The self concept of fourth (N=9), fifth (N=9), and sixth (N=6) grade children, using Gordon's How I See Myself Scale, were compared in the open and traditional school environments to determine if open-school students' scores would be significantly higher in composite self concept and in each of the factors of Autonomy, Interpersonal Adequacy, Academic Adequacy, and Teacher-School. Students from both types of schools were matched on the basis of grade and Stanford Achievement Word Meaning scores. The results did not support the hypothesis, nor did they support the claims of "open" schooling advocates. One factor, Teacher-School, appeared to be the most amenable to modification by an open schooling treatment. The subject population of this study was not large and doubt is expressed about using a single criterion, that is, self concept, for evaluating schools. (JS)
PUPIL SELF CONCEPT IN AN "OPEN" SCHOOL AND IN A "TRADITIONAL" SCHOOL

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School along with family, friends, and play-peers represents an important segment of the real world to a child. In these settings he learns how to view himself and others as well as intellectual academic matters. The exact strength of the school as a factor contributing to variance on achievement and other criterion measures is controversial (Coleman, et al., 1966). In recent years advocates of "open" schooling approaches have claimed very potent influences for the less traditional schools despite the general lack of data and general insensitivity to the problems of assessment. In this paper we will briefly review these claims. The primary focus of this study, however, is comparing the self concepts of fourth, fifth, and sixth grade children as measured by Gordon's "How I See Myself" instrument (Gordon, 1968) in an "open" setting and a "traditional" setting.

Recently the "open" education or "free school" approach has received increasing amounts of attention. There is more variety in Anglo-American schools than the dichotomizing rhetoric of "free schools" versus "traditional schools" admits. Thus many substantially different educational approaches may exist in either of these categories. The hortatory literature advocating the open school approaches not only excessively dichotomizes "traditional" and "open" approaches but also tends to assign humanistic characteristics to "open schooling" and to
assign inhumane characteristics to "traditional" approaches. Fairly clear descriptions of the "open classroom" do exist (Gross & Gross, 1970).

Besides claiming more consistency with humanistic doctrine advocates of open classrooms make a variety of claims which suggest possible criteria for evaluating school programs. Featherstone (1971) suggests that students in the open classroom enjoy learning more, become more creative, and develop better thinking abilities. Neill (1960) seems to claim a wide variety of effects for Summerhill such as the reduction of inhibitions about sex, increased self confidence and creativity of students, greater appreciation of freedom, and enhancement of the self concept. Stretch (1970) claims that the open classroom facilitates independence, promotes courage, and better prepares students to cope with the modern, changing world. Sponberg (1969) claims that students from the open classroom express their feelings and interests more individually. Macdonald (1970) views open classrooms as exemplifying the moral principles of democracy. Silberman (1971) indiscriminately and journalistically supports all of these claimed effects of the more unstructured type of situation.

Very little evidence from the literature was located in which school achievement was compared in "open" and "traditional" schools. Good Housekeeping (1971) reports that test averages of the open school students in North Bennington, Vermont are above the national average. On the other hand Newsweek (1971) reports test scores lower for the students in an open school than for students in nearby traditional
schools in Livermore, California. Reports from Great Britain (Featherstone, 1967a, 1967b) indicate slight advantages for traditional school students on "conventional" tests. No evidence was found in the literature which carefully compared achievement with intelligence, prior achievement, and social class controlled. It should be remembered that any achievement measure has its limitations.

Achievement is but one of a number of possible interrelated criteria in making curriculum related decisions. Other standards are attitudes toward learning, adjustment influences, aesthetic considerations, budgetary considerations, and influences on the self concept.

The self concept may be viewed as a complex set of factors, some of which are related to school achievement and some of which are not (Andrews, 1970). Andrews (1970, p. 213) found the factors, self as aggressive, hostile, and "self as non-conforming, independent" to be significantly related with achievement. Low achievers scored significantly higher on self as aggressive, hostile than did high achievers; while high achievers scored higher on self as non-conforming and independent than did low achievers. Self measures of worth, tenseness, adequacy and sufficiency were not found to be significantly related to school achievement (1970, pp. 184-199).

Self-concept has been found to correlate with the level of adjustment. Maladjusted and adjusted hospital patients (Chase, 1957), delinquent and non-delinquent youths (Motoori, 1963), normal and neurotic (Friedman, 1955; Hillson & Worcher, 1957), mental hospital patients and business executives (Fishkin & Thorne, 1968), and male college students
of varying levels of adjustment (Calvin & Holtzman, 1953) have been found to differ in self-concept, with higher self-concept in the better adjusted groups. These studies intimate that an environment which fosters a more positive self-concept may be more conducive to emotional stability and good adjustment.

The educational approaches to be compared by the criterion of self-concept are termed open environment and traditional. As these terms can be used to describe a variety of applications, it is advisable to describe specific characteristics of the respective environments. Both schools were in the same community.

Some of the students in the open school had been in that open environment for as long as three years. The students of both schools were from a range of backgrounds, from low to upper middle socio-economic levels, of black and white races.

The Traditional Environment

The traditional school's classrooms were grouped according to grade, each room composed entirely of fourth, fifth or sixth grade pupils. For the majority of the day, all pupils in the class work on the same thing at the same time, as assigned by the teacher. The teacher instructs them as a group, requiring specific accomplishments of everyone in the class. To facilitate instruction of the group, desks are arranged in rows facing the front of the room and the blackboard. An attempt is made to maintain quiet except for the teacher or student called on talking. At times, the teacher may divide the class
according to achievement level for smaller work groups in specific subjects. When working with such groups, the teacher will assign seat work for pupils not participating in the smaller group. The class remains intact except for special work with itinerant teachers, when one or two pupils may leave the room for instruction in a problem area such as reading or speech. Tests are given to all pupils at the same time over the material which has been covered and are graded according to the standards established by the teacher for the class. Grades in areas listed on the printed report card are given at specified intervals during the year, and sent home to the pupils' parents. This classroom may be characterized as structured, with clear expectations communicated to the pupils by the teacher, who has specific goals for the year's work.

The Open Environment

The open environment classes are grouped in two year class spans, such as fourth and fifth, or fifth and sixth grades in the same room. The day is broken into time periods. During some time periods, pupils are expected to direct their efforts in specific areas, other periods permit pupils to concentrate on projects of special interest or subjects of personal difficulty. The teacher may teach the class as a whole to introduce a concept which is new to all the students, but in general teaching is conducted in individual conferences or small groups which are studying the same thing. Students are permitted to progress as rapidly as they wish in their textbooks, and may begin the succeeding text upon completion of the first. At the end of each unit, pupils
take the test which covers that material. If the test demonstrates mastery of that unit, the pupil progresses to the next one. If the unit is not sufficiently understood, the pupil covers the material again in the same textbook or another one with similar information. If the test is one which cannot be taken independently, such as a spelling test, the student will ask another student to administer the test to him. The students keep folders of book reports, tests and projects which they review individually with the teacher as either feels the need to do so. Minimum achievement in each area is expected by the teacher, who will advise the student to devote more time to any area which falls below the grade standard or is neglected. Class assignments are sometimes given in which each student is to prepare a report in a given area. Students are also encouraged to investigate topics of their own choosing. Subject matter dictates the method of study. For example, textbooks are the major tool in arithmetic and spelling, while individual projects and research are predominant in the social sciences. The students are free to leave the room to go to learning centers in other rooms in the school or to the library. Since the teacher seldom lectures to the class as a whole, the desks are not arranged to focus toward the blackboard. The room is rearranged from time to time by the pupils, in clusters of four or six or along the edge of the room to free the center of the room for other activities. The noise level is higher than in the traditional classroom, as students are free to confer with one another and to move about the building. Several conferences with parents replace the grading system of reports, and grades
are not given. Parents are encouraged to participate in the school. They may help in the library, act as teacher aides, tutor children encountering difficulty, or teach an elective subject such as music. This open environment classroom may be characterized as individualized, demanding responsibility of the pupil for his own progress, granting freedom of action, and responding to individual needs.

Methods

Prior to testing, expectations were that the open environment students' scores would be significantly higher in composite self-concept and also significantly higher in each of the factors of Autonomy, Interpersonal Adequacy, Academic Adequacy and Teacher-School. One element which was considered likely to foster higher overall self-concept, Academic Adequacy, and Teacher-School was the elimination of grading procedures in the open environment school. Although high grades may have a positive effect upon self-concept students, this is applicable to only the small percentage who achieve them. Further, the judgmental element may be seen as counterproductive in establishing an atmosphere of valuing each individual for his unique characteristics. A norm, to be attained or missed, is structured into grading systems. In the open environment classroom, the student is encouraged to set his own goals. These goals tend to be within the student's capability and have meaning for him. Thus, it is supposed that, on attaining them, the student gains a sense of accomplishment which gives him a positive view of himself and of his environment. Rather than comparing himself
with others, he evaluates himself in terms of his growth during the year and his own progress.

Interpersonal Adequacy was also considered to be fostered by the student's setting of his own goals. In addition, the greater opportunity for social interaction with peers and the teacher was viewed as contributive toward a positive view of oneself in this factor.

Students in the traditional school and the open environment school were matched according to grade and Stanford Achievement Word Meaning scores. The standard for matching was that the scores be within .5 grade level (roughly) of each other, although in practice the variation was not that great. The scores were expressed in grade equivalent with each tenth representing a month. Thus, 5.2 would indicate performance of the average fifth grade pupil between October 16 and November 15. The difference between the sums of the Stanford Achievement scores of the two groups was .4. The groups were matched in achievement in an attempt to control for academic achievement. The number of students in each group was nine in the fourth grade groups, nine in the fifth grade groups, and six in the sixth grade groups. With the grades combined, there were 24 students in each of the matched groups.

The Mann-Whitney U test (Siegel, 1956) was used to compare the matched groups, with confidence set at the .05 level. The groups were compared in the fourth, fifth, and sixth grades and all grades combined in total self-concept and each of the factors of Interpersonal Adequacy, Autonomy, Academic Adequacy and Teacher-School of the "How I See Myself" scale (Gordon, 1968). This scale has a test-retest reliability with a
range of .45 to .89 with a mean of .79 in the 15 studies reported in the manual.

Sample items from the subscales are quoted below.

**Teacher-School:**
- Teachers like me.
- I get along well with teachers.

**Interpersonal Adequacy:**
- I stick with a job until I'm finished.
- I enjoy working on committees.

**Autonomy:**
- I'm very good at drawing.
- I'm very good at speaking before a group.

**Academic Adequacy:**
- I'm real good in mathematics.
- I'm smarter than most of the others.

Chi-square analyses were performed to check the possibility that high and low achievers in each grade level were differentially influenced.

**Results**

Of the 20 Mann-Whitney U comparisons, within each grade and all grades combined for total self-concept and each factor, 16 were in the predicted direction, favoring the open environment. Three of the deviations from anticipated results were in the factor Autonomy, in the fourth and fifth grades and in the three grades combined. The other deviation from the predicted direction was in the factor Academic Adequacy, in the sixth grade comparison, which was significant at the .05 level. Statistically significant results, at the .05 level, were also obtained
in the factor Teacher-School in the matched groups, all grades combined. In this factor grades four, five and six also scored higher in the open environment condition, although significance was obtained only in the combined group comparison.

The idea that students in an open environment school would be higher in self-concept, and in the factors Interpersonal Adequacy, Autonomy and Academic Adequacy was not demonstrated. Academic Adequacy was significantly higher in the traditional sixth grade group than in the open environment sixth grade group.

The factor Teacher-School was shown to be significantly higher in open environment students. The factor consists of five items:

- Teachers like me.
- I get along well with teachers.
- I like teachers.
- I like school.
- School is very interesting.

Thus, students in the open environment classroom view school and teachers more positively. It seems they are more likely to find school a friendly environment, in which they can do things of interest and succeed. The chi-square analysis yielded no differential influences for high achievers as compared to low achievers.

Discussion

The results of this study generally do not support the claims made
by the devotees of "open" schooling. The one predicted, significant finding may be a chance result. That is, only 1 out of 20 tests is significant in the predicted direction. At the .05 level one would expect 1 out of 20 to be significant by chance alone. On the other hand, responses to the Teacher-School related items would appear to be the most amenable to modification by an open schooling treatment. It is one thing for a school atmosphere to influence the total self-concept, another for responses to school-related questions like these to be influenced by a school-related variable.

Other notes of caution are in order. The n in this study is not large. A study with a larger n might have resulted in a greater number of significant results. Another cautionary note is the wisdom of choosing a single criterion for evaluating schools, that of self-concept. The authors are not advocating such single-mindedness. The final reservation is the extent of generalizations possible from data about such complex questions.
References


Good Housekeeping. School of your children's dreams; Prospect School, North Bennington, Vermont, 1971, 172, 198.

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Table 1
Smaller U-Values and Significance Level in Each Factor

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>Interpersonal Adequacy</th>
<th>Interpersonal Autonomy</th>
<th>Academic Adequacy</th>
<th>Teacher-School</th>
<th>Total Self-Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>9</td>
<td>19.5</td>
<td>32</td>
<td>26</td>
<td>20</td>
<td>21.5</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>36.5</td>
<td>38.5</td>
<td>30</td>
<td>32</td>
<td>36.5</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>17</td>
<td>9.5</td>
<td>5**</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>All grades</td>
<td>24</td>
<td>214.5</td>
<td>258.5</td>
<td>266</td>
<td>189.5*</td>
<td>222</td>
</tr>
</tbody>
</table>

(z = .61) (z = .46) (z = 2.05) (z = 1.3)

*Significant in predicted direction, \( p < .05 \).

**Significant but not in the predicted direction, \( p < .05 \).