional assumptions about teaching and learning and knowledge "are in for a long period of critical, albeit reluctant, self examination . . ." (Barth and Rathbone 1969, p. 1). Educators must recognize that "every child needs some degree of success in school" (Snyder 1965, p. 245). Every child must be helped to become a "self-accepting person," not one who sees himself as perfect but one who "accepts his limitations and does the best he can with his resources" (Jersild 1952, p. 21). Since a major determinant of how well one will be

able to function seems to be his feeling of capacity for functioning, educators must assist each child to define himself in positive ways. "Helping children build high self-esteem is the goal of every successful teacher" (Mixer and Milson 1973, p. 350).

It seems widely accepted that the individual seeks experiences which protect or enhance his concept of himself and rejects other, less consistent, experiences (Lecky 1961, p. 99; Moustakas 1956, p. 10; Wrenn 1958, p. 105). Lecky advises that a student resists certain materials because "from his point of view it would be inconsistent for him to learn it." The "attitude toward the material" should change if the "self-conception which underlies the viewpoint" can be changed (Lecky 1961, p. 103).

Mixer and Milson (1973, p. 347), Quandt (1973, p. 5), and Purkey (1967, p. 7) refer to "other individuals" as "significant others" and they mean by the term all people whom the individual sees as important. The "significant others" must carefully nurture the "individual's basic frame of reference"--his self--for when people seen as important cause a child to think poorly of himself, the self is crippled (Purkey 1970, p. 33). The self is then something which develops; it is not initially there at birth, but develops in the given individual as a result of his relations to other "significant" individuals.

Teachers are "significant others" who, next to the family, usually exert "the greatest influence on the young person's emerging self" (Purkey 1967, p. 30). Since the self develops in the process of social experience, it behooves all teachers to insure that all school experiences and especially the personal relationships between teacher and child are positive and free of threat. Threat is seen as a hindrance to healthy self-development under any circumstances, school included, by many writers, Schroder (1964, p. 58) and Moustakas (1956, p. 11) among them.

The teacher's task then is difficult but crucial. As a "significant other" guiding self-development through important social activity (school) the teacher must make each child feel accepted and help each child to accept himself, limitations and all. When aspirations which are attainable and valued can be instilled within a child and when achievement can be aided to approach or meet those aspirations "the result is high esteem; if there is wide divergence then" the child will regard himself poorly" (Coopersmith 1967a, p. 29). That wide divergence often exists between aspirations and achievement is not questioned but that such divergence leads to failure in school which is "devastating" is no longer questionable either. "We cannot patch up children; it doesn't work. Instead, we must see that they do not become failures in the first place. . ." (Glasser 1969, p. 60).

Self-Concept--Research

Not only is the literature replete with opinion describing the relationship between self-concept and behavior, but an increasing volume of research is purporting positive findings also regarding the relationship. In 1952 Brownfain claimed findings supportive of better adjustment for subjects "with stable self-concepts" than for those whose self-concepts are not stable (p. 606). Reeder, who also compared high and low self-concept groups, pointed out in 1955 that "children with a low self-concept . . . are more frequently classified as having problem behavior than pupils with a high self-concept" (p. 2472).

A 1958 study by Chickering studied "ideal self-perceptions of underachievers and overachievers" and found them to be "more similar" than "their actual self-perceptions" (p. 164). Both Mitchell (1959, pp. 93, 101-102) and Lumpkin (1959, p. 205) reported studies in 1959 in which a direct relationship was observed between self-rejection and underachievement. That same year, Coopersmith (1959) also found self-evaluation to be "significantly higher" in "persons who had more success experiences" (p. 93) but he cast doubt on previous research of self-concept by noting that "the term itself is vague and subject to manifold interpretations"--difficult to evaluate (p. 87).

An exhaustive review of the literature by Wylie in 1961 supported Coopersmith's earlier doubt. She was

critical because many of the studies seemed trifling and because the theories and their constructs were often vaguely defined. Despite what she termed "the great amount of effort which obviously has been expended" she described "the total accumulation of substantive findings" as "disappointing" (p. 317). Such morbid conclusions did not deter continuing research about the self, however, and quite likely caused increased efforts to develop valid instruments for evaluating self-concept, Coopersmith's among them.

Bruck noted in 1957 that most research to that time had concerned itself "with the composite personality organization of the child . . . not tied in with the learning process" (p. 1646). By 1967, however, Schwyhart was able to describe several studies of the correlation between self-concept and academic performance and conclude that

. . . those who judge themselves more positively achieve more success and experience less failure in school than those who view themselves negatively. This relationship seems to hold in spite of intelligence or actual ability to achieve. Students with low self concepts tend to spend much of their time thinking of ways of protecting themselves against possible threatening situations (pp. 10-16).

A number of studies have now shown a definite relationship

. . . between teacher attitude toward a child . . . and pupil self-concept. . . . The teacher is one of the important persons whose opinions the child values, so it is important that the pupil feel accepted by the teacher (Quandt 1973, p. 18).

That many students do poorly in school simply because what the school is doing seems irrelevant to them appears quite clear. Also, "that underachievers tend to have negative self concepts" seems well supported by research (Purkey 1970, p. 20). Further, the "maintenance and enhancement of the self" has been established as a basic drive within the individual (Purkey 1970, p. 6). Chronologically:

1. 1962: Fink (1962) postulated a relationship between concept of self and academic underachievement and concluded that the relationship does exist, "unquestionably for boys, considerably less so for girls" (pp. 57-62).
2. 1963: Bowman (1963) found that "maturation is an important factor affecting the self concepts and interests . . . significantly higher mean self-concepts in grades six and eight than in grade four without any special attempts to change the self image" (pp. 4536-4537).
3. 1964: Brookover, Thomas, and Paterson (1964) discovered "a significant and positive correlation between self-concept and performance in the academic role" even with measured IQ partialled out (pp. 277-278).
4. 1964: C. F. Combs (1964) established that underachievers differed significantly from achievers in that they,

among other things, saw themselves as less capable and less acceptable than others (p. 47).

5. 1967: Coopersmith (1967a) concluded "that persons with high self-esteem are significantly more effective than are those with either medium or low self-esteem (p. 124).
6. 1967: Gibby and Gibby (1967) related that able children, under the stress of possible failure, perform "less effectively" (pp. 35-37).
7. 1969: Gill (1969) revealed that ". . . the pattern of achievement, defined in terms of discrepancies between predicted and actual levels of achievement, is significantly related to perceived self. . ." (p. 5).

Additional studies could be cited (Morse 1963, Alexander 1964, Durr and Schmatz 1964, Roth 1959) but the point is made. ". . . students who underachieve scholastically or who fail to live up to their own academic expectations, suffer significant losses in self esteem" (Purkey 1970, p. 25). "It is likely that a positive conception of one's self is more important to optimal scholastic performance than are desire and enthusiasm. . ." (Coopersmith 1967a, p. 124). Self-concept must be accepted by teachers "as a vital and important aspect of learning and development which the school, through its educational

process, should seek to promote and foster in every child" (Gill 1969, p. 6). ". . . an A student" accepts victories easily but "success is tough to handle for the student who has met many failures" (Purkey 1970, p. 25). The mandate for schools appears evident: allow no more failure.

The evidence for assuming that enhancement of self-concept is vital to improved academic performance appears overwhelming. A quote by Glasser (1969) from "Schools Without Failure" will serve to close this portion:

Only by eliminating failure and increasing involvement, relevance, and thinking, will we return education to its original purpose: to produce a thoughtful, creative, emotionally alive student who is not afraid to solve the problems the world faces. And this must be started early, during the important informative years--the years they spend in elementary school. Later is too late! (p. 86).

The Choice

It is a sad commentary on our educational system that so many children get caught up in a vicious failure cycle. As they fail to meet expected norms, they begin to perceive themselves as failures. Such self-concept and the environmental conditions produced as the failure label becomes fixed, breed additional failure experiences which drive the perception even deeper.

"Traditionally, the child is expected to adjust to the school environment" (Graves and Zellner 1970, p. 166). Schools, as presently set up, hinder children from acquiring

healthy attitudes of self-regard in two ways. First, they

continually impress upon large numbers of children the idea that they are not adequate. . . . Also, general school policy encourages children to learn different types of academic material, but little about themselves and their important interpersonal relations (Dinkmeyer 1965, p. 203).

Sometimes, it seems, in the sincere attempt to help people learn, we have succeeded only in convincing them that facts are valued--not personal thoughts or beliefs.

As a consequence, we may have taught children that personal meanings have no place in the classroom, which is another way of saying that school is concerned only with things that do not matter. If learning, however, is a discovery of personal meaning, then the facts with which we must be concerned are the beliefs, feelings, understandings, convictions, doubts, fears, likes and dislikes of the pupil--those personal ways of perceiving himself and the world he lives in (Combs 1959, p. 11).

Combs seems in agreement with recent educational theorists--one might call them the innovators of open educational strategy--who warn that "over direction of children can easily result in limiting rather than extending their progress" (Lee and Allen 1963, p. 88).

Much school conflict appears due to overconcern by teachers with preparation of pupils for adult life while the students are concerned only with the here and now. "Each group is apt to find the other quite obtuse and unreasonable" (Combs and Snygg 1959, p. 368). The sincere teacher will often "ask himself what difference this or that effort or activity makes in the lives of his students" (Jersild 1952, p. 101).

. . . it seems likely that effective intuitive thinking is fostered by the development of self-confidence and courage in the student. . . . Such thinking . . . requires a willingness to make honest mistakes in the effort to solve problems. One who is insecure, who lacks confidence in himself, may be unwilling to run such risks (Bruner 1960, p. 65).

The "adequate personality" consists of persons who see themselves positively, accurately, realistically, as accepting of self and as identified with other people. To develop this type of personality, the student needs teachers not only to tell him that he is acceptable but "to behave as though he were." Because self-concept is learned from the ways in which one is treated, it is "necessary that we examine the nature of the activities we provide in terms of how they are experienced by the persons to whom they are occurring" (Combs 1958, pp. 327-28).

Since the school is recognized as the second most important force (next to the home) in shaping the child's self-concept (Purkey 1970, p. 40) and since the child learns who and what he is from the treatment he receives by those around him during his maturation (Combs 1962a, p. 84), it would seem that, in order to eliminate highly charged negative attitudes toward learning and self, schools must cease to employ a punitive approach to education. Rather than investigate and adjust instructional strategies to prevent the development of negative self-concepts, schools have too often been content to view the pupils as

inadequate, a belief which perpetuates the punitive approach--punishment, failure, deprecation, etc. (Ahmann, Glock, and Wardeberg 1960, p. 114).

Teachers in the traditional schools make the assumption that what they know and have to teach is unknown to learners. They believe that they are making the unknown known by imparting information to the students. All they need to do is teach--the learner is on his own (Forman 1972, p. 16).

In conventional classrooms: children are confined to desks; quiet is enforced; teachers do the talking; books are the basic aid to learning; group instruction is the rule.

The interest in open education stems from a "growing recognition that these" conventional "practices and theories have failed and that a search for fresh alternatives must begin" (Barth and Rathbone 1969, p. 1).

If the "open school" is to replace conventional classrooms, it must first prove that it does produce the advantages credited to it: (1) happy children, (2) self-disciplined children, (3) independent thinkers, (4) fluent readers, (5) thoughtful writers, (6) equally competent students academically. Open education seems more a set of attitudes and assumptions about children and how they learn than a specific method or approach. Its "basic premise . . . is a faith in the child's urge to learn and in his ability to assume responsibility for choice. . ." (Coleman 1973, p. 54). Each "open classroom" is unique but certain

philosophical convictions appear common. The following sample is merely representative:

1. The child is the principal agent in his own learning (Schroder 1964, pp. 142-43; Combs and Snygg 1959, p. 368).
2. Scheduling is flexible (Combs and Snygg 1959, p. 367; Pounds and Bryner 1967, p. 534).
3. Direct experience is essential to learning (Schroder 1964, p. 57; Combs and Snygg 1959, p. 372).
4. Children are respected--a sense of trust in children is basic (Moustakas 1956, p. 11; Holt 1967, p. 189).
5. Initiative, self-confidence, and responsibility are goals along with academic desires (Jersild 1952, pp. 109-110; Mixer and Milson 1973, p. 347).
6. Freedom is valued with internal discipline as the guiding factor (Washington 1970, p. 195; Mixer and Milson 1973, p. 349).
7. Competition is played down (Snyder 1965, p. 245; Brookover 1959, pp. 86-87).
8. Errors are seen as sources for future learning (Combs and Snygg 1959, p. 396; Quandt 1973, pp. 14-15).

9. The teacher facilitates the learning process(es)--group instruction is minimal (Combs and Snygg 1959, p. 314; Mixer and Milson 1973, p. 347).

The open classroom is an admission of what we, as adults, have belatedly recognized--that much, perhaps most, of what we know has come through our pursuit of our interests and through our relations with those with whom we live and work (Coleman 1973, p. 53).

Purkey (1967) points out that, though teachers "usually recognize and take into account a crippling physical handicap" they often overlook negative self-esteem because they "fail to take the time and effort it requires to be sensitive to how children see themselves and their abilities" (p. 37). If the prevention of negative self-concepts is to be accepted as a vital part of teaching, then "the time and effort it requires to be sensitive" must be taken. It would seem that the hope of the open classroom in American schools is not that the classroom will be transformed overnight (most of the advocates, in fact, advise that changes be made slowly and planned carefully) but in its ability to slowly change what is in the heads of teachers, and as a result, the way they treat and trust the children in their classrooms.

Open Education--Opinion

"I hear . . . and I forget. I see . . . and I remember. I do . . . and I understand" (Ancient Chinese Proverb).

That underachievers tend to have negative, albeit accurate, self-concepts seems well supported by research. Also, that many students do poorly in school simply because what the school is doing seems irrelevant to them appears quite clear (Purkey 1970, p. 20). An increasing number of educators are evidencing faith in various "open educational" ventures as a way to improve pupil self-concept through making the educational program more relevant (Barth and Rathbone 1969, Alexander 1964, Forman 1972, Coleman 1973, Albrecht and Gross 1948, Schroder 1964, Combs and Snygg 1959, Pounds and Bryner 1967, Moustakas 1956, Jersild 1952, Washington 1970, Roth 1959, Holt 1967, Quandt 1973, Brookover 1959, Barth 1973, Glasser 1969, Mixer and Milson 1973).

Perusal of the literature reveals a rash of statements by opinionated people which emphasize their dissatisfaction with education as presently practiced (Dreikurs 1957, p. 82; Purkey 1970, p. 51; Fink 1962, p. 57; Pounds and Bryner 1967, p. 336; Jersild 1952, p. 102; Holt 1967, p. vii). But negative feeling for the present curricula is not the sole basis for the increase in discipline for open education. These innovators see the goal of education as "the production of adequate personalities, people who can be counted upon to behave effectively and efficiently and to contribute freely to the welfare of all . . . intelligent behavior" (Combs and Snygg

1959, p. 365). To achieve such "intelligent behavior" they would ask that educators in general and teachers in particular restructure the educational curriculum using as guides "philosophical convictions" such as those listed above.

It is now widely accepted that the classroom, as well as the home, "contributes largely to the shaping of a child's self-concept. . ." (Quandt 1973, p. 14). With knowledge of this positive connection between classroom atmosphere and healthy self-images, teachers "should cultivate warm, personal relationships with students. . . . The prevention of negative self-concepts is a vital first step in teaching" (Mixer and Milson 1973, p. 347).

What the champions of "open education" are urging then is "stress . . . on constructive human relations." To be successful they assert that teachers must demonstrate "a real concern for people" and that this human concern must be readily recognizable by children (Pounds and Bryner 1967, p. 335). Their message seems simple enough: When a teacher disengages from negative interaction, the child will perceive his positive and encouraging signals. The child's signals in return tend to be positive also. This change in interaction allows both teacher and child to feel good about themselves and it allows them to work together more cooperatively. Relations will then be "such that each person is free to express, experience, actualize, and affirm his own uniqueness" (Moustakas 1956, p. 281).

If the school is to promote healthy self-understanding and self-acceptance, rather than serve only as a place where some of the symptoms of unhealthy self-regard are displayed, it will be necessary to re-examine the whole conception underlying our grade placement system, our standards, our so-called norms of achievement (Jersild 1952, pp. 92-93).

Open Education--Research

Though "open education" has been in "vogue" for a mere thirty years in Britain and for a far briefer period in this country, a review of the literature yields nearly as voluminous opinions concerning the benefits to be derived from open school procedures as it does concerning the importance of self-acceptance to achievement generally. When one shifts from a survey of opinion, however, to a study of research findings supportive of the claims, the parity ends. While research of the importance of self is nearly as extensive as is opinion, a veritable paucity of studies germane to "open education" is available to weigh against the abundant opinion (Walberg and Thomas 1972, p. 197).

Despite the upsurge of interest in what is called open education and the growing readiness to get on the bandwagon, little research has been carried out to justify the claims of the open education proponents, perhaps because of confusion which exists concerning the nature and meaning of terms.

Graves and Zellner (1970) explored "the impact of an innovative, team teaching, completely ungraded elementary school on the professed self-esteem of pupils in that school." The control was a very "similar group" in a "traditional and typical" school. They confirmed their hypothesis that pupils enrolled in the innovative elementary school "would evidence greater self-esteem than pupils enrolled in the comparison school" (pp. 166-171). It should be noted, however, that Graves and Zellner did not consider their "innovative" school an "open" one.

Frymier (1964) studied the cause of motivation for students in grades five, eight, and eleven and found the younger students to be much more self-motivated than the older ones. "Large classes and large group instruction," he concludes, "appears directly antithetical to increasing or tapping students' motivation" at all levels (pp. 239-242).

Bills' (1956, p. 124) research at the college level with student-centered teaching (experimental group) versus instructor-centered teaching (control group) disclosed more gain "in concept of self and acceptance of self" when instruction is student-centered.

Ruedi and West (1973, pp. 48-53) investigated with fourth, fifth, and sixth grade children matched for achievement the "idea that students in an open-environment school

would be higher in self concept." Their findings were negative--validity for the claim "was not demonstrated."

Wilson, Stuckey, and Langevin (1972) measured attitude between open school students (ages 11-12) and a control group and found "In all cases, the attitude of the open plan pupils was more positive toward school than the attitude of the controls." The attitude of the "open" students "toward themselves" was also better but "'Learning' surprisingly showed few differences between the groups" (p. 117).

Other studies attempting to validate the innovative "open" procedures no doubt do exist; but those cited represent the total number turned up by this writer through a computer search of the ERIC Reports and a substantial number of hours exploring the library. It should be noted, in addition, that only two of the five studies reviewed--Ruedi and West (1973) and Wilson et al. (1972)--claimed any intention to study "open education" per se and that the conclusion of one of these (Ruedi and West) was not supportive. The necessity for additional research noted by Graves and Zellner (1970, p. 168) and by Walberg and Thomas (1972, p. 197) appears pressing indeed.

Attitude and Achievement

Given the previously noted evidence by researchers and authorities that self-concept and school achievement

are closely related and that much of the educational program is presently irrelevant and/or harmful, then attempts to bring about a more relevant and helpful curriculum seem appropriate. Perhaps the more humane, accepting, child-centered environment seen as open education is the answer. Before that conclusion can be drawn, however, the proponents need to provide some research evidence to support their claims. Even the evidence of high correlation between self-concept and achievement is based on data gathered in conventional schools. Whether even this relationship holds as well for data gathered in "open" schools is untested.

A finding by Wilson et al. (1972) that "attitude of open plan pupils was more positive toward school than the attitude of the controls," even though "'Learning' . . . showed very few differences" (p. 117), prompted the addition of this and the following two sections to this paper. It occurred to this writer that, since "open" schools stress individual worth and undoubtedly devote considerably more time for dealing with the "human" aspects of education than do conventional schools, they would, as a result, devote considerably less time for drill in the "basics." This could conceivably cause achievement levels in the open environment schools to suffer in comparison with the schools operated in the conventional manner.

Wilson et al.'s (1972) finding, however, of "more positive" attitude toward school by students in open programs led to a further consideration: Even though a student in an open educational program did not score high when tested concerning subject matter knowledge, if he could be shown not to dislike the subject, then it could be postulated that the lower score was the result of the decreased emphasis on "drill" and that he would not, in fact, refuse to apply himself in that subject area when he recognized a need to do so. Research supportive of this hypothesis, should it be forthcoming, could cause society to be more tolerant of the open school practices and that increased tolerance would likely allow the open school practitioners additional time to work out the "bugs" in the present experimental methods and to develop a really effective program.

It was not a purpose of the present writer to study attitude theory in depth but only to sample at random the available and relevant writings. That a positive attitude is crucial to achievement generally as well as to school achievement specifically seems the message of the few sources checked as follows.

1. "The attitudes which are acquired along with subject matter may be even more important than the subject matter itself" (Combs and Snygg 1959, p. 382).

2. ". . . the same situation will be evaluated differently . . . according to whether the subject is discouraged or optimistic about the problem which the situation presents" (Lecky 1961, p. 10).
3. ". . . an attitude . . . within the individual" affects his perceptions and his manner of reacting (Davis 1965, p. 9).
4. ". . . attitudes toward Self are pervasive, long lasting, and predictive of future performance" (Purkey 1967, p. 11).
5. "An attitude is a mental and neural state of readiness exerting a directive influence upon the individual's response to all subjects and situations with which it is related" (Allport 1952, p. 810).
6. Since it is now established that negative student attitudes limit the level of school achievement, "the assumption that human ability is the most important factor in achievement is questionable" (Purkey 1970, p. 14).
7. ". . . attitudes toward school, achievement, peers, and society in general" are "crucial . . . in the formation of" a child's "self concept" (Dinkmeyer 1968, p. 2).

Another quote by Combs and Snygg (1959) which seems to summarize and, at the same time, expand on the previous dicta will end this sampling of discussion about attitudes

and their relationship to achievement. Any learning, they assert,

is accompanied by the formation of attitudes by the pupil toward the subject . . . school . . . teacher . . . teachers in general . . . adults . . . society . . . himself which may be desirable or undesirable. As a result, how subject matter is taught may be even more important than what is taught (p. 382).

Reading--Opinion

In keeping with the discussion in the preceding section, if (1) learning is accompanied by attitude formation either positive or negative and if (2) society can be assumed to prefer attitudes in its children which are positive, and if (3) open education could be linked to improved attitudes in the learner, then the theory postulated in the previous section that society would not necessarily bring pressure to bear on open school programs even should test scores be somewhat lower would seem plausible.

Any attempt to corroborate Wilson et al.'s (1972) findings that a link does exist between positive attitude formation and "open" teaching procedures would be unwieldy if all subject areas were studied. But to inspect one subject area would be practical and the additional findings, either supportive or contradictory, should be thought provoking. With this in mind, this writer sought opinion concerning the "link" in the area of reading.

In 1958 Combs claimed knowledge "that most failures in reading . . . are not so much matters of incapacity to do these tasks as unfortunate attitudes about them . . ." (p. 315). Twelve years later, Hall (1970, p. 20) reached similar conclusions. Homze (1962, p. 214) describes the relationship as "interdependent."

Homze (1962) also drew attention to the positive effect which "improved attitude will have . . . on self concept . . ." (p. 214). Her belief in the interdependence of reading and self-concept has been voiced also by Strang, McCullough, and Traxler (1961, p. 286) and Quandt (1973, p. 4). This interdependence has important implications for education.

If the child is highly proficient in extracting ideas from the printed page and he recognizes this, he will have a positive approach to reading. He is able to read, therefore his concept of himself is as a "reader." He is more apt to read widely; he will attempt more difficult material; he will have great pleasure in reading. Since his self-concept is that of a reader, he reads more widely, and he does become more of a reader; the cycle is complete (Homze 1962, p. 214).

The reverse is equally true, however. The child who does not possess the "positive approach to reading" will be caught up in a "vicious cycle" and develop a "negative" concept of himself as a reader (Homze 1962, p. 214).

Quandt's writings in 1973 (p. 10) exactly parallel those written eleven years earlier by Homze. In what could be termed a defense of the "open educational philosophy,"

he advises teachers who desire to build reading self-concept as follows:

Minimize the difference between reading groups
 . . . avoid comparisons and competition among
 groups . . . vary the bases on which groups are
 formed. . . . Compare the reading progress of an
 individual with his own previous work rather than
 that of other pupils . . . make report card com-
 parisons a matter of individual progress. . . .
 Quandt 1973, pp. 16-18).

Reading proficiency, based on the sources quoted herein, would seem to be permanently influenced by self-concept.

Reading--Research

Convictions about the considerable influence of the self-concept on reading ability are not based merely upon opinion. Growing evidence reveals "that poor reading ability is closely bound up with feelings of personal worth" (Purkey 1970, p. 22). This declaration by Purkey follows an extensive review of the literature relative to self-concept. The following chronological sampling of research conclusions lends credence to Purkey's summation:

1. 1959: Bodwin (1959) investigated the relationship between immature self-concept and reading ability, among other things, for children in grades three and six and found a "positive and very significant relationship" (pp. 1645-46).
2. 1959: Lumpkin (1959) examined fifth-grade children to find relationships between their self-concepts

and their reading achievement. Overachievers, he found, "revealed significantly more positive self-concepts . . . and saw themselves as liking reading" (p. 205).

3. 1959: At the college level, Roth (1959) found a "direct relationship between defensiveness in the self concept as a reader and relative performance in the reading improvement situation" (p. 280).
4. 1960: Spicola (1960, p. 2099) studied the relationship between reading achievement and self-concept for sixth grade boys and found a significant, though not strong, relationship.
5. 1964: Wattenberg and Clifford (1964) tested reading ability and self-concept of kindergarten children. Two and one-half years later additional measures proved the "measures of self concept taken in kindergarten . . . significantly predictive of progress in reading" (p. 461).
6. 1967: After a study involving retarded readers in grade nine, Schwyhart (1967) determined "a positive relationship between the reading skills of these subjects and their self concepts. . ." (p. 368).
7. 1970: Neale, Gill, and Tisner (1970) conducted a study to determine the relationship between attitude toward specific subjects and achievement in those subjects and concluded "that attitude toward

school subjects, in fact plays a limited role in school achievement" (pp. 232, 236).

8. 1973: Askov and Fischback (1973) used a reading attitude inventory with pupils in grades one and three and "demonstrated . . . that attitudes toward reading are more positive with improved achievement. . ." (p. 1).

That the perceptions of a child about himself and his world are causal factors in his subsequent reading achievement seems fairly well established.

Need for Study

This writer agrees with Bills (1959) that education should produce people "able to respond in any direction dependent only on" their "perception of the situation," their "ability to perceive without distortion and defensiveness, and the limitations set by" their "organic structure" (p. 63). The studies referred to would indicate that education is apparently not achieving this purpose. Ahmann et al. (1960) have suggested that, until the "limited approach to educational goals," based on "the cognitive domain" which has created "failures and dropouts . . . is coupled with the affective domain," any attempts to stress student "perception" and "ability to perceive" seem futile (p. 113). This inclusion of the affective domain into the

educational program would seem also to be the objective of the "open educational thinkers."

The purpose of this introductory chapter has been threefold: (1) to review the literature about self-concept theory and to make some determination as to the importance of pupil self-concepts within the educational setting, (2) to review the literature about open educational programs and to make some determination concerning the validity of the "open" philosophy, and (3) to review some literature about human attitudes (the focus was on attitude toward reading) and to make some determination about the overall effect of student attitudes on potential achievement. The tentative results:

1. A person's self-concept is with him wherever he goes and it influences whatever he does; so educators ought to set themselves the task of finding out how the educational program might help the learner to better understand and accept himself.
2. The American school system is fiercely competitive. "Children are constantly being ranked and evaluated. The superior achievement of one child tends to debase the achievement of another" (Rosenberg 1965, pp. 28-82). Evidence in support of the assumption that a psychologically safe and supportive learning environment encourages students to grow academically as well as in feelings of personal

worth is certainly mounting. Instruction must concentrate on individual "strengths" and guarantee "success." Most such instruction requires a "degree of freedom. . . . It would be difficult to develop appropriate activities in a classroom where children are always quiet and are always in their seats" (Quandt 1973, p. 26).

3. A positive attitude is considered crucial to achievement generally, including achievement in school. Since attitudes are formed as the result of any learning, "how subject matter is taught may be even more important than what is taught" (Combs and Snygg 1959, p. 382).

That self-concept is important to pupil achievement has been recognized for some time. With the emphasis in America on achievement and the importance of school in the lives of American children, success or failure in school will no doubt "have marked consequences upon self-esteem" (Coopersmith 1967a, p. 123).

Self-concept, once established, is very difficult to change and, since it is largely derived from the reflected appraisal of others, teachers must work to instill positive feelings of worth in all students with whom they work.

Self-confidence cannot develop where the teacher expects more than a child can give.

The youngster who is always just holding on by his finger tips is bound to be anxious about his ability to continue to hold on. He must feel sure, solid ground under his feet. This necessarily means modifying both what we expect of him and what he expects of himself (Lee and Allen 1963, p. 87).

". . . students, more often than not, do what is expected of them" (Purkey 1970, p. 48). Teachers who work closely with children need to view them positively and to hold favorable expectations for them. The teachers need also to allow the students some say in their own development. In this way each child can experiment with decision making and thus develop "faith in his own judgments and thoughts" (Purkey 1970, p. 48). The child who is always in an authoritarian setting will not develop his own controls or self-direction; also, this child will likely be unable to accept doing something different from the rest of the class because it will make him appear "different" (Lee and Allen 1963, p. 83).

Adequate growth and development require opportunity to make decisions and freedom to both "make mistakes" and "to laugh at . . . inadequacies" (Purkey 1970, p. 51). "Education must start where the child is and permit him to determine his own direction and pace" (Bills 1959, p. 63).

The American school has seemingly not fulfilled its responsibility to society and to its students until it has

helped each student to accept himself as he is, to view both his assets and limitations realistically, to strive for goals that are attainable, to develop independence in thought and action, and to find a place for himself in "his world."

Statement of the Problem

Since few experiments have dealt with the self-concept in an open educational environment, and, even more basic, since little agreement has been reached as to the curriculum which will be called "open education," uncertainty exists concerning the relationship between open education and student self concept. Specific studies which measure self-concept differences (if any) between the open educational system and the conventional school program are definitely indicated (Walberg and Thomas 1972, p. 207). These studies should determine, among other things, (1) if self-concept is in fact higher in a program which stresses it; (2) if any gains in self-concept are obtained without lowering achievement levels; and (3) if, regardless of achievement levels, attitude toward subject matter is improved.

CHAPTER II

RESEARCH PROCEDURES PROPOSED

Purpose of the Study

It was the purpose of this study to undertake a descriptive study which would seek answers for the following questions:

1. Is the mean for self-concept scores higher in an open educational environment than in a conventional school setting?
2. Is the mean for reading achievement scores in an open educational environment on a par with those in a conventional school setting?
3. Is the mean for attitude-toward-reading scores higher in an open educational environment than in a conventional school setting?

Assumptions, Limitations

This study was based on the following assumptions:

1. Though test validity is far from perfect on any personality measure (Quandt 1973, p. 11), the attitudes toward self reported by the subjects would approximate their "real" selves.

2. Children who were subjects for this study would take it seriously and answer items as honestly as possible.

This study recognized the following limitations:

1. Though the validity for the Self-Esteem Inventory (SEI) is quite good, pupil self-report does not give a completely accurate measure of self-concept.
2. The subjects were somewhat atypical in that participation was dependent both on securing permission from principals and teachers willing to permit the study to take place in their buildings and on parental permission.
3. The ability to generalize the findings to other populations was recognized as somewhat limited since many of the parents of potential third-grade subjects did not volunteer their children for participation thereby making completely randomized sampling impossible.
4. Self-concept was recognized as a construct, the measurement of which could only be approximate (especially fallible at the extremes).

Study Design

The following design was used in order to find answers for the questions listed in the first section of this chapter.

1. An equal number of "open" and "conventional" schools were selected from which necessary data were collected (see below for details about the instrument and procedures used to make these selections).
2. Permission-to-Participate forms (see Appendix A) were sent to all parents of third grade students who had also attended the respective programs during first and second grades in the chosen schools.
3. Students at each of the chosen schools were randomly selected from the population of students which met the criterion of continuous attendance and whose parents had signed the Permission-to-Participate form (sample size was determined by the numbers of students available).
4. An instrument designed to measure self-concept was administered to each participant and the means for the two groups (open and conventional) as well as for the individual pairs of schools, were subjected to a t test at the .05 level of confidence (see below for details about the self-concept instrument).
5. The scores of each participant on the required Arizona third grade reading achievement test were obtained and the means for the two groups (open and

conventional), as well as for the individual pairs of schools, were again calculated. The degree of significance of the mean score differences were determined by a t test but this time at the .20 level of confidence (see below for details about the reading test).

6. An instrument designed to measure attitude-toward-reading was administered to each participant and once again the significance of mean differences for both groups as well as for each of the individual pairs of schools was decided at the .05 level by t test procedures (see below for data relevant to the attitude inventory).
7. Finally, the Pearson r was used to check the correlation between self-concept and reading scores of the subjects in the conventional program and between the self-concept and reading scores of the subjects in the open program. This was done to see if the findings of high correlation between self-concept and achievement based largely on data gathered in "traditional" schools holds as well for data gathered in "open" schools.

Data Collecting Instruments

The Reschly-Sabers Educational Beliefs Inventory

(see Appendix B) was used to select the "target" schools

for this study. This instrument contains 20 open-education statements formulated by the authors from "Barth's 29 statements of beliefs endorsed by most educators" (Reschly and Sabers in press). The 20 statements were validated through comparison with "the 30 item Kerlinger scale measuring attitudes toward progressive and traditional educational practices" (Reschly and Sabers in press). In tests with 152 night students at The University of Arizona, a reliability coefficient of .69 was established for the entire 50-item inventory.

In the present study the Inventory was administered to first, second, and third grade teachers in Tucson Public School District No. 1 who teach at schools identified as "open" by informants familiar with the potential sites and to first, second, and third grade teachers in the District No. 1 schools paired by computer to the "open" schools. The determining criteria for the matches were (1) racial make-up, (2) socioeconomic level of the parents, (3) socio-educational level of the parents, and (4) mobility within the attendance area. After these schools were ranked as to degree of openness, the target schools for the study (those pairs in which the mean score for the open school fell below the grand mean for all schools taking the Inventory while the mean score for the conventional school fell above that grand mean) were evident.

The Self-Esteem Inventory (SEI) developed by Coopersmith (1967b) (see Appendix C) was selected as the best available instrument for determining pupil self-concept after considering more than seventy other potential instruments. Other instruments reviewed are identified in Appendix E along with reasons for eliminating each of them.

The SEI contains 58 items designed to measure positive or negative self-esteem and worded especially for children of ages eight to ten. It contains five subscales, four of which measure attitude toward general self, peer relationships, self at home, and self at school. The fifth is a check on defensiveness (a "Lie" scale) which is intended to reveal unrealistic self-expectations and is scored separately.

The Inventory was normed with 1748 public school children of central Connecticut and test-retest reliability was .88 after a period of five weeks and .70 after three years. High correlations between the SEI and teachers' predictions of the children's self-esteem establish validity for the instrument (Coopersmith 1967a, pp. 10-11).

Though other instruments with high reliability coefficients and adequate validity were available, the SEI was the only one of appropriate length (long enough to yield mean differences sufficiently large to give significant results with the selected sample size yet short enough to be completed by third-graders without overly fatiguing

themselves) which included a subscale to check honesty and was available without cost.

The Stanford Achievement Test--Form A for Primary Level II was used to obtain reading achievement scores since it is required of all third grade students in Arizona and the pre-existing scores were readily available. Three parts of this test which measure word meaning, paragraph meaning, and word study skills provided a total reading achievement score with a maximum of 158 points.

An Inventory of Reading Attitude (see Appendix D)--an instrument developed in San Diego County--was administered additionally to the reading achievement test. The Inventory consists of statements about reading to be answered YES or NO.

Test results for 757 students in San Diego, California were found to correlate significantly with teacher judgment and, using the split-half (odd-even) method, a reliability coefficient of .79 was obtained. Application of the Spearman-Brown Prophecy Formula to estimate the correlation had the data been collected on two separate administrations of the Inventory instead of by the split-half method yields a corrected coefficient of .89, a figure generally regarded as quite reliable (San Diego County Monograph 4, 1964, pp. 5-9).

Expectations

The present study was undertaken with the expectation that mean self-concept in open educational environments would be higher than mean self-concepts in conventional school settings. A further belief was that, even though less time would usually be devoted to development of basic skills in the open schools, student self-concept, considered so important by the many writers noted in Chapter I, can be improved without lowering achievement in those subject areas so highly valued in the schools of America. (This "less time" for basics is the result of more time in open schools than in conventional schools being used to deal with the "human" aspects of education, self-concept among them.)

If this further belief that self-concept can be improved without lowering achievement proved untrue, there was doubt in the mind of this writer that the American parents would support expansion of the open education movement unless it could at least be demonstrated that the lower scores were a result of the decreased emphasis on "drill" and not accompanied by dislike for reading.

CHAPTER III

PRESENTATION AND ANALYSIS OF RESULTS

This chapter is divided into two sections. The first describes the methods used to determine the matched samples of students. The second examines the data gathered in terms of the research questions posed in the first section of Chapter II.

The Sample and Sources of Data

A sample of 68 students from six elementary schools in Tucson School District No. 1 provided the statistical data to be reported in this chapter. This section describes how those 68 students were selected.

Mrs. Jewell Taylor, Elementary Curriculum Director for District No. 1, provided a list of schools within the District which she considered "open" and which she felt would be amenable to the study. Her professional judgment was then corroborated by Dr. Barbara Prentice, Department of Research Director for District No. 1, and Mr. Ed Maxwell, a research assistant for the District. Next, Mr. Maxwell matched each of the eight schools on this open list with another elementary school within the District and not included on the list. To do this he made use of information computerized and available for racial make-up, socioeconomic

level of the parents, socioeducational level of the parents, and mobility within the attendance area.

After obtaining permission from each of the sixteen principals to conduct the study within their various buildings, the Reschly-Sabers Educational Beliefs Inventory was administered anonymously and on a voluntary basis to the first, second, and third grade teachers in each of the sixteen schools. The results for the first 20 items of the Inventory (the "open-not open" items) are shown in Figure 1.

Based on the definition of an open school adopted for this study, only three schools (those identified by the code numbers 2.1, 6.1, 8.1) existed from which students might be selected to comprise the open sample. Since the three schools previously matched with these open schools conformed to the definition of a "conventional" school adopted also for this study, it was evident that the three matched pairs--2.1, 2.2; 6.1, 6.2; 8.1, 8.2--could all continue in the study.

Data from the 30 "progressive-traditional" items of the Inventory served as an internal check on the validity of the 20 open-not open items (see Figure 2) and appear to corroborate the results which show schools 2.1, 6.1, and 8.1 as being most open among those tested.

It should be noted that school 8.1 does not appear so extreme in Figure 2 as it does in Figure 1. Since the per cent of teacher response to the Inventory in this school

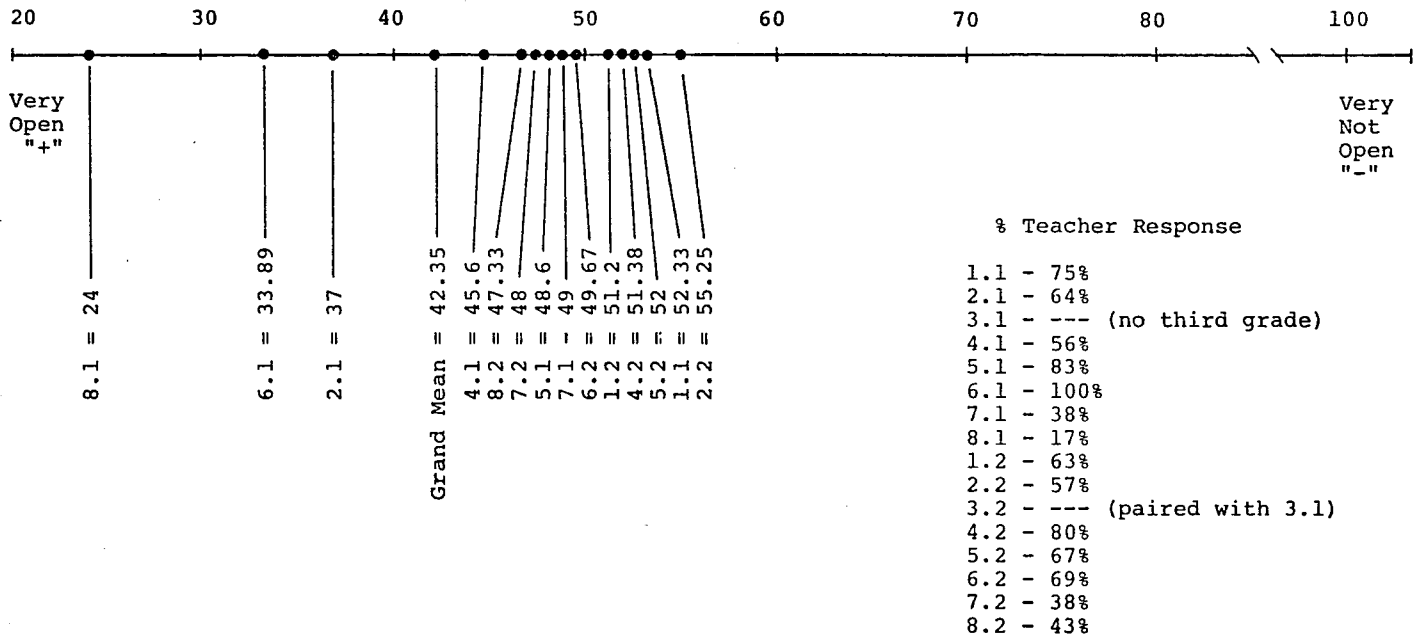


Figure 1. Coded Schools^a and Their Mean Scores for the 20 "Open-Not Open" Items on the Educational Beliefs Inventory^b

^a Individual schools are coded from 1.1 to 8.2.

^b Schools with mean results falling to the more open end of the continuum from the grand mean (along with their previously matched pairs) to continue in the study through the student-testing phase.

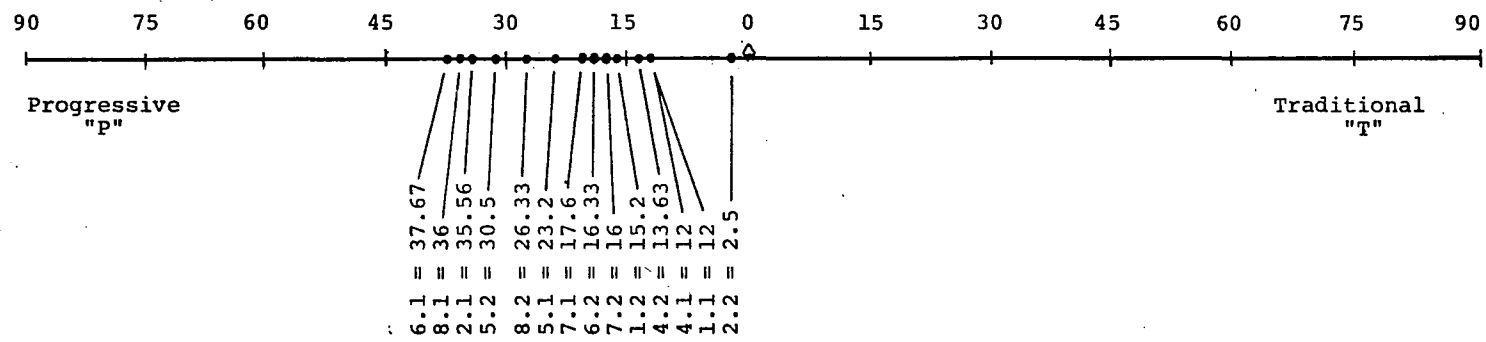


Figure 2. Coded Schools and Their Mean Scores for the 30 "Progressive-Traditional" Items on the Educational Beliefs Inventory

was quite low (17 per cent) the findings might be considered somewhat questionable anyway and, since the reliability for the "progressive-traditional" scores is better than that for the "open-not open" scores (see Appendix B) the mean-score for that school in Figure 2 might be considered the more accurate one. All other of the schools are positioned on Figure 2 very similarly to their positions on Figure 1, a fact that lends validity to the results.

Of further interest in comparing Figure 1 with Figure 2 is that all fourteen of the schools (two of the original sixteen were not tested for reasons indicated in Table 1) tested open to some degree and that the range of scores was rather limited. The possible causes for such results must be left to the imagination of the reader, however, since neither position of scores nor range of scores were topics investigated in this study. They are pointed out only as interesting asides.

What is pertinent to this study are the mean-score differences of each of the three pairs. For schools 2.1 and 2.2 the mean-score differences are 18.25 when the data shown in Figure 1 is compared and 33.06 when the comparison is made with the data shown in Figure 2. For schools 6.1 and 6.2 the respective score differences are 15.78 for Figure 1 and 21.34 for Figure 2. Finally, for schools 8.1 and 8.2 these differences are 23.33 and 9.67. Given these

Table 1. Percentage of Teachers Responding to the Educational Beliefs Inventory

School	Open Schools								Conventional Schools							
	1.1	2.1	3.1 ^a	4.1	5.1	6.1	7.1	8.1	1.2	2.2	3.2 ^b	4.2	5.2	6.2	7.2	8.2
Number of Primary Teachers	4	14	X	9	6	9	13	6	8	7	X	10	3	13	8	7
Number of Teachers Responding	3	9	X	5	5	9	5	1	5	4	X	8	2	9	3	3
% of Teacher Response (to nearest %)	75	64	X	56	83	100	38	17	63	57	X	80	67	69	38	43

^aEliminated from study (third-grade bused to another school this year).

^bEliminated from study (matched with school "a" above).

mean-score differences, schools 2.1 and 2.2 would appear to have the educational atmospheres most diverse on the "open-conventional" continuum and might be expected to provide data more significant than that for the other two pairs while the data for schools 8.1 and 8.2 might be expected to be least helpful.

Table 1 is included to provide a composite picture of the degree of involvement both numerically and proportionally for each of the schools initially a part of this study.

The next step in the procedure for determining the composition of the student samples, both open and conventional, was to obtain permission from the parents of third grade students meeting the 3 year attendance criterion (see page 39) for their children to be involved during the student testing phase. Overall, as indicated in Table 2, parent response to the request was quite favorable.

As noted in the limitations established for this paper, the students comprising the final sample were not a completely random sample from the population of students meeting the 3 year attendance criterion. Table 2 reveals two reasons for this: (1) the parents of fifteen students in school 2.1 were not given the opportunity to have their children participate and (2) though the per cent of parents giving permission to allow participation by their children was good (ranging from a low of 57 to a high of 78), the

Table 2. Percentage of Parents Returning the Parental Permission Form

School	Open Schools			Conventional Schools		
	2.1	6.1	8.1	2.2	6.2	8.2
# of Students Meeting 3-Year Criterion	64	19	31	37	34	45
# of Permission Forms Sent to Parents	49 ^a	18 ^b	28 ^b	37	34	45
# of Permission Forms Returned	33	14	16	21	20	31
% of Parents Giving Permission (to nearest %)	67	78	57	57	59	69

^aOne teacher-team had opted not to respond to the Beliefs Inventory; they also refused to send the permission forms to parents.

^bStudent(s) moved between time names were obtained and forms were delivered to school.

permission forms were sent to the parents of 211 potential subjects while the samples were finally selected from a population of only 135.

In the interest of validity and statistical power, it was determined not only to keep the total sample size equal (34 open--34 conventional) but also to keep the separate and smaller sample sizes (N) equal for each of the three pairs of schools. This made it possible to compare the paired schools as well as the larger grouped samples while avoiding the statistical weaknesses recognized for working with small samples of unequal N (Minium 1970, p. 308). Arbitrarily, it was further decided that no more than 70 per cent of the potential subjects in any one school would be selected during the randomization procedure; this decision was made in the interest of generalizability for the findings and was the final factor in the determination of the total sample size.

The ratios of students tested to those available to be tested in each of the six schools are presented in Table 3. Schools 6.1, 8.1, and 2.2 determined ultimately the size of the total sample (68). This was because of the decision to limit participation in each school to no more than 70 per cent of the students with permission to participate. For instance: 14 students (67 per cent of those available) were the maximum number possible for use in school 2.2; though 14 students comprised only 42 per cent

Table 3. Percentage of Available Students Included in the Final Sample

School	Open Schools			Conventional Schools		
	2.1	6.1	8.1	2.2	6.2	8.2
# of Students Available	33	13	16	21	20	31
# of Students Selected	14	9	11	14	9	11
% of Available Students Used (to nearest %)	42	64	69	67	45	35

34 (Open) + 34 (Conventional) = 68 (Total Sample)

of the potential subjects for school 2.1, it was necessary to limit participation to this number so that more valid comparisons might be drawn between it and school 2.2--its predetermined pair. Application of this same reasoning for pairs 6.1, 6.2 and 8.1, 8.2 reveals nine students as the maximum number to be tested from each school in the former pair and eleven as the proper number for each school in the latter pair. Total sample size was then established at sixty-eight.

Data Directed to the Research Questions

In accordance with the research questions posed in the first section of Chapter II, mean scores were calculated for self-concept, for reading achievement, and for

attitude-toward-reading of third grade students from equal numbers of open and conventional schools as determined by the Reschly-Sabers Educational Beliefs Inventory. The t test results are presented for these means in the order of the questions as listed in Chapter II.

The test statistic

$$\frac{D}{\sigma_D}$$

(difference)
(standard error of difference
for uncorrelated data)

was used to check the data for each of the three questions.

1. Is the mean for self-concept scores higher in an open educational environment than in a conventional school setting?

The results of subjecting the self-concept scores to t test procedures at the .05 level of significance are presented in Table 4. At this .05 level none of the t scores for self-concept proved to be significantly different. This is true for the individual pairs of schools as well as for the total sample. Though the results are not significant, there are differences in the raw scores obtained which for two of the pairs (6.1, 6.2; 8.1, 8.2) slightly favor the open school students. School 6.1 yielded results slightly above normal (see Appendix C for the Coopersmith norms) but so did its matched pair--school 6.2. All other of the schools tested during this study scored substantially below the Coopersmith norms.

Table 4. SEI Mean Scores and t Comparisons with Levels of Significance^a

Open				Conventional				t Score	Level of Significance
School	N	s ²	\bar{X}	School	N	s ²	\bar{X}		
2.1	14	110.15	62.00	2.2	14	244.59	65.86	.77	n.s. ^b
6.1	9	148.00	74.00	6.2	9	292.11	72.89	.16	n.s. ^b
8.1	11	219.27	62.55	8.2	11	168.65	60.36	.37	n.s. ^b
Total	34	173.51	65.35	Total	34	241.81	65.94	.17	n.s. ^b

^aLevels of significance were determined through reference to the t distribution table in Popham and Sirotnik (1973, p. 384).

^bBecause all self-concept scores were found not to be significantly different, it was decided to check the subtest scores of the SEI (see Appendix F) in addition to the total scores listed in this table. These additional calculations did reveal the Sa (School-academic) subtest means to be significantly different ($p < .05$) for the total sample of 68 students though they favored the students in the conventional schools (opposite to the expectations of this study). However, none other of the 16 subtest means were found to be significantly different.

As an additional indication of how insignificant the t scores were for self-concept, significance would have been evident for the total sample only with a t score of 1.998 or higher. Not only is the .17 far less than the required figure but it favors the conventional group. For the pairs of schools the scores obtained are also far below the required significance levels of 2.056, 2.12, and 2.086, respectively.

The small size of the sample used might be questioned at this point for N greatly affects t test results. Two reasons are evident for the smallness of the sample used: (1) in the interest of generalizability of the results it was determined to use no more than 70 per cent of the potential subjects in any one school and (2) the number of students meeting the 3 year attendance criterion numbered only 135, 63 in open schools and 72 in conventional schools. Both these limitations--70 per cent maximum involvement and a zero mobility factor--add to the worth of the study. The first makes it possible to make statements about open and conventional programs beyond the limits of the six schools themselves. The second eliminates the possibility of contaminating the findings by testing students recently transferred to a building and implying that their scores are the result of only the philosophy and methods of the new school.

2. Is the mean for reading achievement scores in an open educational environment on a par with those in a conventional setting?

Data relevant to this question are presented in Table 5.

Here too the results do not support the hypothesis. Since it was believed that open classroom procedures would be given sufficient time by parents to work out the bugs only if achievement did not suffer greatly, the level of significance for accepting the hypothesis was set at .20. This was done because t test procedures are ordinarily intended to establish differences, not similarities. It was accepted that, if obtained results might be expected to occur more than 20 times out of 100 by chance, they could be interpreted as not being different.

As is evident, however, this expectation for no significant difference between the reading achievement scores was not substantiated. All results (both individual pairs and totals) revealed differences at the .20 level or smaller. For pair 2.1 and 2.2, for instance, the reading achievement scores were so different that they might be expected to occur by chance less than five times in one hundred.

It is noteworthy that open school 8.1 did obtain significantly higher reading achievement scores than did

Table 5. SAT Mean Scores and t Comparisons with Levels of Significance^a

Open				Conventional				t Scores	Level of Significance
School	N	s ²	\bar{X}	School	N	s ²	\bar{X}		
2.1	14	1251.00	89.36	2.2	14	1386.42	122.50	2.41	p < .05
6.1	9	1779.28	100.56	6.2	9	443.25	131.00	1.94	p < .10
8.1	11	727.16	128.18	8.2	11	841.02	111.73	1.38	p = .20
Total	34	1432.59	104.88	Total	34	965.29	121.26	1.95	p < .10

^aLevels of significance were determined through reference to the t distribution table in Popham and Sirotnik (1973, p. 384).

its match--school 8.2 ($p = .20$). This appears to strongly support the hypothesis but again it must be remembered that this school was retained as a part of the study based on only a 17 per cent teacher response to the Beliefs Inventory. The results may merely cause the decision to include it as representative of open schools to be more questionable; after all, the other two conventional schools (2.2 and 6.2) outscored their open counterparts and even more significantly so. In fact, had not the results for pair 8.1 and 8.2 been included in this test, the t score differences for the total sample would have been even higher in favor of the conventional programs.

3. Is the mean for attitude-toward-reading scores higher in an open educational environment than in a conventional school setting?

The reading achievement data were tested at the .05 significance level with results as shown in Table 6.

Again, since the probability for such results to occur by chance were quite high (all differences are not significant), the hypothesis, like those for self-concept and reading achievement, was not substantiated. Not only did the open students score much lower on reading achievement (excepting school 8.1 discussed in the preceding section) but their attitude toward the subject appeared somewhat less positive though not significantly so.

Table 6. IRA Mean Scores and t Comparisons with Levels of Significance^a

Open				Conventional				t Score	Level of Significance
School	N	s ²	\bar{X}	School	N	s ²	\bar{X}		
2.1	14	189.00	13.50	2.2	14	23.85	15.00	.92	n.s.
6.1	9	21.11	12.89	6.2	9	22.50	16.33	1.56	n.s.
8.1	11	26.05	14.64	8.2	11	49.47	16.55	.73	n.s.
Total	34	18.70	13.71	Total	34	30.37	15.85	1.79	n.s.

^aLevels of significance were determined through reference to the t distribution table in Popham and Sirotnik (1973, p. 384).

In this study reading achievement scores were found to be much lower in the open schools than in the more conventional schools. Other findings were that the lower reading achievement scores in the more open schools were not accompanied in those same schools by higher scores for either self-concept or attitude-toward-reading. Because the two groups were equated for racial makeup, for socioeconomic level of the parents, for educational level of the parents, and for mobility within the attendance area, it seems not appropriate to associate educational methods as employed by the open schools included in this study with general improvement for student self-concept.

Because the substantial findings supportive of a high correlation between self-concept and achievement referred to in Chapter I seem heretofore to have been tested only in traditional school settings, it seemed desirable to test this correlation also during this study to see if the relationship would hold for open schools as well. The intent to do so was included in the design of the study, p . 40.

As the data in Table 7 reveal, the positive correlation between self-concept and academic performance so often noted (Purkey 1970, p. 6; Bruner 1960, p. 65; Gill 1969, p. 6; Coopersmith 1967a, p. 124; Combs 1964, p. 47; Brookover et al. 1964, pp. 277-78; Fink 1962, pp. 57-62) seems corroborated by this study but only for the conventional schools.

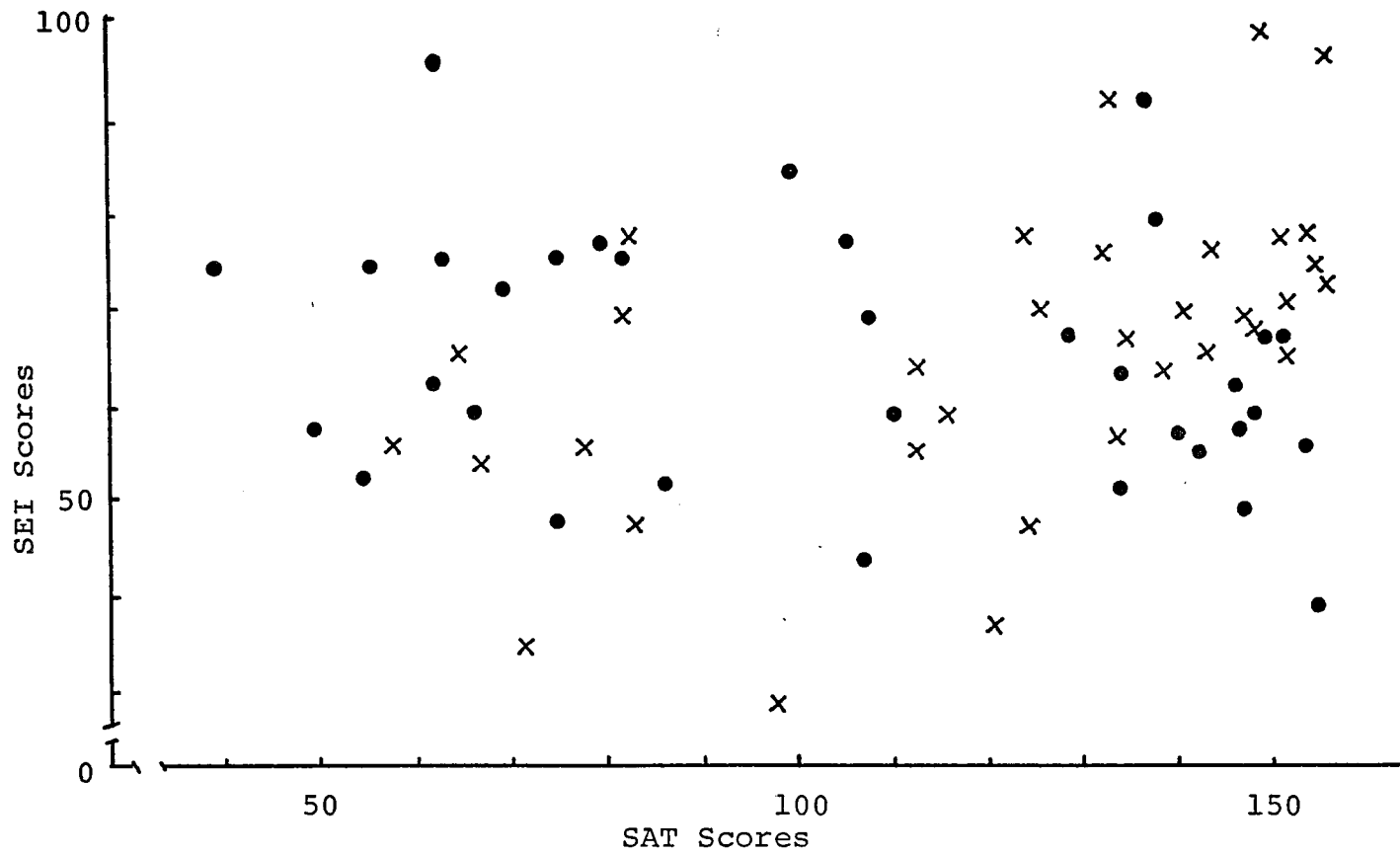
Table 7. Correlations Between Scores for the SEI and the SAT

	School	N	r	Level of Significance
Open Schools	2.1	14	-.12	n.s.
	6.1	9	-.59	p < .10
	8.1	11	-.24	n.s.
	Total	34	-.26	n.s.
Conventional Schools	2.2	14	.80	p < .01
	6.2	9	.17	n.s.
	8.2	11	.20	n.s.
	Total	34	.53	p < .01

The Pearson Product-Moment correlation coefficient was used to calculate the data in Table 7.

That the correlations for the open schools were, without exception, negatively related instead of positively came as something of a surprise. These findings imply that low-achieving students in the open schools have better feelings about self than do the high-achieving students in the same schools. Figure 3 provides a graphic picture of the different r 's between the self-concept scores and the reading achievement scores for the two groups (open and conventional) in this study.

The scattergram locates the 68 students in more or less two distinct groupings with few students scoring between 85 and 100 on the SAT. Also, to be noted within these two groupings is the preponderance of high SEI scores for the low-achieving open students and for the high-achieving conventional students. This seems to imply not only that conventional curricula is a hindrance for the low-achiever but that the open curricula is somewhat harmful for the capable student. Whether or not this is true and whether or not the placement of all students with reading achievement scores above 100 in conventional type schools and the placement of those with reading achievement scores below 100 in open type schools would tend to raise mean self-concept scores must remain the topic of another study. However, this writer finds his negative



● = Open Schools 2.1, 6.1, 8.1 $r = -.26$ ($p = n.s.$)
 x = Conventional Schools 2.2, 6.2, 8.2 $r = .53$ ($p < .01$)

Figure 3. Scattergram of r Between Scores for the Total SEI and the SAT for the Total Sample (68 Students)

correlations for open school students to be extremely thought provoking.

To further highlight these heretofore unrevealed correlational differences, Figures 4 and 5 below were included. Another look at Table 7 reveals the data in Figures 4 and 5 as representative of the only two schools with significant probabilities for meaningful correlations ($p < .10$ and $p < .01$, respectively). The positive significance for school 2.2 was such that it caused the entire conventional sample to appear significant. For school 6.1 the negative significance level was not as high, therefore the total open sample r is seen to be not significant.

During the course of the study one additional finding proved of interest. Table 8 is included in order to point this out.

In addition to self-concept scores favoring the open schools (this was so in two of the three pairs though not in the total sample and not to a significant degree) it had been expected that the range for self-concept scores would be less for open school students than for the conventional school students. This smaller range, it was reasoned, would indicate greater equality--more homogeneity of feelings about self, fewer extremely high and healthy scores but also far fewer extremely low and unhealthy scores. With the exception of school 8.1 whose inclusion in this study has been shown to be questionable, this final

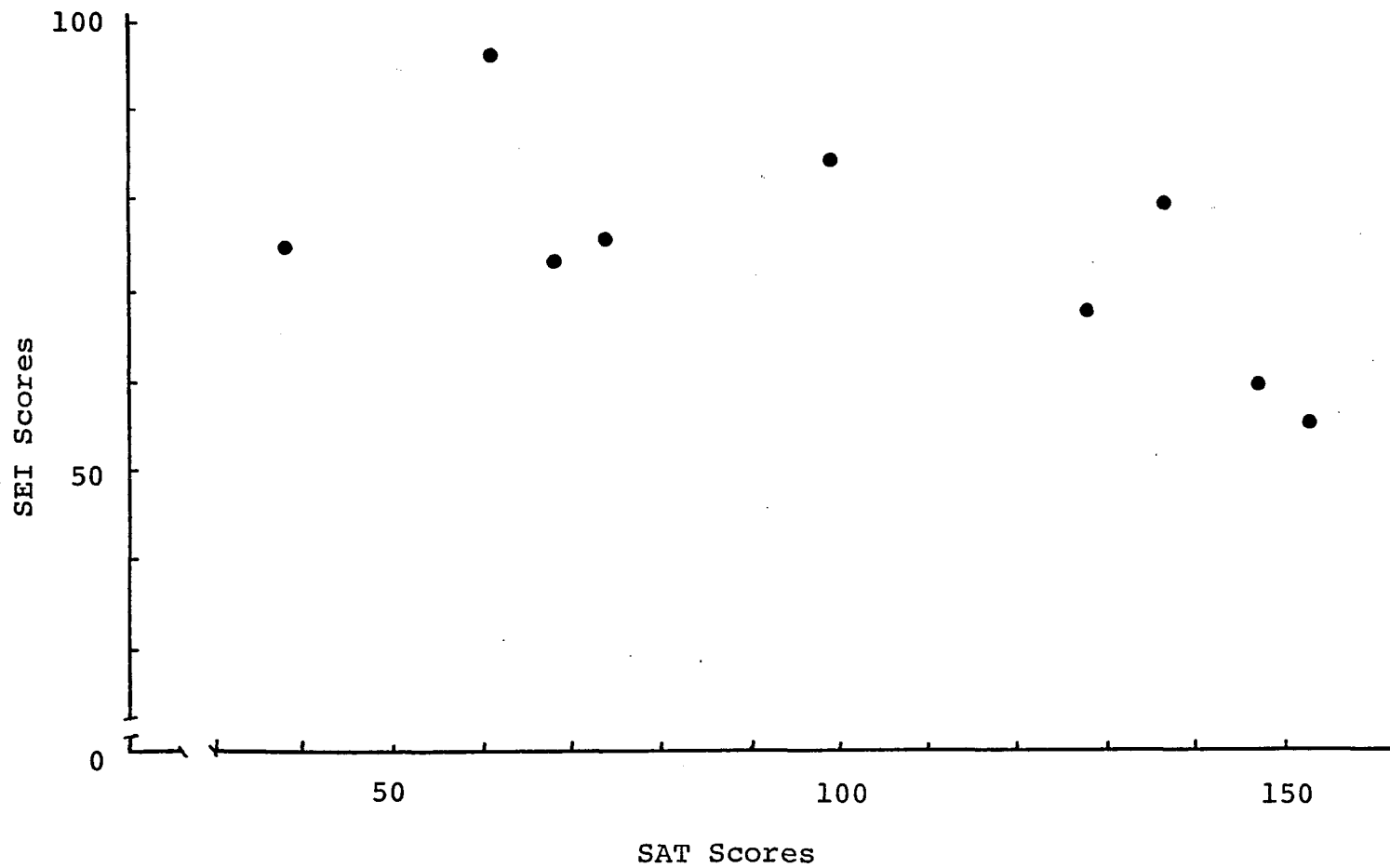


Figure 4. Scattergram of r Between Scores for the Total SEI and the SAT for Open School 6.1 -- $r = -.59$ ($p < .10$).

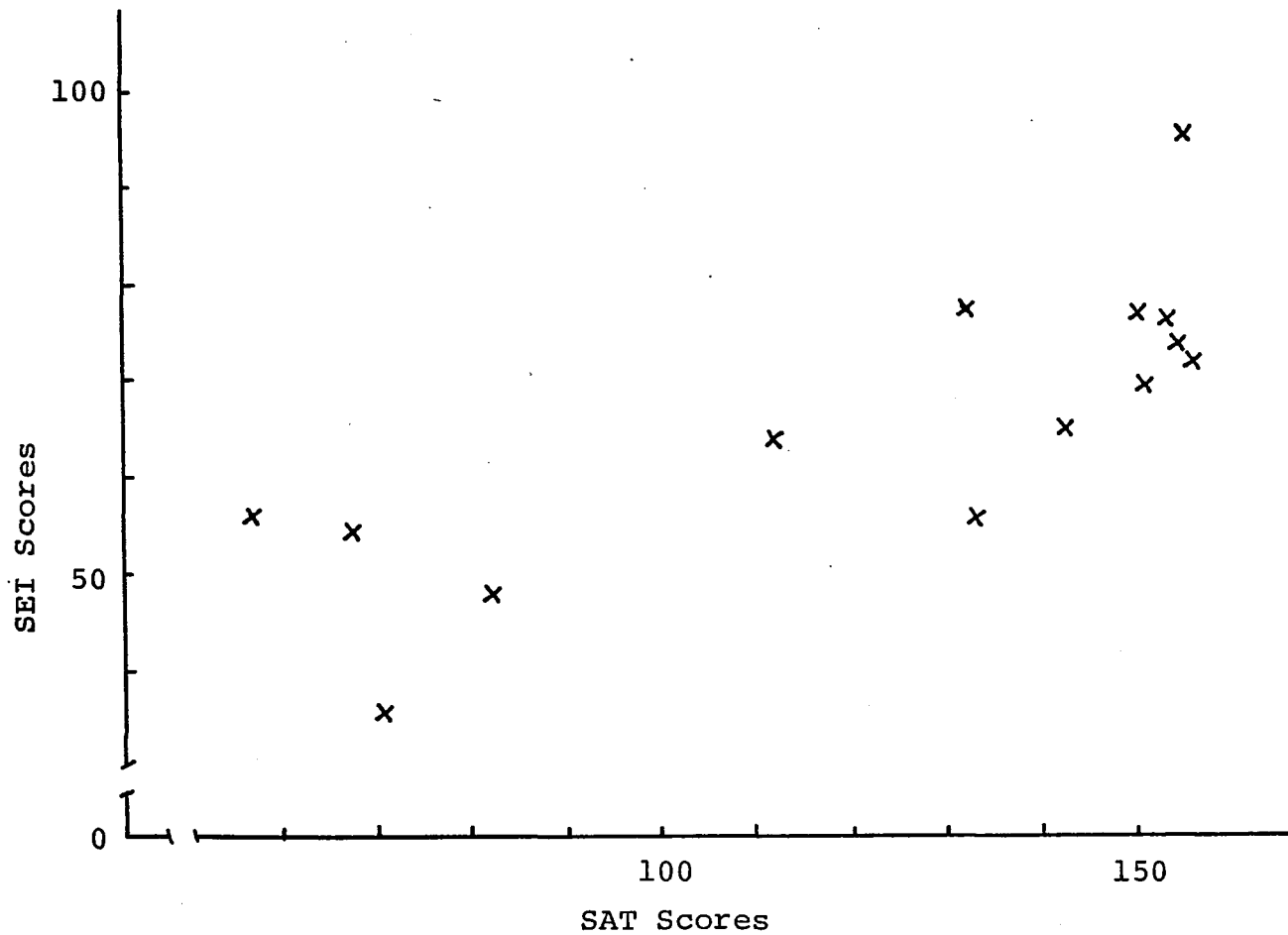


Figure 5. Scattergram of r Between Scores for the Total SEI and the SAT for Conventional School 2,2 -- $r = .80$ ($p < .01$).

Table 8. Range of SEI Scores for Student Data

	Open				Conventional			
	2.1	6.1	8.1	Total	2.2	6.2	8.2	Total
High Score	78	96	92	96	96	98	78	98
Low Score	48	56	40	40	36	38	30	30
Range	30	40	52	56	60	60	48	68

expectation proved out with open student self-concept scores for the total sample varying only fifty-six points compared to a sixty-eight point spread for the scores of conventional students. These differences were even more pronounced for two of the pairs--thirty and sixty for pair 2.1 and 2.2, forty and sixty for pair 6.1 and 6.2.

CHAPTER IV

SUMMARY, CONCLUSIONS, LIMITATIONS, IMPLICATIONS, AND RECOMMENDATIONS

This chapter contains five sections during which the writer will (1) summarize briefly the rationale, design, and results for the study; (2) list the major conclusions of the study; (3) identify a few limitations encountered during the study; (4) suggest some implications germane to the study; and (5) offer some recommendations derived from the study.

Summary

There has been a recent rebirth of interest in self and the connection between feelings toward self and success in school.

This study which was conducted in six schools within Tucson Public School District No. 1 investigated differences in self-concept, reading achievement, and attitude-toward-reading of third grade students enrolled in two different types of educational environment--the "open" school and the "conventional" school.¹ Also, the conclusion

1. In actuality the schools labeled as "conventional" throughout this study tested more open than not open. Though they met the defining criterion established for "conventional" schools, they did not represent well an educational philosophy "opposite" that of the schools labeled herein as "open."

well supported by research for "a significant and positive correlation between self-concept and performance in the academic role" (Brookover et al. 1964, pp. 277-78) was tested to see if the relationship was true for students in an open curricula as well as for those in the more conventional type programs. Previous investigations of the correlation had been conducted only in the more conventional setting.

A review of the literature (opinion and research) suggested that self-concept must be accepted as a vital aspect of learning, that reading proficiency is permanently influenced by self-concept, that negative student attitude toward school limits the level of school achievement, and that self-concept and achievement are positively correlated. The literature also contained many pointed statements about the potential benefits of an open education approach for self-concept improvement although these pronouncements seem largely unsubstantiated by research.

Because open education differs between the host of locations claiming to practice it and, more crucially, because definitions about the open philosophy differ somewhat with each practitioner, a rather involved procedure was carried out in order to determine the target schools for the study--those most open and those most conventional. First, the Elementary Curriculum Director for Tucson Public School District No. 1 was asked to list all schools within

the District which she considered open. After her selections were corroborated by persons in the District No. 1 Research Department who were also knowledgeable about the various programs within the District, each of the schools (eight at this point) was matched by computer with another District No. 1 school. This matching was based on four criteria: (1) racial make-up, (2) socioeconomic level of the parents, (3) socioeducational level of the parents, and (4) mobility within the attendance area.

Next, the permission of all sixteen principals was obtained for conducting the study within their buildings and the Reschly-Sabers Educational Beliefs Inventory was administered anonymously to the primary teachers who were willing to participate. All primary teachers were asked to respond because self-concept measurable at third grade level was felt to be as much the result of events occurring in grades one and two as of those events taking place during grade three.

The Inventory isolated three schools as being open. These three schools then, along with their previously matched pairs, comprised the six schools from which student data were later collected.

The study posed the following questions:

1. Is the mean for self-concept scores higher in an open educational environment than in a conventional school setting?

2. Is the mean for reading achievement scores in an open educational environment on a par with those in a conventional school setting?
3. Is the mean for attitude-toward-reading scores higher in an open educational environment than in a conventional school setting?

Using t test procedures, questions 1 and 3 were tested at the .05 level of significance using a two-tailed test since the direction of difference could not be known with certainty in advance. Question 2 also used a two-tailed test but tested for differences at the .20 level of significance. The higher alpha level was felt necessary since the t test is intended to measure differences, not similarities, and the writer felt that if differences could be demonstrated to occur more than twenty times in a hundred merely by chance, a strong case could be developed for the equality of reading achievement between the two programs.

In addition to the three questions listed above, one other uncertainty was checked during this study. Since the relevant data were already available at this point, it was decided to examine the correlation between self-concept and reading achievement for open pupils as well as for conventional ones. This was done using the Pearson r.

Data were collected from 68 third grade children (34 open, 34 conventional) attending the six Tucson Public School District No. 1 schools. The subjects were selected from 135 students in attendance at their respective schools during their entire three years of schooling. This three-year criterion was established in order to avoid any contamination of the results caused by measuring students newly arrived at a school and accepting their scores as totally resultant from that school's curricula.

Self-concept was measured by the Coopersmith (1967b) Self-Esteem Inventory which was selected as best for the purpose after reviewing more than seventy others available. The Stanford Achievement Test--Form A for Primary Level (Madden et al. 1973), administered by the classroom teachers and scored by the Tucson Public School District No. 1 Research Department, was used to check reading achievement. The attitude-toward-reading was determined by An Inventory of Reading Attitude developed for that purpose in San Diego County (1964). All three of the measuring instruments were of the group testing variety. Both the self-esteem inventory and that examining the reading attitude were administered and scored by this writer. Assistance with the statistical analysis was provided by personnel in both the District No. 1 Research Department and in the Department of Educational Psychology at The University of Arizona.

The results revealed significant differences only for reading achievement. Neither self-concept nor attitude-toward-reading were significantly different between the two different school environments. The results being as stated, all three major hypotheses were rejected. Such results seem not to speak well for the proponents of open education, at least to the extent that the schools tested are representative of general open procedures.

Conclusions

Based on the results of this study the following conclusions appear to be justified:

1. Self-concept does not differ significantly at the third grade level between students enrolled in an open educational school and students enrolled in a more conventional school.
2. Reading achievement does differ significantly at the third grade level between students enrolled in an open educational school and students enrolled in a more conventional school. Though these differences generally favor the conventional student, the degree of difference within a given building (both open and conventional) varies substantially.
3. Attitude-toward-reading does not differ significantly at the third grade level between students

enrolled in an open educational school and students enrolled in a more conventional school.

4. The positive correlation generally accepted throughout the literature between self-concept and academic performance does not hold for reading achievement in the open environment school as it does for the conventional one. In fact, while the relationship for the conventional schools is positive, it is negative for students in open school situations.
5. The range for self-concept scores is generally smaller at the third grade level for students enrolled in an open educational school than for students enrolled in a more conventional school.

Limitations

It should be noted that the results of the present study are dependent on data collected from students in pairs of schools in which all buildings tested open to some degree and in which the range for mean-score differences was rather limited (see again Figures 1 and 2). Had schools demonstrating more diversity of their teachers' beliefs been available from which to collect data, the results might have been very different.

Also of note, the results are dependent on data collected in schools selected through the use of a

comparatively new instrument--the Reschly-Sabers Educational Beliefs Inventory. Though the instrument contains a built-in check for validity and though its authors consider the reliability coefficient (.69) to be acceptable for an attitude inventory, all conclusions consequent to this study can be authentic only to the degree that the defining instrument is itself authentic.

Finally, it is noteworthy that no attempt was made to verify the findings of the Beliefs Inventory. Some procedure (perhaps an observation scale) might have been used to certify that the teachers' stated beliefs had actually been implemented into their school's curricula before the target schools were chosen. This was not done.

Implications

This study offers evidence that schools founded on an open philosophy toward education do not achieve at least two of their objectives--better student self-concept and better attitude relative to reading. Also, open students appear to achieve less in reading as measured by standardized tests than do their more conventional counterparts.

In view of the present findings it may be generalized either that those open procedures used in the buildings included in this study are not superior to more conventional procedures or that those superior procedures have not really been implemented within the facilities tested. These

findings indicate the need for a more definitive yet defensible statement as to just what "open education" really is. They further indicate the need for effective techniques by which a truly open program can be easily recognizable as such.

The conformity of the self-concept mean-scores for each pair of schools as well as for the total sample could imply that the criteria for matching--race, economics, educational level, and mobility--are more determinant of self-concept than are teaching methods; it could also be the result of the very similar beliefs about education expressed by the teachers in all six schools.

Additional evidence provided by this study that, for students in open schools, the correlation between feelings of self-worth and academic success in reading is neither strong nor positive calls into question the validity of a tenet heretofore unquestioned by either affirmation or research. A possible observation to be drawn from this finding is that low-achieving students in a conventional school setting who express negative feelings toward self could benefit from being transferred to an open school setting. Of course the obverse is also true; if a high-achiever in an open situation does not have highly positive feelings toward self, then a transfer to a more conventional program might prove beneficial.

Regardless of the implications one might choose to draw as a result of this previously unsuspected finding, the negative correlation between self-concept and reading achievement for the open students is certainly thought provoking. Further study of Figures 3 and 4 does make one thing clear: neither do negative feelings for self necessarily hinder achievement nor do positive feelings for self necessarily improve achievement.

Recommendations

Educators and interested others have indicated increasing awareness in recent years for the importance of self-perception to student success, motivation, and commitment (Purkey 1967, p. 3). It has been recognized too that the unrealistic expectations established for many students by our educational system often bring about a vicious failure cycle in which failure breeds the expectation to fail and the expectation breeds, in turn, additional failure.

"Open education" is one attempt to alter the curricula so as to prevent the failure label becoming fixed. The findings of this study suggest that the open approach as presently practiced in any school similar to those labeled "open" within Tucson Public School District No. 1 improves little if any upon the more "conventional" approach. This appears true both for achievement in

specific areas of study (reading in this study) and for acceptance by the student of himself as he is (self-concept).

Uncertainty exists presently as to exactly what the open education curriculum should entail. Also, research which has dealt with open educational environments is extremely limited. With these truisms in mind, the writer will conclude by offering the following specific recommendations:

1. A study should be made within the two types of educational settings (open and conventional) which includes a comparison of teacher attitudes in order to determine whether it is changed curricula or changed teacher attitude which is more significant in any self-concept improvement for low-achieving students in the open school setting.
2. The present study should be replicated but with an observation scale employed following the administration of the Educational Beliefs Inventory. The purpose would be to determine if the stated beliefs had in fact been implemented into a school's program before its selection as a target school.
3. The present study should be replicated but with a broader initial population of schools from which to select the target schools.

4. The present study should be replicated to better substantiate any differences in the relationship between self-concept and achievement for the two educational environments (open and conventional).
5. The present study should be replicated using a different definition of the "open school." Perhaps, only schools would be included in the study as truly representative of the open methodology which fell in the lower quartile of scores obtained either with the beliefs inventory used herein or with some other appropriate instrument.
6. The present study should be replicated for comparative reasons using a different self-concept instrument.
7. The present study should be replicated using subject areas other than reading as the measure of achievement.
8. The present study should be replicated using different grade levels.
9. Studies should be done to test the finding that open methods are more appropriate for low-achieving children with other categories of exceptional children; e.g., retarded, minorities, "slum" dwellers, adolescents, etc.
10. Studies should be conducted which attempt to determine whether there is a maximum size (student

population) for a school in order to effectively implement open procedures; also to be determined would be the existence of an optimum size for effective implementation of open procedures (perhaps there would be a different optimum size for each type of student in each kind and/or size of community).

11. Studies should be carried out to test the effectiveness of the open school program for students who are transient (in the program only briefly).
12. Controlled experiments should be conducted in which under-achieving students who have poor self-concepts in conventional type programs are deliberately transferred to open type programs; also to be tested through transfer would be the high-achieving student who is in an open program but whose self-concept is not good. Such research is essential since the findings of this study are inconsistent with others which have shown a positive correlation between self-concept and academic success for all students.

APPENDIX A

CORRESPONDENCE PERTINENT TO THE STUDY

Invitation to Teacher Participants

As a first step in conducting a study of the relationship between pupil self-concept and certain classroom organizational patterns, you are being asked to complete the attached educational beliefs inventory. Approval for your participation in this manner has been received from the administration of Tucson School District #1.

This study is being conducted as part of the doctoral studies of a teacher on leave from District #1. Though participation is not mandatory, your assistance in carrying out this research will be very much appreciated since the results could contribute to our mutual interests for the improvement of education.

Your response will be picked up within a week. To assure anonymity for each respondent, you are asked to seal the completed form in the enclosed envelope and leave it with your school secretary.

Sincerely yours,

/s/

Jack W. Robinson

JWR/kow

Request for Parental Permission*

A study of the relationship between pupil self-concept and different classroom organizational patterns is being conducted as part of the doctoral studies of a teacher on leave from Tucson School District #1. Your help in carrying out this research would be very much appreciated and the results could contribute to our mutual interest--the improvement of education.

Approval has been granted by the District #1 administration for participation of randomly selected third-grade students whose parents sign and return this permission form. Your child (should he/she be selected as part of the random sample) will take two tests--one measuring self-concept and the other measuring attitude toward reading. The tests will require approximately one-half hour of his/her time and will be administered at school during the regular school hours. The identity of each participant will remain completely anonymous.

Thank you for your assistance.

Sincerely yours,

/s/

Principal**
Elementary School

/s/
Jewell C. Taylor, Director
Elementary Curriculum

/s/
Jack W. Robinson, Graduate Student
University of Arizona

*For two of the schools with a substantial number of Spanish speaking parents, the request was translated into Spanish at this point.

**Names of the six schools and their principals have been deleted for purposes of anonymity.

Approval Form

My third-grade child, _____, a student
at _____ Elementary School, has my
permission to participate in the research project as
described above.

(Parent or Guardian)

(Date)

Letters of Request and Permission to Use
the Self-Esteem Inventory (SEI)

5941 E. 23rd St.
Tucson, Arizona 85711
June 17, 1973

Dr. Stanley Coopersmith
Department of Psychology
University of California
Davis, California

Dear Dr. Coopersmith:

I am in the early stages of preparing my dissertation and am interested in examining a copy of your Self Esteem Inventory as a possible instrument for measuring the self esteem of third grade children. I am interested in norm tables, information about validity and reliability and instructions for properly administering the instrument.

I would appreciate a copy of the Inventory as well as information concerning duplicating fees. I have enclosed a self-addressed envelope for your convenience.

Yours truly,

/s/

Jack W. Robinson

August 6, 1973*

Mr. Jack W. Robinson
5941 East 23rd Street
Tucson, Arizona 85711

Dear Mr. Robinson:

Thank you for your recent inquiry regarding the Self-Esteem Inventory and Behavior Rating Form. Enclosed you will find a memorandum describing the procedures we have developed for assessing self-esteem and the methods of administration, scoring and interpretation. Further information is contained in my book, The Antecedents of Self-Esteem (W. H. Freeman).

I do not have copies of the Inventory and Rating Form for sale but make them available for research purposes. If your study is intended as an investigation of self-esteem, you have my permission to reproduce and duplicate the enclosed copies of the tests. You also have my permission to modify the tests for the purposes of your specific study as long as the modifications are noted in your write-up of the results.

I should appreciate learning the results of the study you conduct. If I can be of further assistance, let me know. Best wishes.

Sincerely,

/s/

Stanley Coopersmith

SC:dds

Enclosure

*Copy of original letter.

5941 E. 23rd St.
Tucson, Arizona 85711
June 17, 1973

W. H. Freeman and Company, Publishers
660 Market Street
San Francisco, California 94104

Dear Sirs:

I am in the early stages of preparing my dissertation. I am seeking your permission to use the Self-Esteem Inventory and the Behavior Rating Form from The Antecedents of Self-Esteem by Stanley Coopersmith for measuring the self-esteem of students during my research.

I would also appreciate information as to any restrictions you have as to the use of these instruments as well as information about acknowledgments which should be made and the form for so doing.

I have enclosed a self-addressed envelope for your convenience in responding to this inquiry.

Yours truly,

/s/

Jack W. Robinson

July 9, 1973*

Mr. Jack W. Robinson
5941 E. 23rd Street
Tucson, Arizona 85711

Dear Mr. Robinson:

You have our permission to use the "Self-Esteem Inventory" and the "Behavior Rating Form" from THE ANTECEDENTS OF SELF-ESTEEM by Stanley Coopersmith provided you will agree to the following conditions:

1. Use of this material is restricted to your dissertation.
2. The following acknowledgment shall be made on the pages of your dissertation where the material appears:

"From THE ANTECEDENTS OF SELF-ESTEEM by Stanley Coopersmith. W. H. Freeman and Company. Copyright © 1967.

3. Normally we ask that a copy of the work be mailed to our Permissions Department. In the case of a dissertation, however, the page or pages on which the Coopersmith material appears with acknowledgment would be sufficient.

If your material is ever published commercially, you will have to apply again for permission.

Sincerely,

/s/

Marilyn Kelso
Permissions

*Copy of original letter.

APPENDIX B

THE RESCHLY-SABERS EDUCATIONAL BELIEFS INVENTORY
WITH INSTRUCTIONS FOR SCORING
AND INTERPRETING

Educational Beliefs Inventory

INSTRUCTIONS: Circle the number that best represents your agreement with the corresponding statement: SA, strongly agree; N, neutral; SD, strongly disagree.

	SA		N		SD
- 1. School should serve the wishes and needs of adults rather than the wishes and needs of children.	1	2	3	4	5
+ 2. Children are innately curious and will explore their environment without adult intervention.	1	2	3	4	5
- 3. Children should learn to distinguish between work and play as a means of facilitating their learning.	1	2	3	4	5
- 4. Children need adult guidance and supervision in selecting learning activities.	1	2	3	4	5
+ 5. Exploratory behavior is self-perpetuating.	1	2	3	4	5
- 6. Direct experiences with objects should follow verbal abstractions not precede them or substitute for them.	1	2	3	4	5
+ 7. Children will learn better if they are given considerable choice in the selection of the materials they wish to work with and in the choice of questions they wish to pursue with respect to those materials.	1	2	3	4	5
- 8. Classroom tests of performance usually enhance a child's program in learning.	1	2	3	4	5
- 9. The key test of a quality education is in the domain of cognitive ability rather than affective learning.	1	2	3	4	5
+ 10. The structure of knowledge is personal and idiosyncratic.	1	2	3	4	5

	SA	N	SD			
+ 11.	Little or no knowledge exists which is essential for everyone to acquire.	1	2	3	4	5
- 12.	Children are more likely to learn when activities are carefully defined and sequenced for them.	1	2	3	4	5
+ 13.	Children have both the competence and the right to make significant decisions concerning their own learning.	1	2	3	4	5
- 14.	Whenever possible children should be protected from making errors, since errors often reduce motivation and usually get the children on the wrong track, which is difficult to overcome.	1	2	3	4	5
+ 15.	If a child is fully involved in and is having fun with an activity, learning is taking place.	1	2	3	4	5
- 16.	Children are naturally more competitive than cooperative and therefore, must be taught to collaborate in pursuing problems of mutual interest.	1	2	3	4	5
+ 17.	Children learn and develop intellectually not only at their own rate, but in their own style.	1	2	3	4	5
+ 18.	Those qualities of a person's learning which can be carefully measured are not necessarily the most important.	1	2	3	4	5
- 19.	Most learning is best assessed by objective measures.	1	2	3	4	5
+ 20.	The final test of an education is what a child becomes, not what he knows.	1	2	3	4	55
P 21.	We should fit the curriculum to the child and not the child to the curriculum.	1	2	3	4	5
T 22.	Children need and should have more supervision and discipline than they usually get.	1	2	3	4	5

	SA	N	SD		
T 23.	The true view of education is to arrange learning so that the child gradually builds up a storehouse of knowledge that he can use in the future.				
	1	2	3	4	5
P 24.	The public school should take an active part in stimulating social change.				
	1	2	3	4	5
T 25.	Teachers should keep in mind that pupils have to be made to work.				
	1	2	3	4	5
P 26.	The goals of education should be dictated by children's interests and needs, as well as by the demands of society.				
	1	2	3	4	5
T 27.	Subjects that sharpen the mind, like mathematics and foreign languages, need greater emphasis in the public school curriculum.				
	1	2	3	4	5
P 28.	Standards of work should not be the same for all pupils; they should vary with the pupil.				
	1	2	3	4	5
T 29.	Since life is essentially a struggle, education should emphasize competition and the fair competitive spirit.				
	1	2	3	4	5
P 30.	Education and educational institutions must be sources of new social ideas.				
	1	2	3	4	5
T 31.	Schools should teach children dependence on higher moral values.				
	1	2	3	4	5
T 32.	The curriculum consists of subject matter to be learned and skills to be acquired.				
	1	2	3	4	5
T 33.	Schools of today are neglecting the three R's.				
	1	2	3	4	5
P 34.	True discipline springs from interest, motivation, and involvement in live problems.				
	1	2	3	4	5

	SA	N	SD		
P 35.	Emotional development and social development are as important in the evaluation of pupil progress as academic achievement.				
	1	2	3	4	5
T 36.	Teachers need to be guided in what they are to teach. No individual teacher can be permitted to do as he wishes, especially when it comes to teaching children.				
	1	2	3	4	5
P 37.	Right from the very first grade, teachers must teach the child at his own level and not at the level of the grade he is in.				
	1	2	3	4	5
P 38.	Learning is experimental; the child should be taught to test alternatives before accepting any of them.				
	1	2	3	4	5
P 39.	Children should be taught that all problems should be subjected to critical and objective scrutiny, including religious, moral, economic, and social problems.				
	1	2	3	4	5
T 40.	The organization of instruction and learning must be centered on universal ideas and truths if education is to be more than passing fads and fancies.				
	1	2	3	4	5
T 41.	Each subject and activity should be aimed at developing a particular part of the child's makeup; physical, intellectual, social, moral, and spiritual.				
	1	2	3	4	5
T 42.	The curriculum should contain an orderly arrangement of subjects that represent the best of our cultural heritage.				
	1	2	3	4	5
P 43.	Teachers should encourage pupils to study and criticize our own and other economic systems and practices.				
	1	2	3	4	5

	SA		N		SD
T 44. One of the big difficulties with modern schools is that discipline is often sacrificed to the interests of children.	1	2	3	4	5
T 45. What is needed in the modern classroom is a revival of the authority of the teacher.	1	2	3	4	5
P 46. The healthy interaction of pupils one with another is just as important in school as the learning of subject matter.	1	2	3	4	5
P 47. Learning experiences organized around life experiences rather than around subjects is desirable for our schools.	1	2	3	4	5
P 48. It is more important that the child learn how to approach and solve problems than it is for him to master the subject matter of the curriculum.	1	2	3	4	5
P 49. The learning of proper attitudes is often more important than the learning of subject matter.	1	2	3	4	5
T 50. Learning is essentially a process of increasing one's store of information about the various fields of knowledge.	1	2	3	4	5

Name (not necessary)

School _____ Grade _____

Instructions for Scoring and Interpreting
the Reschly-Sabers Educational
Beliefs Inventory

The Educational Beliefs Inventory contains 50 items which are to be responded to on a 5-point Likert-type scale. It consists of two separate parts--the first 20 statements measure educational beliefs considered either open or not open while the final 30 statements measure educational beliefs considered either progressive or traditional.

Either part (items 1-20 or items 21-50) may be administered separately or the entire inventory may be administered with one part serving as an intra-test check on the validity of the other part.

Scoring the Inventory

The two subtests should be scored separately. Statements are keyed as positive or negative or progressive or traditional on the copy of the Inventory included in this Appendix.

To tabulate scores, follow this procedure for the first 20 statements:

1. "+" items - add scores
2. "-" items - reverse scores and add
3. Add total "+" score to total "-" score

For statements 21-50, tabulate as follows:

1. "P" items - reverse scores and add
2. "T" items - reverse scores and add
3. Subtract total "T" score from total "P" score

Items not marked by the examinee should be assigned a value of 3 (neutral).

Interpretation of Results

For the 20 open education items, scores should range from 20 to 100 (the lower the score, the more "open" the result).

For the 30 progressive-traditional items, a positive result indicates progressive beliefs while negative results indicate traditional beliefs. Scores may range from +90 to -90 (the more extreme the score, the more extreme the belief).

Norms

In work with a group of 152 night students at The University of Arizona, Reschly and Sabers (aided by Keith Meredith) established reliability coefficients for their Inventory as follows:

"+" (10 items)	- .60
"-" (10 items)	- .54
"P" (15 items)	- .76
"T" (15 items)	- .79
Total (50 items)	- .69

(These figures are considered by the authors to be acceptable for an attitude inventory.)

APPENDIX C

THE SELF-ESTEEM INVENTORY (SEI)* WITH
INSTRUCTIONS FOR SCORING
AND INTERPRETING

*From THE ANTECEDENTS OF SELF-ESTEEM by Stanley
Coopersmith. W. H. Freeman and Company. Copyright ©
1967.

Self-Esteem Inventory (SEI)

Please mark each statement in the following way:
If the statement describes how you usually feel, put a check (✓) in the column "LIKE ME." If the statement does not describe how you usually feel, put a check (✓) in the column "UNLIKE ME." There are no right or wrong answers.

	LIKE ME	UNLIKE ME
1. I spend a lot of time daydreaming. _____		✓
2. I'm pretty sure of myself. _____	✓	
3. I often wish I were someone else. _____		✓
4. I'm easy to like. _____	✓	
5. My parents and I have a lot of fun together. _____	✓	
6. I never worry about anything. _____		✓
7. I find it very hard to talk in front of the class. _____		✓
8. I wish I were younger. _____		✓
9. There are lots of things about myself I'd change if I could. _____		✓
10. I can make up my mind without too much trouble. _____	✓	
11. I'm a lot of fun to be with. _____	✓	
12. I get upset easily at home. _____		✓
13. I always do the right thing. _____		✓
14. I'm proud of my school work. _____	✓	
15. Someone always has to tell me what to do. _____		✓
16. It takes me a long time to get used to anything new. _____		✓
17. I'm often sorry for the things I do. _____		✓
18. I'm popular with kids my own age. _____	✓	

LIKE ME UNLIKE ME

19.	My parents usually consider my feelings. _____	✓	
20.	I'm never unhappy. _____		✓
21.	I'm doing the best work that I can. _____	✓	
22.	I give in very easily. _____		✓
23.	I can usually take care of myself. _____	✓	
24.	I'm pretty happy. _____	✓	
25.	I would rather play with children younger than me. _____		✓
26.	My parents expect too much of me. _____		✓
27.	I like everyone I know. _____		✓
28.	I like to be called on in class. _____	✓	
29.	I understand myself. _____	✓	
30.	It's pretty tough to be me. _____		✓
31.	Things are all mixed up in my life. _____		✓
32.	Kids usually follow my ideas. _____	✓	
33.	No one pays much attention to me at home. _____		✓
34.	I never get scolded. _____		✓
35.	I'm not doing as well in school as I'd like to. _____		✓
36.	I can make up my mind and stick to it. _____	✓	
37.	I really don't like being a boy--girl. _____		✓
38.	I have a low opinion of myself. _____		✓
39.	I don't like to be with other people. _____		✓
40.	There are many times when I'd like to leave home. _____		✓

LIKE ME UNLIKE ME

41. I'm never shy. _____		✓
42. I often feel upset in school. _____		✓
43. I often feel ashamed of myself. _____		✓
44. I'm not as nice looking as most people. _____		✓
45. If I have something to say, I say it. _____	✓	
46. Kids pick on me very often. _____		✓
47. My parents understand me. _____	✓	
48. I always tell the truth. _____		✓
49. My teacher makes me feel I'm not good enough. _____		✓
50. I don't care what happens to me. _____		✓
51. I'm a failure. _____		✓
52. I get upset easily when I'm scolded. _____		✓
53. Most people are better liked than I am. _____		✓
54. I usually feel as if my parents are pushing me. _____		✓
55. I always know what to say to people. _____		✓
56. I often get discouraged in school. _____		✓
57. Things usually don't bother me. _____	✓	
58. I can't be depended on. _____		✓

Instructions for Scoring and Interpreting
the Self-Esteem Inventory (SEI)

The Self-Esteem Inventory contains 58 items. It provides a general assessment of self-esteem which may be broken down into component subscales depending on the goals and interest of the tester but which may also be used without such differentiation.

There are five subscales which cycle in sequence the length of the SEI. These subscales are:

General Self	Items 1, 2, 3, 8, 9, 10, 15, 16, 17, etc.
Social Self-peers	Items 4, 11, 18, 25, 32, 39, 46, 53
Home-parents	Items 5, 12, 19, 26, 33, 40, 47, 54
Lie Scale	Items 6, 13, 20, 27, 34, 41, 48, 55
School-academic	Items 7, 14, 21, 28, 35, 42, 49, 56

As noted above the subscales do not have to be scored separately with the exception of the Lie Scale. The responses indicating high self-esteem and low Lie, defensive reactions are noted on the enclosed scored copies of the SEI.

The scores are reported as:

- I. Total number correct of all scales excluding Lie (a maximum of 50).
- II. A separate score total number of responses indicative of defensive, Lie reaction (a maximum of 8).

For convenience sake the total SEI score is multiplied by two so that maximum score is 100. Thus

$$\begin{array}{rcl} \text{SEI score } 50 & \times & 2 = 100 \\ \text{Lie score } 8 & & = 8 \end{array}$$

In the event that separate subscales for a given purpose are desired the responses are scored and noted separately in the same manner as the Lie Scale.

Age Range

Has been used without difficulty on a group basis with populations ranging from 9 to adult level. Older groups are not comfortable with the wording of several items which may accordingly be altered to suit the sample. College student samples have not indicated any resistance to the present wordings. In samples with children younger

than 9 or where the educational experience has not resulted in an average reading or conceptual level, rewording and/or individual administration may be required.

Sex

The two forms are used for both males and females. In most studies there were no significant differences between the esteem level of males and females tested.

Distribution

In most samples the curve is skewed in the direction of high self-esteem. The means have been in the vicinity of 70-80 and the standard deviations approximately 11-13. More specific information is reported by Coopersmith (1967). Quite obviously there are no exact criteria of high, medium, and low self-esteem. This will vary with the sample, distribution, theoretical considerations, etc. Employing position in the group as an index of relative self-appraisal Coopersmith has employed the upper quartile as indicative of high esteem; lower quartile as indicating low esteem and the interquartile range as indicative of medium esteem.

Norms: SEI preadolescents (9-15) = 70.1 females
72.2 males

SEI young adults (16-23) = 76.0.

APPENDIX D

AN INVENTORY OF READING ATTITUDE WITH INSTRUCTIONS
FOR SCORING AND INTERPRETING

An Inventory of Reading Attitude
(Standardization Edition)

Name _____

School _____

Date _____
 Month Day Year

TO BOYS AND GIRLS:

This sheet has some questions about reading which can be answered Yes or No. Your answers will show what you usually think about reading. After each question is read to you, circle your answer.

SAMPLE

Draw a circle around YES or NO, whichever shows your answer.

Sample A

Yes No Do you like to read?

If you like to read, you should draw a circle around the word YES in Sample A; if you do not like to read, you should draw a circle around the word NO.

Sample B

Yes No Do you read as well as you would like to?

If you read as well as you would like to, you should have drawn a circle around the word YES in Sample B; if no, you should have drawn a circle around the word NO.

- Yes No 1. Do you like to read before you go to bed?
- Yes No 2. Do you think that you are a poor reader?
- Yes No 3. Are you interested in what other people read?
- Yes No 4. Do you like to read when your mother and dad are reading?
- Yes No 5. Is reading your favorite subject at school?
- Yes No 6. If you could do anything you wanted to do, would reading be one of the things you would choose to do?
- Yes No 7. Do you think that you are a good reader for your age?
- Yes No 8. Do you like to read catalogues?
- Yes No 9. Do you think that most things are more fun than reading?
- Yes No 10. Do you like to read aloud for other children at school?
- Yes No 11. Do you think reading recipes is fun?
- Yes No 12. Do you like to tell stories?
- Yes No 13. Do you like to read the newspaper?
- Yes No 14. Do you like to read all kinds of books at school?
- Yes No 15. Do you like to answer questions about things you have read?
- Yes No 16. Do you think it is a waste of time to make rhymes with words?
- Yes No 17. Do you like to talk about books you have read?
- Yes No 18. Does reading make you feel good?
- Yes No 19. Do you feel that reading time is the best part of the school day?
- Yes No 20. Do you find it hard to write about what you have read?

- Yes No 21. Would you like to have more books to read?
- Yes No 22. Do you like to read hard books?
- Yes No 23. Do you think that there are many beautiful words in poems?
- Yes No 24. Do you like to act out stories that you have read in books?
- Yes No 25. Do you like to take reading tests?

An Inventory of Reading Attitude
Instructions to Teacher

An Inventory of Reading Attitude may be read orally by the teacher to the individual or the class group to which it is being administered. Children who are judged by the teacher to be able to read the test silently may do so.

The child should circle "Yes" or "No" immediately. There must not be any discussion. If a child does not understand a question, he can leave it blank.

Scoring of Inventory

"No" - Nos. 2, 9, 16, 20

"Yes" - all others

Interpretation of Results

Tabulate the results	Correct _____
	Incorrect _____

When the number of "correct" responses exceeds the number of "incorrect" responses, the child tends to have a favorable attitude toward reading.

When the number of "incorrect" responses exceeds the number of "correct" responses, the child tends to have an unfavorable attitude toward reading.

Key to Interpretation

Score

- 25-24 - superior attitude
- 23-20 - above average, no problem
- 19-15 - favorable, but needs attention and observation during reading instruction
- 14-11 - borderline attitude, may be a problem in reading achievement
- 10-7 - poor attitude, needs specific help in success experiences in reading
- 6 and below - attitude is a serious problem with the learner

APPENDIX E

SELECTION OF THE SELF-CONCEPT TEST

That self-concept is being recognized as a vital factor in the learning process is evidenced by the rapidly increasing number of instruments available to measure it.

During the search for a test to use in this study, more than seventy separate instruments were considered. (See Bibliography for source books.) The large portion of them were rejected as inappropriate for the following reasons:

1. Not appropriate for use with third graders.
2. Too lengthy.
3. Require more than one testing session.
4. Interpretation requires special training.
5. Require prerequisites before testing; i.e., training sessions or close relationship to testor.
6. Limited in purpose; i.e., measure only defensive tendencies or satisfaction with physical prowess or racial membership, etc.
7. Require special equipment.
8. Still in experimental stage; i.e., no norms, information on reliability, etc.

9. Seek overly precise degrees of choice for the purpose; i.e., rating scales.
10. Repeat items from different frame of reference; i.e., semantic differentials.

From the review of information available, the choice as to which test would be most appropriate for use in the present study was narrowed to eleven for which more complete information was requested from the separate authors. Final selection of the instrument used in this study (see description on page 42) was based on the elimination of the other ten as follows:

1. Self-Concept and Motivational Inventory (SCAMIN: Later Elementary). Reason: If an acceptable forced-choice instrument (yes-no) was available, a rating scale which requires more discreet judgment had not been desired for use with third grade students. Not only is this a rating scale (pictures) but measurement of self-adequacy is only one of four main factors assessed.
2. How I See Myself Scale: Elementary Form. Reason: This instrument is obviously a rating scale (see 1 above) and had been sent for only as insurance in case an acceptable forced-choice instrument was not found. In addition, in a letter responding to my inquiry, the author states a total lack of "data

fom anyone using the scale" and suggests a need for "improved understanding of its usefulness."

3. A Semantic Differential for the Measurement of Global and Specific Self-Concepts: Primary. Reason: A semantic differential, which rates a particular concept on each of several bipolar adjective scales, had not been desired if an appropriate forced-choice instrument was available. Though this instrument obtains results which correlate well with results obtained from the Coopersmith (SEI), correspondence from the author mentioned two factors which led to rejection of her instrument in the present study: (1) with small children it is necessary to "explain carefully any unfamiliar adjectives . . . and check frequently to be sure they understand it," and (2) "Remember, we neither assume nor expect a normal distribution on a scale such as this."
4. When Do I Smile? (a new test devised to replace How Much Like Me--the instrument requested but which is no longer used because it provided "little useful information"). Reason: Correspondence from American Institutes for Research indicated that the newer instrument--When Do I Smile?--"has not been subjected to normal tryout and validation procedures associated with a standardized instrument. Materials have been distributed only to educators who want to

use the inventory on an experimental basis and develop their own scoring and normative information."

5. Children's Self-Social Constructs Test: Primary Form. Reason: Educational Testing Service, the publishers, in response to the inquiry about this test stated that it is "not ready for distribution at this time."
6. Faces Scale. Reason: Dr. Frymier advised that his Scale "is still very much a research tool in a developmental phase, and though we have had some success with it, we have also had a number of problems."
7. Index of Adjustment and Values. Reason: Correspondence from Dr. Bills noted that, due to "renorming" of the instrument, "manuals are out of print and will not be available for the next several months."
8. The Piers-Harris Children's Self Concept Scale (The Way I Feel About Myself). Reason: This instrument could have been used instead of the one chosen. The test manual described correlations for both a two-month and a four-month test-retest of 244 fifth-graders. It further noted "appreciable correlations between the Piers-Harris and teacher and peer ratings of socially acceptable behavior (.43 and

.31)." The determining factors for not using it in the present study were as follows: (1) its length (80 items) which seemed unnecessarily long for use with third-grade children, especially since a shorter, yet equally reliable and valid instrument was available and (2) its cost (17¢ per copy) which was not required for the instrument chosen.

9. Self Concept Instrument--A Learner Scale. Reason: This instrument too might have been used in the present study. Test-retest reliability of .79 was reported for an interval of three weeks (though sample size was small--19 students) and teacher predictions of the student's "self picture" were "reasonably accurate." It was not used for two reasons, both of which favored the instrument finally selected: (1) shorter length (36 items) which would have resulted in smaller mean-score differences leading to less significant results with the selected sample size and (2) lack of a check for honesty.
10. The Children's Self-Concept Index. Reason: No response to the inquiry about this instrument was received from its author.

APPENDIX F

STUDENT TEST DATA

Matric #	School #	Scores								Matric #	School #	Scores							
		SEI										SEI							
		Total	GS	SSp	Hp	Lie	Sa	SAT	IRA			Total	GS	SSp	Hp	Lie	Sa	SAT	IRA
832841	21	78	40	16	12	01	10	079	14	833726	22	36	24	02	06	00	04	071	13
830795	21	60	32	10	12	01	06	065	10	832668	22	64	30	12	08	02	14	112	18
833622	21	52	24	14	06	01	08	085	08	832671	22	72	36	12	14	01	10	156	22
834875	21	50	24	10	06	00	10	146	09	832674	22	70	34	14	12	02	10	151	15
833632	21	52	28	10	08	02	06	053	12	820373	22	66	38	10	10	00	08	142	05
832805	21	58	28	12	08	03	10	048	14	832675	22	54	30	10	06	02	08	067	13
832823	21	62	32	10	12	04	08	061	21	832677	22	78	42	12	12	01	12	132	11
832808	21	76	38	16	12	02	10	081	14	832683	22	96	50	16	16	01	14	155	20
832826	21	48	26	10	04	04	08	074	13	832684	22	74	36	16	10	05	12	154	17
832834	21	78	38	16	12	03	12	105	13	832685	22	56	32	06	08	00	10	133	15
834364	21	74	38	16	10	03	10	054	17	820421	22	56	32	06	08	04	10	057	22
833836	21	58	28	10	12	02	08	146	11	832698	22	78	42	14	06	03	16	150	11
832797	21	62	34	08	08	00	12	145	14	832700	22	48	32	02	06	04	08	082	10
832799	21	60	30	08	10	01	14	109	19	832701	22	78	42	12	12	01	12	153	18
832895	61	76	36	12	16	06	12	074	10	834865	62	68	28	14	12	05	14	147	17
832897	61	60	32	08	12	01	08	147	21	835030	62	76	32	16	14	04	14	143	21
834517	61	96	50	16	16	02	14	061	08	832426	62	78	36	12	16	06	14	082	25
832908	61	84	46	08	14	02	16	099	17	831976	62	92	46	16	14	01	16	132	11
832912	61	56	36	04	10	01	06	153	11	831864	62	66	34	10	10	04	12	134	13
830014	61	74	42	10	12	05	10	038	18	832437	62	98	50	16	16	01	16	148	12
832910	61	72	36	10	14	01	12	068	12	830805	62	38	10	10	10	03	08	120	14
832915	61	80	44	12	12	02	12	137	09	834934	62	70	30	08	16	01	16	148	14
832928	61	68	32	12	12	02	12	128	10	834235	62	70	38	10	10	00	12	125	20
834710	81	44	24	08	08	01	04	106	06	832600	82	56	32	06	08	04	10	112	23
833938	81	68	38	10	12	00	08	150	18	832601	82	66	28	12	12	01	14	151	15
834920	81	92	48	16	16	06	12	136	16	833596	82	66	30	12	16	04	08	064	21
833084	81	40	20	04	12	03	04	154	12	832610	82	78	34	12	16	03	16	123	24
833088	81	52	26	08	12	03	06	133	11	832619	82	30	14	04	08	02	04	097	03
834713	81	64	28	14	10	05	12	133	19	832622	82	70	40	06	12	03	12	147	15
833095	81	68	40	06	12	04	10	148	11	832630	82	56	30	10	08	02	08	077	10
833096	81	58	26	14	06	04	12	139	24	832634	82	48	24	08	08	02	08	124	08
833100	81	76	36	12	16	02	12	062	11	832638	82	60	26	10	12	04	12	115	19
833117	81	56	30	08	10	03	08	142	14	833604	82	70	36	12	12	05	10	081	20
833757	81	70	42	10	12	07	06	107	19	832664	82	64	32	10	10	03	12	138	24

SEI = Self-Esteem Inventory; SAT = Stanford Achievement Test; IRA = An Inventory of Reading Attitude; GS, SSp, Hp, Lie, Sa = see Appendix C.

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