ABSTRACT

The study tests hypotheses derived from the proposition that open education promotes self-concept. The Sears Self-Concept Inventory, yielding scores in six self-concept "areas," was administered to 316 students, ages 9 to 12, from six suburban schools. The Walberg-Thomas Scales rated each school as to degree of openness. No significant difference in any of the six "areas" of self-concept was found between students in the open and those in the traditional groups. Significant differences in total self-concept were found between males in open and traditional schools, between males and females in open schools, and between open schools. No correlations were found between a school's openness and the students' self-concept. (Author)
A COMPARISON OF OPEN AND TRADITIONAL EDUCATION:

CONDITIONS THAT PROMOTE SELF-CONCEPT

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The methodology of this research was an in-depth study, it is not an experiment. The author administered no pre-test and therefore can claim no cause-effect relationship. This presentation is based on intensive observations over the period of seven months and on the results of several instruments that were employed.

This research was designed to examine Open Education and the self-concept of students. Open schools were initially identified by consulting experts in the field and through questionnaires to administrators in the state of Connecticut. All schools in Connecticut exemplifying the Open Education concept through grade six or age thirteen were identified. A checklist of conditions that exemplified Open Education was developed from the available literature by the author and validated by a panel of judges. This checklist was used for the initial screening of the identified Open Schools.

Students were chosen from ages 9 to 12, since by this time the individual appears to have sufficient experience and the ability to think abstractly, so he can make general assessment of his powers. Further, the period is one of relative stability in academic and social affairs and is marked by fewer stresses and demands than the ensuing period of adolescence.

On visiting the various schools and using the above checklist, only three were identified as having "arrived" as Open Schools and whose students were exposed to the Open Education environment since they entered school. The rest of the schools either were in the process of becoming "Open" or had changed recently enough that students would have been exposed to a more traditional setting earlier in their school careers. The additional factor of teacher competence as an Open Educator was dealt with by using professionals who had taught in the Open Education environment for several years and were considered expert by the headmaster or principal in the processes.

The identified schools were all private, suburban, and upper middle class in nature. Thus, race, neighborhood setting, and socioeconomic level were hopefully similar.

The Traditional schools were private, suburban and upper middle class in nature. They had approximately the same teacher-student ratio. Each declared they did not exemplify and were not proponents of Open Education.

3. Coopersmith. op cit., p.8
On consulting with personnel from the Educational Development Center in Newton, Mass., the author discovered an instrument to differentiate Open Education had already been devised and at that time was being validated. The framework of this instrument was in keeping with this author's work to date and it was decided to use this tool instead of the checklist previously mentioned.

The teachers in each school were rated for openness, using the Walberg-Thomas Observation Scale and Teacher Questionnaire. A t-test was used to analyze if the two groups were different in regard to rated degree of openness. Both the Observation Scale and Teacher Questionnaire indicate a significant difference (p.< .001) between the identified groups of schools.

**OBJECTIVES**

The following objectives were formulated for this study:

1. Examine differences in self-concept for Ss experiencing Open and Traditional Education.

2. Determine if differences in self-concept exist between males and females in Open and Traditional Education.

3. Determine if differences in self-concept exist between schools within a set of Open Schools and within a set of Traditional Schools.

4. Determine if a relationship exists between the rated degree of openness of a school and the measured self concept of the Ss.

5. Identify conditions that exist in Open and Traditional Schools that promote growth in self-concept.

**HYPOTHESES**

Statistical hypotheses were formulated for the first four objectives.

Null Hypothesis 1: There will be no difference between Open and Traditional students on the following dependent variables:

1) Self-Concept (Total)
2) Academic-Concept
3) Social Concept
4) Teacher Relations
5) Satisfaction
6) Improvement
Null Hypothesis 2: There will be no difference between male and female students on the following dependent variables:

1) Self-Concept (Total)
2) Academic-Concept
3) Social-Concept
4) Teacher Relations
5) Satisfaction
6) Improvement

Null Hypothesis 2a: There will be no difference in any combination of cell means (male open, male traditional, female open, female traditional) for the following dependent variables:

1) Self-Concept (Total)
2) Academic-Concept
3) Social-Concept
4) Teacher Relations
5) Satisfaction
6) Improvement

Null Hypothesis 3: There will be no difference between schools in each group on the following dependent variables:

1) Self-Concept (Total)
2) Academic-Concept
3) Social-Concept
4) Teacher Relations
5) Satisfaction
6) Improvement

Null Hypothesis 4: No significant relationship exists between a school's total openness (OS + TQ) and the following dependent variables:

1) Self-Concept (Total)
2) Academic-Concept
3) Social-Concept
4) Teacher Relations
5) Satisfaction
6) Improvement

INSTRUMENTATION

Three instruments were used to collect the data for this study. One measured self-concept; while the other two rated classrooms for degree of openness, one being an observation scale, the other a teacher questionnaire.
Measure of self-concept -- The method used to measure students' self-concept was the Sear's Self-Concept Inventory. The instrument is a group administered questionnaire. It is designed to cover ten components of self-concept: physical ability, mental ability, social relations with same sex, social relations with opposite sex, attractive appearance, social relations with teacher, work habits, social virtues, happy qualities, and school subjects. The child's (1) satisfaction with himself in each area, (2) his prediction as to whether he will or will not improve, and (3) his self rating in comparison to other members of the class are readily obtainable from an approximately one hour testing session per class. The areas in the inventory were derived from a composition a 6th grade class wrote on "The Kind of Person I Am and The Kind of Person I Want To Be." Those areas which the children tended to mention with relative frequency were included in the test and many statements were used verbatim.

Ten items are assigned to each of the ten categories, all being given equal weight in terms of their contribution to the total category score. The items are arranged in cyclical fashion in the 100-item test. Those relating to physical ability are numbered 1, 11, 21, etc. Those relating to mental ability are 2, 12, 22, etc.

Three types of scores are directly attainable: (1) For Satisfaction Score the student checks "yes" or "no" the question "Am I pretty well satisfied with myself in this?" All "yes" answers are tallied for a percentage score; (2) For Improvement Score the child checks "I think I made some improvement" or "I probably didn't make any change" to the question "How much improvement do I think I have made during the year." The "I think I made some improvement" column is tallied for a percentage score; (3) For "Compared to others in my class, how do I rate now?" the child may choose one of five responses: "Very good" (scored 5); "Better than a good many" (scored 4); "Better than average" (scored 3); "Fair" (scored 2); and "Not very good" (scored 1). The overall mean or total score of this area is considered the "self-concept" score. In addition, several "area" scores are available. Academic-concept is found by averaging "mental ability" and "school subjects." Social concept is found by averaging "social relations same sex," "social relations opposite sex," and "social virtues." Teacher relations is a subscore.

Split-half reliabilities, based on one class of sixth graders were:

<table>
<thead>
<tr>
<th>Score Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall mean self-rating</td>
<td>.95</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>.94</td>
</tr>
<tr>
<td>Improvement</td>
<td>---</td>
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</tbody>
</table>

The instrument was originally developed by Pauline Sears: for The Effects of Classroom Conditions on the Strength of Achievement Motive and Work Output on Elementary School Children (Stanford: Stanford University Press, 1963). Cooperative Research Project No.0E873. Much of the following description is drawn from that source.
Rating Schools as to Degree of Openness - The methods used to rate schools as to degree of openness were the Walberg-Thomas Open Education Observation Scale and Teacher Questionnaire. In developing these instruments Walberg and Thomas reviewed the major works on Open Education for concrete examples of eight themes: provisioning for learning; humaness, respect, openness and worth; diagnosis of learning events; instruction, guidance, and extension of learning; evaluation of diagnostic information; seeking opportunities for professional growth; self-perception of teacher; assumptions about children and learning processes. Those examples found were recorded under each theme. Based on these quotations, 106 specific statements were drafted which were intended to define explicitly Open Classroom characteristics. A total of 29 nationally prominent Open Educators responded to a request to agree or disagree with statements and to criticize and suggest changes. From their reactions, the original items were revised and 50 items were formulated for inclusion on an Observation Rating Scale and a parallel Teacher Questionnaire. The number of items for each theme reflects the attention given to the theme in the original writers and the extent of agreement by the panel of experts as well as meeting the criterion of possible observability. To diminish response set in drafting the final set of scales, some items were stated negatively so that agreement would imply Traditional Classroom characteristics. The format for the questionnaire is a 4-point (Strongly disagree, disagree, agree, strongly agree) format; and the observation rating is also a 4-point scale (no evidence; weak, infrequent evidence; moderate, occasional; and strong frequent evidence). Scoring is done by totaling the scaled value of each item.

From a sample of 21 United States Open Schools, 22 United States Traditional Schools, and 20 Infant (Open) Schools in Great Britain, a canonical correlation of .86 (p < .001) was computed between the 8 observations scales and the 8 questionnaire scales, six of the 8 simple correlations between corresponding scales were significant (p < .05). The two scales that are non-significantly correlated across methods are Seeking and Assumptions, probably subject to acquiescent response bias. Aside from this exception the scales clearly distinguished Open from Traditional Classes in the samples tested; but no difference was found between the English and American Open Schools.


6 Ibid, pg.204
DATA COLLECTION

The investigator identified and studied three Open Schools, 126 students (53 males, 73 females), and three Traditional Schools, 156 students (73 males, 83 females). All students were ages 9 to 13.

The Sear's Self-Concept Inventory was administered to all students on a group basis from March 21 to March 28, 1972. Through various combinations of the resulting ten subscores of self-concept, the investigator obtained "area" score for: (1) Self-Concept (total score); (2) Academic Concept; (3) Social Concept; (4) Teacher Relations; (5) Satisfaction; and (6) Improvement.

The Walberg-Thomas Teacher Questionnaire was given to each teacher at the same time the self-concept instrument was administered to the children. The Observation Scale was completed by the investigator after at least 6 observations of each teacher. These observations took place between February 1972 and June 1972.

ANALYSES

Objectives 1 and 2 were examined by performing six two-way ANOVA'S.

Objective 2a was examined by performing Chi Square tests between the means of each cell of each ANOVA. This analysis enabled the investigator to determine if sex differences were manifest within the Open and Traditional Groups for each of the six "areas".

Objective 3 was examined by performing a one-way ANOVA on each group, Open and Traditional, for each of the six "areas" of self-concept. The Scheffe' post hoc t-test was used to determine where the differences occurred.

Objective 4 was investigated by generating correlations to examine relationships between the rated degree of openness of each school and the mean score of the students of that school in each of the six "areas" of self-concept.

RESULTS AND DISCUSSION

No significant difference was found between students experiencing Open and Traditional Education in any of the six "area" of self-concept identified by the Sear's Self-Concept Inventory. Therefore the author failed to reject all six components of Hypothesis 1.
Two components of Hypothesis 2 were rejected ($p < .01$): (1) No difference exists in self-concept (total), as measured by the Sear's Self-Concept Inventory, between males and females; and (2) No difference exists in academic-concept, as measured by the Sear's Self-Concept Inventory between males and females. Both hypothesis were rejected in favor of the males.

Two sub-hypothesis may be rejected ($p < .05$): (1) No difference in self-concept (total), as measured by the Sear's Self-Concept Inventory, exists between males in Open Education and females in Open Education; and (2) No difference in self-concept (total), as measured by the Sear's Self-Concept Inventory, exists between males in Open Education and males in Traditional Education ($p < .05$). In both cases the hypothesis was rejected in favor of the males in Open Education. No difference was found between the females in the Open group and the females in the Traditional group. Further comparisons indicate no self-concept difference exists between the males in the Traditional group and the females in the Traditional group.

These differences and lack of differences tend to indicate that males in Open Education show a more positive self-concept which may be associated with exposure to Open Education. Controlled experimentation is needed however, before any causal relationship can be asserted.

Research in the area of self-concept would seem to indicate that if differences were to be found, they would appear stronger for males. One of the more comprehensive studies of self-concept by Coopersmith 7 used only male subjects because initial investigations indicated male self-concept differed to a greater degree than females. In another intensive study of the adolescent, Rosenberg 8 indicates that males have a tendency to be influenced to a greater degree by significant others than females.

Purkey 9, reviewing the literature, cites the tendency to use only boys to be based on past studies that indicated relationship between self-concept and success or lack of success appear stronger for boys. Campbell 10

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10 Paul Campbell, "Self-Concept and Academic Achievement in Middle Grade P-2nd School Grades." (U. S. Disseminated Ed. dissertation, Wayne State University), p 5.
Bledsue, Fink, and Clifford all indicate in their research that academic achievement seems more strongly linked with self-concept for males.

Hypothesis 3: No difference of self-concept (total), as measured by the Sear's Self-Concept Inventory exists among the Open Schools may be rejected (p < .05) The Scheffe' Test was employed to ascertain which school differed. Differences were also found between Traditional Schools and two sub-hypothesis were rejected: (1) No difference in academic concept, as measured by the Sear's Self-Concept Inventory, exists among the Traditional Schools (p < .01) and (2) No differences in improvement, as measured by the Sear's Self-Concept Inventory, exists among Traditional Schools (p < .05). The Scheffe' Test was again employed to identify the difference. It is of interest that the Open Schools differed on the total score while the Traditional Schools varied only on sub-scores.

The above data indicates that differences exist within the set of Open and within the set of Traditional Schools. Because the schools within the Open Group varied as to the degree they exemplified the Open Education success and the schools within the Traditional group exemplified several of the Open Education processes, the investigator questioned whether the rated degree of Openness of each school and any of the "six" areas of self-concept were related.

The Walberg Thomas Teacher Questionnaire and Observation Scale were correlated r = .81, p < .05) and thus combined for a total score. Correlations were then generated between each of the six "areas" of self-concept and this score. No significant relationship was found between the rated degree of openness of a school and any of the six "areas" of self-concept for this sample. For a larger sample some of the obtained correlations may have been significant.

Since one of the objectives of this study was the identification of conditions that are associated with high self-concept, the author identified the two highest schools according to the Sear's Self-Concept Inventory and attempted to elaborate on what differences he observed in these schools as opposed to the lower rating schools.

CONDITIONS THAT PROMOTE GROWTH OF SELF-ESTEEM

Schools C and Z generally ranked higher in all "areas" of self-concept. From observation of these nine classrooms, using Walberg and other researchers' work:

13 Margaret Clifford, Children's Perceptions of Their Academic Ability and Achievement Accountability (Washington, D.C.; Office of Education, Department of Research), 1971.
Thomas' instrument and Coopersmith's study as guidelines the investigator identified conditions he believes differentiated these rooms from those of schools A, B, X, and Y.

School C is Open, Z is Traditional. In addition to ranking one and two on the Sear's Self-Concept Inventory they were significantly different from their respective groups; C in self-concept (total), Z in academic-concept and improvement. T-tests of the six "areas" of self-concept as measured by the Sear's Self-Concept Inventory produced no differences between the schools. This led the investigator to believe the conditions he was looking for existed in all classrooms and the variance was due to the degree of existence rather than existence itself.

The most readily recognizable characteristic was structure in the form of negatively stated rules of conduct. For the most part teachers in Schools C and Z had a clear idea of what was reasonable, rational, and appropriate behavior for this age group. They clearly defined and enforced what the student should not do. These openly expressed rules and restraints provided a framework for discussion and seemed to require less supervision and restriction by the teacher. Because they were stated and accepted, the rules seemed to free the teacher and the children to carry on the business of education. The teachers spent less time telling the students what he could or could not do and more time in conversation with children. The children operated within the rules, having a clear idea of what they couldn't do. Too often in the other schools rules seemed to indicate what could be done. In schools C and Z rules seemed to have a settling effect.

On the contrary, in rooms where clear, negatively stated, reasonable rules were absent, both the teacher and the children seemed uneasy. Each felt threatened, unsure of their role, and spent a great deal of time defending their particular "right".

Rules point out to the student how others judge his behavior, thus giving meaning and purpose to social behavior and a sense of community. Once the meaning is internalized, it enables the child to judge for himself the norms of the group and their expectations, thus pointing to positive action and self-definition. Ambiguity is removed. Instead of having to decipher cues of others, the student depends on himself as the judge, leaving a clear path to the ends he has in mind.

The second characteristic was mutual respect and acceptance. In schools C and Z, the teachers generally exhibited a tremendous amount of courtesy and respect to each student. The students reciprocated the courtesy and respect to the teacher and extended it to their fellow classmates. It seemed that the teacher's basic attitude toward a child affected her perceptions and behavior toward that child. Cues are transmitted
to the child in many ways and affects both his reputation and the way he treats others. A basic requisite for the teacher would be genuine respect and acceptance of all men.

The third characteristic is honesty of relationships. Teachers in Schools C and Z were not afraid to be themselves. They made themselves "transparent" to the students and the investigator alike. They did not spend any time or energy maintaining a facade. Because they accepted one another for what they were, they expected the same treatment. The results were an openness and honesty that left little room for hostile or defensive behavior.

The fourth characteristic exemplified by teachers in Schools C and Z was a demand for excellence. All the teachers carried a high opinion of each student and demanded he produce at his optimum level. School work and learning, as well as children, were to be respected and valued. Pride was put into each unique project. Only the best—contingent upon ability—was acceptable. School was a very serious task, where the serious business of learning took place. Anything less than total effort was not considered appropriate. The students seemed to interpret this as the teacher cared what they did. The teacher had a very real concern for their work.

The above statements are, of course, generalizations but this author feels they did differentiate to a large degree the schools where high self-concept was found and those that were not as high.

The author believes these conditions can and do exist as a natural part of good Open Education. The two analytical studies of Open Education to date: An Analysis of Open Education by Bussis and Chittenden and Characteristics of Open Education by Walberg and Thomas allude to these conditions throughout their writings. In Bussis and Chittenden's conceptualization of the role of the Open Education teacher, they cite among their general themes: honesty of encounters, respect for persons, warmth and ideas related to the perception of self. Walberg and Thomas in their definition of characteristics of Open Educators list humanness and self-perception as two of the eight basic themes. Open Education is basically defined to include these conditions.


15 Herbert J. Walberg and Susan Thomas: Characteristics of Open Education Toward an Operational Definition. (Unpublished report for Educational Development Center Pilot Communities Program, Newton,Mass. 1971) p 70.
School Z is a Traditional School that rated low in the Walberg-Thomas instrument. On investigating the results of the Walberg-Thomas Observation Scale and Teacher Questionnaire, it was found School Z was extremely low in the area of Provisioning for Learning. The Walberg-Thomas instrument leans heavily toward this area in defining Open Education. Of the original 108 characteristics defined in their study, 29 have to do with Provisioning for Learning, with only 17 falling under the heading of Humanness (a composite of Honesty of Encounters, Respect for Persons and Warmth). The Observation Scale and Questionnaire is composed of statements that are easily observable which result in an emphasis of physical set-up or provisioning and a de-emphasis on the question of Humanness, since it cannot be as easily observed. As a result, only 4 of the 50 items on the scale deal with humanness while 25 deal with provisioning for learning. As a result, School Z has many Open characteristics that don't show up on this particular instrument. It is the author's opinion that School Z is weak in the area of Provisioning for Learning and as a result is not accurately evaluated on Walberg-Thomas Scale.

CONCLUSION

This author believes Open Education itself will not promote self-concept, but the possibility for growth is better in the Open setting than in the Traditional one. The four conditions thought to promote growth in self-concept seem to be part of the definition of Open Education but relatively removed from the central processes of Traditional Education.