DOCUMENT RESUME

ED 091 850 EA 006 207

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TITLE Open Area Study. Final Report.
INSTITUTION Peel Board of Education, Mississauga (Ontario).
PUB DATE Jun 74
NOTE 48p.

EDRS PRICE MF-$0.75 HC-$1.85 PLUS POSTAGE
DESCRIPTORS *Academic Achievement; *Comparative Analysis; Educational Research; *Environmental Influences; Evaluation; Grade 4; Grade 7; *Open Plan Schools; Parent Attitudes; Questionnaires; Student Attitudes; Teacher Attitudes; Test Results; *Traditional Schools

ABSTRACT

Ten hypotheses were tested to evaluate the effects on pupils and teachers of open space construction. Over 2,000 students in open and traditional schools were selected for experimental and "control" groups. Grades 4 and 7 pupils were selected specifically since major data indicative of academic achievement were drawn from the County Testing Program that was administered to all grades 4 and 7 students. In addition to these tests, questionnaires were sent to teachers and principals of schools involved in the study and to about 500 parents. Study findings indicate in part that there are no significant differences in achievement between students in open plan and traditional design schools, and that students from traditional design schools express significantly more positive attitudes about the nonphysical and physical aspects of their learning environment than do students in open plan schools. (Appendixes may reproduce poorly.) (MLF)

THE PEEL BOARD OF EDUCATION

PROGRAM COMMITTEE

REPORT ON OPEN AREA STUDY

Recommendation:

It is recommended that this report be received.

Prepared by: Mrs. J. Spigel

Submitted by: Mr. W.D. McVie

June 10, 1974

THE PEEL BOARD OF EDUCATION

FINAL REPORT

OPEN AREA STUDY

(Incorporating the
November 1973
Interim Progress Report)

June 1974

Prepared by: Mrs. J. Spigel
Research Officer

THE PEEL BOARD OF EDUCATION

FINAL REPORT

OPEN AREA STUDY

– Prepared by Mrs. J. Spigel, Research Officer, June 1974

I: SUMMARY OF CONCLUSIONS

(1) Hypothesis 1a & 1b, regarding academic achievement:

In summary, with only two exceptions, there are no significant differences in achievement between students in open area and traditional design schools, in Grades 4 and 7. Both exceptions involve students in the Low I.Q. grouping; at Grade 4 level, Low I.Q. students in open area schools show significantly higher scores on the Reading subtest, compared to Low I.Q. students in traditional settings. At the Grade 7 level, Low I.Q. students in traditional settings score significantly higher on the Vocabulary subtests.

(2) Hypothesis 2, regarding "motivation to learn":

In summary, on this questionnaire Grade 4 students from traditional design schools express significantly more positive attitudes about the non-physical and physical aspects of their learning environment, compared to students from open area schools. The two groups do not differ on the other four dimensions tapped by the questionnaire.

Grade 7 students from traditional design schools express significantly more positive attitudes on all but one dimension of the questionnaire.

With respect to attitude differences between boys and girls, Grade 4 students in the two types of settings show almost no differences in response patterns. The exception is Dimension F (global attitude toward school and learning), where girls tend to have a more positive attitude than boys.

At the Grade 7 level, boys and girls show some difference on Dimension D in both types of schools, with girls expressing more positive attitudes about peer relationships. Girls in the traditional schools also manifest significantly more positive global attitudes toward school, compared to boys (Dimension F).

(3) Hypothesis 3, regarding library and research skills:

In summary, regarding Hypothesis 3, data based on the Teacher Questionnaire suggests that both open area and traditional construction teachers feel that their students are developing quite adequately in terms of creativity, curiosity, and problem-solving ability. However, with respect to "research skills" and the teaching of "learning strategies", more open area than traditional construction teachers appear to place emphasis here.

(4) Hypothesis 4, regarding ease of oral communication:

In summary, Grade 4 data from the Student Questionnaire is consistent with the one relevant finding from the Teacher Questionnaire: students in the two types of schools do not seem to differ in terms of verbal interchange. However, at the Grade 7 level, there is some evidence that students in traditional design schools have a more positive attitude toward verbal exchanges in the classroom setting.

(5) Hypothesis 5, regarding general characteristics of teaching staff selected for open area schools:

On the basis of questions #9 and 10 from the Principal - Vice-Principal Questionnaire, it seems that respondents from open area and traditional construction schools seek virtually the same characteristics in their teaching staff. However, it also appears that Principals and Vice-Principals from traditional construction schools are more satisfied than their open area counterparts with the staffing decisions made over the past two years.

(6) Hypothesis 6, regarding strains and pressures on teachers:

The findings regarding Hypothesis 6 are complex and require some clarification. Although there is no strong indication that open area and traditional construction teachers differ substantially in the amount of "strains and pressures" they sustain, some patterns and potential problem areas can be seen.

Both open area and traditional construction teachers express general satisfaction with several global aspects of their teaching situation (question #15). Although more traditional construction than open area teachers feel that their school "expects too much of teachers" (question #30 (g)), there is no difference between the two groupings of teachers in their assessment of the "stresses and strains" that accompany teaching (question #31 (h)). Findings for question #21 suggest that open area teachers spend more hours per month in non-classroom activities, such as "staff meetings," "marking assigned work and tests," "parent conferences," and "informal counselling." Teachers from traditional construction schools report spending more time doing "remedial work with students and tutoring."

Findings relating to "preparation time" and "work load" are somewhat inconsistent: on one hand, more traditional construction teachers seem to feel this is an area of difficulty (question #31 (n)), although open area teachers strongly emphasize that these are problem areas for a teacher entering an open area setting.

Hypothesis 6, continued:

Problems involved in discipline and student control do appear to constitute a stressful situation for open area teachers compared to traditional construction teachers (question #31 (u)), and a sizeable proportion of open area teachers perceive these factors as problems for a new open area teacher (question #32). Other potential problem areas emphasized by open area teachers are "team teaching and the need for consensus" and "noise level."

In general, the two groupings of teachers do not differ in their assessment of overall satisfaction or of the strains involved in teaching. However, open area teachers do report spending more time in non-classroom activities; they also indicate that discipline problems, team teaching, and general work load may constitute stressful areas, especially for a teacher entering the open area situation for the first time.

(7) Hypothesis 7, regarding professional growth of teachers:

In summary, except for the activities listed in question #27, there seem to be few indications of differences in professional development between open area and traditional construction teachers. Many of the trends can be understood in the context of the different age distribution in the two groupings of teachers. It should also be emphasized, with respect to question #27, that the traditional construction group of teachers represents only a small number of teachers; also, despite differences in percentages the two groups of teachers for question #27, sizeable proportions of open area teachers do engage in most of these professional development activities.

(8) Hypothesis 8, regarding utilization of human and material resources:

In summary, these questionnaire items indicate some tendency for greater utilization of material resources in open area than traditional construction schools. However, this is a very general estimate, and with the data presently available we cannot control for the possibility that the open area schools might have considerably more equipment to start with (supported by questions #15 (j) and #30 (e)), or that open area schools might provide students with easier access to these facilities, which would result in increased usage.

(9) Hypothesis 9, regarding parents' attitudes and reactions toward the school program:

In summary, it appears that parents of Grade 4's in open area schools have more positive attitudes toward the school and its programs than do parents of Grade 7's in open area schools. Both groups of Grade 4 parents (open area and traditional school) feel generally positive about their children's school. More parents of open area students express, in addition, the feeling that their children have a greater choice of lessons or activities, can move more freely around the classroom area and that the classrooms are well equipped; more of these parents also feel that students should be allowed to choose their own classroom projects, that increased freedom in the classroom develops a sense of responsibility, and that open area classrooms improve the quality of education. These parents do not feel that increased freedom in the classroom creates confusion.

At the Grade 7 level, the picture seems to become somewhat less positive. Parents of Grade 7's in open area schools do not feel that the school provides them with "clear information" in the areas of social behaviour and general problem areas; there is also a tendency for them to feel that information about reading and writing is lacking. Fewer parents of open area Grade 7's express satisfaction with their children's arithmetic skills and their ability to work on their own; there is also a tendency for fewer open area parents to be satisfied with their children's art skills and ability to make decisions. These parents feel that they should be able, if they wish, to send their children to a different school, a finding that implies dissatisfaction with their children's current school setting.

(10) Hypothesis 10, regarding such student attributes as self-reliance, independence, ability to accept responsibility for their own decisions and behaviour, general sense of security, and feelings about self.

The findings show that Grade 4's in traditional design schools manifest significantly higher scores in the areas of Security, Consistency, and Independence; these students are also significantly lower in Insecurity (by "t" test, $P = < .01$, $< .025$, $< .001$, and $< .01$, respectively).

II: INTRODUCTION

In the spring of 1972, the Peel County Board of Education approved a proposal for an evaluation of its open area schools. A number of hypotheses were put forth for examination, which were seen as being of particular concern in an examination of open area schools.

At that time it was agreed that this study should emphasize evaluating the effects on pupils and teachers of constructing open space; the effects of a so-called "open" approach to teaching or curriculum — which might be present in any type of construction — were not the focus of interest. This study was not conceived as an investigation of teaching methodologies or philosophies. Rather, given an open area and the assumptions commonly made about what will occur in this type of setting, is there any objective basis for assuming that these things are happening?

III: BOARD RECOMMENDATION, JUNE, 1972

"It is recommended that Peel County request its Research Officer to proceed to test hypotheses outlined in the proposal for evaluation of open area schools."

"In the proposed study of open area schools it is assumed that we are attempting to evaluate the effect of a type of construction upon what happens to pupils and not the effect of a so-called open approach to children or curriculum which may be present in any type of construction. It is essential that agreement be reached as to the accuracy of this objective before the suggestions which follow are weighed."

The areas of concern delinated in the 1972 Board recommendation were:

(1) Academic achievement;
(2) Attitudes of students toward school;
(3) The standard of development in learning processes such as library skills, research skills, competence in oral communications;
(4) Implications for staff: e.g., ease of recruitment, strain, professional growth, and preparation and selection.

Specific hypotheses recommended for testing are presented in Section IV, along with data currently available to assess them.

IV: SAMPLE STUDIED AND INSTRUMENTS USED

Students in open and traditional construction schools were selected for "experimental" and "control" groups. Grade 4 and 7 pupils were selected specifically, since major data indicative of academic achievement was drawn from the County Testing program (spring, 1973) which was administered to all Grade 4 and 7 students.

Students were included in the "experimental" (open area) group only if they were enrolled in the open area school during the 1971-1972 school year, or earlier - this was done to ensure that experimental students had been in an open area setting for more than six months. Although the study is now limited to Grades 4 and 7, once any meaningful areas are delineated, a Grade 8 sample might be studied to see if these trends emerge here, as well.

Some sensitivity is lost in designating the experimental group, since the small number of schools involved (15 for Grade 4 students, 5 for Grade 7 students) does not permit controlling for the various types of open area construction, which may affect pupils differently - e.g., two-pod design; 4-pod design; schools with some open and some enclosed areas; schools which are completely "open" in construction etc. Some light may be shed on this question, however, in analyzing responses to the Teacher and Principal Questionnaires. In these questionnaires respondents designated whether they taught in schools that were "open area", "traditional," or "a combination"; responses to these questionnaires were examined in the context of these three groupings.

The following data-collecting instruments were utilized:

(1) Results from the Spring, 1973 County Testing program, in which the Canadian Lorge-Thorndike Intelligence Test (C.L.I.T.) and Canadian Test of Basic Skills (C.T.B.S.) were administered to all Grade 4 and Grade 7 students.

(2) A Teacher Questionnaire, designed to discover teachers' attitudes toward a variety of educational questions. Items relating to areas of concern for teachers in open vs. traditional construction schools were built into this instrument. Respondents were assured anonymity, and the return of the questionnaire was voluntary. The questionnaires were sent to all experimental and control schools, for distribution to teachers of Grade 4 and Grade 7 classes included in the study. Fifty-two out of 102 questionnaires were completed and returned (50%). [See Appendix A.]

(3) A Principal - Vice-Principal Questionnaire, designed to tap principals' and vice-principals' opinions on some broad educational issues, and also to gather some information on qualities they consider important in teachers in open area and traditional construction schools. A questionnaire was sent to the principal and vice-principal(s) of each experimental and control school included in the study. Thirty-three out of 45 questionnaires were completed and returned (73%). [See Appendix B.]

(4) The Story of Jimmy questionnaire was administered to about 600 Grade 4 students in eight schools chosen randomly from the total number of schools in the study.

This questionnaire, which is one form of the Institute of Child Study Security Test, is "organized around the concept of security..the child's willingness to accept consequences for his decisions or behaviour..In this context, security involves the child's feelings about himself as reflected by his skills and resources in dealing with the 'significant' events of his world." This test (which relates specifically to Hypothesis 10 "is designed to obtain a measure of security as revealed by the child's consistency in dealing with the current significant events of his life." (Cited from the Test Manual.)

(5) A Student Questionnaire, designed to tap Grade 4 and 7 student attitudes toward certain broad dimensions of the school and program; specifically, attitude toward overall school program and classroom climate, toward characteristics of the physical learning environment, toward teachers, friends and the classroom as a unit. This questionnaire was administered to 660 Grade 4 students in open area schools and 399 Grade 4 students in traditional design schools; and also to 714 Grade 7 students in open area schools and 547 Grade 7 students in traditional design schools. [See Appendix C.]

(6) A Parent Questionnaire, designed to tap various dimensions of satisfaction with the school and its program, and views on educational issues. This anonymous questionnaire was mailed out to about 500 parents, with a stamped return envelope enclosed. Parents of Grade 4 and 7 students in both open area and traditional design schools received this survey. About a 50% return was obtained (135 Grade 4 parents and 118 Grade 7 parents). [See Apendix D.]

V: HYPOTHESES AND FINDINGS

- Hypothesis 1a: There will be no differences in the development of academic skills in pupils from open area and traditional construction schools.

- Hypothesis 1b: There will be no differences in achievement among pupils with specific mental abilities in specific aspects of such subjects, in pupils from open area and traditional construction schools.

These two hypotheses are closely related, and the source of relevant data was the County Testing program, carried out for Grades 4 and 7 in early spring, 1973. As mentioned earlier, only students with a minimum of six months in an open area setting were included in the experimental group.

With respect to Hypothesis 1a, scores on subtests of the Canadian Test of Basic Skills (C.T.B.S.) were compared for experimental and control pupils, to see whether any significant overall differences would emerge between pupils in open area and traditional construction school settings. The literature on open area education suggests that this environment provides a richer and more varied learning experience for children.

If true, and if this learning experience is associated with the type of learning underlying the acquisition of basic academic skills, this might well be reflected in higher C.T.B.S. scores for pupils in open area settings.

Overall means were computed for Grade 4 and Grade 7 students in open and traditional construction settings, for three subtests of the C.T.B.S. - Vocabulary, Reading, and Mathematics. These means, and the computed "t" values for each set, are presented below; the figures represent grade-equivalent scores.

GRADE 4

	Open N=675	Traditional N=259	
Vocab.	4.5	4.5	— "t" not significant
Reading	4.5	4.4	— "t" not significant
Math	4.6	4.6	— "t" not significant

GRADE 7

	Open N=675	Traditional N=259	
Vocab.	7.0	7.2	— "t" = 2.02, significant at P = < .01
Reading	7.1	7.1	— "t" not significant
Math	7.3	7.4	— "t" not significant

At the Grade 4 level, there are no significant differences between students in open area and traditional design schools on the Vocabulary, Reading, or Math subtests of the C.T.B.S.

At the Grade 7 level, students in the traditional design schools score significantly better than their counterparts in open area schools, on the Vocabulary subtest. Grade 7 students in the two types of schools do not differ on the Reading or Math subtests.

With respect to Hypothesis 1.b, Grade 4 and 7 students in the experimental and control groups were divided into High, Middle, and Low I.Q. groups, on the basis of their scores on the Canadian Lorge-Thorndike Intelligence Test (C.L.I.T.), also administered on a county-wide basis in early spring, 1973. High I.Q. students were defined as those with a score of 111 or higher on the C.L.I.T.; Middle I.Q. students were those with a C.L.I.T. score of 90 to 110; and Low I.Q. students were those with a C.L.I.T. score of 89 or lower.

Mean scores for High, Middle, and Low I.Q. students were examined separately for the three C.T.B.S. subtests. These means, and the computed "t" values for each set, are presented below; again, the figures represent grade-equivalent scores.

GRADE 4

	Open		Traditional		
VOCABULARY					
High I.Q.	5.5	(N=192)	5.5	(N= 68)	"t" not significant
Mid. I.Q.	4.4	(N=362)	4.5	(N=139)	"t" not significant
Low I.Q.	3.5	(N=121)	3.4	(N= 52)	"t" not significant
READING					
High I.Q.	5.4	(N=192)	5.6	(N= 68)	"t" not significant
Mid. I.Q.	4.4	(N=362)	4.3	(N=139)	"t" not significant
Low I.Q.	3.6	(N=121)	3.3	(N= 52)	"t" = 2.5, significant at P = < .02
MATH.					
High I.Q.	5.6	(N=168)	5.5	(N= 68)	"t" not significant
Mid. I.Q.	4.6	(N=362)	4.6	(N=139)	"t" not significant
Low I.Q.	3.6	(N=121)	3.7	(N= 52)	"t" not significant

GRADE 7

	Open		Traditional		
VOCABULARY					
High I.Q.	8.2	(N=186)	8.2	(N= 58)	"t" not significant
Mid. I.Q.	7.1	(N=328)	7.1	(N=141)	"t" not significant
Low I.Q.	5.8	(N=118)	6.5	(N= 24)	"t" = 2.9, significant at P = < .01
READING					
High I.Q.	8.3	(N=186)	8.1	(N= 58)	"t" not significant
Mid. I.Q.	7.2	(N=328)	7.0	(N=141)	"t" not significant
Low I.Q.	5.8	(N=118)	6.1	(N= 24)	"t" not significant
MATH					
High I.Q.	8.4	(N=186)	8.6	(N= 58)	"t" not significant
Mid. I.Q.	7.2	(N=328)	7.2	(N=141)	"t" not significant
Low I.Q.	6.0	(N=118)	6.2	(N= 24)	"t" not significant

With respect to this more detailed breakdown, Grade 4 pupils in open area and traditional settings do not differ significantly on the Vocabulary or Math subtests, regardless of I.Q. level. However, a significant difference does emerge on the Reading subtest. Low I.Q. students in open area settings score significantly higher on the subtest than Low I.Q. students in traditional schools. There is no significant difference on the Reading subtest, between High I.Q. or Middle I.Q. students in the two types of school settings.

When data for Grade 7 students in the two types of schools are examined by I.Q. groupings, no significant differences emerge for the Reading or Math subtest. However, on the Vocabulary subtest, Low I.Q. students in traditional settings score significantly higher than their Low I.Q. counterparts in open area schools.

In summary, with only two exceptions, there are no significant differences in achievement between students in open area and traditional design schools, in Grades 4 and 7. Both exceptions involve students in the Low I.Q. grouping; at Grade 4 level, Low I.Q. students in open area schools show significantly higher scores on the Reading subtest, compared to Low I.Q. students in traditional settings. At the Grade 7 level, Low I.Q. students in traditional settings score significantly higher on the Vocabulary subtest.

This lack of significant differences in achievement between students in open area and traditional settings is consistant with current research. A recent Canadian Education Association report[1] states:

> "There is no definite answer yet as to whether children in open area are learning to read, write, and do arithmetic better or even as well as students in a traditional structure. Very little testing to prove the point one way or the other has been done, and most of that which has been attempted has not produced conclusive results." (Page 20)

Similarly, studies conducted by the York County Board of Education, using the Metropolitan Achievement Tests, showed no significant differences between pupils in open area and conventional design schools. [2,3]

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[1] The Canadian Education Association. Open-Area Schools: Report of a CEA Study. Toronto: The Bryant Press, Ltd., 1973.

[2] Burnham, Brian. "Studies of Open Education: No. 6: Reading, Spelling, and Mathematics Achievement of Grade 2 Pupils in Open Plan and Architecturally Conventional Schools," York County Board of Education, Research Office, Division of Planning and Development, March, 1973.

[3] Burnham, Brian. "Studies of Open Education: No. 1: Reading and Mathematics Achievement of Grade 3 Pupils in Open Plan and Architecturally Conventional Schools — The Third Year of a Longitudinal Study." York County Board of Education, Research Office, Division of Planning and Development, October, 1973.

- Hypothesis 2: There will be no differences in "motivation to learn" in pupils from open area and traditional construction schools.

The construct, "motivation to learn", is difficult to define in terms suitable for measurement. "Motivation to learn" incorporates an entire complex of intellectual, emotional, and social factors that combine differently in each student so that some are mobilized, excited, and reinforced in the learning situation, and others remain apathetic and disinterested.

An initial review of the literature disclosed virtually no instruments for assessing this dimension. One instrument, The Junior Index of Motivation, seemed initially promising for use with Grade 7 students, as it claimed to assess "young people's motivation to learn in school." However, closer examination of this scale, inconsultation with principals, indicated that this scale might not be an appropriate measure of motivation for the Grade 7 students.

A five-member committee from the Peel County Principals and Vice-Principals Association was formed in October, 1973, to work with the Research Officer in constructing an instrument to assess student attitude in the two types of schools. An adaptation of the "School Sentiment Index" from the Instructional Objectives Exchange[4] was finalized for use with Grade 4 and Grade 7 students (see Appendix C).

As noted earlier (Section III), the final instrument (see Appendix C) was designed to tap student attitude in various areas related to school experience. The questionnaire was administered to 660 Grade 4 students in open area schools and to 399 Grade 4 students in traditional design schools; also to 714 Grade 7 students in open area schools and to 547 Grade 7 students in traditional schools.

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[4] Instructional Objectives Exchange. Attitude Toward School, Grade K-12. Los Angeles: U.C.L.A. Center for the Study of Evaluation, Instructional Objectives Exchange, 1970.

The 50 questionnaire items were combined into the following six dimensions for analysis:

Dimension A: attitude toward characteristics of the non-physical learning environment (including aspects of school program, difficulty of schoolwork, classroom climate, etc.).

Dimension B: attitude toward characteristics of the physical learning environment (including feelings about crowding, noise, distractions, interruptions, equipment, amount and kind of physical movement within the classroom and school, classroom arrangement, etc.).

Dimension C: attitude toward interaction with teachers, Principal or Vice-Principal, and other school staff (including type and frequency of contact, feelings about authority and control, etc.).

Dimension D: Attitude toward relationships with peers; quality of social interactions.

Dimension E: attitude toward working in, being a member of, a larger "group" or classroom unit, including aspects of working specifically in a group situation.

Dimension F: global attitudes toward school and learning.

Grade 4 students in the two types of school setting differ significantly with respect to Dimension A, with students from the traditional design schools expressing significantly more positive attitudes in this area (by chi square, $P = < .001$). A similar finding emerges for Dimension B, where Grade 4 students in traditional settings express significantly more positive attitudes regarding their physical learning environment (by chi square, $P = < .001$). Students from the two types of schools do not differ significantly on Dimensions C, D, E, or F.

Grade 7 students from open area and traditional design schools differ significantly on five of the six dimensions. In every case, the difference goes in the same direction, with students from traditional schools expressing significantly more positive attitudes. This difference is significant for Dimension A (by chi square, $P = < .01$); for Dimension B (by chi square, $P = < .01$); for Dimension C (by chi square, $P = < .01$); for Dimension D (by chi square, $P = < .02$); and for Dimension F (by chi square, $P = < .02$). The difference between the two groups of students for Dimension E is not significant.

Questionnaire results were also analysed to see whether attitudes of boys and girls differed for Grade 4 and 7 students, within each type of setting.

Grade 4 boys and girls in the open area sample do not differ significantly on any of the dimensions, except Dimension F (global attitudes toward school and learning), where girls express significantly more positive attitudes than boys (by chi square, $P = < .05$).

Similarly, Grade 4 boys and girls in the traditional design schools do not differ on any of the first five dimensions (A - E). The data for Dimension F approaches significance (by chi square, $P = > .05 < .10$), with girls tending to express more positive attitudes than boys.

Grade 7 boys and girls in the open area sample do not differ significantly on any of the six dimensions; however, the data for Dimension D (relating to peer interaction) approaches significance (by chi square, $P = > .05 < .10$), with girls having a more positive attitude than boys.

Grade 7 boys and girls in the traditional setting show trends on two of the six dimensions, although in both cases the differences approach — but do not reach — statistical significance (by chi square, $P = > .05 < .10$, in both cases). The two dimensions are Dimension D (peer interaction) and F (global attitudes toward school), with girls again manifesting the more positive response pattern.

In summary, on this questionnaire Grade 4 students from traditional design schools express significantly more positive attitudes about the non-physical and physical aspects of their learning environment, compared to students from open area schools. The two groups do not differ on the other four dimensions tapped by the questionnaire.

Grade 7 students from traditional design schools express significantly more positive attitudes on all but one dimension of the questionnaire.

With respect to attitude differences between boys and girls, Grade 4 students in the two types of settings show almost no differences in response patterns. The exception is Dimension F (global attitude toward school and learning), where girls tend to have a more positive attitude than boys.

At the Grade 7 level, boys and girls show some difference on Dimension D in both types of schools, with girls expressing more positive attitudes about peer relationships. Girls in the traditional schools also manifest significantly more positive global attitudes toward school, compared to boys (Dimension F).

- Hypothesis 3: There will be no difference in level of library and research skills between children in open area and construction schools.

Some items in the Teacher Questionnaire (see Appendix A) relate to this hypothesis. Teacher Judgments about these skills in their pupils are examined separately for open area, traditional construction, and "combination" schools. Because of the small size of the teacher groups from the three types of schools (20 open area teachers, 7 traditional construction teachers, and 25 "combination" teachers), findings are discussed in terms of trends.

Question #15 (f) in the Teacher Questionnaire asks the teacher to assess her degree of satisfaction with the "research skills of my pupils." About two-thirds of the open area teachers report that they are "satisfied" or "very satisfied" with these skills in their pupils, compared to about half of the traditional teachers and about a third of the "combined" teachers.

Questions #16 (f) and (g) in the Teacher Questionnaire ask for the teachers' assessment of her class achievement on two educational objectives related to the development of research skills: "curiosity about the environment and an inquisitive attitude toward learning," and "the ability to make reasonable judgments and solve problems." On the first of these items (curiosity and inquisitiveness), almost all the open area and traditional construction teachers feel that this objective is "Well Achieved" or has "Average Achievement" by their classes. It is interesting that only about 75% of the "combined"teachers rate their classes in these two categories; about 25% of these teachers feel that this objective is "Poorly Achieved" by their classes. A very similar pattern of responses is seen for #16 (g), regarding making judgments and solving problems.

Question #30 (i) asks the teacher to estimate the degree to which her school "has a student body who are developing curiosity and creativity." Again, an interesting pattern is seen. About 80% of the open area and traditional construction teachers feel that this is very true for their schools; only half of the "combined" teachers rate their schools this positively, with another third of the teachers rating their schools around the middle on this dimension.

Question #31 (d) in the Teacher Questionnaire asks for the degree of teachers' agreement with the statement: "The primary aim of education should be to teach strategies for children to learn on their own." On this item, about 85% of the open area teachers "Agree" or "Strongly Agree", compared to only about a third of the traditional construction teachers, and about one-half of the "combined" teachers. At the "Disagree" end of the scale, we find about 15% of the open area teachers and about half of the traditional construction teachers, and about a third of the "combined" teachers.

In summary, regarding Hypothesis 3, data based on the Teacher Questionnaire suggests that both open area and traditional construction teachers feel that their students are developing quite adequately in terms of creativity, curiosity, and problem-solving ability. However, with respect to "research skills" and the teaching of "learning strategies", more open area than traditional construction teachers appear to place emphasis here.

- Hypothesis 4: There will be no differences in ease of oral communication in pupils from open area and traditional construction schools.

The difficulties involved in clarifying and objectifying the concept of "ease of oral communication" were discussed in some detail in the November 1972 Preliminary Report on the Open Area Study. In that report, some possible ways of approaching this problem were discussed, all of them involving considerable input in terms of classroom time, or in terms of effort and expense for analyzing taped excerpts of students' oral behaviour. To date, it has not been possible to develop a feasible means of approaching this hypothesis specifically.

One question in the Teacher Questionnaire relates tangentially to this issue. Question #31 (b) asks for the degree of teachers' agreement with the statement: "Children should be free to ask as many questions as they wish, whenever they wish." About 60% of both open area and traditional construction teachers agree with this statement; about half of the "combined" teachers respond in this way.

Three questions in the Student Questionnaire (see Appendix C) may also throw some light on this issue. One question (#25) refers to whether the student likes "asking questions when I don't understand something." Grade 4 students from open and traditional schools do not differ at all on this item; however, at the Grade 7 level, students from traditional settings are significantly more positive on this item than open area students.

Question #33 in the Student Questionnaire asks whether the respondent likes "giving a talk to my class." There are no significant differences in response to this item for students from open area or traditional design schools, either at the Grade 4 or Grade 7 level.

Question #37 in the Student Questionnaire asks whether "most of the class joins in when there's a class discussion." At the Grade 4 level, students in the two types of schools do not differ on this item. However, at the Grade 7 level, significantly more students in traditional setting respond positively to this item.

In summary, Grade 4 data from the Student Questionnaire is consistent with the one relevant finding from the Teacher Questionnaire: students in the two types of schools do not seem to differ in terms of verbal interchange. However, at the Grade 7 level, there is some evidence that students in traditional design schools have a more positive attitude toward verbal exchanges in the classroom setting.

- Hypothesis 5: There will be no differences in the general characteristics of teaching staff considered and/or selected for placement in open area and traditional construction schools.

Information on this hypothesis was gathered through the Principal - Vice-Principal Questionnaire (see Appendix B).

Question #9 in the Principal - Vice-Principal Questionnaire asks respondents to select from a list, four teacher characteristics they would consider important in selecting staff. Principals and Vice-Principals of both open and traditional construction schools choose the characteristic "flexibility and adaptability" most frequently. Open area respondents choose the quality of "commitment" as their next most frequent choice; respondents from traditional construction schools are divided in their second choice between "commitment" and "academic qualifications." Principals and Vice-Principals from the two types of school construction select the same characteristic as their third choice: "emotional stamina."

Responses from Principals and Vice-Principals in the "combined" schools show a different pattern. These respondents choose "commitment" as the most important characteristic for teachers, followed by "flexibility and adaptability". The choice of a third important characteristic is divided between "academic qualifications" and "self-confidence."

Principals and Vice-Principals were also asked to indicate their satisfaction with staff selections made during the past two years, (Question #10). About 75% of the open area respondents indicate that they are "Very Satisfied" or "Satisfied" with their staffing selections, compared to all the respondents from traditional construction schools who place themselves in these two categories. About 66% of respondents from the "combined" schools indicate satisfaction.

A few Principals and Vice-Principals wrote additional comments (Question #11 - "In what areas, or with respect to what skills, would you make different decisions if you were selecting teaching staff now?"). Two respondents from open area schools noted that they were quite satisfied with their staff selections to date, but would prefer in future to be sure that new staff members were sufficiently experienced and that staff would be willing to involve parents more directly in the school program. Three respondents from "combined" schools noted that they would like new staff to have a high degree of security and self-confidence; flexibility and adaptability; an understanding of children coupled with an ability to adapt the program to children's needs; and an understanding of class control.

On the basis of questions #9 and 10 from the Principal - Vice-Principal Questionnaire, it seems that respondents from open area and traditional construction schools seek virtually the same characteristics in their teaching staff. However, it also appears that Principals and Vice-Principals from traditional construction schools are more satisfied than their open area counterparts with the staffing decisions made over the past two years.

- Hypothesis 6: There will be no differences in the amounts of strains and pressures on teachers in open area and traditional construction schools.

Data relevant to this hypothesis can be obtained from the Teacher Questionnaire.

Question #14 ("Did you ask to teach in your present school?") relates indirectly to this issue. About 60% of the open area teachers respond "Yes" to this question, compared to about 40% of traditional construction and "combined" teachers. The age of the school, combined with recently changed hiring practices, probably explains the variation.

Question #15 in the Teachers Questionniare asks for ratings of satisfaction on a number of dimensions. A majority (80-100%) of open area and traditional construction teachers expresses strong satisfaction with such areas as "the grade level I now teach," "the behaviour of most of my pupils," the "help I get from principal and/or vice-principal," and "assistance from other teachers." Teachers from "combined" schools are about as satisfied as the other groups of teachers with the grade level they teach and the interaction they have with their pupils; on the other dimensions mentioned, only about 75% of these teachers express strong satisfaction.

Certain dimensions in question #21 provide information on the question of strains and pressures. This question asks teachers to estimate the number of hours per month spent in various non-teaching activities. Analysis of this question should give some picture of the kind of demands made on teachers' non-classroom time, from which inferences about strains and pressures might be made. More than half of the open area teachers report spending 3+ hours per month in "staff meetings", compared to about 30% of the traditional construction teachers, and 20% of the "combined" teachers. A majority of teachers in the three types of schools spend 0-2 hours per month on "school committees" and "attending workshops and conferences". With respect to "marking assigned work and tests," 85% of open area teachers report spending 5+ hours per month, compared to about 70% of the teachers in the traditional construction and "combined" groups. Similarly, 25% of the open area teachers spend 5+ hours per month in "parent conferences," compared to no teachers in the traditional construction group, and 8% in the "combined" group. This trend reverses for the factor "remedial work with students and tutoring", where 86% of teachers in the traditional construction group spend 5+ hours per month, compared to 70% of the open area teachers and 40% of the teachers from the "combined" schools.

An interesting trend emerges regarding "informal counselling with students"; 60% of the open area teachers spend 3 or more hours per month at this activity, compared to about 28% of the traditional construction teachers and 40% of the "combined teachers." All three groups of teachers spend a minimal amount of time "meeting with resource personnel" and with "external committees related to education."

Question #30 (g) asks teachers to what extent they feel their school "expects too much of teachers." About 70% of the open area teachers feel that this is not so, compared to only 43% of traditional construction teachers; teachers from the "combined" schools are similar to open area teachers on this issue, with 80% of them indicating that their schools do not expect too much of them. About half of the traditional construction teachers feel that "to some degree" their school expects too much of them, compared to only 25% of open area teachers and 8% of "combined" teachers.

Question #31 (h) in the Teacher Questionnaire asks for the amount of agreement with the statement: "An undesirable aspect of teaching are the stresses and strains that accompany it." A majority of teachers from all three groups expresses agreement with this statement.

Question #31 (n) asks for the extent of teachers' agreement with the statement: "There's far too much work involved in preparing lessons each day." On this item, about half the traditional construction teachers are in agreement, compared to only about 25% of the open area and the "combined" teachers. (This lower figure for the open area and "combined" teachers may relate to their response to question #18, where considerably more teachers in these two groupings than in the traditional construction grouping indicate that they "usually plan with other teachers."

Another item relating to "strains and pressures" is question #31 (u) in the Teacher Questionnaire, where amount of agreement is asked regarding the statement: "Too much teaching time is taken up with handling discipline problems." Considerably more open area teachers indicate agreement with this statement (45%), compared to traditional construction teachers (29%); teachers in the "combined" grouping fall between the other groupings (36%).

Question #32 in the Teacher Questionnaire asks teachers to assess various potential problem areas for teachers "moving from a traditional to an open area school." Only the responses for the open area group are considered here, in an effort to gain further insight into areas which they have found to be problems and which conceivably contribute a stressful teaching situation. Eighty percent of the open area teachers feel that "team teaching and the need for concensus" constitutes "Quite a Problem" or "Something of a Problem." Also, about half of this group feels that the "necessity of changing teaching methods" and also "scheduling" are problems. Sixty-five percent of the open area teachers see "student control" as constituting a difficult area, which supports the finding for question #31 (u), discussed above. Seventy-five percent of the open area teachers state that "adjusting to noise level" is difficult.

About 60% of the open area teachers feel that "preparation time needed for daily lessons" and "work load" are problem areas for a teacher entering the open area setting; this is not consistent with the finding for question #31 (n), above, where open area teachers did not feel there was "far too much work involved in preparing lessons each day." Perhaps they perceive "preparation time" as an initial problem for teachers entering the open area situation, but a problem that is alleviated if co-operative planning with other teachers is effected. (Such co-operative planning may not be easily achieved, in light of the large number of teachers who designate "team teaching and the need for concensus" as a problem area.)

The findings regarding Hypothesis 6 are complex and require some clarification. Although there is no strong indication that open area and traditional construction teachers differ substantially in the amount of "strains and pressures" they sustain, some patterns and potential problem areas can be seen.

Both open area and traditional construction teachers express general satisfaction with several global aspects of their teaching situation (question #15). Although more traditional construction than open area teachers feel that their school "expects too much of teachers" (question #30 (g)), there is no difference between the two groupings of teachers in their assessment of the "stresses and strains" that accompany teaching (question #31 (h)). Findings for question #21 suggest that open area teachers spend more hours per month in non-classroom activities, such as "staff meetings," "marking assigned work and tests," "parent conferences," and "informal counselling." Teachers from traditional construction schools report spending more time doing "remedial work with students and tutoring."

Findings relating to "preparation time" and "work load" are somewhat inconsistent: on one hand, more traditional construction teachers seem to feel this is an area of difficulty (question #31 (n)), although open area teachers strongly emphasize that these are problem areas for a teacher entering an open area setting.

Problems involved in discipline and student control do appear to constitute a stressful situation for open area teachers compared to traditional construction teachers (question #31 (u)), and a sizeable proportion of open area teachers perceive these factors as problems for a new open area teacher (question #32). Other potential problem areas emphasized by open area teachers are "team teaching and the need for consensus" and "noise level."

In general, the two groupings of teachers do not differ in their assessment of overall satisfaction or of the strains involved in teaching. However, open area teachers do report spending more time in non-classroom activities; they also indicate that discipline problems, team teaching, and general work load may constitute stressful areas, especially for a teacher entering the open area situation for the first time.

- Hypothesis 7: There will be no differences in the professional growth of teachers in open area and traditional construction schools.

Seven items in the Teacher Questionnaire were designed specifically to assess this hypothesis (question #23 to 29). As for Hypothesis 6 the findings are not clear-cut; in addition, findings related to Hypothesis 7 must be interpreted in light of the fact that open area respondents are generally younger than teachers in traditional construction or "combined" schools; 70% of open area teachers fall into the age category 21 - 29, compared to about 56% for the other two groupings (question #2).

Questions #23 and 29 elicit information about additional studies undertaken by the respondents. More traditional construction than open area teachers have spent three or more "summers since 1968" studying "full - or part-time" (question #23); however, more open area teachers have taken three or more evening courses since 1968 (question #29). It is possible that, since more traditional construction teachers than open area teachers already have university degrees (57% compared to 15%, question #26), the open area teachers are taking evening university extension courses to accumulate credits for a university degree. This is supported by the fact that 60% of the open area teachers do "plan to obtain a university degree" (question #26). There is no strong difference in the proportions of open area and traditional construction teachers who plan to obtain "a post-graduate degree."

Responses of teachers in "combined" schools most closely resemble the traditional construction teachers in their age characteristics, and correspond also to the traditional construction teachers regarding number of summers since 1968 spent studying; however, the "combined" teachers parallel the open area teachers in the number of evening courses taken since 1968 — in other words, the "combined" group of teachers seems to have spent both summer and evening time since 1968 in additional studies.

With respect to readings on educational topics, more traditional construction than open area teachers have read three or more "journals, articles, or books on educational topics" during the past year (question #24) - although the difference is not very marked (86% compared to 75%). Considerably more open area than traditional construction teachers say they regularly read three or more "professional publications (magazines, journals)" (question #25). Again, the teachers from "combined" schools show a high proportion of respondents in the three-or-more categorization for both questions.

About 80-85% of teachers from open area, traditional construction, and "combined" schools report to have attended three or more "workshops, conferences, and professional meetings" in the "past two years" (question #28).

Question #27 asks teachers about a series of possible professional development activities "during the past year". About the same proportion (30%) of open area and traditional construction teachers have "observed the remedial reading program in another school." At least 20% more traditional construction teachers than open area teachers report that they have "visited the resource centre of another school" (100% vs. 65%); "observed the program in your own school, at another level" (100% vs. 75%); "observed the program in a secondary school" (29% vs. 10%); and "observed aspects of the overall program in another school" (86% vs. 65%).

In summary, except for the activities listed in question #27, there seem to be few indications of differences in professional development between open area and traditional construction teachers. Many of the trends can be understood in the context of the different age distribution in the two groupings of teachers. It should also be emphasized, with respect to question #27, that the traditional construction group of teachers reprents only a small number of teachers; also, despite differences in percentages the two groups of teachers for question #27, sizeable proportions of open area teachers do engage in most of these professional development activities.

- Hypothesis 8: There will be no differences in the utilization of human and material resources in open area and traditional construction schools.

Data relating to this hypothesis is also available from the Teacher Questionnaire.

Question #19 asks teachers for an estimate of student use of the library or resource centre. Seventy-five percent of open area teachers report that their students use these facilities "in small groups or individually" three or more times a week; only about 14% of traditional construction teachers fall into this category. However, the majority of traditional construction teachers (86%) report that their students use the library and/or resource centre 1-2 times a week.

A large majority of teachers from both types of school setting indicate that they are "Satisfied" or "Very Satisfied" with the amount and quality of ineraction they have with their pupils (question #15 (c) and (i)).

With respect to "the materials available for my pupils" (question #15 (j)), considerably more open area than traditional construction teachers indicate satisfaction (70% vs. 43%). This trend is supported by responses to question #30 (e), where more open area than traditional construction teachers agree that their school "is well equipped" (80% vs. 29%).

Question #20 in the Teacher Questionnaire provides some information on student use of audio-visual materials. Sixty percent of the open area teachers report that their student "view slides and/or filmstrips" 3 or more times a month; the majority of traditional construction teachers (71%) report this usage as 1-2 times a month by their students.

With respect to "tape recorders or listening stations", 25% of open area classes use these 1 -2 times a month, and 40% use them 3 or more times a month. Most classes (71%) in the traditional construction schools use these materials less than once a month, and about a third of traditional construction classes use them 1 - 2 times a month.

About half the classes from both types of school setting "view a TV program" less than once a month, although 20% of the open area classes view TV 3 or more times a month.

More traditional construction classes than open area classes "view films" 1 - 2 times a month (57% vs. 34%), although slightly more open area classes view films 3 or more times a month (55% vs. 43%).

Open area classes never "listen to the radio" (55%) or listen less than once a month (40%); traditional construction teachers report that about 40% of their classes never listen, that about one third of the classes listens less than once a month, and that about one third listens 1 - 2 times a month.

In summary, these questionnaire items indicate some tendency for greater utilization of material resources in open area than traditional construction schools. However, this is a very general estimate, and with the data presently available we cannot control for the possibility that the open area schools might have considerably more equipment to start with (supported by questions #15 (j) and #30 (c)), or that open area schools might provide students with easier access to these facilities, which would result in increased usage.

- Hypothesis 9: There will be no differences in parents' attitudes and reactions toward the school program, for open area and traditional construction schools.

A survey assessment of parental attitudes should reveal areas of particular satisfaction and dissatisfaction with their children's schools and the quality of the programs offered by the schools. This is an important area of investigation, since strong positive or negative parental attitudes can have marked impact of children's school adjustment, academic motivation, and performance.

The five-member committee from the Peel County Principals and Vice-Principals Association, which assisted in the construction of the Student Questionnaire, were also involved in designing the Parent Questionnaire (see Appendix D).

As mentioned earlier, this questionnaire was designed to tap various dimensions of parental satisfaction with the school and its program, and also to gather information regarding parents' views on educational issues. The questionnaire, which was anonymous, was mailed out to about 500 parents of Grade 4 and 7 children in both open area and traditional construction schools; a stamped return envelope was also enclosed. About a 50 percent return was obtained (135 Grade 4 parents: 62 open area and 73 traditional school; 118 Grade 7 parents: 60 open area and 58 traditional school).

Before the results of the Parent Questionnaire are presented, some related data from the Teacher Questionnaire should be noted. Question #15 (k) in the Teacher Questionnaire asks respondents to indicate their satisfaction with "the interest and co-operation of my pupils' parents." It is interesting that 86% of the traditional construction teachers indicate that they are "Satisfied" or "Very Satisfied" with this factor, compared to 60% of open area teachers. Similarly, more traditional construction teachers (100%) than open area teachers (75%) feel that their school "is appreciated in the local community" (question #30 (b)).

Parents of Grade 4 students in the two types of schools show essentially the same response pattern on question #2 (a), parental sources of information about the school. Both groups of parents obtain the most information about the school from their own children or children's friends, from talks with teachers and other school personnel, and from school bulletins, newsletters, and teachers' notices.

Parents of Grade 4's in open area and traditional design schools do not differ significantly on question #2 (b), regarding information received from the school about the child. A strong majority of all parents feel that they receive clear information from the school about the child's performance and progress in several areas.

Significantly more parents of Grade 4's in open area schools feel that their children "often have a choice of lessons or activities within a subject area"; that their children are "allowed to move freely about the classroom area"; and that their children's classrooms are well equipped (question #3 (b), #3 (c), and #3 (d); by chi square, $P = < .02, < .01$, and $< .05$, respectively). There is some tendency for parents of open area children to feel that their children's classroom are "too crowded", compared to the parents of children in traditional design schools; this latter trend approaches — but does not reach — significance, however (by chi square, $P = > .05 < .10$).

Regarding parent involvement with the school (question #4), significantly fewer open area parents have "talked with the Principal or Vice-Principal about school matters or your own child" (by chi square, $P = < .05$). There are no significant differences between the two groups of parents on any other items in question #4. Hardly any of the parents in either group worked as a volunteer in the school this year, or helped supervise a field trip.

About 80 per cent of each group attended an "open house" at least once during the year, and almost all the parents have talked with their children's teacher at least once.

With respect to question #5, parents of children in the two types of schools do not differ significantly in terms of satisfaction with any of the factors listed. All parents tend to be "Generally Satisfied" with the job the school is doing.

Question #6 asks for parents' views on several educational issues; Parents of Grade 4 students in the two types of school differ significantly on four items. Significantly more parents agree that "students should be allowed to decide what class projects they want to do" (#6 (a), by chi square, $P = < .02$). With respect to the statement, "increased freedom in the classroom creates confusion," significantly more traditional design parents feel that this is so; open area parents strongly disagree with this statement (#6 (b), by chi square, $P = < .01$). Parents of Grade 4 pupils in open area schools agree that "increased freedom in the classroom develops responsibility in the child" (#6 (h), by chi square, $P = < .01$). The difference between their responses and those of traditional design parents is statistically significant. Similarly, significantly more open area parents agree with the statement, "the use of open area classrooms improves the quality of education" (#6 (m), by chi square, $P = < .01$).

As was the case for parents of Grade 4 children, parents of Grade 7's in the two types of schools do not differ in their responses to question #2 (a). Both groups of parents report that they obtain the most information about the school from their children and children's friends, from other parents, from talks with the teacher, and from school bulletins, newsletters, and teachers' notices.

Regarding question #2 (b), the two groups of parents of Grade 7's differ significantly on two items. Significantly more parents of Grade 7's in traditional design schools say that they receive "clear information" from the school regarding both "behaviour in the social group" and "any difficulties and/or problem areas" (by chi square, $P = < .02$ and $< .05$, respectively). There is also a tendency for more traditional school parents to say they receive clear information from the school regarding their children's performance and progress in "reading and writing"; this difference approaches — but does not reach — significance, however (by chi square, $P = > .05 < .10$). It is interesting to compare results on #2 (b) for Grade 7 parents, with question #15 (k) of the Teacher Questionnaire, noted earlier, where more teachers in traditional than in open area schools indicate satisfaction with "the interest and co-operation of my pupils' parents."

The data on question #4 show no significant differences between parents of Grade 7 students in the two types of schools. Very few parents in either group have worked as volunteers in the school during 1973-74, or have helped supervise a field trip.

A very large marjority of parents of Grade 7's in both groups attended an "open house" at the school at least once this year, and also have talked with their children's teacher at least once. Very similar findings were noted for both groups of Grade 4 parents.

Although the two groups of parents of Grade 4's did not differ at all on question #5 (involving general parental satisfaction with the school), parents of Grade 7's show two significant differences on this question. Significantly more parents of students in traditional schools say they are satisfied with "arithmetic skills" and with their children's "ability to work independently" (#5 (b) and #5 (g), by chi square, $P = < .01$ and $< .001$, respectively). There is also a tendency, although it does not reach statistical significance, for parents of Grade 7's in traditional design schools to say they are more satisfied with "skills in art" and "ability to make a decision" (#5 (c) and # 5 (f), by chi square, $P = > .05 < .10$ for both).

The views of parents of Grade 7 students in the two types of schools show differences on only two sections of question #6. There is a tendency (not significant) for more parents of Grade 7's in traditional settings to disagree with the statements, "Increased freedom in the classroom creates confusion" (#6 (b), by chi square, $P = > .05 < .10$). Significantly more parents of Grade 7's in open area schools agree with the statement, "Parents should be allowed to send their child to a different school, if they wish" (#6 (o), by chi square, $P = < .01$).

In summary, it appears that parents of Grade 4's in open area schools have more positive attitudes toward the school and its programs than do parents of Grade 7's in open area schools. Both groups of Grade 4 parents (open area and traditional school) feel generally positive about their children's school. More parents of open area students express, in addition, the feeling that their children have a greater choice of lessons or activities, can move more freely around the classroom area and that the classrooms are well equipped; more of these parents also feel that students should be allowed to choose their own classroom projects, that increased freedom in the classroom develops a sense of responsibility, and that open area classrooms improve the quality of education. These parents do not feel that increased freedom in the classroom creates confusion.

At the Grade 7 level, the picture seems to become somewhat less positive. Parents of Grade 7's in open area schools do not feel that the school provides them with "clear information" in the areas of social behaviour and general problem areas; there is also a tendency for them to feel that information about reading and writing is lacking. Fewer parents of open area Grade 7 's express satisfaction with their children's arithmetic skills and their ability to work on their own; there is also a tendency for fewer open area parents to be satisfied with their children's art skills and ability to make decisions. These parents feel that they should be able, if they wish, to send their children to a different school, a finding that implies dissatisfaction with their children's current school setting.

- Hypothesis 10: There will be no differences between pupils in open area and traditional construction schools in terms of self-reliance, independence, ability to accept responsibility for their own decisions and behaviour, general sense of security, and feelings about self.

According to the literature, the open area experience should ideally provide the type of learning environment which fosters the development of the traits listed above. An instrument designed to measure such aspects of development, the Story of Jimmy Questionnaire, a form of the Institute of Child Study Security Test, was administered to about 600 grade 4 classes, in eight schools chosen randomly from the open area and traditional construction schools included in this tudy.

The findings show that Grade 4's in traditional design schools manifest significantly higher scores in the areas of Security, Consistency, and Independence; these students are also significantly lower in Insecurity[5] (by "t" test, P = $<.01$, $<.025$, $<.001$, and $<.01$, respectively).

These results for open area and traditional construction students in our study seem consistent with the findings of another recent study, investigating a similar hypothesis.[6] In that study it was reported that: "A comparison of security, consistency and independence scores for pupils attending an open space or traditional school shows pupils in a traditional school to do remarkably better at the Grade 4 and 6 levels, with no statistically significant difference apparent at the grade 5 level .." However, Dr. Grapko suggests that a more sensitive

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[5]The Security score "measures the degree to which the child's rank order of items agrees with the 'ideal' order of rank as determined by security theory." The Consistency score "measures the degree of concordance or uniformity the child shows in giving the same rank to the fifteen statements or items for each of the security categories ... the extent to which all fifteen items in each category receive the same rank." Independence, or Independent Security, is said to reflect the child's "ability to complete an activity and the willingness to accept one's own decisions, actions, and consequences in the performance of the activity." The Insecurity score is said to measure a lack of skill "in dealing with an activity or significant 'event' which gives rise to indecision, hesitation, and anxiety." (Quotations are taken from the Security Test manual.)

[6]Grapko, M.F. "A Comparison of Open Space and Traditional Classroom Structures According to Independence Measures in Children, Teachers' Awareness of Children's Personality Variables, and Children's Academic Progress,: Final Report, 1973, mimeo.

index for measuring these characteristics might be the rate of change in Security Test scores, measured against base line scores on the test. In his study, he found that students in open area schools improved more in security test scores from December to June than did students in traditional schools, although the latter group of students continued to manifest significantly better scores in absolute terms.[7]

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[7]Telephone conversation with Dr. Grapko, May 1974.

APPENDIX A

TEACHER QUESTIONNAIRE

1. In which Pool area do you teach? 1___ 2___ 3___ 4___ 5___

2. Male___ Female___ Age: less than 21...___
21-29.....___
30-39.....___
40-49.....___
50+.....___

3. Years of formal education beyond secondary school (include university, teacher's college, college of applied arts and technology, etc.)

1___ 2___ 3___ 4___ 5+___

4. What is the highest post-secondary degree you have obtained?

None___ Bachelor's___ Master's___ Other (please specify)_____

5. What is the approximate population of the school you now teach in?

Under 300___ 300-400___ 400-500___ over 500___

6. As of June, 1973, what is the total number of years you have been teaching?

1 or less___ 2-5 years___ 6-10 years___ 11-15 years___ 16+ years___

7. What grade do you presently teach? Grade 4___ Grade 7___

8. What other grades have you taught? (check as many as necessary)

K-3___ 4-6___ 7-9___ 10-13___

9. How long have you taught in your present school?

1 year or less___ 2-3 years___ 3+ years___

10. Is the architecture of your present school
(a) "open area" .....___
(b) traditional.....___
(c) a combination.....___

11. If you checked (a) or (c) in question 10: Have you ever taught in an architecturally traditional school? Yes___ No___

If "yes," for how long? 1 year or less___ 2-3 years___ 3+ years___

12. If you checked (b) in question 10: Have you ever taught in an architecturally "open" school? Yes___ No___

If "yes", for how long? 1 year or less___ 2-3 years___ 3+ years___

13. Do you prefer teaching in a self-enclosed classroom or an open area?
(a) I don't know; all my experience is in an open area.....___
(b) I don't know; all my experience is in enclosed classrooms..___
(c) I don't have any preference.....___
(d) I prefer an enclosed classroom.....___
(e) I prefer an open teaching area.....___
(f) Both, alternating during the day.....___

Did you ask to teach in your present school? Yes___ No___

15. Please use this 5-point scale to rate your feelings about the following:

very dissatisfied	dissatisfied	neutral	satisfied	very satisfied	
1	2	3	4	5	(check one)

(a) the grade level I now teach..... 1___ 2___ 3___ 4___ 5___
(b) the behaviour of most of my pupils..... 1___ 2___ 3___ 4___ 5___
(c) amount of interaction I have with my pupils..... 1___ 2___ 3___ 4___ 5___
(d) help I get from principal &/or vice-principal..... 1___ 2___ 3___ 4___ 5___
(e) assistance from other teachers..... 1___ 2___ 3___ 4___ 5___
(f) the research skills of my pupils..... 1___ 2___ 3___ 4___ 5___
(g) the general performance level of my pupils..... 1___ 2___ 3___ 4___ 5___
(h) the amount of planning time I have available..... 1___ 2___ 3___ 4___ 5___
(i) the quality of interaction I have with my pupils... 1___ 2___ 3___ 4___ 5___
(j) the materials available for my pupils..... 1___ 2___ 3___ 4___ 5___
(k) the interest and cooperation of pupils' parents.... 1___ 2___ 3___ 4___ 5___

16. Below is a list of educational objectives. Please indicate to what extent you think each objective is being achieved in your classroom.

	Well Achieved	Average Ach.	Poorly Achieved	Undecided or Not Applicable
(a) an appreciation of art, literature, music, and beauty.....	___	___	___	___
(b) a sense of self-worth, independence, and self-confidence.....	___	___	___	___
(c) skills in reading, writing, arithmetic, and listening needed for daily life.....	___	___	___	___
(d) knowledge of and concern about social & political issues, & economic justice.	___	___	___	___
(e) awareness of others' rights, and ability to get along with others.....	___	___	___	___
(f) curiosity about the environment & an inquisitive attitude toward learning	___	___	___	___
(g) the ability to make reasonable judgments & solve problems.....	___	___	___	___
(h) an understanding of the rights and responsibilities of a citizen in Canada.....	___	___	___	___

17. With respect to planning you do for your classroom programme, do you usually plan
(a) one day in advance? _____
(b) one week in advance? _____
(c) one term in advance? _____

18. Do you usually plan alone? _____ or do you plan with other teachers? _____ (check one)

19. On the average, how often do your students visit the school library or resource centre, as a class, in small groups, or individually?
(a) Never..... ___
(b) less than once a week..... ___
(c) 1-2 times a week..... ___
(d) 3+ times a week..... ___

20. On the average, how often do your students use the following materials or engage in the following activities?

	Never	Less Than Once/Month	1-2 Times/ Month	3+ Times/ Month
(a) view slides &/or filmstrips	___	___	___	___
(b) use tape recorders or listening stations	___	___	___	___
(c) view a TV program	___	___	___	___
(d) view films	___	___	___	___
(e) listen to the radio	___	___	___	___
(f) other (specify)_____	___	___	___	___

21. Please estimate the amount of time you spend per month on such duties as the following, which you perform in addition to your regular classroom duties. (Your estimate should be based on this past year — that is, since September, 1972):

	Average number of hours per month				
	0	1	2	3-5	5+
(a) staff meetings	___	___	___	___	___
(b) school committees	___	___	___	___	___
(c) attending workshops & conferences	___	___	___	___	___
(d) marking assigned work and tests	___	___	___	___	___
(e) parent conferences	___	___	___	___	___
(f) remedial work with students & tutoring	___	___	___	___	___
(g) informal counselling with students	___	___	___	___	___
(h) supervision of lunchroom, playground	___	___	___	___	___
(i) meeting with resource personnel	___	___	___	___	___
(j) external committees related to education	___	___	___	___	___
(k) other (specify)_____	___	___	___	___	___

22. Please indicate by letter how you would rank the following aspects of teaching, in terms of the satisfactions you derive from teaching.

(a) it has community status	___ most satisfying
(b) it pays well	___ 2nd
(c) it is gratifying to work with children	___ 3rd
(d) it provides an opportunity to do something worthwhile for the community	___ 4th
(e) my colleagues and principal appreciate my work	___ 5th
(f) it is intellectually stimulating	___ 6th
(g) I have my summers free to travel, relax, study, or do other work	___ 7th

23. How many summers (that is, July or August) since 1968 have you spent studying full- or part-time?

None___ 1___ 2___ 3___ 4+___

24. How many journals, articles, or books on educational topics have you read during the past year (do not include materials you read preparing lessons or carrying out assignment in your own course work)?

None___ 1___ 2___ 3___ 4+___

25. How many professional publications (magazines, journals) do you read regularly? (They may be publications you subscribe to, or ones the school subscribes to.)

None___ 1___ 2___ 3___ 4+___

you plan to obtain a university degree? Yes___ No___ Not Sure___ Already have one___

A post-graduate university degree? 30 Yes___ No___ Not Sure___ Already have one

27. During the past year have you:

	Yes	No
(a) visited the resource centre of another school.....	___	___
(b) observed the remedial reading program in another school.	___	___
(c) observed the program in your own school, at another level	___	___
(d) observed the program in a secondary school.....	___	___
(e) observed aspects of the overall program in another school	___	___

28. How many workshops, conferences, and professional meetings have you attended in the past two years?

None___ 1___ 2___ 3___ 4+___

29. Since 1968, how many evening courses have you taken during the school year?

None___ 1___ 2___ 3___ 4+___

30. Please use this 5-point scale to answer the following items about the school where you now teach.

almost not at all; to a minimum degree	to a slight degree	to some degree	to a fair degree	quite a lot; to a great degree
1	2	3	4	5

(check one)

The school where I now teach:					
(a) is a pleasant place to work.....	1___	2___	3___	4___	5___
(b) is appreciated in the local community.....	1___	2___	3___	4___	5___
(c) has a staff interested in professional development	1___	2___	3___	4___	5___
(d) is over-crowded.....	1___	2___	3___	4___	5___
(e) is well-equipped.....	1___	2___	3___	4___	5___
(f) is a place where teachers are eager to help each other and co-operate professionally.....	1___	2___	3___	4___	5___
(g) expects too much of teachers.....	1___	2___	3___	4___	5___
(h) has a staff who respect and trust one another.....	1___	2___	3___	4___	5___
(i) has a student body who are developing curiosity and creativity.....	1___	2___	3___	4___	5___
(j) has a student body who are learning the basic skills	1___	2___	3___	4___	5___
(k) has a principal who is pleasant and supportive.....	1___	2___	3___	4___	5___
(l) has good communication with parents.....	1___	2___	3___	4___	5___
(m) has a good overall "tone".....	1___	2___	3___	4___	5___
(n) has a well-integrated program.....	1___	2___	3___	4___	5___
(o) is in a building with plenty of floor space and a convenient layout.....	1___	2___	3___	4___	5___
(p) is in a building with efficient noise control.....	1___	2___	3___	4___	5___

31. Please use this 5-point scale to give your opinions about the following statements:

Strongly Disagree	Disagree	No feelings one way or the other	Agree	Strongly Agree
1	2	3	4	5

	(check one)
(a) The teacher is no longer mainly an information-giver; now his rôle is primarily "activator"	1___ 2___ 3___ 4___ 5___
(b) Children should be free to ask as many questions as they wish, whenever they wish	1___ 2___ 3___ 4___ 5___
(c) Educational experimentation has no place in our schools	1___ 2___ 3___ 4___ 5___
(d) The primary aim of education should be to teach strategies for children to learn on their own	1___ 2___ 3___ 4___ 5___
(e) Children have to learn self-discipline by gradually accepting more & more responsibility for their own behaviour	1___ 2___ 3___ 4___ 5___
(f) Even the oldest school building can be a place where children have an exciting educational experience	1___ 2___ 3___ 4___ 5___
(g) Children get confused when the classroom schedule and activities change too often	1___ 2___ 3___ 4___ 5___
(h) An undesirable aspect of teaching are the stresses and strains that accompany it	1___ 2___ 3___ 4___ 5___
(i) A strict classroom routine helps to prepare children for the harsh realities of our competitive society	1___ 2___ 3___ 4___ 5___
(j) In the final outcome, it doesn't matter if you use new techniques -- children will learn anyway	1___ 2___ 3___ 4___ 5___
(k) Children should be allowed to move freely around the classroom without having to ask the teacher	1___ 2___ 3___ 4___ 5___
(l) It's almost impossible to get matching philosophies, frankness, and cooperation in even a small group of teachers	1___ 2___ 3___ 4___ 5___
(m) The so-called "traditional" teaching methods are still the best because they've been tried out for so long	1___ 2___ 3___ 4___ 5___
(n) There's far too much work involved in preparing lessons each day	1___ 2___ 3___ 4___ 5___
(o) Children are happiest when a teacher in charge makes the decisions about curriculum and scheduling	1___ 2___ 3___ 4___ 5___
(p) Education's most crucial task is to teach the basic skills: reading, writing, and number skills	1___ 2___ 3___ 4___ 5___
(q) Unless the teacher keeps the classroom quiet and keeps things under control, effective teaching is impossible	1___ 2___ 3___ 4___ 5___

(r) The so-called "progressive" teaching methods let teachers opt out of teaching by permitting pupils do pretty much as they like ..... 1___ 2___ 3___ 4___ 5___

(s) Children's adjustment to school depends on having the security of their own classroom, teacher, & desk..... 1___ 2___ 3___ 4___ 5___

(t) Change and innovation can disrupt a basically stable and "healthy" educational system..... 1___ 2___ 3___ 4___ 5___

(u) Too much teaching time is taken up with handling discipline problems..... 1___ 2___ 3___ 4___ 5___

(v) Regardless of teaching methods or philosophy, children will always perform better in a new school with an attractive physical environment..... 1___ 2___ 3___ 4___ 5___

32. From what you know or have heard about teaching in an open-area school, please indicate how much of a problem you think each of the following would be for a teacher moving from a traditional to an open area school:

	Quite a Problem	Something of a Problem	Hardly any Problem
(a) team teaching and the need for consensus	____	____	____
(b) necessity of changing teaching methods	____	____	____
(c) determining curriculum	____	____	____
(d) scheduling.....	____	____	____
(e) student control.....	____	____	____
(f) use of equipment and materials.....	____	____	____
(g) grading and reporting.....	____	____	____
(h) daily output of energy.....	____	____	____
(i) preparation time needed for daily lessons,...	____	____	____
(j) communicating with parents	____	____	____
(k) adjusting to noise level.....	____	____	____
(l) being under the scrutiny of fellow teachers..	____	____	____
(m) keeping the attention of the class.....	____	____	____
(n) work load.....	____	____	____
(o) morale.....	____	____	____
(p) maintaining one's individuality.....	____	____	____

PLEASE USE THE REMAINING SPACE (AND THE BACK OF THE QUESTIONNAIRE) TO MAKE ANY ADDITIONAL COMMENTS YOU LIKE.

AND ONCE MORE--MANY THANKS FOR YOUR HELP!

APPENDIX B

PRINCIPAL / VICE-PRINCIPAL QUESTIONNAIRE

PART I.

1. In which Pool area is your school? 1___ 2___ 3___ 4___ 5___

2. Male___ Female___ Age: less than 30.....___
31-39.....___
40-49.....___
50+.....___

3. Years of formal education beyond secondary school (include university, teacher's college, graduate school, etc.)
1___ 2___ 3___ 4___ 5+___

4. What is the highest post-secondary degree you have obtained?
None___ Bachelor's___ Master's___ Other(specify)_____

5. What is approximate population of your school?
Under 300___ 300-400___ 400-500___ over 500___

6. How long have you been in your present school?
1 year or less___ 2-3 years___ 3+ years___

7. Is the architecture of your present school
(a) "open area".....___
(b) traditional.....___
(c) a combination.....___

8. Do you prefer an open-area or an architecturally traditional school?
(a) I don't know; all my experience is in open-area schools.....___
(b) I don't know; all my experience is in traditional schools.....___
(c) I don't have any preference.....___
(d) I prefer a school that is entirely open area.....___
(e) I prefer a school that is a combination.....___
(f) I prefer a school with all self-enclosed classrooms.....___

9. Below is a list of characteristics that principals might consider in selecting teaching staff. Please indicate by item number which four you would consider most crucial in selecting teaching staff.

11(a) academic qualifications
11(b) flexibility and adaptability
11(c) commitment
11(d) innovativeness
11(e) emotional stamina
11(f) sense of humour
11(g) years of teaching experience
11(h) self-confidence
11(i) knowledgeable about many things
11(j) other (specify)_____

item #_____ most crucial
_____ 2nd
_____ 3rd
_____ 4th

10. How satisfied are you with staff selections you have made within the past two years?

Very satisfied___ Satisfied___ Somewhat dissatisfied___ Very dissatisfied___

11. In what areas, or with respect to what skills, would you make different decisions if you were selecting teaching staff now? (if none, please indicate this)

_____

_____

_____

_____

_____

_____

_____

PART II

Below you will find some statements about children's learning and knowledge. We would like to know to what extent you agree or disagree with each statement. Please indicate with a checkmark the amount of agreement or disagreement that best represents your own feelings about each statement.

	Strongly Agree	Agree	No Strong Feeling	Disagree	Strongly Disagree
1. Children are curious by nature and will explore their surroundings without urging or interference by adults.	___	___	___	___	___
2. Children have a natural desire to explore continually.	___	___	___	___	___
3. Children will display natural exploratory behaviour if he is not threatened.	___	___	___	___	___
4. A child's confidence in himself is highly related to his capacity for learning, and for making important choices that affect his learning.	___	___	___	___	___
5. Children will learn better and faster if they have the chance for active exploration of a rich environment which offers them a wide range of materials to manipulate.	___	___	___	___	___
6. Play cannot be distinguished from work as the major way in which young children learn.	___	___	___	___	___
7. Children have both the ability and the right to make important decisions about their own learning.	___	___	___	___	___

	Strongly Agree	Agree	No Strong Feeling	Disagree	Strongly Disagree
8. Children will be likely to learn if they are given considerable choice in selecting materials they want to work with, and in choosing questions they would like to answer when using these materials.					
9. If they are given the chance, children will choose activities which are most interesting to them.					
10. If a child is fully involved in an activity, and having fun, learning is taking place.					
11. When two or more children want to explore the same problem or materials, they will often decide to collaborate in some way.					
12. When a child learns something that is important to him, he will wish to share it with others.					
13. The formation of concepts proceeds very slowly in children.					
14. All children pass through similar stages as they develop intellectually, each in his own way, and at his own rate, and in his own time.					
15. Children learn and develop intellectually at their own rate and in their own style.					
16. The child grows intellectually through having a sequence of concrete experiences and then separating out the essence of each experience.					
17. Talking about the essence of an experience should follow the child's direct experience with objects and ideas, not precede them or substitute them.					

	Strongly Agree	Agree	No Strong Feeling	Disagree	Strongly Disagree
18. It is best if the child can check his own solution to a problem by using materials he is working with.	____	____	____	____	____
19. Mistakes are a necessary part of learning--mistakes are to be expected and are important because they contain information the child needs for further learning.	____	____	____	____	____
20. Many aspects of a child's learning can be carefully measured, but these are not necessarily the most important aspects.	____	____	____	____	____
21. Objective measures of how a child performs may affect his learning negatively.	____	____	____	____	____
22. A child's learning is best assessed intuitively, by direct observation.	____	____	____	____	____
23. The best way to tell how the school experience has affected the child is to observe him over a long period of time.	____	____	____	____	____
24. The best measure of a child's work is his work.	____	____	____	____	____
25. The quality of "being" is more important than "knowing"; knowledge is a means of education, not its end. The final test of an education is what a man IS, not what he KNOWS.	____	____	____	____	____
26. Knowledge reflects the way each person integrates his own experience, and therefore knowledge doesn't fall neatly into separate categories.	____	____	____	____	____
27. The structure of knowledge is very personal, and depends on each person interprets his rience with the world.	____	____	____	____	____

	Strongly Agree	Agree	No Strong Feeling	Disagree	Strongly Disagree
28. There is little or no knowledge which is necessary for everyong to acquire.	____	____	____	____	____
29. It is very possible that a person may learn something, and yet not be able to demonstrate it publicly. Knowledge resides with the "knower", not in its public expression.	____	____	____	____	____

APPENDIX C

STUDENT QUESTIONNAIRE

School_____ Grade_____ I am a boy___ girl___

We would like to know something about what you think of school. This is not a test, and there are no right or wrong answers. What you think about school is not necessarily true for someone else.

When your teacher tells you to begin, please read each sentence to yourself. If it is true for you most of the time, put a checkmark into the space under "TRUE." If it is not true for you most of the time, put a checkmark into the space under "NOT TRUE." Please mark an answer for every question.

	TRUE	NOT TRUE
1. My teacher tells me when she's pleased with my work.....	___	___
2. Most kids don't like going to school.....	___	___
3. The principal of my school is friendly with the students.....	___	___
4. In school I'm bothered by noise from other classes.....	___	___
5. Most students in my school are pretty friendly.....	___	___
6. There always seems to be too many students in my class.....	___	___
7. In our class, we make decisions together.....	___	___
8. The work in school is too hard.....	___	___
9. I usually look forward to coming to school.....	___	___
10. If I had my choice, I'd rather work by myself than with other students.	___	___
11. It's important to have your own desk where you can keep your things...	___	___
12. It's too noisy in school.....	___	___
13. My teacher tries to be sure I know what she wants me to do.....	___	___
14. I often feel rushed and nervous in school.....	___	___
15. Other kids in my class often get me into trouble at school.....	___	___
16. My teacher listens to what I have to say.....	___	___
17. I always have enough time in class to finish my work.....	___	___
18. I don't like a lot of the kids in my class.....	___	___
19. Mostly, I'm interested in what we do at school.....	___	___
20. There's no place to be alone at school, if you feel like it.....	___	___
21. There are just about the right number of kids in my class.....	___	___
22. Too often I have to share things with other students at school.....	___	___
23. When I make a mistake, my teacher tries to correct me without hurting my feelings.....	___	___
24. Something interesting is always going on in my class.....	___	___
25. I don't like asking questions when I don't understand something.....	___	___
26. I can usually talk to my teacher about whatever's on my mind.....	___	___
27. I get tired of hearing my teacher talk all the time.....	___	___

-Go on to page 2-

	TRUE	NOT TRUE
28. Other people in my class really care about me.....	____	____
29. I'm bothered by people talking and fooling around in my class.....	____	____
30. I like working with other students in my class.....	____	____
31. School is a good place for making friends.....	____	____
32. It seems that my teacher is always yelling at someone.....	____	____
33. I like giving a talk to my class.....	____	____
34. We change from one subject to another too often in my class.....	____	____
35. My teacher is very friendly with the students.....	____	____
36. School is pretty boring.....	____	____
37. Most of the class joins in when there's a class discussion.....	____	____
38. It's easy to get to know some of the teachers in this school really well.....	____	____
39. I get to do a lot of work on my own at school.....	____	____
40. My teacher is often too busy to help me when I need help.....	____	____
41. In school I can usually talk to my friends when I want to.....	____	____
42. A lot of things about school are fun.....	____	____
43. I often feel lonely at school.....	____	____
44. I know what the teacher expects of me.....	____	____
45. We almost never have a choice of what we're going to do in my class..	____	____
46. I can usually tell when my teacher is pleased with my work.....	____	____
47. I work best when I work with a small group of other students.....	____	____
48. My teacher gets angry when I do something wrong.....	____	____
49. In our class you can do your work without being interrupted.....	____	____
50. I can walk around in class when I get tired of sitting in one place..	____	____

What is the thing you like MOST about your school? _____

_____

_____

_____

What is the thing you like LEAST about your school? _____

_____

_____

_____

Groupings of items from the Student Questionnaire defining Dimensions A - F

Dimension A: attitude toward characteristics of the non-physical learning environment (including aspects of school program, difficulty of school work, classroom climate, etc.).
Note: the response given in parentheses after each question is the one assumed to reflect the most positive attitude.

#8(False); #14(False); #17(True); #24(True); #34(False); #39(True); #45(False).

Dimension B: attitude toward characteristics of the physical learning environment (including feelings about crowding, noise, distractions, interruptions, equipment, amount and kind of physical movement within the classroom and school, classroom arrangement, etc.).
Note: the response given in parentheses after each question is the one assumed to reflect the most positive attitude.

#4(False); #6(False); #11(True); #12(False); #20(False); #21(True); #22(False); #29(False); #49(True); #50(True).

Dimension C: attitude toward interaction with teachers, Principal or Vice-Principal, and other school staff (including type and frequency of contact, feelings about authority and control, etc.).
Note: the response given in parentheses after each question is the one assumed to reflect the most positive attitude.

#1(True); #3(True); #13(True); #16(True); #23(True); #25(False); #26(True); #27(False); #32(False); #35(True); #38(True); #40(False); #44(True); #46(True); #48(False).

Dimension D: attitude toward relationship with peers, quality of social interactions.
Note: the response given in parentheses after each question is the one assumed to reflect the most positive attitude.

#5(True); #15(False); #18(False); #31(True); #41(True); #43(False).

Dimension E: attitude toward working in, being a member of, a larger "group" or classroom unit, including aspects of working specifically in a group situation.
Note: the response given in parentheses after each question is the one assumed to reflect the most positive attitude.

#7(True); #10(False); #28(True); #30(True); #33(True); #37(True); #47(True).

Dimension F: global attitudes toward school and learning.
Note: the response given in parentheses after each question is the one assumed to reflect the most positive attitude.

#2(False); #9(True); #19(True); #36(False); #42(True).

APPENDIX D

WHAT PARENTS THINK ABOUT SCHOOLS

Please do not ask your children for any information while you are answering these questions. If you cannot answer a question, leave it blank or mark it "Don't Know". Feel free to write additional comments or information on the back of the questionnaire.

1. Background Information

1(a). Who is answering this questionnaire? mother____ father____ both ____
other(specify)_____

1(b). Please fill in the boxes in the chart below that apply to you:

	Please check what grades you have children in:		How long has each of your children attended school....		
	Boys	Girls	in his/her present school?	in another school in Peel?	in a school outside Peel County ?
Kindergarten					
Grade 1					
Grade 2					
Grade 3					
Grade 4					
Grade 5					
Grade 6					
Grade 7					
Grade 8					
Grade 9					
Grade 10-13					

2. Information you Receive from your Child's School

2(a). How much information about your child's school do you get from:

	None	Some	A Considerable Amount
-your own child and/or your child's friends.....	____	____	____
-talking with other parents.....	____	____	____
-parent assoc. meetings; special school meetings.....	____	____	____
-talks with teacher(s) &/or Principal, Vice-Principal, Counsellor, or other school staff.....	____	____	____
-school bulletins, newsletter, teachers' notices....	____	____	____
-local or city newspapers.....	____	____	____

2(b). Does your child's school give you clear information about his/her performance and progress, with respect to:

	Yes	No
-work habits	___	___
-reading and writing	___	___
-arithmetic	___	___
-other areas, such as art, music, physical education	___	___
-behaviour in the social group	___	___
-effort and attitude toward school	___	___
-any difficulties and/or problem areas	___	___

3. Characteristics of your Child's School-- if you cannot answer any of the items below, please check "Don't Know"; don't ask your child for the information.

	Yes	No	Don't Know
3(a). Does you child's classroom area have more than one class and teacher within it?	___	___	___
3(b). Does your child often have a choice of lessons or activities within a subject area?	___	___	___
3(c). Is your child allowed to move freely around his classroom area?	___	___	___
3(d). Is your child's classroom well equipped?	___	___	___
3(e). Is your child's classroom too crowded?	___	___	___
3(f). Does your child work a good part of the day in a single classroom with one teacher at a time?	___	___	___

4. The Parent and the School-- below are some activities that parents may be involved in at their child's school. Please check how many times you have been involved in each activity since September, 1973.

	None	Once	Twice	3-or-More Times
4(a). talked with the Principal or Vice-Principal about school matters, or your own child	___	___	___	___
4(b). talked with a teacher about your child	___	___	___	___
4(c). attended a meeting of parents at the school	___	___	___	___
4(d). attended other school activities (such as concerts, assemblies, plays, etc.)	___	___	___	___
4(e). attended an "open house" at the school	___	___	___	___
4(f). worked as a "volunteer" in the school--in a classroom, library, office, or on a committee	___	___	___	___
4(g). helped to supervise a field trip	___	___	___	___

continued-------

5. Parent Satisfaction with the School--please use this 3-point scale to indicate how satisfied you are with the job your child's school is doing to help him improve in the following areas:

	Generally Dissatisfied	No Strong Feelings Either Way	Generally Satisfied
	1	2	3
5(a). reading ability	1___	2___	3___
5(b). arithmetic skills	1___	2___	3___
5(c). skills in art	1___	2___	3___
5(d). skills in music	1___	2___	3___
5(e). skills in physical education	1___	2___	3___
5(f). ability to make a decision	1___	2___	3___
5(g). ability to work independently	1___	2___	3___
5(h). ability to get along with others	1___	2___	3___
5(i). participation in extra-curricular activities	1___	2___	3___

5(j). With what aspect of your child's school are you the MOST satisfied?_____

_____

_____

5(k). With what aspect of your child's school are you the LEAST satisfied?_____

_____

_____

6. Parents' Views on Educational Issues-- please use this 5-point scale to indicate your opinions about the statements below. There are no right or wrong answers-- we want to know how you feel about each statement.

	Strongly Disagree	Disagree	No Strong Feelings Either Way	Agree	Strongly Agree
	1	2	3	4	5
6(a). Students should be allowed to decide what class projects they want to do	1___	2___	3___	4___	5___
6(b). Increased freedom in the classroom creates confusion	1___	2___	3___	4___	5___
6(c). It is important for teachers to remain aware of continuing changes in education	1___	2___	3___	4___	5___
6(d). Students should be allowed to disagree with the teacher	1___	2___	3___	4___	5___
6(e). Students should do more of their own work without help from the teacher	1___	2___	3___	4___	5___
6(f). The program in the school should be strongly influenced by children's interests	1___	2___	3___	4___	5___
6(g). Students have the right to know the reasons behind decisions that affect them	1___	2___	3___	4___	5___
6(h). Increased freedom in the classroom develops responsibility in the child	1___	2___	3___	4___	5___

continued----------

6(i). More emphasis should be given to teaching basics, such as reading, writing, spelling, & arithmetic..... 1__ 2__ 3__ 4__ 5__

6(j). Time for in-service teacher education should be made available by having professional development days during the school year..... 1__ 2__ 3__ 4__ 5__

6(k). Students should be tested without warning..... 1__ 2__ 3__ 4__ 5__

6(l). Traditional teaching methods are still the best..... 1__ 2__ 3__ 4__ 5__

6(m). The use of open area classrooms improves the quality of education..... 1__ 2__ 3__ 4__ 5__

6(n). It is very important that students respect the teacher's authority..... 1__ 2__ 3__ 4__ 5__

6(o). Parents should be allowed to send their child to a different school, if they wish..... 1__ 2__ 3__ 4__ 5__