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PARENTAL ATTITUDES TOWARD, AND KNOWLEDGE OF
OPEN-SPACE SCHOOLS

by
BRIAN HINES

A report submitted in partial fulfillment of the
requirements for the degree of

MASTER OF
SOCIAL WORK

Portland State University

1973

Approved
J. D. Clark

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INTRODUCTION

As part of an extensive examination of open-space elementary schools in the Beaverton School District, a study was conducted to determine how parents view these schools and the "open" concept of education. This is a description of that study. This report will explain why the research was undertaken, provide some background information on open-space schools, describe the survey design, and discuss both the results of the study and some implications that can be drawn from the results.

I. Purpose of the study: In judging the effectiveness of an educational program, it is important not to overlook the program's impact on the parents of the children involved. Parental support or non-support can play a crucial part in determining to what extent a new method of instruction will succeed. For example, children usually are very much aware of their parent's feelings about their teacher and school, and readily incorporate both positive and negative attitudes toward their learning environment. So a measurement of parental attitudes was thought to be an important part of the over-all evaluation of open-space schools in the District.

Knowing the climate of opinion in the community regarding open-instruction would also be a definite practical aid to the classroom teacher and building principal. Decisions must be made in open-space schools regarding the degree of "openness" that will be created in the learning areas. In making these decisions, some consideration must be given to how the parents feel about such issues as freedom of movement and choice in the classroom.

Overwhelming community resistance to the open-concept of education, for instance, would indicate that teachers should perhaps go slow in substituting open methods of instruction for traditional ones.

This study was also undertaken so as to offer public relations guidance to the District when new open-space schools are built, or existing schools converted to an open design. What do parents in non-open-space attendance areas know about open-space schools, and how do they feel about open-instruction? This research was designed to answer these questions, through an examination and comparison of the viewpoints of parents in both open-space and non-open-space attendance areas. In this way areas of public misinformation and/or opposition might be revealed.

In addition, it was decided to examine how the viewpoints of parents would change as their children moved from a traditional classroom to an open-space situation. Would the parents become more knowledgeable and enthusiastic about open-space schools? Would they become more knowledgeable, but less enthusiastic? Again, it was felt that an evaluation of the open-space schools in the Beaverton School District would be incomplete without knowing the answers to such questions.

II. Background information:

A clarification of several terms is needed here. What is meant by the terms "open-space" schools and the "open-concept" of instruction? Up to this point in the report these two terms have been used rather interchangeably, as if a certain type of school and a certain educational program necessarily went hand-in-hand. This may or may not be the case, however.

"Openness" in the classroom is a concept that is not tied to any particular physical environment. According to Larry Frase (1971, p. 1), it implies instead an atmosphere "characterized by students making decisions (pertinent ones), selecting, at least partially, their own objectives, resolving conflicts, experiencing freedom to direct themselves, and most important, being responsible for these activities." Fostering independent student behavior is thus a major goal of open programs.

This requires a change in the traditional roles of student and teacher. Instead of being a passive receptacle for information supplied by his teacher, the child becomes an active initiator of his own learning activities. Direction and help from the teacher are still available, and certain learning objectives must still be met, but the emphasis is on the child directing himself as much as possible. The teacher functions primarily as a guide and facilitator of the learning process, and not as a rigid disciplinarian and dispenser of knowledge.

Characteristics of the open-classroom thus include: freedom of movement and choice (within limits), individualization of instruction, and small group or individual learning. Students from different grade levels may often work together and children are largely free to learn at their own pace and as their own needs require. Student performance is commonly evaluated in reference to the child's particular potential for growth and development, and not compared against that of another student or a set standard.

It is clear that this open-concept of instruction may be utilized in any classroom. But some physical environments are more conducive to instructional openness than are others. Open-space schools are designed to foster the open atmosphere that we have just discussed. Interior walls are kept to a minimum in order to create large open areas in which children can be flexibly grouped. A centrally placed resource center encourages children to take charge of their own learning experiences. Carpeting and acoustical ceilings reduce the noise level, and movable partitions, bookcases, and blackboards are available as needed to partially enclose classroom space. There are also out-of-the-way places where a child can have some privacy to pursue his own special project, or perhaps to just recline on a comfortable pillow and read a book.

This type of environment certainly is in tune with the emphasis on student self-direction and individualization of instruction that are the hallmarks of the open classroom. But it must be remembered that it is the teacher who ultimately creates the atmosphere and structure within which learning takes place. Even in an open-space school a teacher may close off an area, line up his student's desks in neat rows, make general assignments to the whole class, and insist on rigidly maintaining quiet and order within his classroom.

Therefore, the philosophy of the open-classroom is usually found in varying degrees within schools built upon an open-space design, but not always. The current evaluation of open-space schools in the Beaverton School District will indicate what teaching methods are actually being used in these schools, but

the results of this extensive study are not complete as yet. So it should be kept in mind that the concept of open instruction underlying this survey of parental attitudes and knowledge may not be shared, or utilized, by all of the staff in Beaverton open-space schools.

Within the Beaverton School District there are now five fully open-space elementary schools, and four schools partially built on an open-space design. The "full" schools are Montclair, Bethany, Chehalem, Terra Linda, and Oak Hills. "Partial" schools include Hazeldale, Cedar Mill, Barnes, and Fir Grove. Oak Hills, constructed in 1968, was the first open-space school to be built in the District.

It appears that cost was the main factor that led to this recent switch to an open-design in Beaverton elementary schools. Building costs are lower in open-space schools, and they are also generally less expensive to maintain. As they have few interior corridors, it is possible to get almost total useage of the building area for teaching purposes. So as the District found it necessary to construct new schools, or to remodel existing ones, there were obvious financial reasons to go to "open-space."

In an interview with District administrators, additional benefits of the open-space design were cited. It was felt that open-space schools allow for more instructional flexibility, making it easier, for instance, for teachers to work together. There is better utilization of equipment, since materials are visible to all students and teachers in a learning area. And

with an easily accessible central library, this means that in effect the whole school becomes a learning resource center.

So for these, and other reasons, it is clear that the trend toward open-space schools in the Beaverton District will almost certainly continue. Thus the importance of this first attempt to systematically determine parental knowledge of, and attitudes toward, open-space schools is evident. The next section will consist of a discussion of how the study was carried out.

III. Design:

This study consisted of two components. The first component entailed an examination of the attitudes and knowledge of parents in one attendance area before their children had entered an open-space situation, and also sometime after they had entered it. In the second, samples of parents in four open-space schools in the Beaverton District and three non-open-space schools were chosen, and a comparison of the responses of "open-space" and "non-open-space" parents was made.

A questionnaire survey seemed to be the most efficient way to reach the sampled parents. Accordingly, work was begun in July, 1972 on an instrument that would measure both what parents know about open-space schools and how they feel about methods of open-instruction. An initial draft of the questionnaire was pre-tested on a sample of forty parents in the Terra Linda attendance area. A researcher met with the parents in their homes, waited while they completed the questionnaire, and recorded pertinent

comments about the instrument.

This pilot study resulted in several questions being omitted, and others added. Since many parents commented that their feelings about some issues depended upon the age of the child, grade levels were differentiated on a number of the questions. And since this sample of parents said that they would not mind being asked their educational level and occupation on a confidential questionnaire, this information was gathered in the actual study to aid in the interpretation of the data.

The reader may refer to Appendix (A) for a copy of the final draft of the research questionnaire. It was expected that some people would not have even heard of open-space schools, and these parents were instructed to omit Section I, which measures one's knowledge of these schools. Section II, however, was written so that all respondents could express how they felt about issues central to the open-concept of instruction, regardless of how much they knew about open-space schools. Introductory questions were also included to determine from what sources parents had learned about open-space schools.

With the completion of the questionnaire, work on the first component of the study design began. This parent sample was drawn from the Fir Grove attendance area, since part of the Fir Grove school had burned down and had been re-built along an open-space design. Children, and their parents, would be experiencing an open-space situation for the first time when school opened in September, 1972. Fifty parents were randomly selected and received our mailed questionnaire in August. If the

parents had not returned it within ten days, a follow-up reminder call was made to them.

This procedure was repeated with another fifty Fir Grove parents in February, 1973. By this time their children had been in open-space classrooms for six months. The two random samples were chosen independently of each other, which means that every parent in the Fir Grove area had an equal chance to be included in this study at each mailing.

The second component of this study involved a comparison and examination of the attitudes and knowledge of "open-space" parents and "non-open-space" parents. The four open-space attendance areas from which our samples were drawn were Fir Grove, Chehalem, Cedar Mill, and Oak Hills; the non-open-space attendance areas were Vose, Sunset Valley, and McKinley. Ten parents from each area were randomly selected to receive the questionnaire. In the case of Fir Grove, these parents were also part of the second sample of fifty who were involved in the first component of this research. Questionnaires were sent to these seventy parents in February, 1973, at the same time as the second Fir Grove mailing.

A summary of the research design is listed on the next page:

<u>Component</u>	<u>Date</u>	<u>Attendance</u>	<u>Size</u>
<u>First:</u> comparison of parental attitudes and knowledge before and after exposure to an open-space situation.	August, 1972	Fir Grove	50
	February, 1973	Fir Grove	50
<u>Second:</u> examination and comparison of attitudes and knowledge of "open-space" and "non-open-space" parents.	February, 1973	Fir Grove	10 *
		Chehalem	10
		Cedar Mill	10
		Oak Hills	10
		Vose	10
		Sunset Valley	10
		McKinley	10
(**Part of first component sample)			

RESULTS

I. First Component:

The meaningfulness of survey data rests in large part upon the attained return rate. The fewer non-respondents, the better, since bias may be introduced into the results through the fact that those who return a questionnaire may differ in some significant (and unknown) manner from others who fail to return it. In this parent survey the return rate was quite high, thus increasing one's confidence that the results of this research are generalizable to the larger populations from which the samples were drawn.

From the first Fir Grove mailing, 82% (41/50) of the questionnaires were returned, and from the second--80% (40/50.) Among the open-space parents in the second component, 68% (27/40) responded, while 77% (23/30) of the non-open-space parents returned the questionnaire.

An examination of the results of the first component of our study is best begun by examining the demographic data of the parents in the Fir Grove area (see Table 1). The average age of the parent who completed the questionnaire was thirty-four at both mailings. In August, twenty-one of the respondents were men and twenty were women. The February mailing, however, showed a change in this sex ratio, which fifteen men and twenty-five women answering the questionnaire.

These parents are well-educated. On the average the fathers have completed two and one-half years of college, and the mothers have completed slightly over a year of college. Virtually all of the parents in the samples have graduated from high school, and

a considerable number have post-graduate degrees. Not surprisingly, the men are generally either professionals or skilled workers. So from a socio-economic standpoint these Fir Grove parents are probably similar to other Beaverton residents, but are considerably better educated and more highly trained than the general population.

TABLE 1

DEMOGRAPHIC CHARACTERISTICS OF FIR GROVE PARENTS

	<u>August, 1972</u>	<u>February, 1973</u>
Total respondents	41	40
Men	21	15
Women	20	25
Mean age	33.9	34.4
Mean grade level		
Father	14.8	14.4
Mother	13.2	13.3

No real change over time occurred in regard to the percentage of parents who were at least casually acquainted with open-space schools (see Table 2). In August, thirty-six of the forty-one respondents had heard of them, and in February, thirty-seven of forty. When one looks at sources of parental knowledge, however, definite differences are apparent between the two Fir Grove samples. At the time of the first mailing, only 28% of the parents who had ever heard of open-space schools had actually visited one. But six months later, fully 84% had paid a visit to an open-space school. Obviously most parents had taken the opportunity to see their children's new environment with their own eyes.

Respondents were also asked from what sources they had learned about open-space schools, aside from personal visits. Answers to this question can be seen in Table 2 on next page.

TABLE 2

SOURCES OF INFORMATION ABOUT OPEN-SPACE
FIR GROVE PARENTS

	August, 1972 (N=36)	February, 1973 (N=37)
Students	13	25
Friends	26	14
P.T.A.	13	7
District Newsletter	17	14
Principal	14	12
Teachers	18	22
Newspaper	18	17
Books	6	6
Magazines	10	9
T.V./Radio	10	9

Before the open-space section of Fir Grove Elementary School itself was in use, parents had learned of open-space schools primarily through friends, teachers, newspapers, and the district newsletter. Six months later, students had replaced friends as the prime source of information, while the numbers of parents citing the other possible sources remained fairly constant (excepting a drop in those mentioning the P.T.A.)

As could be expected, therefore, parents indicated more of a direct knowledge of open-space schools in February. Most of them by that time had visited an open-space school (probably Fir Grove) and had gained some knowledge from students who were themselves in an open-space situation. So in the further examination of the results of the parent questionnaire, it should be remembered that the primary characteristic which differentiates the two sets of parents sampled in August and February is their degree of direct acquaintance with open-space schools. Any changes in knowledge and attitudes over time probably could thus be attributed

to their personal experience with the open situation at Fir Grove Elementary School, and not to an increase in theoretical or secondhand information gained from books, magazines, and other media.

Fifteen questions made up the knowledge section (Section I) of the questionnaire. It was recognized in designing this section that considerable difference of opinion exists regarding the nature of open-space schools and open-education. But following a survey of articles and readings in these areas, it was apparent that there are certain characteristics of open-space schools that are generally agreed upon. So for each question in Section I the researchers had an "expected response" in mind. This response corresponded to their general concept of open-space schools, and may or may not be correct in terms of the reality in any particular school. The researchers were not looking for "right" or "wrong" answers, but rather for "expected" or "unexpected" responses.

For each statement in the knowledge section, parents had a choice of five responses: always, frequently, occasionally, never, and don't know. These were combined into three categories when the results were analyzed: 1) always/frequently, 2) occasionally/never, and 3) don't know. If a person answered a question in the anticipated category, he was credited with an expected response. The expected responses for each question can be found in Appendix (B).

The number of anticipated responses was then totaled, and a composite knowledge score for each parent was arrived at. This reflected the degree to which they agreed with the researcher's concept of open-space schools. The mean parent score in August was 8.61, and in February it was 8.16. This is an insignificant decrease, and indicates that Fir Grove parents remained constant in their overall knowledge of open-space schools, as determined by their anticipated response scores. The range of scores in August was from 0-13, and in February from 0-14. The average number of "don't know" responses for each person also remained constant over the two samples, being 3.2 and 2.9 respectively.

Changes, however, did occur in regard to how individual questions were answered. In analyzing these changes, attention was focused on those questions where half or more of the parents responded in the "unexpected" and "don't know" categories. This is where gaps in knowledge appear most evident.

At the time of the August mailing, a majority of parents failed to respond as expected to six of the fifteen questions. Most respondents did not consider as the researcher's did that: open-space schools are usually less expensive to build than traditional schools of the same size; that open-space classrooms are generally noisier than those in traditional schools; that student-teacher conferences are very often used to evaluate students in open-space schools; that students are largely free to choose their own activities in open-space schools; that students are usually allowed to move about freely from one area

to another in open-space schools; and that in open-space schools the teacher generally acts as a resource person for the students rather than as a direct instructor and lecturer.

By February, over half of the parents came to respond as expected to two of these questions. While only 39% of the respondents initially thought that building costs of open-space schools are less than traditional schools, at the second mailing 57% thought so. And the percentage of Fir Grove parents who considered open-space classrooms to be noisier than regular classrooms rose from 47% to 77%.

But with the passage of six months, a majority of parents came to disagree with the anticipated response on three new questions. Those who thought that open-space schools have fewer discipline problems than traditional schools dropped from 61% to 46%. While 61% of parents agreed in August that students in different grade levels always or frequently work together in open-space schools, only 35% agreed in February. And a drop of 56% to 35% occurred in regard to the percentage of parents who considered that teachers in open-space schools tend to put more of an emphasis on their students "learning how to learn" than on their acquiring information.

A complete tabulation of the responses of Fir Grove parents to Section I can be found in Appendix (D). As stated previously, no significant difference in the number of "expected responses" these parents produced was found over time. Some changes can be noted in the pattern of responses, however.

The second section was designed to measure the attitudes of parents towards the open-concept of education. Forty-one

Fir Grove parents in both August and February completed this section, even though only forty questionnaires were returned from the second mailing. The explanation for this is that both parents in one family recorded their differing attitudes, and they were counted as separate respondents in this section.

It should be noted first of all that little change in parental attitudes is evident in the six months between the first and second mailing. It is possible, of course, that this time period was too short to permit measurable changes to occur. Subtle trends are evident, but only further testing over a longer time span would indicate whether significant changes in attitudes toward open-education are taking place among parents in the Fir Grove area.

Only one question revealed a statistically significant shift in parental opinion. And with a total of twenty-two questions in this section, such a shift may reflect nothing more than a random sampling error. This question, however, was intended as a global attitudinal measure and so might indicate a growing undercurrent of misapprehension toward open-education. In August, 54% of the parents agreed that a classroom where a student is encouraged to make his own decisions and to seek out his own learning activities would be suitable for most children and 24% disagreed, with the remainder undecided. By February, only 37% agreed with this statement, and 44% disagreed, with a similar number of people undecided.

When one looks at other questions, however, it can be seen

that taken as a group Fir Grove parents in February accepted some aspects of open-education and rejected others. On the positive side, 88% agreed that both students and teachers should communicate their feelings in the classroom, which is in line with the added emphasis on non-cognitive learning in the open-concept of education. Another 88% felt that children need to be given an opportunity to learn at their own pace and as their own needs require, an endorsement of individualized instruction. 90% felt as well that students learn best when working either individually or in small groups. These parents are in favor of having students from different grade levels together in the same classroom by a margin of 66% to 17%, with the rest undecided. And 66% agreed that it is more important for a student "to learn how to learn" than to acquire information.

On seven questions parents were asked to differentiate their response as to grade level. Clearly Fir Grove parents are considerably more in favor of openness in the classroom when upper-grade children are involved. By a margin of 46% to 34% they consider that students in grades 4-6 are responsible enough to direct their own classroom activities, but only 15% feel the same way about first-third graders. Similarly, 46% agree that fourth-sixth graders should not have to depend upon their teachers for direction and to be told what to do, while 37% disagree; however, 80% felt that first-third graders need such direction. And 56% of the parents indicated that a teacher should be a guide and resource person for students in the 4-6 grades, rather than be a direct instructor and lecturer, but the same percentage x

preferred a direct instructor teacher role in the first-third grades.

Parents also divided grade-wise on the issue of competition. Fifty-one percent agreed that competition between students in 4-6 grades should be encouraged, while 29% disagreed; these percentages were exactly reversed in regard to 1-3 graders. The same attitude toward age and competition seemed to be reflected in a question on the traditional letter-grade system, which involves the comparison of pupil performance. Agreement that the letter-grade system is an appropriate means of evaluating a student's performance was a minority parent opinion in respect to both age groups, but was larger (41%) for 4-6 graders than for 1-3 graders (27%).

Some aspects of the open-classroom were not accepted by parents at either grade level. Quiet is often not a hallmark of open-space learning areas, but parents tend to feel that it should be. Fifty-four percent agreed that learning is enhanced when students are quiet in a classroom, while only 24% disagreed with this statement. Seventy-one percent disagreed, and only 20% agreed, with the statement that students in 1-3 grades should be allowed to move about freely from one area to another. Regarding 4-6 graders, 46% disagreed and 32% agreed with that statement. And only 12% feel that students in grades 1-3 who are allowed to choose their own activities in school will learn fundamental skills as well as students who are told what they have to do; 24% consider that 4-6 graders will be able to learn these skills as well.

The opinions of Fir Grove parents are divided as to the extent to which discipline problems arise in an open-space situation. Thirty-four percent agree that discipline would be a great problem in a classroom area where students are allowed to move about freely, 29% disagree, and 37% are uncertain. More parents were uncertain in February about this statement than any other. Overall, "uncertain" responses in Section II decreased from an average of 5.6 per person in August to 3.6 in February. The attitudes of parents became crystallized as their children actually entered an open-space situation.

Yet only the question dealing with the suitability for most children of an open-space classroom revealed a significant shift in attitudes among these parents. It should be mentioned, though, that when one looks at changes over time of any magnitude in the remaining twenty-one questions, thirteen indicated a decrease in parental agreement with the open-concept of education, and only eight showed an increase (See Appendix F). These changes, of course, were minor and must be interpreted with great caution. But it is possible that they reflect a growing concern among Fir Grove parents about some aspects of open-space schooling, notably the perceived lack of discipline and structure.

At the end of the questionnaire comments were requested from the respondents. Here is a condensation of the written comments which were received from the August mailing:

"I am strongly in favor of open-space schools"; "There is too much emphasis on the physical building influencing the teaching method. An open school should be a concept,

not a building. . . unfortunately I am not sure that the staff at Fir Grove will know what they are doing and many of the parents are afraid of chaos"; "I feel very strongly about kids in the elementary grades being responsible for their own learning. . . however, not all children have learned to be responsible at this age. Therefore, a teacher should be present to encourage, or force, if necessary, the student to do the work so that his learning will not be hindered simply because he's not a responsible person."

"An open-minded and tolerant attitude of a teacher is much more important than the physical arrangements of the walls and furniture"; "Respect for authority-strong discipline, fairly administered-high standards of expected behavior, create a good learning atmosphere"; ". . . I remain strongly in favor of the old basic system of teaching children. I resent my children being experimented with in learning situations. . . I feel children are 'turned loose' long before they are capable of handling the responsibilities or before they have even been shown or educated regarding the very things that are expected of them."

And here are comments received six months later in February:

"1-3 graders should be taught the 3-Rs on a supervised scale with those students who excel in something be given the chance for advanced instruction and those who lag behind also getting special help. . . 4-6 graders should start to be learning on a competitive basis, since society is competitive, and they should be adjusted for that"; "Discipline and teaching a child that he must follow instructions and schedule himself whether he agrees with them or not is important"; "Open-space schooling sounds like a challenging and interesting way of teaching and training children"; "Greatest asset in any school is the classroom teacher. . . although I theoretically prefer open schools I have also seen them so badly mis-managed as to produce childhood ulcers!"; "My children have frequently been complaining of the noise and lack of privacy at Fir Grove school. . . taking the comments of the children into consideration, I do feel that open-space elementary schools are not such a good idea for my children."

"Open schools are fine for children who don't easily become distracted. Children who have a short attention span have more trouble!"; "We favor open classrooms, and have a son in one. Only objection is, that he is a hyper-active child who needs structure, but he is not given this consideration except by one teacher"; "We have a child at Fir Grove school and are very pleased with the school

and quality of his education"; "I feel my children find open-space classrooms distracting. Some comments they have made were: 'Mrs. so & so's class was having a film when we were having a test. 'Mrs. so & so's class was making popcorn and it smelled so good I couldn't concentrate.'"; "This is an expensive try at something new, both in building special buildings and in a possible lack of proper education for our young people if this proves to be lacking in basic sound principles"; "Because of the wide variation in home environment it is probably best to assume that all children need structured courses until they demonstrate the ability and desire to achieve above and beyond what the structure can contribute."

II. Second Component:

It will be recalled that this component of the research involved a comparison of knowledge and attitudes of parents in open-space and non-open-space attendance areas. The demographic characteristics of these parents were very similar to those of the Fir Grove respondents. And it can be seen from the following table that no real differences in regard to age, sex of respondent, and educational background exist between the open-space (O-S) and non-open-space (N-O-S) parents in the study.

TABLE 3

DEMOGRAPHIC CHARACTERISTICS OF O-S AND N-O-S PARENTS

	Open-Space	Non-Open-Space
Total respondents	27	23
Men	6	8
Women	21	15
Mean age	35.9	36.0
Mean grade level		
Father	14.4	14.5
Mother	13.3	12.9

Not surprisingly, a much greater proportion of open-space parents (81%) than non-open-space parents (48%) had heard of open-space schools. It is perhaps more interesting to note that almost a fifth of the O-S respondents apparently did not know that at least one of their children was attending an open-space school.

Among those who had heard of the term "open-space", 82% of the respondents from O-S attendance areas had visited an open-space school, while only one of the N-O-S respondents (9%) had done so. So, as would be expected, the attitudes and knowledge

of N-O-S parents are only minimally based upon their direct personal experience with open-space schools.

This fact is made even more evident when one looks in Table 4 at the sources from which both sets of parents have learned about these schools:

TABLE 4
SOURCES OF INFORMATION ABOUT OPEN-SPACE
O-S AND N-O-S PARENTS

	Open-Space (N=22)	Non-Open-Space (N=11)
Students	17	2
Friends	8	7
P.T.A.	-	-
District Newsletter	2	1
Principal	3	-
Teachers	11	1
Newspaper	6	3
Books	3	-
Magazines	9	5
T.V./Radio	4	4

Whereas students and teachers are most often cited as sources of information by O-S parents, friends and magazines serve this function for N-O-S respondents. Other school-related information sources such as the P.T.A., District Newsletter, and building principal were rarely mentioned by either group of parents. Essentially, then, the opinions of N-O-S parents regarding open-space schools would appear to rest on a somewhat more theoretical foundation than would the responses of O-S parents. As shall be seen, this supposition is an aid in the interpretation of some of the results which emerged from this component of the study.

The data was analyzed in the same manner as was described in the preceding section dealing with the Fir Grove component of the research. A composite knowledge score, consisting of

the total "expected" responses in Section I, ^{was} obtained for each person. This revealed only a slight mean difference between the two groups of parents. The average score for O-S respondents was 9.00, and for N-O-S respondents, 8.20. Considering that the non-open-space mean is based on only ten scores (one of the eleven N-O-S parents who had heard of open-space schools did not complete either Section I or II.), this small difference is statistically of no significance. The average number of "don't know" responses among the open-space parents was 2.4, and among the non-open-space parents, 4.4.

As in the Fir Grove portion of the study, the researchers initially looked for those questions in Section I where half or more of the respondents answered in the "unexpected" and "don't know" categories. Five of these questions were discovered among the open-space parents, and seven among the non-open-space parents. A majority of both groups of parents failed to respond as expected to three common questions.

Fifty percent of O-S and N-O-S respondents alike did not consider as did the researchers that an open-space school is usually cheaper to build than a traditional school of the same size. Another 50% of the open-space parents, and 70% of the non-open-space parents, failed to respond as expected that students in different grade levels always or frequently work together. And the conceptual view that teachers in open-space schools generally put more of an emphasis on their students "learning how to learn" than on their acquiring information, was accepted by only 50% of the O-S respondents and 40% of the N-O-S

respondents.

Responses of parents from the open-space attendance areas differed from the researcher's expectations on two other questions. Fifty-five percent considered that students are usually not free to choose their own activities in open-space schools, and 59% indicated that students are only occasionally, or never, allowed to move about freely from one area to another in open-space schools. On the other hand, 70% of the N-O-S parents considered that students are usually free to choose their own activities, and 80% answered that they are generally allowed to move about freely.

It is interesting that the groups differed in this manner on these "freedom of choice" questions, since the parents who had the least amount of direct knowledge of open-space schools tended to regard students as possessing more freedom than did the parents who actually had children in such a school. This would seem to indicate that teachers in Beaverton open-space schools are allowing their students less freedom of choice and movement than a person only theoretically familiar with the open-concept of education would expect.

Four questions indicated, from the standpoint of the researchers, gaps in knowledge among the N-O-S parents that were not found among the O-S parents. At least half of the non-open-space respondents answered "don't know" on three of these questions, however, which points toward more of a parental uncertainty, rather than firmly held opinion, regarding these knowledge areas.

For instance, 50% of the N-O-S parents did not know whether fundamental skills are de-emphasized in open-space schools, while

50% considered that they usually were not de-emphasized.

Another 50% responded "don't know" when asked whether there are more discipline problems in open-space schools than in traditional schools, and 60% were unsure as to the extent to which student/teacher conferences are used to evaluate students. And only 40% knew that there are usually few fixed interior walls in open-space schools.

Turning to the attitude section, it can be initially noted that non-open-space parents seem to be somewhat less accepting of the open-concept of education than are open-space parents. This will become apparent as the results of Section II are discussed.

But some questions did reveal a positive attitude toward aspects of open-education among both groups of parents. Eighty-eight percent of the O-S, and 72% of the N-O-S, respondents agreed that feelings should be communicated in the classroom. Giving children an opportunity to learn at their own pace and as their own needs require was favored by 84% of open-space parents and 90% of the non-open-space parents. And only 28% of the O-S group, and 27% of the N-O-S group, agreed that it is not wise to have children in different grades together in the same classroom.

Encouraging competition between students in a classroom was not favored by either set of parents, at any grade level. Among O-S respondents, only 17% favored competition in 1-3 grades, and 32% in grades 4-6. N-O-S parents were somewhat more accepting of having students compete with each other, with 27% favoring competition in grades 1-3, and 36% in grades 4-6.

Not surprisingly, only 18% of the open-space parents agreed that the traditional (and competitive) letter-grade system is an appropriate means of evaluating a student's performance in grades 1-3, while they were divided as to whether it is appropriate in grades 4-6: 36% agreed that it was, 32% felt that it wasn't, and 32% were uncertain. Probably reflecting the N-O-S respondents somewhat greater acceptance of competition in the classroom, 45% considered that letter-grades were appropriate in 1-3 grades, and 49% in grades 4-6.

Clearly, both groups of parents are more in favor of the open-classroom when older students are involved, although it shall be seen that non-open-space parents still have reservations about utilizing certain open-methods of instruction at any grade level. Yet the N-O-S parents are slightly more in favor of having a teacher be a guide and resource person for students, rather than a direct instructor, than are open-space parents. Half of the N-O-S group accepted the resource person role for teachers in grades 4-6, and 40% in first-third grades. But only 40% of the open-space respondents accepted this role in regard to grades 4-6, and 28% in grades 1-3. However, both groups agreed that it is more important for a student "to learn how to learn" than to acquire information (which would seem to minimize the direct instructor role for the teacher); 77% of the N-O-S, and 62% of the O-S parents agreed with this statement.

Taking the remaining questions in this attitude section, both sets of parents have doubts about the ability of students in grades 1-3 to function in an open-space situation, and most of the non-open-space parents feel the same way about older

students. For example, when asked whether children in first-third grades are responsible enough to direct their own classroom activities, 65% of O-S parents and 90% of N-O-S parents considered that they weren't. But whereas 67% of non-open-space respondents felt that 4-6 graders are also not responsible enough, only 25% of the O-S group agreed.

Similarly, only 3% of O-S parents and 4% of N-O-S parents feel that a first-third grader should not have to depend upon his teacher for direction and to be told what to do. Twice as many open-space parents as non-open-space parents, however, agree with this statement in regard to grades 4-6: 37% vs. 18%. And a majority in both groups (O-S-62%; N-O-S-76%) considered that first-third graders should not be allowed freedom of movement from one area to another and from one activity to another. Only 29% of open-space parents felt the same way about fourth-sixth graders, compared to 53% of N-O-S respondents.

Few parents in either group agreed that students who are allowed to choose their own activities in school would learn fundamental skills as well as students who are told what they have to do, but open-space respondents were less apt to disagree with this statement, and more apt to be uncertain about it. And over a third (37%) of open-space parents were uncertain as to whether discipline would be a great problem in a classroom area where students are allowed to move about freely (32% agreed, and 28% disagreed), while a high percentage of N-O-S parents (65%) agreed that it would be a problem. Rather surprisingly, the O-S parents overall responded in the "uncertain" category almost twice as often as did non-open-space parents: an average of 5.0 times, vs. 2.7 times.

Both groups, for instance, agree that learning is enhanced when students are quiet in a classroom (O-S-62%; N-O-S-63%), but a quarter of open-space and only 9% of non-open-space, parents are undecided on this issue. And a third of the O-S group was uncertain as to the suitability for most children of a classroom where a student is encouraged to make his own decisions and to seek out his own learning activities; 28% felt that it would be suitable, 36% that it wouldn't. Among the N-O-S parents, 22% were uncertain, 26% agreed that it would be suitable, and 49% disagreed.

In summarizing the results of Section II, it might be said that both sets of parents seem to agree with the statements that are more abstract reflections of the open-concept of education. The communication of feelings is accepted, as is allowing children to learn at their own pace. Learning how to learn is seen as being more important than is acquiring information. Competition between students is not favored by the parents, and flexible groupings of children in different grade levels is agreeable to them. Yet actual classroom procedures which allow students freedom of movement and choice, and the assumption of responsibility for their activities, are less apt to be accepted by parents. In a sense they share to a greater extent the goals of open-education, than the means, or procedures, which are classically associated with the "open-classroom."

But among open-space parents this is generally true only in regard to students in grades 1-3. These parents do tend to feel

that 4-6 graders are responsible enough to direct their own activities and to move about freely from area to area. With some reservations, they seem to favor most of both the goals and means of the open-concept of education.

This is less true of non-open-space parents. These parents do not consider that elementary students possess the responsibility to direct their classroom activities, and do not favor allowing students freedom of movement and choice. When a comparison is made of differences of any magnitude between the responses of open-space and non-open-space parents (Appendix I), we find that on seventeen of the twenty-two questions in Section II the N-O-S parents were less in agreement with the open-concept of education than were the O-S parents. Perhaps due to rather small sample sizes these were not statistically significant differences, but taken together still would seem to indicate that a less favorable attitude toward open-education exists among parents of children who are not in open-space schools, than among those parents whose children are. This conclusion is supported by the results of a subsequent statistical analysis which revealed that when the questions in Section II are taken in combination, there is a statistically significant trend difference between the responses of O-S and N-O-S parents. (Appendix J)

Here are comments submitted by non-open-space parents:

"I feel the student needs direction and basic reading, writing, and arithmetic in the 1st, 2nd, 3rd grades. Gradually they can be given more freedom--but need discipline and direction to get them started; "I have some serious doubts as to

the effectiveness of the current programs in this school district for elementary and high school students;" "My son attended first grade in the Mid-West in a high school that stressed individual freedom and working at your own pace. This served to reinforce my opinion that children that age need and depend on a structured learning environment;" "My first impression on open-space schools is that I would need to be shown the value of same, but I am not against beneficial change. The child's favorable growth is the main consideration involved."

And these comments came from parents of children in open-space schools:

"There is a fuzzy distinction between guidance and direction. Ideally, a student should gradually assume the responsibility of a learning pattern. . . . students are able to direct their own activities only if they have had positive experiences presumably under the guidance of a competent 'guide';" "Open-space schools seem to allow a greater source of learning for a student at his level. But every student should have the fundamental reading, writing, and arithmetic skills before expanding personal choice activities;" "A classroom must combine straight instruction per se. along with an absolute requirement that individuals must learn to decide and to be their own impetus. I can see little chance of there being a situation without a marriage of both educational approaches;" "I am disenchanted with the idea of students making their own choices. All through public school, students need a great deal of guidance."

A number of open-space parents also included comments to the effect that many questions were too general and thus difficult to answer, since so much depends upon the individual student, his level of maturity and home background, the teacher, and so on. This desire to qualify their answers (especially in Section II) may have been one reason why so many "Uncertain" responses occurred among the open-space group. Since these

parents had had direct personal experience with open-space schooling, they seemed to find the generalized statements in the questionnaire to be more ambiguous than did the non-open-space parents.

IMPLICATIONS

The results of this research provide one with a conception of how parents in the Beaverton School District view open-space schools and the open-concept of education. But the practical implications of this study cannot fully be realized until these parental attitudes are related to the actual conditions prevailing in Beaverton schools.

Fortunately, this will soon be possible. Data has been collected in the Fir Grove, Sunset Valley, Vose, and Oak Hills schools regarding teacher/student behavior and interaction. This data will enable some objective statements to be made about the teaching/learning environment in both open-space and non-open-space schools in the District. It will then be possible, for instance, to relate parent attitudes to student self-direction with the actual degree to which students are allowed to choose their own activities.

Undoubtedly this next phase of data analysis will produce some clear implications for District teachers and administrators. General areas of tension, where parental expectations regarding their children's education do not correspond to the reality in the schools, may then be discerned. If Beaverton teachers in 1-3 grades, for example, are usually acting more as resource persons, than as direct instructors, then this would seem to conflict with parental views that children at that grade level need direction and to be told what to do.

At the present time, the clearest implication that can be drawn from the results is that considerable public relations work should be done with parents before an open-space school is put into use in ^a previously non-open-space attendance area. It should be expected that about half of the parents will have not even heard of open-space schools, and that few of the remainder will possess much direct knowledge of them. The results seem to indicate that if non-open-space parents know anything at all about open-space schools, they tend to consider that students in them are allowed more freedom of choice than is truly the case (at least in Beaverton.) Since N-O-S parents generally have fairly strong reservations about allowing students such freedom in the classroom, the District should probably make clear to them what they may actually expect in an open-space situation.

It might be noted that parents in the Fir Grove area seemed to be fairly well-informed before their open-space school opened. Eighty-eight percent had heard of open-space schools in August, and a considerable number of these parents had received information from the P.T.A., District Newsletter, principal, teachers, and newspaper. From a District public relations standpoint, this speaks quite well for the preparation which parents received for the conversion to open-space at Fir Grove.

And although there are indications that after six months Fir Grove parents are somewhat less in favor of the open-concept of education than before the school opened, this may reflect nothing more than the usual resistance to a new system. Again, until it is known what actual changes (if any) have taken place

in teacher style and instructional methods at Fir Grove, it is difficult to draw meaningful implications from the data. Further administrations of the questionnaire may be called for to determine if the subtle attitude changes that were discerned have continued in the same direction.

One might expect that Fir Grove parents will eventually come to hold a more favorable view of the open-concept of education than they do now, hypothesizing that the introduction of an open-space school into an attendance area will produce an initial decline in parental acceptance of open-education, but that this trend is only temporary and will eventually be reversed and be followed by an increase in favorable attitudes toward the open-classroom.

In this regard, Lippitt, Watson, and Westley (1958, p. 83) state in a discussion of resistance to change that:

"It is important to note that resistance forces, like change forces, may increase in intensity for a while after the change project begins. Thus it may seem for a time as if no progress is being made toward a resolution of the conflict between change forces and resistance forces. . . Eventually, however, the deadlock may be broken either by 'working through' and weakening a resistance force or by some success or crisis which strengthens a change force."

An additional rationale for this hypothesis can be created by combining results from both components of this study. It has been seen that non-open-space parents tend to be less favorably inclined toward the open-concept of education than are open-space parents. And there are some indications that as Fir Grove respondents shifted from being non-open-space

parents, to being open-space parents, they became less agreeable to the style of the open-classroom. Therefore, it might be theorized that the attitude of a given group of parents toward open-instruction would change in the following manner:

More Favorable Attitude			XX
Less Favorable Attitude	XX		XX
	Before direct exposure to open- space schooling (Time 1)	Shortly after children enter O-S school (Time 2)	After ex- posure to O-S school (Time 3)

This study essentially compared groups of parents at Time 1 and Time 2 (first component), and Time 1 and Time 3 (second component.) No significant differences between groups was revealed, but it must be remembered that the time differential between groups was really quite small. Since the first open-space school in the Beaverton District was built so recently (1968), it is obvious that most of the respondents in the sample of open-space parents must have had a child in an open-space school for only a few years or less. This is probably not long enough for deeply ingrained attitudes toward education to change very greatly. The same holds true for the Fir Grove parents, who had only six months of exposure to an open-space school.

So the preceding hypothesis of how parental attitudes change over time is one implication that can be drawn from the results of this study. However, another almost equally valid implication is that open-space schools in the Beaverton School District really do not differ significantly in their style of

operation from non-open-space schools. The physical design of the buildings may be different, but the way in which teachers teach and students learn may be very similar.

If this indeed is the case, then it would also help explain why the groups did not dramatically differ in their attitudes toward the open-concept of education. Merely having a child in a uniquely designed school would be unlikely to produce much of a change in parental attitudes toward educational methodology, unless the teaching and learning methods utilized in that school were themselves quite different from what the parents have previously experienced.

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APPENDIX A

END-TYPE AND COVER LETTER

APPENDICES

APPENDIX A

QUESTIONNAIRE AND COVER LETTER

April 19, 1968

Dear Sir:

The questionnaire is being prepared by the Essex County
District.

It is an attempt to give the schools of the district a
opportunity to tell us what they are doing, what they plan to do,
schools, and how they feel about various issues that are current.

It is one of the goals of our district.

You are part of a small study of public schools in the Essex
County District and your school is being selected to receive this
questionnaire. In your responses are extremely important to us.
Please complete the questionnaire promptly and return it to the
personnel staff addressed, enclosed envelope.

Thank you for your response.

Sincerely,

George A. Smith
George A. Smith
Acting Superintendent
Instruction Department

Beaverton Schools

District No. 48

P.O. Box 200 Beaverton, Oregon 97005
503/292-3526

George Russell
Assistant Superintendent
Instruction Department

April, 1973

Dear Parents:

This questionnaire is being sponsored by the Beaverton School District.

It is an attempt to give the members of our community an opportunity to tell us what they know about open-space elementary schools, and how they feel about certain issues that are central in the education of our children.

You are part of a small sample of people within the Beaverton School District who have been randomly chosen to receive this questionnaire, so your opinions are especially important to us. Please complete the questionnaire promptly and return it in the enclosed self-addressed, stamped envelope.

Thank you for your cooperation.

Sincerely,

George Russell
Assistant Superintendent
Instruction Department

3. In open-space schools students learn either in small groups or individually.
1 Always 2 Frequently 3 Occasionally 4 Never 5 Don't know
4. An open-space school is less expensive to build than a traditional school of the same size.
1 Always 2 Frequently 3 Occasionally 4 Never 5 Don't know
5. In open-space schools chairs and desks are arranged in orderly rows.
1 Always 2 Frequently 3 Occasionally 4 Never 5 Don't know
6. There are more discipline problems in open-space schools than in traditional schools.
1 Always 2 Frequently 3 Occasionally 4 Never 5 Don't know
7. Open-space classrooms are quieter than those in traditional schools.
1 Always 2 Frequently 3 Occasionally 4 Never 5 Don't know
8. Student-teacher conferences are used to evaluate students in open-space schools.
1 Always 2 Frequently 3 Occasionally 4 Never 5 Don't know
9. Students in different grades work together in open-space schools.
1 Always 2 Frequently 3 Occasionally 4 Never 5 Don't know
10. There are few fixed interior walls in open-space schools.
1 Always 2 Frequently 3 Occasionally 4 Never 5 Don't know
11. Students are free to choose their own activities in open-space schools.
1 Always 2 Frequently 3 Occasionally 4 Never 5 Don't know
12. Teachers in open-space schools put more of an emphasis on their students learning "how to learn" than on their acquiring information.
1 Always 2 Frequently 3 Occasionally 4 Never 5 Don't know
13. Teachers make the same assignment to the whole class in open-space schools.
1 Always 2 Frequently 3 Occasionally 4 Never 5 Don't know
14. Students are allowed to move about freely from one area to another in open-space schools.
1 Always 2 Frequently 3 Occasionally 4 Never 5 Don't know
15. In open-space schools the teacher acts as a resource person for the students (someone they can go to for materials, help, and suggestions), rather than as a direct instructor and lecturer.
1 Always 2 Frequently 3 Occasionally 4 Never 5 Don't know

Section II.

Please circle the number next to the answer that comes closest to expressing your own opinion.

1. Both teachers and students should communicate their feelings in the classroom.
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
2. Children need to be given an opportunity to learn at their own pace and as their own needs require.
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
3. It is not wise to have children in different grades together in the same classroom.
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
4. Children are not responsible enough to direct their own classroom activities:
in 1st-3rd grades -
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
in 4th-6th grades -
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
5. Competition between students in a classroom should be encouraged:
in 1st-3rd grades -
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
in 4th-6th grades -
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
6. It is more important for a student to learn "how to learn" than to acquire information.
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
7. Students should be allowed to move about freely from one area to another and from one activity to another:
in 1st-3rd grades -
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
in 4th-6th grades -
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
8. The traditional letter-grade system is an appropriate means of evaluating a student's performance:
in 1st-3rd grades -
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
in 4th-6th grades -
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree

9. Students learn best when working individually, or in small groups.
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
10. A teacher should primarily be a guide and resource person for students, rather than a direct instructor and lecturer:
in 1st-3rd grades -
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
in 4th-6th grades -
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
11. Learning is enhanced when students are quiet in a classroom.
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
12. A classroom where a student is encouraged to make his own decisions and to seek out his own learning activities would be suitable for most children.
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
13. A student should not have to depend upon his teacher for direction and to be told what to do:
in 1st-3rd grades -
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
in 4th-6th grades -
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
14. Discipline would be a great problem in a classroom area where students are allowed to move about freely.
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
15. Students who are allowed to choose their own activities in school will learn fundamental reading, writing, and arithmetic skills just as well as students who are told what they have to do:
in 1st-3rd grades -
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree
in 4th-6th grades -
1 Strongly agree 2 Agree 3 Uncertain 4 Disagree 5 Strongly disagree

Thank you again for your cooperation in completing this questionnaire.
If you would like to add any comments, please feel free to do so below.
We would appreciate it if you could return the completed questionnaire as soon as possible.

Comments:

APPENDIX B

EXPECTED RESPONSES-SECTION I

1.	Always/Frequently	- Teachers work in teams
2.	Occasionally/Never	- Fundamental skills de-emphasized
3.	Always/Frequently	- Small group/individual learning
4.	Always/Frequently	- Less expensive to build
5.	Occasionally/Never	- Chairs and desks in orderly rows
6.	Occasionally/Never	- More discipline problems
7.	Occasionally/Never	- Open-space classrooms quieter
8.	Always/Frequently	- Student-teacher conferences for evaluation
9.	Always/Frequently	- Students in different grades together
10.	Always/Frequently	- Few fixed interior walls
11.	Always/Frequently	- Students free to choose activities
12.	Always/Frequently	- More emphasis on "learning how to learn"
13.	Occasionally/Never	- Teachers make assignment to whole class
14.	Always/Frequently	- Students allowed to move freely
15.	Always/Frequently	- Teacher acts as resource person

APPENDIX C

Responses in Section II which were considered to indicate a favorable attitude toward the open-concept of education:

1. SA/A - Should communicate feelings in classroom
2. SA/A - Learn at own pace and as own needs require
3. D/SD - Not wise to have children in different grades together
4. D/SD - Children not responsible to direct activities: 1st-3rd
5. D/SD - Children not responsible to direct activities: 4th-6th
6. D/SD - Competition should be encouraged: 1st-3rd
7. D/SD - Competition should be encouraged: 4th-6th
8. SA/A - More important "to learn how to learn"
9. SA/A - Should be allowed to move about freely: 1st-3rd
10. SA/A - Should be allowed to move about freely: 4th-6th
11. D/SD - Traditional letter-grades appropriate: 1st-3rd
12. D/SD - Traditional letter-grades appropriate: 4th-6th
13. SA/A - Learn best individually, or in small groups
14. SA/A - Teacher should be guide and resource person: 1st-3rd
15. SA/A - Teacher should be guide and resource person: 4th-6th
16. D/SD - Quiet classroom enhances learning
17. SA/A - Open-classroom suitable for most children
18. SA/A - Student should not depend on teacher: 1st-3rd
19. SA/A - Student should not depend on teacher: 4th-6th
20. D/SD - Freedom of movement causes discipline problems
21. SA/A - Learn fundamental skills just as well: 1st-3rd
22. SA/A - Learn fundamental skills just as well: 4th-6th

APPENDIX D

RAW-SCORE TABULATION OF FIRST COMPONENT/SECTION I RESPONSES

	August, 1972				February, 1973			
	<u>Expect.</u> 28	<u>Un-</u> 6	<u>Know</u> 2	Don't	<u>Expect.</u> 24	<u>Un-</u> 10	<u>Know</u> 3	Don't
1. Teachers work in teams								
2. Fundamental skills de-emphasized	27	2	7		29	1	7	
3. Small group/ individual learning	25	9	2		30	3	4	
4. Less expensive to build	14	6	16		21	2	14	
5. Chairs and desks in orderly rows	30	2	4		29	6	2	
6. More discipline problems	22	1	13		17	4	16	
7. Open-space classrooms quieter	17	6	13		28	3	6	
8. Student/Teacher conferences	15	6	15		18	5	14	
9. Students in different grades together	22	12	2		13	19	5	
10. Few fixed interior walls	31	2	3		33	3	1	
11. Students free to choose activities	9	21	6		3	29	5	
12. More emphasis on "learning how to learn"	20	6	10		13	10	14	
13. Teachers make assignment to whole class	19	8	9		23	9	5	
14. Students allowed to move freely	13	18	5		10	23	4	
15. Teacher acts as resource person	18	10	8		11	19	7	

N=36

N=37

APPENDIX E

RAW-SCORE TABULATION OF FIRST COMPONENT/SECTION II RESPONSES

	August, 1972					February, 1973				
	SA	A	U	O	SD	SA	A	U	O	SD
	12	21	7	1	0	13	23	2	3	0
	20	16	2	3	0	19	17	1	2	2
	2	3	10	24	2	1	6	7	23	4
1. Should communicate feelings in classroom										
2. Learn at own pace and as own needs require										
3. Not wise to have children in different grades together	9	17	6	9	0	9	23	3	6	0
4. Children not responsible to direct activities: 1st-3rd	4	5	14	16	2	2	11	9	17	2
5. Children not responsible to direct activities: 4th-6th	2	10	9	15	5	0	12	8	15	6
6. Competition should be encouraged: 1st-3rd	4	13	10	10	4	1	20	8	8	4
7. Competition should be encouraged: 4th-6th	8	16	11	5	1	9	19	7	5	1
8. More important "to learn how to learn"	1	7	11	19	3	1	7	4	25	4
9. Should be allowed to move about freely: 1st-3rd	3	6	16	15	1	2	11	9	17	2
10. Should be allowed to move about freely: 4th-6th	1	9	7	19	5	1	10	7	15	8
11. Traditional letter-grades approp.: 1st-3rd	2	11	8	16	4	1	16	5	13	6
12. Traditional letter-grades approp.: 4th-6th	12	20	8	1	0	15	22	3	1	0
13. Learn best individually, or in small group	5	10	14	10	2	3	14	1	19	4
14. Teacher should be guide and resource person: 1st-3rd	5	15	14	5	2	6	17	4	12	2
15. Teacher should be guide and resource person: 4th-6th	4	11	12	13	1	5	17	10	9	0
16. Quiet classroom enhances learning	5	17	9	9	1	2	13	8	14	4
17. Open-classroom suitable for most children	1	2	8	23	7	0	4	4	30	3
18. Student should not depend on teacher: 1st-3rd	1	11	13	13	3	0	19	7	14	1
19. Student should not depend on teacher: 4th-6th	1	10	15	11	4	3	11	15	12	0
20. Freedom of movement causes discipline problems	3	5	12	15	6	1	4	11	21	4
21. Learn fundamental skills just as well: 1st-3rd	3	10	12	13	3	1	9	12	18	1
22. Learn fundamental skills just as well: 4th-6th										

N=41

N=41

APPENDIX F

FIRST COMPONENT/SECTION II MEANS

Question	Aug.	Feb.
1. Should communicate feelings in classroom	1.93	1.88
2. Learn at own pace and as own needs require	1.71	1.80 x
3. Not wise to have children in different grades together	3.51	3.56
4. Children not responsible directing activities: 1st-3rd	2.37	2.15 x
5. Children not responsible directing activities: 4th-6th	3.17	3.15 x
6. Competition should be encouraged: 1st-3rd	3.27	3.37
7. Competition should be encouraged: 4th-6th	2.93	2.85 x
8. More important "to learn how to learn"	2.39	2.27
9. Should be allowed to move freely: 1st-3rd	3.39	3.59 x
10. Should be allowed to move freely: 4th-6th	3.12	3.15 x
11. Traditional letter-grades appropriate: 1st-3rd	3.44	3.46
12. Traditional letter-grades appropriate: 4th-6th	3.22	2.93 x
13. Learn best individually, or in small groups	1.95	1.76
14. Teacher should be guide and resource person: 1st-3rd	2.85	3.17 x
15. Teacher should be guide and resource person: 4th-6th	2.61	2.68 x
16. Quiet classroom enhances learning	2.66	2.56 x
17. Open-classroom suitable for most children	2.61	3.12 xo
18. Student should not depend on teacher: 1st-3rd	3.80	3.78
19. Student should not depend on teacher: 4th-6th	3.15	2.93
20. Freedom of movement causes discipline problems	3.17	2.88 x
21. Learn fundamentals just as well: 1st-3rd	3.39	3.56 x
22. Learn fundamentals just as well: 4th-6th	3.07	3.22 x

x = Difference in means judged to be in direction of less favorable attitude toward open-concept of education

o = Significant difference at 5% level of confidence

APPENDIX G

RAW-SCORE TABULATION OF SECOND COMPONENT/SECTION I RESPONSES

	OPEN-SPACE			NON-OPEN-SPACE		
	<u>Expect.</u> 16	<u>Un-</u> 6	<u>Don't</u> <u>Know</u> 0	<u>Expect.</u> 6	<u>Un-</u> 1	<u>Don't</u> <u>Know</u> 3
1. Teachers work in teams	17	1	4	5	0	5
2. Fundamental skills de-emphasized	17	5	0	6	2	2
3. Small group/individual learning	11	3	8	5	2	3
4. Less expensive to build	16	5	1	10	0	0
5. Chairs and desks in orderly rows	12	3	7	3	2	5
6. More discipline problems	12	4	6	7	0	3
7. Open-space classrooms quieter	15	0	7	2	2	6
8. Student/Teacher conferences	11	10	1	3	5	2
9. Students in different grades together	16	5	1	4	3	3
10. Few fixed interior walls	8	12	2	7	2	1
11. Students free to choose activities	11	4	7	4	3	3
12. More emphasis on "learning how to learn"	15	4	3	6	1	3
13. Teachers make assignment to whole class	7	13	2	8	0	2
14. Students allowed to move freely	14	4	4	6	1	3
15. Teacher acts as a resource person						

N=22

N=10

APPENDIX H

PERCENTAGE TABULATION OF SECOND COMPONENT/SECTION II RESPONSES

	OPEN-SPACE					NON-OPEN-SPACE				
	SA	A	U	D	SD	SA	A	U	D	SD
1. Should communicate feelings in classroom	29	59	3	7	0	18	54	4	18	4
2. Learn at own pace and as own needs require	44	40	7	7	0	13	77	0	9	0
3. Not wise to have children in different grades together	3	25	11	51	7	9	18	27	45	0
4. Children not responsible to direct activities: 1st-3rd	25	40	10	18	3	36	54	4	4	0
5. Children not responsible to direct activities: 4th-6th	3	22	28	40	3	22	45	9	22	0
6. Competition should be encouraged: 1st-3rd	3	14	10	55	14	0	27	13	40	18
7. Competition should be encouraged: 4th-6th	14	18	14	44	7	0	36	13	40	9
8. More important "to learn how to learn"	11	51	25	7	3	18	59	4	13	4
9. Should be allowed to move about freely: 1st-3rd	0	14	22	51	11	0	18	4	54	22
10. Should be allowed to move about freely: 4th-6th	0	37	33	22	7	0	31	13	31	22
11. Traditional letter-grade approp.: 1st-3rd	7	11	40	33	7	9	36	4	45	4
12. Traditional letter-grade approp.: 4th-6th	11	25	29	25	7	13	36	9	36	4
13. Learn best individually, or in small group	37	48	14	0	0	22	63	13	0	0
14. Teacher should be guide and resource person: 1st-3rd	3	25	18	40	11	4	36	9	31	18
15. Teacher should be guide and resource person: 4th-6th	7	33	25	25	7	0	50	22	18	9
16. Quiet classroom enhances learning	14	48	25	7	3	18	45	9	27	0
17. Open-classroom suitable for most children	3	25	33	25	11	4	22	22	40	9
18. Student should not depend on teacher: 1st-3rd	0	3	18	66	11	0	4	9	59	27
19. Student should not depend on teacher: 4th-6th	0	37	18	40	3	0	18	22	40	18
20. Freedom of movement causes discipline problems	7	25	37	25	3	9	59	13	13	4
21. Learn fundamental skills just as well: 1st-3rd	3	3	28	44	18	4	4	13	59	18
22. Learn fundamental skills just as well: 4th-6th	3	14	40	29	11	4	13	27	40	13

N=27

N=22

APPENDIX I

SECOND COMPONENT/SECTION II MEANS

<u>Question</u>	<u>O-S</u>	<u>N-O-S</u>
1. Should communicate feelings in classroom	1.78	2.36 x
2. Learn at own pace and as own needs require	1.78	2.05 x
3. Not wise to have children in different grades together	3.33	3.09 x
4. Children not responsible directing activities: 1st-3rd	2.22	1.77 x
5. Children not responsible directing activities: 4th-6th	3.07	2.32 x
6. Competition should be encouraged: 1st-3rd	3.52	3.50 x
7. Competition should be encouraged: 4th-6th	3.00	3.23
8. More important "to learn how to learn"	2.41	2.27
9. Should be allowed to move freely: 1st-3rd	3.60	3.82 x
10. Should be allowed to move freely: 4th-6th	3.00	3.45 x
11. Traditional letter-grades appropriate: 1st-3rd	3.22	3.00 x
12. Traditional letter-grades appropriate: 4th-6th	2.93	2.82 x
13. Learn best individually, or in small groups	1.78	1.91 x
14. Teacher should be guide and resource person: 1st-3rd	3.30	3.23
15. Teacher should be guide and resource person: 4th-6th	2.93	2.86
16. Quiet classroom enhances learning	2.37	2.45
17. Open-classroom suitable for most children	3.15	3.27 x
18. Student should not depend on teacher: 1st-3rd	3.85	4.09 x
19. Student should not depend on teacher: 4th-6th	3.11	3.59 x
20. Freedom of movement causes discipline problems	2.93	2.45 x
21. Learn fundamentals just as well: 1st-3rd	3.59	3.82 x
22. Learn fundamentals just as well: 4th-6th	3.19	3.45 x

x = Difference in means judged to indicate less favorable attitude among N-O-S parents than among O-S parents toward open-concept of education.

APPENDIX J

In order to determine if any differences existed between a linear combination of the responses by parents of O-S and N-O-S respondents, the following procedure was used. First,¹ a Varimax Solution Factor Analysis of the parent responses was performed, the first factor of which is included in Table 5.

Secondly, a factor score² was generated for each O-S and N-O-S parent using the loadings from the first factor. Subsequently a Variance Components Analysis³ was performed to determine if any significant differences existed between the Mean Factor Score for O-S and N-O-S parents. The results of this analysis are reported in Table 6.

1. For a discussion of factor analysis see IBM application number 1130-CA-06X, (N.Y. IBM) 1971, pp. 35-41.

2. A factor score is a weighted combination of the scores of all the questions that contribute to that factor.

3. For a discussion of analysis of variance see: R.L. Anderson and F. A. Bancroft, Statistical Theory In Research, (N.Y. McGraw-Hill), 1952.

TABLE 5

VARIMAX FACTOR ANALYSIS: FIRST FACTOR LOADINGS

<u>Question</u>	<u>Loading</u>
1	-.1470
2	-.2797
3	.2901
4	.1971
5	-.0185
6	-.0331
7	.0077
8	.0880
9	-.3474
10	-.3345
11	.1192
12	.1745
13	-.0253
14	-.5365
15	-.1785
16	.1210
17	-.7877
18	-.7390
19	-.5813
20	.4943
21	-.8368
22	-.7185

TABLE 6
ANALYSIS OF VARIANCE

<u>Source</u>	<u>D.F.</u>	<u>SS</u>	<u>MS</u>	<u>F</u>
O.S./N.O.S.	1	1.0422	1.0422	8.74 *
Schools	5	0.5969	0.1193	

D.F. - Degrees of Freedom

SS - Sum of Squares

MS - Mean Squares

* - Significant at 5% Level of Confidence

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1. Frase, Larry, A Brief Guide For Teachers Towards The Utilization of The Concept of "Open-Space" As An Aspect of Instructional Individualization, Arizona State University, 1971.
2. Lippitt, Ronald; Watson, Jeanne; and Westley, Bruce; The Dynamics of Planned Change, Harcourt, Brace, and Company, New York, 1958.