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SCHOOL SOCIAL SYSTEMS AND STUDENT OUTCOMES IN
FRENCH PUBLIC ELEMENTARY SCHOOLS IN QUEBEC

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Yvon Bouchard

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SCHOOL SOCIAL SYSTEMS AND STUDENT OUTCOMES IN
FRENCH PUBLIC ELEMENTARY SCHOOLS IN QUEBEC

By
Yvon Bouchard

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
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Department of Sociology

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ABSTRACT

SCHOOL SOCIAL SYSTEMS AND STUDENT OUTCOMES IN FRENCH PUBLIC ELEMENTARY SCHOOLS IN QUEBEC

By

Yvon Bouchard

This study examined the impact of the school on cognitive outcomes in a selection of Québec schools. Using school level characteristics and outcomes, 1) it tested the relative influence of school induced properties over mean school academic achievement and mean school self-concept, 2) their impact above social composition of the student body and input resources in the schools, and more specifically, 3) it compared the findings on school social systems and achievement with those obtained by Brookover *et al.* (1979) in Michigan.

The research problem originated (1) from the questioning of learning theories, educational research approaches, and popular beliefs which supported and emphasized the convictions that the individual is solely responsible for his success or failure, and (2) from the contentions of scholars suggesting that school means little or nothing above when social background of the student body is controlled. This research hypothesized 1) that there are differences in school social systems in Québec which explain differences in cognitive outcomes among schools, 2) that school characteristics are correlated among themselves and with achievement, and 3) that much of the effect of school input characteristics is better explained by school social structure and school social climate.

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A total of 61 schools from the northeastern part of the Province of Québec were surveyed with self-administered questionnaires distributed to 5330 students, 331 teachers, 61 principals. The principals were also interviewed in-depth. Three different sets of independent variables were used to measure input characteristics of the schools, social structure, and school social-psychological climate.

Several factor analyses were performed to develop meaningful variables and the hypotheses were tested with correlations and multiple regression analyses. The data analysis showed significant relationships among several social system variables and stressed the important correlations between social composition of the student body and social-psychological climate variables and between these last two sets of variables and the outcomes measured. The regression analyses performed revealed a combined effect of the school social system variables identified which accounted for most of the differences between schools in academic achievement and self-concept. Furthermore, the regression analyses clearly identified the supremacy of school climate variables over any of the other sets of variables or social composition of the student body in accounting for differences on these school level outcomes.

Most of the hypotheses were confirmed by the data. The main findings were shown to correspond to a considerable extent to those obtained in the study on school social systems done by Brookover and others in 1979 as well as to a replication of this original research done in Saudi Arabia in 1983. The main difference in the present study concerns the most predominant impact of school social-psychological climate on the schools selected in Québec.

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CHAPTER I

INTRODUCTION: THE PROBLEM

Since the publication of the *Equality of Educational Opportunity Report* (EEOR) known as the Coleman Report (Coleman *et al.*, 1966), and its aftermath in the form of public reactions or academic seminars and publications of which Mosteller and Moynihan (1972) is the best known, there has been a tremendous amount of research about school's effect on children in the United States, in Western societies, and in several developing nations. Under pressures from tax-payers and policy-makers, the school has been questioned for its accountability.

This led the way to a transformation in the perspectives held by researchers in education and much of the sociological literature on the school switched gradually from a functionalist explanation of the role of the school in society as expressed in the works of Clark (1962), Goslin (1965) and Parsons (1959) to the questioning of its adequacy, either for fulfilling its original role or for betterment. It would be inappropriate to state a direct relationship between the Coleman Report and this change in sociological perspectives, especially so when talking of foreign countries, but this switch certainly indicates a modification in the way sociologists express what is going on in the schools and in the society. Berger and Luckmann (1967) showed quite convincingly that reality is a mental and social construction and that our explanations or theories represent our beliefs. Sociologists in education, either from a functionalist or from a conflictual standpoint, reflected in the last two decades those popular beliefs which were questioned by the quest for equality.

This evolution in sociological thought and in popular beliefs is well documented in the American literature but can be traced outside of the United States as well. The present research will start from this evolution and its consequences for educational thinking and school structuring in order to establish a research design with which to question some strong beliefs about school effect on children in schools in the Province of Québec. Several years after the problem of inequality was documented in the United States, it became an object of concern in Québec for similar reasons and the solutions adopted were nearly equivalent.

But, exactly, what was so provoking and stimulating at the same time in this report as to warrant such a debate from the public and from scholars in the United States and in several developed countries of which Canada is a representative? To answer this question, we must make a brief historical return to the hard core popular belief about individual differences and its link with educational research.

Individual Differences, Schools Policies, and Educational Research

The evolution of educational research can best be understood if we frame it in the historical and economic context within which it has developed. The Social Darwinist "survival of the fittest" explanations of the functioning of societies at the end of the nineteenth century had a tremendous influence. They were helpful in supporting the development of industrial societies for several reasons, the main one being that they were consistent with the beliefs of the business elite of that period. For Miller (1983), this elite was responsible for the economic development of the American society as we know it today; but at the same time it structured it in a way conducive to structured social differentiation between individuals.

Harris' model of cultural imperialism (1968, 1979) to explain the evolution of the American society is helpful in that regard because it makes sense for the

understanding of most Western societies. As stated in Miller, Harris' main contention is that:

"...economic, technological, and ecological factors form the primary determinants of a people's response to producing the goods and services necessary for continued survival of that society. Energy requirements, food, and population pressures are among the driving forces that influence the economic response. In turn, social structures and a complex of beliefs, values, ideologies, and intellectual perspectives develop. Such ideas, including theories of education, help explain and justify the particular economic response a society has adopted" (Miller, 1985, p. 5).

This perspective, as questionable as it may be from other points of view, suggests that, in the long run, these beliefs gradually change to reflect and support—if not justify—the economic system. The peculiarity of this system is that it carries tremendous inequalities of wealth and an elite jealous of its power and looking for ways of maintaining it (Marks, 1980; Bowles & Gintis, 1976).

The school reforms during that period were attempts to adapt to the orientations of the society as if they were firmly grounded. New means for legitimating inequalities in the economic system had to be found, and the school was thought to be a solution (Miller, 1985). With the advent of objective measurement, plus the development of IQ tests and the belief in their adequacy, the science of individual measurement was born (Blum, 1978; Marks, 1980). New forms of segregation between the elite and the masses could be supported in society and in the school as well. Differentiation between schools with regard to the composition of their student bodies as expressed by residential segregation, private and public schools, tracking, grouping, adapted teaching strategies, and specialists to support these perspectives—as shown by Clark (1960)—came into use.

These forms of differentiation were supported by various research perspectives on the school and by several theories of learning. The psychology of individual differences became the prevailing ideology in educational research and practice. According to Brookover and Erickson, "the prevailing conceptions of intelligence in our society are: 1) that the ability to learn is relatively fixed or unchangeable, and 2) that it is

predetermined by heredity" (1975, p. 3). The assumptions included here are that each individual has a limited ability to learn, that this ability is unaffected by external social forces, and that it can be measured adequately by intelligence tests. One direct effect of this belief has been the adoption of a *medical* approach with regard to learning and instruction. The student is solely responsible for his learning capacity, and his success or failure; and it is the job of the specialists in education to help him find the place in school and later in society which corresponds best to his level of ability. Once the problem is identified, it can be appropriately treated with a solution fitting the particular *need* of a student. The solution for the educational system lies with developing and providing the appropriate curriculum to fit the corresponding needs. This was at the base of several reform movements and compensatory education programs developed in the last decades.

Another long-enduring belief held by the industrial societies which justifies inequality on an individual basis is the meritocratic idea. It goes this way: The original position held by Jensen (1969) stated that the number of gifted in society is limited as shown by the normal distribution curve of IQ scores, and that if we are going to make the best use of the talents available we should select those on top. However, according to Bell (1972) this early position is highly contested today; we must therefore redefine what meritocracy is in the light of the quest for equality in society. This means that we should be looking after achieved principles, rather than ascribed principles, to differentiate between individuals. For the best allowance of resources, it is better then that the best students take care of these. In a similar fashion, Davis and Moore (1966) point out that the various positions which exist in society are not of equal importance, and that some kind of reward system has to be devised to see that the positions are adequately filled. This, in their view, is the reason for stratification in society. The people on top then, merit what they have gained to get there, whether the incentive be power, prestige, or wealth. A good meritocracy is based on those who have earned their status or achieved a position of rational authority by dint of the competencies accorded them. The best way to offer an

equal chance for everyone to have access to the top is then to provide an equality of opportunity at the beginning in equalizing school's inputs, and let personal initiative or qualities play.

This way of justifying inequality in society supported the perspective of individual differentiations, and at the same time introduced a perspective on school organization and functioning which had considerable impact on resource management in the schools. The role of the school boards could then be oriented toward the allocation of equal resources to each school, and provide to everyone the possibility of developing his or her potential in accordance with the American dream as the land of opportunity (Miller, 1985).

This perspective provided support for the belief that the social stratification in society was fair, since each individual position in it could be modified by personal investment. But it supported as well the belief that the influence of one's socio-economic background on one's achievement could not, and need not, be modified by school characteristics and effects. These individually based arguments, in conjunction with a recently developed sociobiology, forwarded a determinism sufficient to justify the status quo in society in terms of hierarchy, inequality, and economic efficiency (Caplan, 1978; Green, 1981; Harris, 1979).

These beliefs and the theories of learning which support those assumptions had enormous influence on the educational policies developed for the schools. School policies took for granted that there were innate differences in the students, and that these can be measured by intelligence tests. These policies then supported a tracking system, a grouping of students according to ability, allowed for different expectations, and justified the presence of a body of professional personnel which perpetuated this belief. More pervasively, it entertained the idea that each student in the school is unique and therefore deserves a specific set of objectives according to his or her ability. This idea in turn paved the way for individualized instruction and similar differentiation practices.

Second, it opened the door for compensatory education in a more or less structured manner, from pulling-out practices to complete segregation of students in specific classes or schools. On the assumption that social equality is desirable and is best attained when an individual fits the place he or she belongs, schools put an emphasis on individual differences in the kinds and amounts of learning achieved by students. This is particularly true of the learning which is provided in the schools that depends upon the social origin of the student body. Students of the lower socio-economic strata of the society are highly disadvantaged in that regard because they lack the symbols, attitudes and behavioral characteristics valued by the teachers and the school system. This resulted from a view of cultural deprivation in categories of students (Baratz and Baratz, 1970; Stein, 1971; Valentine, 1971) and in the *culture of poverty* thesis (Lewis, 1966; Monyihan, 1965) which helped support a deficit model in educational policies.

Third, schools served as screening devices to keep upward mobility to a minimum in society, by teaching each individual the amount he or she deserves to receive (Schafer & Olexa, 1971).

According to Persell, "both the genetic and the cultural deficit adherents assumed that IQ is important for success in life and...are united in their support for the instrumental meritocratic-ideology" (1977, p. 82). These issues and consequences for the school system, and for educational practices, have been extensively discussed in the literature, and need not be expanded any further here (see Bowles & Gintis, 1976; Carnoy, 1974; Leacock, 1969; Persell, 1977; Rosenbaum, 1976).

School Effect and School Effectiveness Researches

The Coleman Report questioned the above-mentioned beliefs in more than one way. By giving credence to the already well established sociological knowledge (Kahl, 1953; Parsons, 1959; Sibley, 1942; Stouffer, 1962) that the social background of

students is the most important variable in producing individual achievement, at least as far as attainment of status is concerned, it supported the meritocratic view; but at the same time it opened new questions which had to be answered. Mainly, it questioned the educational practices towards equality and their inadequacy in bringing about change. If social background was the most important variable with which to account for achievement, it meant that school educational practices and management based on school input allocation was useless. This was hard to admit. The shift made in the *Equality of Educational Opportunity Survey* (EEOS) from the measurement of equality of inputs to the measurement of equality of outputs by achievement tests and the finding of a school effect on some perceptual variables, opened the door to substantive new research aimed at defining whether or not school has an effect and if so which variables do in fact account for this effect.

The perspectives interested at specifying an effect for the school can be traced under different headings, because some were aimed at showing the presence or the absence of an educational effect while others, convinced that this was the case, went on looking for the variables that account for differences in school outcomes. Researchers looked for effective schools, as far as various achievements were concerned and questioned which aspects of the school were responsible for effectiveness. Some studies were more scholarly in perspective (see Austin & Garber, 1985; Bickel, 1983; Miller, 1983), while others were aimed at school staffs in order to provide ways of improving their practices and their school (Brookover *et al.*, 1982; Gartner, 1984; Kyle, 1985; MacPhail-Wilcox, 1983; Sergi & Shoemaker, 1985). However, these concerns for school effect or school effectiveness will not be differentiated here because they all depart from the same body of literature, and are all questioning the same issue of educational impact. The orientations and the findings are probably more important to review, in order to understand the state of the art on this question, and to see where we have been led twenty years after the publication of the Coleman report.

The research considering educational effect, as Barr and Dreeben (1983) call them, can be traced into two predominant formulations: 1) those oriented toward the individual level and 2) those pertaining to different levels of the school as an organization. This breakdown might be an oversimplification of this large array of investigations but it helps define what, in the view of the present author, ought to be taken into account in order to proceed further in that kind of research. The present research will depart from this point.

School Production and Status Attainment Research

Sociologists and economists alike have spent much effort relating the workings of schools to individual learning by focusing on school characteristics pertaining to inputs and to later attainment. This is not surprising, given the quest for differentiation described before. The perspectives on school production and status attainment do not exactly relate one to the other; but they cannot easily be separated because they are interested in similar things. As stated by Barr and Dreeben, "the former is concerned with identifying those properties of educational organizations that affect individual outcomes. The latter is concerned with the outcomes and the experiences of individuals that led to these outcomes" (1983, p. 16).

School production research is best characterized by the economists' formulation of the production function. According to Lau, "An educational production function relates to levels of identifiable educational inputs. It is fundamentally a microeconomic concept, designed to apply at the level of an individual student" (1979, p. 33), and aims at identifying "the technological relation between educational outputs and inputs" (p. 34). Its main concern is with compiling a plausible list of educational resources, and determining their marginal contribution to some outcome, ideally at the individual level, without concern for the way this effect is produced in school (Lau, 1979; Murnane, 1975).

Status attainment research suffers from the same weaknesses by focusing on individual outcomes, and probably added confusion to the school effect literature by the immense impact it had on this kind of research (Barr & Dreeben, 1983). Since Blau and Duncan's *The American Occupational Structure* (1967), several publications reinforced the importance of individual status reached later in life as based upon social background and the amount of schooling obtained (Alexander, Eckland & Griffin, 1975; Haller & Portes, 1973; Sewell & Hauser, 1975; Sewell, Hauser & Featherman, 1976; Taubman & Wales, 1974). One common characteristic of these investigations is their interest in individual attainment in later life in the form of occupational status and long-term life chances. "Strictly speaking, these are not primarily studies of school effect even though the impact of the amount of schooling is usually weighted in along with the effects of other influences upon career decision making or the acquisition of human capital. These studies aim primarily at identifying the processes entailed in the transmission of status in the form of earnings and occupational prestige from generation to generation" (Barr & Dreeben, 1983, p. 17). Although it may be conceived to be of limited concern for school effect research, this orientation, along with Jenck's contention (1972) that school social system is a fruitless area of research, turned out to be the a point of departure for several other influential investigations on school effect and school effectiveness research. The work of Brookover and his colleagues (1979) is such an example.

However, research on status transmission was not limited to background characteristics. Several attempts were made to identify characteristics of the social structure of the school which may affect status attainment, particularly tracking, and to deal with more short-term outcomes as well as with later life attainment (e.g. Alexander, Cook & McDill, 1978; Alexander & Eckland, 1975; Alexander & McDill, 1976; Alwin & Otto, 1977; Heyns, 1974; Rosenbaum, 1976; Sørensen & Hallinan, 1977). This body of research did not easily distinguish between individual and school effect in the design, probably because researchers were mainly interested in explaining variations in individual

attainment. Such scholars did however open the door for studies centered more directly on the critical factors operating at various school levels that produce an effect, and that explain variations in the effectiveness of the schools.

Educational Effect Research

Several lines of research were followed in order to measure a school effect with variables thought to be appropriate for that level. Most of them focused on only one level of analysis of the educational system (school districts, schools, classrooms, or work-groups), and the research strategies generally took into account structural or perceptual variables, but not both of them. Of common interest is their quest for educational variables at each level of the school's organization and for outcomes pertaining directly to the efforts at those levels. The line will be drawn here, for demonstration purposes, between (1) those researches interested in the school as an organization, and (2) those looking at the school as a social system.

1. Research on the school as an organization

The body of research regarding the school as an organization fall into two fairly distinct methodological traditions according to Tyler (1985): those that focused on descriptive data—as was the case in the strategy developed by the Aston Group (Pugh *et al.*, 1968), and those interested in the perceptual approach associated with Hall's Organizational Inventory (Hall 1963). Despite their differences, each tried to challenge the Weberian model of ideal-type bureaucracy. This research on schools as organizations demonstrated variations on the structural arrangement of the schools, but mostly provided support for the theoretical tradition that has attempted to modify the Weberian ideal-type (see Tyler 1985 for details). The consequences for educational research were that

educational systems came to be considered as loosely-coupled systems, and that we should not be attempting to look at them as wholes (Weick 1976).

These ideas of "loose-coupling" have in fact influenced research at the school level (Allison, 1983; Beck & Betz, 1975; Bell, 1980; Corwin, 1975; Holdaway *et al.*, 1975; Meyer & Rowan, 1983) following the idea of organized anarchies developed for colleges and universities by Cohen and March (1974) and Baldrige *et al.* (1978). They have also supported the efforts at the district level by Bidwell and Kasarda (1975) to show an impact of school district organization on student academic achievement, and by Meyer (1970, 1977) to demonstrate such impact over environmental influence on the school. This kind of research may have been confusing for organizational theory developed for the school (Tyler, 1985), and takes us away from what really happens in the schools (Barr & Dreeben, 1983); but it helped clarify the controversial problem regarding which level of analysis is appropriate to use for educational effect research. This controversy has been largely exposed in the literature (see Alexander & Griffin, 1976a, 1976b; Alwin, 1976; Anderson, 1985; Bidwell & Kasarda, 1980; Hannan, Freeman & Meyer, 1976; Meyer, 1980; Raudenbush & Bryk, 1986). It helped also to position the problem of the switching of levels of analysis in this kind of research which encompasses as well individual appreciations, as global unitary non-aggregated effect.

Following this debate, researchers focused on more restrictive sources of educative effects. Barr and Dreeben, building on Parsons' insight, claim that "organizations have qualitatively distinct levels of a technical, managerial, and institutional kind, each having an agenda of its own to work out and each being tied through interchanges to the adjacent one" (1983, p. 41); this means also that "each level of organization produces its own outcomes, or values, which in turn have meaningful connections to events that occur elsewhere" (p. 42). Barr and Dreeben then proceed to search for those aspects of the school organization that may affect the outcomes of the schools. In their view, it is not the presence or the absence of a quality which has an

impact, but how it is transformed, "used", or "worked" within the school that constitutes the operating technology, and that produces changes.

This insight is particularly interesting for two reasons: 1) it indicates the importance of stating the problem at the appropriate level and, 2) it centers the focus of research on aspects proper to the school's own individual workings. This line of reasoning has been followed in Barr and Dreeben's recent research (1983), and in several other research papers looking for aspects of the school functioning that produce effects. Surprisingly, however, Barr and Dreeben state that "in districts and schools, production must be understood as governance and administration; within schools, it consists of class formation, group formation, and instruction...Needed, then, is a formulation of how instruction is organized in classrooms and in groups located inside them" (1983, p. 25). This concern for the classroom as the locus of production in schools can be found also in several other research investigations which compared the effects on student achievement in classrooms differentiated by intellectual composition (Dar & Resh, 1986), in grouped and ungrouped classes (Hallinan & Sørensen, 1985), in homogeneous and heterogeneous ability grouping (Good & Marshall, 1984), and in teacher-led and peer-tutoring groups (Stodolsky, 1984). Recent orientations led these researchers to the identification of the factors that influence the assignment process of students to ability groups (Hallinan & Sørensen, 1986).

This concern is certainly appropriate for educational effectiveness demonstration and to clarify some of the processes going on within the schools; but it may be lacking in scope by limiting itself to classroom grouping practices which are a part of the larger school social organization.

2. School Social System Research

Research on the social system of the school received a strong impetus from the EEOR. While the Coleman report showed only a limited impact of the influence of the school on individual academic achievement compared with the socio-economic background of the student, it also identified some characteristics within the school which explained some of the differences in schools outcomes. It showed that 1) while teachers' characteristics did not have a large impact, it still had some; among others, "teacher's perception of the nature of the school" seemed to be worthy of consideration; 2) sense of control of the students (defined as the power to determine one's own future, and a positive attitude toward self) is highly related to student achievement, and appears to be independent of school characteristics (Coleman *et al.* , 1966).

These last findings supported the idea that there might be a school effect, and that it had to be investigated with a proper design aimed at the school instead of the individual. This paved the way for school social system research. The most significant contributions come from McDill, Rigsby and Meyers (1967, 1969), McDill and Rigsby (1973), Brookover *et al.*, (1975, 1977, 1979), and Rutter *et al.*, (1979).

Rutter's *Fifteen Thousand hours: Secondary Schools and their Effects on Children* (1979) considered whether or not a child's experiences at school have any effect, if it matters what school he goes to, and which are the features of the school that matter. These researchers looked at four types of measures: 1) measures of individual pupils at the time of entering high school which they called "intake" (social background, cognitive ability and behavior); 2) process of schooling (social organization of the school and the type of environment for learning which was provided); 3) outcomes of schooling (attainments—behaviors, attendance, examination success, employment, delinquency—as influenced by teachers, policies, and the pupils themselves); 4) ecological influences (influences of the community). Their conclusion indicates a strong possibility that the

association between school, processes, and outcomes which they observed reflects in part a causal process, i. e., child behaviors and attitudes are shaped and influenced by their experiences at school as a social institution.

Several studies addressed Rutter's conclusions (Cuttance, 1980; Heath & Clifford, 1980, 1981; King, 1979; Marjoribanks, 1982) and demonstrated that family background is important, but failed to demonstrate that school effect is absent. As mentioned by Cuttance, "The significant influence that schools do account for has not been adequately described by the findings of past research. There is no ground for saying that schools do not make a difference. It is our job to try to explain them" (1980, p. 275).

McDill, Meyers and Rigsby (1967) and later McDill and Rigsby (1973) provided an important innovation in this kind of study by obtaining their data from both students and teachers in order to measure a direct school effect based on school climate. This departed from past school effect research which only took into account the socio-economic background of the student body, and from measures of climate limited to students. They developed a scale measuring six (6) dimensions of school climate. They conclude that these variables are of substantive importance in the light of the fact that they make some contribution towards explaining achievement beyond that jointly explained by the variables which systematically have been shown in previous research to correlate with academic performance—ability, father's education, and academic value. In this research, overall student academic achievement is not attributed solely to social class context, nor to ability, nor is it a function of inputs; it varies as well because of the social pressure applied by other participants in the school setting.

However, the definition and conceptualization of a school effect at the school level is best described in the works of Brookover and his colleagues on the school social system. Their program of research is quite impressive. Starting from the prevailing conceptions about the distribution of intelligence in our society as innate and unchangeable by external forces, and from the learning theories and school practices that locate the

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problem in the individual (as developed in the first part of this chapter), they state after Faris (1961) that society essentially creates its own level of human abilities, and that the prevalent way of thinking "is no longer functional" (Brookover & Erickson, 1969, p.13) for society. For them, the social environment is the crucial factor determining an individual's learning ability, and it is through this environment that change can be implemented.

The theory of human learning (Bloom, 1976), and symbolic-interactionism (Blumer, 1969; Goffman, 1959; Kuhn, 1964; Mead, 1934) are most influential in Brookover *et al's*. In their view, conditions that promote learning are as follows:

- 1) "There is no functional limit on what an individual can learn."
- 2) "Social norms and expectations of others define the appropriate behavior for persons in various social situations."
- 3) "Each person learns the definitions of appropriate behavior through interaction with others who are important or significant."
- 4) "The individual learns to behave in the ways that he or she perceives are most appropriate for him or her."
- 5) "The individual acquires conceptions of his or her ability to learn various types of behavior through interaction with others whose evaluations are important to that individual" (Brookover & Erickson, 1969, pp. 15-16).

These ideas were developed in their early work on self-concept with regard to academic ability (Brookover *et al.*, 1962, 1965, 1967), and were applied to school settings later on. By developing a school-climate instrument at the school level, taking into account students, teachers and principal's responses, and by using a symbolic-interactionist framework, they were able to measure what can be considered a true school effect with variables aggregated from individual responses. The focus on the interactions between the respondents and their symbolic environment in the school gives this instrument a quality that allows one to consider it as a school property. This point will be developed in more detail in the second chapter. Second, their use of students' academic outcomes aggregated at the school level provides them with a measure appropriate to test an endogeneous school

effect of the kind provided by the climate questionnaire. Seldom indeed were student's outcomes measured in school-climate research (Lezotte *et al.*, 1980).

The definition of the school social-psychological climate used in this line of research can be traced in Brookover and Erickson (1975):

"In the social-psychological frame of reference in which we examine learning, the school social climate encompasses a composite of variables as defined and perceived by the members of the group. These factors may be broadly conceived as the norms of the social system and the expectations held for various members as perceived by the members of the group and communicated to members of the group" (p. 364).

Brookover's study, as described in *School Social Systems and Student Achievement* (1979), comprehends three sets of independent variables (school social input, school social structure and school social climate) which are measured against three dependent variables: school academic achievement, school self-concept, and school self-reliance. Their results show the important impact of school social-psychological climate on these three variables, which is equal or superior to inputs and socio-economic background of the student body. That finding, along with their case studies of four low SES schools experiencing different academic results, allows them to propose the existence of a school social system whose influence may be important for student learning, and in differentiating schools between them. They conclude that:

"The school social system is no different from the family or other social organizations in that children learn to behave in the ways that the social system defines as appropriate and proper for them. Current evidence that schools do not make a difference results from the fact that research is not identifying the characteristics of the school that determine behavioral outcomes. School climates and organizations that promote and perpetuate non-learning are unlikely to produce high levels of achievement. But schools designed to produce high levels of achievement can function as well as any other social system" (Brookover *et al.*, 1979, p.148).

This research, concerned with factors that "make a difference" in learning between schools, in conjunction with other research interested in school instructional variables that influence behavioral outcomes, supported the movement for effective schools in the United States. "Consequently, schools and districts throughout the country have

been using this research to guide local efforts to improve schooling" (Hallinger & Murphy, 1986, p. 328).

Purpose of This Study

This study aims at widening the actual knowledge about school effect as it is developed by school social systems research. It will test the relative influence of school induced characteristics upon school mean student achievement and school mean self-concept, when compared with school mean social background and input resources. More specifically, it will use a comparative design to replicate the research made by Brookover *et al.* (1979), in a sample of schools selected from the French-Canadian society located in the northeastern portion of the Province of Québec.

The research on school effect in the United States may now be at a point where we are confident enough about the existence of the impact of the school social structure (which is independent of the social structure of society) to warrant a test of the most appropriate hypothesis in other societies. Hallinger and Murphy (1986) have already warned the scientific community about the limited utility of effective schools research. They argue that "The issue of generalizability of the effective schools research is critical if the findings are to be incorporated into instructional programs and policy initiatives that affect all schools" (p. 329). This problem of generalization is also picked up by Rosenholtz (1985) in discussing anomalous findings of past effective schools research. Researchers have suggested that school effect research, especially climate measurement, has not addressed adequately the theoretical and conceptual issue supporting their measurement techniques (James & Jones, 1974). More recently, Burgess, after reviewing school organization and school effect research in the USA and in England, says that the models which sociologists have used "have often been derived from non-educational settings with the results that their applicability to schools and to the educational settings is seriously limited. Accordingly, as several commentators have indicated, we still need an

empirically based theory of schools" (1986, p. 176). A step further can be made with the use of comparative research.

Brookover's research represents a valid point of departure to make such a comparative attempt because it showed a school effect with a design proper to the school as the level of analysis. It is also one of the few pieces of research which is organized after a conceptual definition of school social system.

The Lessons From Comparative Research

Important to scientific knowledge is the verification of findings cross-culturally, in order to develop theories that explain human and social behavior. Some of the most significant contributions of comparative research are the possibilities it gives for testing those findings which appear evident in one social system but which turn out to be system-specific, and to identify the characteristics that can be generalized, and also the degree to which they can be generalized. As stated by Grimshaw, "The particular task of comparative sociology is to distinguish between those regularities in social behavior that are system-specific and those that are universal [in either the substantive or the metatheoretical sense]" (1973, p. 7).

The usefulness of the comparative method has already been well documented in the literature as a way of producing valid theories, with the expected qualities of accuracy, generality, parsimony and causality (Przeworski & Teune, 1970) needed to explain human functioning. This usefulness has also been well demonstrated in Durkheim's *Suicide* (1966) and *The Rules of Sociological Methods* (1982). In fact, the comparative method is a useful tool to evaluate the local impact of some interpretative hypothesis which may be valid to explain a limited number of phenomena but which fail to go any further. It also helps us find structural similarities in various social systems or social entities which would explain some of their functions (Cherkaoui, 1979). Cherkaoui

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goes on to suggest however that the comparative method is useful only insofar as we test hypotheses and go beyond the mere description of some idiocratic events in a society.

One concern in school social system analysis is to establish cross-cultural similarities or differences between school contexts with regard to their impact on learning. The focus must be placed on schools as entities, or as social systems, and on the comparison of their characteristics in different settings, in order to identify those which could be said to lead to student achievement.

The issue of comparative utility has frequently been raised over school effect research since Durkheim had shown the relative autonomy of the teaching system from the social structure which produces school systems in the *Evolution of Educational Thought* (1969). But the greatest importance of cross-cultural measurement was probably demonstrated by the impressive research undertaking of The International Association for the Evaluation of Educational Achievement—known as the IEA studies. This work, contained in a nine volume set of books published between 1973 and 1976 is regarded as the most extensive and complex piece of educational research yet undertaken (Farrell, 1979). This research involved several scholars for a decade in an in-depth study of levels of academic achievement in six subjects areas (science, reading comprehension, literature, English as a foreign language, French as a foreign language, and civic education). The researchers looked for factors that affect levels of achievement in twenty-one countries. They addressed student populations ranging from ten years of age to those in the last year of secondary schooling. The purpose was to develop internationally valid evaluation instruments, and to design a survey of educational facilities and practices as they existed in this "laboratory" model. The aim was also to identify the factors accounting for differences between countries, schools, and students. The data included 500 independent variables, a lot of them capable of manipulation by policy (Heyneman & Loxley, 1982).

The finding of the IEA study, which showed results quite similar to those reported in the United States, will not be reviewed in detail here, since this is the purpose

of the second chapter. However it is useful to take into consideration right now some methodological applications and some of the general results that can be drawn from this study and from similar cross-cultural studies in order to develop of the present research design.

For several reviewers, one of the most interesting finding of the IEA and of the secondary analysis made from these data is the existence of large differences observed between the countries which are considered "developed" and the so-called developing nations of the study (Farrell, 1979; Saha, 1983; Theisen *et al.*, 1983). Put briefly, the proportion of the variance in achievement accounted for by in-school variables compared to the proportion accounted for by home background variables is much greater in the developing nations than in the developed nations. Second, the studies from the less developed countries show that comparing the academic achievement of students confronted by a rigidly set curriculum with that of students in an educational system characterized by a high degree of disciplinary flexibility is at best misleading. The danger of misinterpretation is of a qualitative nature, not of a quantitative nature. As reported by Theisen *et al.* (1983), countries which put pressure on educating for equity and social transformation cannot be regarded as those countries which value academic achievement. On a comparative basis then, in their views, academic performance (as measured by conventional achievement measures) receives less social sanction in "liberation" social systems than in contest, sponsored, and manpower-oriented systems. In these cases, academic performance is at the backstage. The environmental press is oriented towards other goals than generally measured, and when they *are* measured, they appear to be important predictors of school outcomes. As demonstrated by Heyneman and Loxey (1982), the regression processes used in the IEA studies were applied across all societies; this tended to reduce the importance of school variables, because they were looking for variables equally important across the average of many societies. The results are quite different when variables important in that society only are used.

The lessons which can be drawn from these studies are that it is important for researchers attempting to generalize to look at variables present in each of the systems, and then to compare similar aspects within different societies. This is no surprise when the results are similar to those found in the society where the model came from, and when those variables susceptible of differentiation are omitted. According to several reviewers, when you examine what is important to a school system, you touch the variables a school has an effect on. What is needed, then, is a well articulated, stratified sampling procedure that calls attention to (rather than suppresses) regional and contextual variations in the educational processes (Theisen *et al.*, 1983). Also, there are advantages of using a comparative approach (Farrel, 1979), selecting samples which are large enough and similar enough to compare (Brimer *et al.*, 1978), and placing the focus on differential treatments allocated to individuals on the basis of their social and educational characteristics (Cuttance, 1980).

The Comparison Country

The province of Québec, Canada, was chosen for this comparative study for several different reasons. First, the researcher responsible of this study comes from Québec and is involved in this school system. He intended to gather informations capable of improving knowledge regarding the functioning of schools in this society. But there are more scholarly reasons which support this choice. The most important one is that Québec offers a valuable setting for testing the hypothesis advanced in school social system studies as will be demonstrated now. In order to understand where Québec stands, however, as a comparison setting, it is important to look at Canadian society, French-Canadian society, and to find out how it compares and differs from these societies and from American society.

It is appropriate to note, first, that researchers disagree greatly as to where the differences lie between these three societies. The problem appears to be linked with the rapidly changing character of Canadian society and of French-Canadian society during the last two decades and with a problem of research design. On account of cultural differentiation between Canada and the United States, Brym suggested recently "that at least some of the controversy surrounding the cultural theory could be resolved if more evidence were systematically collected and if key terms were more rigously defined and operationalized" (1986, p. 18). This problem will not be discussed in the present research but the knowledge of this issue warrants that only key elements of the differences between these societies be retained.

Lipset's main contention is that Canada is a more elitist, law-abiding, statist, collectivity-oriented, and particularistic (group-oriented) society than the United States and that this stems from the historical development of both countries with some distinctions between the francophones and the anglophones in Canada (1985, 1986). This would be enough to justify a system differentiation to test the hypothesis to be traced in this research. But of greater relevance is Lipset's (1970) previous contention that five continua define the core values of some industrialized societies, including Canada and the United States. One of these continua—ascriptio-achievement—is helpful for the present study. It suggests that United States citizens are more achievement oriented than are Canadians. This has been challenged by other researchers. But in a review of these investigations, Brym shows that all of the research which addressed that issue provide support for this contention (1986, Table 2, p. 20).

As far as Québec specifically is concerned, the researchers did not frequently differentiate between Quebecers and French-Canadians located throughout Canada. This renders hazardous any generalization. However, the largest proportion of francophones lives in Québec and most data collected come from this province.

There is a persistent conventional wisdom among researchers (Guindon, 1978; Murphy, 1981) that "the cultural values and beliefs of French-Canadians involve placing less emphasis on economic achievement and more emphasis on family and kinship compared with English-Canadians. These views on French-English differences have been developed in several descriptive and speculative accounts of the two subcultures and they also have been invoked as interpretations of data on the differential social mobility of francophones and anglophones" (see Baer & Curtis, 1984, p. 406, for details and for an extensive listing of the researches supporting these views). However, these researches on French-Canadian-English-Canadian differences in values do not support the economic achievement differential (Baer & Curtis, 1984). For one thing, French-Canadians would place greater emphasis on this type of achievement.

Closer to the educational scene and to educational variables pertaining to this study is Guppy *et al.* (1984) which showed that even though its influence has been wakening over time, social origin in Canada continues to exert a strong influence on school attainment. In fact, its importance is still quite considerable in high school completion and on the probability of attaining some university experience (Goyder, 1980). On the other hand, Grabb (1980) found that French-Canadians are more likely than English-Canadians to originate in disadvantaged socioeconomic circumstances. He hypothesised that "this inequality in life chances and in objective power may lead to lower feelings of power in the French group" (1980, p. 169). His results do indeed show a lower sense of control among French-Canadian adolescents, which he links with the lower socioeconomic origin of this group and socialization practices. Richer and Laporte define this as "a difference in 'cognitive style', involving greater 'habits of resignation and fatalism' in the French-Canadian" (1970, p. 144).

This research provides enough evidence that French-Canada differs from the United States even though scholars did not address this comparison directly. Since English-Canada usually is closer to the American culture than French-Canada, and since

both cultures differ in the latter country, this conclusion is not inappropriate. Québec would then be a society characterized as socioeconomically less advantaged and less achievement oriented than the United States, still being subject to unequal educational opportunities due to ascribed characteristics and whose socialization practices reveal a low sense of control of adolescents over their future. These differentiating characteristics are interesting for this research because they identify aspects of the problem which will be addressed with the variables used in this replication study. As stated by Lipset, 1986, Canada and the United States have many things in common for comparative purposes:

"They have the same ecological and demographic conditions, approximately the same level of economic development, and similar rates of upward and downward social mobility. And alongside the obvious distinctiveness of francophone Quebec, anglophone Canadians and Americans have much in common in cultural terms as well. Yet, although overall these two people probably resemble each other more than any other two nations on earth, there are consistent patterns of difference between them" (p. 114).

These characteristics correspond to the expectations for a comparative design similar enough to measure the same things in different contexts but different enough to show variations which might be due to the social context. These are some of the lessons learned from previous comparative research conducted on school achievement which are retained for this study.

Research Hypotheses

This research will test the findings of Brookover *et al.* (1979) by replicating this study in selected French public elementary schools of the northeastern part of the Province of Québec. Its aim is to provide information on the generalizability of the results obtained in Michigan as to the effect of school social systems on different student outcomes when there is variation in the social context of the kind provided by this French-Canadian society. The findings of Brookover and his colleagues have already been tested in Saudi

Arabia (Al-Thubaiti, 1983 which will be reviewed in the next chapter) but never in an industrialized society outside of the United States.

The general model of school social system variables with hypothesized relations to student outcomes developed by Brookover and his colleagues appear as in Figure 1. Only the student self-reliance variable has been removed from the model. This outcome variable is omitted because it was found to be inconsistent in Brookover's research. This model identifies four sets of variables. The three sets of independent variables (input variables, social structure, and school climate) are shown to be interrelated and to have an impact on the two dependent variables measured (school mean academic achievement and self-concept). These relationships will be described in the next chapter.

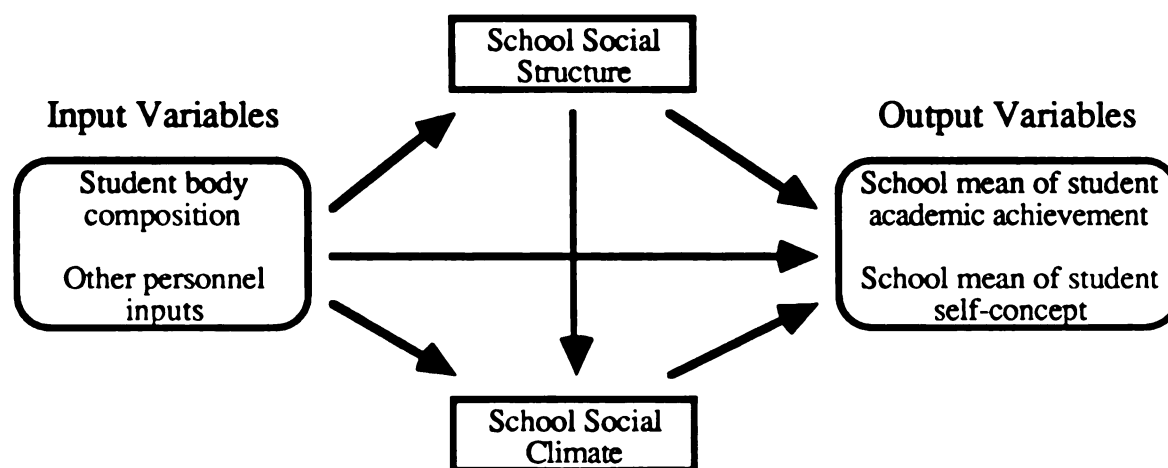


FIGURE 1

MODEL OF SCHOOL SOCIAL SYSTEM VARIABLES AND THEIR EXPECTED
RELATIONSHIPS TO STUDENT OUTCOMES

The hypotheses developed in the Michigan research and reassessed in the present study appear in Brookover *et al.* (1979, pp.6-8) with their theoretical support. The

review of the literature will vouch for their plausibility. The general hypothesis measured in the present study is stated in the following words:

General Hypothesis

There are differences in school social systems in Québec which explain differences in student academic achievement and self-concept of academic ability among schools.

The specific hypotheses have been modified slightly for this research because no direct comparison has been attempted between selected schools to further the analysis as done by Brookover and his colleagues. Hence, the measure of direct and indirect effects among the independent variables will be limited to the identification of the relationships between these sets of variables. The model developed in Michigan is retained however for this research because it identifies relationships which can be supported by a logical analysis. Indeed, what is put in the school precedes the processes that develop in it and the social structure of the school, as defined in this kind of study, involves a level of organization which eludes school's own internal power of its members to a certain degree. This model does not include feedback, however, and will not test the circularity in the variables, which comes from the possible effect of the dependent variables on social structure and school climate.

When adapted for the present study, the working hypotheses read as follows:

- Hypothesis 1: Each school has a set of student status-role definitions, norms, evaluations, and expectations characterizing the behavior expected of the students.
- Hypothesis 2: The nature of the student body in terms of socioeconomic background and of the other inputs of the school social system affect the schools' social structure and academic climate as well as the level of mean student academic achievement and self-concept of academic ability.

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- Hypothesis 3:** The special structure which defines the patterns of interaction that occur within the school is related to the social-psychological climate.
- Hypothesis 4:** Both the social structure and the social-psychological climate variables affect the outcomes identified by students' cognitive achievement and their self-concept of academic ability.
- Hypothesis 5:** Social structure and social climate explain much of the variance in outcomes frequently attributed to the input variables.

The limits of this research arise from a partial replication of the original research for the reasons mentioned before, the problems associated with comparing variables in different countries, and from the generalizability of the results to the schools in Québec.

First, it should be assumed that a minute comparison with Michigan schools is not possible on all grounds because the social systems differ and the research instruments must consequently be adapted. This is particularly true of the variable "percent-white" which cannot be measured in Québec. This is also the case for one of the dependant variables—school academic achievement—which will not be measured in the same way because the *Ministère de l'Éducation* of the Province of Québec does not assess students on the mastering of cognitive objectives as the Department of Education does in Michigan for fourth graders. An equivalent measure is available in the form of provincial academic achievement tests in reading, writing and mathematics administered to sixth graders. It is possible, also, that the research procedures vary due to resources, translations of the instruments, and data availability. However, this research design implies a testing of the main hypothesis in Brookover's original study. The main clusters of variables will be retained even though the content of some specific variables will be altered without modifying their conceptual significance.

Finally, the sample of schools selected in Québec for this study does not constitute a representative sample of the schools in the province, nor is it even representative of the schools of the region where the schools are located. The schools were selected from the French public elementary school system and located in the northeastern part of the province. The sample includes schools selected for specific features in order to provide a sample different enough to allow variability in the main characteristics of the schools which were to be measured. The third chapter will describe the sample and explain the reasons for this research strategy.

CHAPTER II

OVERVIEW OF THE RELEVANT LITERATURE

Introduction

The first chapter introduced those variables which have been assessed in past research as to their impact on the school. It also looked at certain outcomes produced by the educational system which were hypothesized to be of importance to this body of research.

This second chapter will focus more directly on the results obtained as expressed in the literature on school effects. Given the immense importance attributed to socioeconomic background versus school centered variables to explain variations in outcomes, this review will primarily address those issues. This choice stems from the fact that Brookover's research (which is replicated here) questioned the importance of both these types of variables in the same design.

The chapter will first review the major studies done on student achievements in single nations with a particular emphasis given to the United States and to the description of Brookover's *et al.* (1979) results. Second, findings from studies involving more than one nation will be presented. Third, the theoretical perspective supporting the present research will be briefly described. And fourth, the school system of the Province of Québec will be introduced with particular attention paid to the changes which occurred during the last twenty years in the province as well as the effects these had on the functioning of the schools and the objectives pursued. This last section should help explain the differences between the Québec school system and the American school system. This

section should also provide a basis for explaining differences between Brookover's results and the present ones.

Student Achievement in Single Nation Studies

There have been few extensive and publicized studies on the relationship between social background, school properties and achievement in single nations. The best known are the Coleman Report (1966), followed by its corresponding surveys in the United Kingdom (Plowden *et al.*, 1967) and in Australia (Karmel Report, see Cuttance 1980), and Jencks *et al.* (1972) which all addressed the problem of whether the nation's schools are conducive to equality. While this research perspective stressed the importance of social selection prior to schooling in reference to its impact on achievement, scholars like Brookover *et al.* (1979), McDill, Meyers and Rigsby (1967, 1969, 1973) and Rutter *et al.* (1979), proposed a school effect in addition. The main findings of their research will be reviewed now, with the exception of the Plowden and the Karmel Reports which duplicate, to a large extent, the Coleman Report results.

Socioeconomic Background and Achievement

The Equality of Educational Opportunity Research originated from a Congressional request to demonstrate whether or not equality is assured in the United States' schools. It address four major questions: 1) the extent to which the racial and ethnic groups in America are segregated in the public schools; 2) the extent to which equal opportunity is available to all American children in terms of those criteria normally thought of as necessary for equal schools, i.e., curriculum, teacher quality, facilities, tracking, and other input measures; 3) the achievement of children as measured by standardized achievement tests; 4) the relationship between student achievement and the kind of school attended.

This report departed from previous research and from popular expectations as well, which considered equality to be an input characteristic, by placing the emphasis on individual student performance as a measure of equality. Coleman and his colleagues indeed looked at the distribution of the resources within the schools but only as a mean for studying the effects of school differences on possible inequality among students. The study sampled elementary and secondary school children at five grade levels, teachers, principals and superintendents. It included three groups of independent variables: social background, school variables, and students expectations.

The most significant and quoted findings of this study are that family background variables are the greatest determinant of school achievement and that this influence does not diminish throughout school. The results show however important racial and geographical differences. Black and minority students have significantly lower achievement than white students and this difference gets larger throughout elementary and secondary schools. There are also significant differences between the north and the south, south west, and between metropolitan and rural areas.

Second, there is a relatively small amount of school to school differences accounted for by school facilities, curriculum and staff and a small amount of variance in achievement due explicitly to variations in school facilities and curriculum. Third, of school factors, teacher characteristics account for the greatest variance in achievement (although it is still relatively little). Fourth, social composition of student body, independent of family background, is more highly related to achievement than any school factor. Fifth, sense of control variables are related to student achievement but appear to be independent of variations in school characteristics (Coleman *et al.*, 1966, p. 325).

All together, these results imply that schools have little bearing on a child's achievement that is independent of his background and general social context; that these social inequities therefore are carried into adult life; and that schools, as presently constituted, are not providing a strong independent effect (separate from the child's

background) necessary for equalization of opportunity. These relationships between social background and achievement were confirmed in several other research investigations following this report (see Hauser, 1971; Hauser *et al.*, 1976; Mayeske *et al.*, 1969; Mosteller & Moynihan, 1972; and Jencks *et al.*, 1972, which will be reviewed later).

A brief analysis of the major findings of the Coleman Report will however characterize such conclusions for school to school differences. This study shows that only 5 percent to 35 percent of the variance in achievement can be attributed to differences between schools. These variations in percentage come from minorities and grade levels. These data indicate that despite large variations in school resources, curriculum, teaching staff and students themselves, over 70 percent of the differences in achievement between schools must be attributed to students' individual and social background characteristics. This led Hodson (1975) to state that "Schools make no difference".

However, some details must be considered. First, there are differences between minorities as far as between-school achievement is concerned. Black students are more influenced than white students by school variables and this increases from the first to the third grade level. For Cherkaoui (1979), this is of considerable importance for the formulation of a school policy. Second, school variables all added together explain less than SES and race as composition factors but "attributes of other students account for far more variation in the achievement of minority group children than do any attributes of school facilities and slightly more than do attributes of staff" (Coleman *et al.*, 1966, p. 302). This has also been demonstrated by Carlson, 1972; Jencks & Brown, 1975). Third, black students from the south of the United States are more influenced by school staff characteristics than black and white students of the north. "This result is an extremely important one" for Coleman *et al.*, because "it suggests that good teachers matter more for children from minorities" and that "the effect of good teachers is greatest upon the children who suffer most educational disadvantage in their background" (1966, p. 317). Finally, of all the variables measured in the survey, a student's interest in school, his self-concept and

his sense of control over environment showed the strongest relation to achievement. "The zero-order correlations of these attitudes with achievement were higher than those of any other variables, in some case as high as the correlation of some test scores with others [between .4 and .5]" (Coleman *et al.*, 1966, p. 319). Re-analysis of these data by Mayeske *et al.* (1969) and Smith (1972) show that sense of control and self-concept do indeed contribute significantly to student achievement.

In the London area, Brimer, Madaus *et al.* (1978) addressed some of the EEOS conclusions to see whether contributions of school (curriculum, resources, organization and teaching) are greater in England than in the United states. As a general conclusion, the total variance demonstrated by their variables is over 50 percent in half of the schools, and there were more of the between-school differences explained than those within-school. In fact, individual variables explained the differences within while teacher and school variables showed an important variation between schools. Their findings differ from those of the EEOS because the differences are not due to school factors nor background alone, according to them, but rather are a consequence of progressive differentiation. Schools manage to get the best out of their students while adapting to their characteristics and, then, schools maximize differences between students. According to these results, school makes a difference in concert with the other social agencies but school cannot counter the trends of society.

Jencks *et al.* (1972), using the same data as the EEOR, questioned the same issue of equality as Coleman *et al.* did, but with a significant difference. They argue that equality is equal status in adult life and they look at the effect of education on that outcome. Their results show that most differences in adults are due to factors that schools do not control. The most important determinant of educational attainment is family background. Cognitive skills are second. Occupational status is strongly related to educational attainment in their data but there are still enormous status differences among people with the same amount of education. In reality, the variations in what children learn in school

depends largely on variations in what they bring to school, not on variations in what schools offer them. Their data uphold Coleman's findings that resources have virtually no influence on schooling. That led Jencks and his associates to the finding that "Qualitative differences between high schools seem to explain about 2 per cent of the variation in student's educational attainment" (Jencks *et al.*, 1972, p. 159).

In their view, income inequality cannot be eliminated nor even substantially reduced in America simply by providing children from all walks of life with equal opportunity. They then conclude that schooling seems important in and of itself, not as a proxy for cognitive skill or family background. Schools legitimize inequality and they serve primarily as selection and certification agencies whose job is to measure and label people. Only secondarily do they serve as socialization agencies whose efforts are aimed at changing people. Schafer and Olexa, in *Tracking and Opportunity* (1971), state however that schools put students in tracks controlled by family background and ability groups in a way that will lower grades and increase dropout rates of the students. If so, Jencks' statement that schools measure and label students might better be modified to the idea that schools just label students. Finally for Jencks *et al.*, differences between schools have rather trivial long-term effects and eliminating these differences between schools would do little to make schools more equal.

These findings from Coleman, Jencks and their colleagues about the dominating impact of socioeconomic background and individual characteristics on achievement have been challenged in a number of studies. Among others, the *Wisconsin Social-Psychological Model of Status Attainment* developed by Sewell and Hauser (1976) has provided a useful analytical model for many researchers (Ballantine, 1983). This group found that "socioeconomic status has no effect on high school performance independent of measured ability, and on education and occupational aspirations, and via these aspirations, on educational attainment and occupational achievement" (Sewell & Hauser, 1964, p. 96). They suggest that our ability to interpret social inequalities in terms

of income differences is limited, and that the importance of SES variables on attainment comes from the encouragement received from significant others and from educational aspirations.

However, the most significant arguments developed for supporting an effect of the school probably lie in research interested in schools as a social system. The basis for departure from these studies include some of the secondary findings in the EEOR as described before, and the underestimation of Jenck's data about school variables.

School Variables and Achievement

Some researchers attempted to develop a design including social background and school variables in an effort to differentiate schools by looking more specifically at variables closer to the school social system. We shall review the most significant ones now.

One of the most important pieces of research to have come out in recent years on that subject outside of North America is certainly the work of Michael Rutter and his colleagues titled: *Fifteen Thousand Hours: Secondary Schools and their Effects on Children* (Rutter *et al.*, 1979). The title refers to the number of hours spent by children in school during the 12 years when school and teachers may have an impact on their development. They addressed the following questions: 1) do a child's experiences at school have any effect? 2) does it matter what school he goes to? 3) which are the features of the school that matter? In a similar fashion as Barr and Dreeben (1983) and Hallinan and Sørensen (1985) later on, they started from the point that buildings and resources are not important. The crucial differences between schools concerning aspects of school life having to do with its functioning as a social organization. They considered climate and atmosphere as important but tried to focus on staff action or activities which lay behind the intangible but important features. They assessed the changes due to school in attendance,

children's behavior, public examination results, and delinquency rates observed in the schools.

Twelve schools from the inner city of London were chosen for this study. They differed in size, space available, sites, newness and maintenance of the building, style of leadership; some depended on local authority and others were operated by churches. Schools also differed in educational aims with regard to child development versus academic achievement, with regard to strict moral code versus liberty. Schools were assessed on student's individual and social background composition, on the learning environment provided, on the influence of the community and on various outcomes of schooling. The data were obtained through questionnaires, interviews and a wide range of structured and unstructured observation techniques.

The authors showed that schools in inner-city London differ markedly in the behavior and attainment shown by the pupils when they controlled for intake (social background, cognitive ability and behavior), and that these results are stable over a period of at least four to five years. There was no influence with regard to school size, facilities nor administrative status of the school as an organization. The differences between school outcomes were systematically related to the following characteristics of social institutions: the degree of academic emphasis, teacher action in lessons, the availability of incentives and rewards, and so on. All of these factors were subject to modification by staff rather than by external constraints. The combined measure of outcomes was much stronger than any of the associations with individual process variables which suggested to the authors that they combine to create a particular *ethos* or set of values, attitudes and behaviors which will become a characteristic of the school as a whole. They concluded, finally, that there is a strong probability that children's behaviors and attitudes are shaped and influenced by their experiences at school and in particular by the quality of the school as a social institution. These findings have been largely supported in a subsequent similar study in South Wales by Reynolds (1982).

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What Rutter *et al.* calls "ethos" however has been questioned by the critics of this study for its lack of precision and for all of the information it included without further explanation (Cuttance, 1980; Health & Clifford, 1980). The response to this appropriate query may well be found in the research which addressed climate measurement more directly.

According to Anderson (1985), "*Climate* is a word that seems so intuitively understandable that at first glance it might appear to need no definition. In fact, it is often alluded to in the literature without even being named" (p. 97-98). It was first described in organizational research. For Forehand and Gilmer, it refers to: "The set of characteristics that describe an organization and that (a) distinguish that organization from other organizations, (b) are relatively enduring over time, and (c) influence the behavior of people in the organization" (1964, p. 362). In Campbell's *et al.* view, it includes "a set of attributes specific to a particular organization that may be induced from the way that organization deals with its members and its environment. For the individual member within the organization, climate takes the form of a set of attributes and expectancies which describe the organization in terms of both static characteristics [such as degree of autonomy] and behavior-outcome and outcome-outcome contingencies" (1970, p. 390). As a general concern, it is the term used to describe the psychological structure of organizations (DuBrin, 1974) and refers to morale, *esprit*, atmosphere, feeling, ethos, culture, ecology, setting and so forth. The term has taken on several orientations, depending on the authors or the dimension measured; those are expressed in research on the participative groups' style of management (Lickert, 1967), on the pattern of expectancies and incentive values (Litwin & Stringer, 1968), and on the global subjective judgment about the organization (Gullerman, 1960).

School is a type of organization where climate measurement mushroomed during the last decades with the impetus of the school effect and school effectiveness movements. The same variations in orientations and expansion can be observed. It ranges

between climate encompassing the total environment (Tagiuri, 1968), the human environment (Insel & Moos, 1974; Moos, 1974), schools (Brookover, *et al.* 1979), individual classrooms (Coleman, 1961; Meyer, 1980; Moos, 1979; Rowan, Bossert, & Dwyer, 1983), and groups of persons (Barker, 1968). Variations can also be observed as far as measurement strategy is concerned. Flanders (1967) developed a measure based on participant-observation even though the most often used approach for measuring climate remains perceptual analysis. This strategy assumes that climate comes from the definitions of the participants, similar to the way in which actors perceive their reality, which is most conducive to a specific outcome like achievement (Schneider, 1973).

Since the pioneering works of Stern (1961, 1963, 1970) and Halpin and Croft (1963), several instruments have been developed to measure school climate. They will be differentiated here as psychological, organizational and social-psychological orientations.

The first set of variables described stems from a psychological point of view. It states that individual students can indicate whether certain statements are or are not characteristic of their college environment. This, thus, provides an estimate of internalized school effect (aspects of psychological functioning which had presumably been activated and shaped by classroom experience and were then assimilated into the psychological structure and organization of the child) (Minuchin *et al.*, 1969). This main orientation focused on the establishment and measurement of climate through such scales as: Learning Environment Inventory (Anderson, 1970; O'Reilly, 1975; Randhawa & Hunt, 1976; Walberg, 1969), Classroom Atmosphere Scale (Silbergeld *et al.*, 1975), College Characteristic Index (Pace & Stern, 1958; Thistlethwaite, 1962), College and University Environment Scale (Centra & Linn, 1970; Pace, 1963), Learning Climate Questionnaire (Bowen & Kilmann, 1975), and Classroom Environment Scale (DeYoung, 1977; Moos & Trickett, 1974; Moos, 1979). They are characterized by measures of variables like: intimacy, formality, favoritism, apathy, democracy, cliqueness, relationships of

spontaneity or involvement, order, aggression in the system maintenance, autonomy in personal development and so on. Such variables, based on perceptions, have been tested cross-culturally by Walberg, Singh and Rosher (1977) and were shown to have a good predictive validity for achievement.

The second orientation using perceived behavior addressed itself to school organizational climate. The most widely used instrument for this has been the Organizational Climate Description Questionnaire (OCDQ) developed by Halpin and Croft (1963) for the elementary schools. In many ways, it resembles a leader behavior description questionnaire since it is believed that the principal is the one who sets the climate described in terms of openness. This is quite similar to Lickert's *Profile of School Instrument* (1967). Both, in fact, have scales which were shown to be highly related (Hall, 1972). This questionnaire was aimed at measuring the perceived behavior of principals and teachers on variables like: aloofness, production, emphasis, hindrance, disengagement, thrust, and consideration. Stern (1963, 1970) developed a scale which refers to those characteristics of environmental press which inhibit or restrict personal expressiveness and self-actualizing behavior in terms of developmental and control press. Even if organizational characteristics of the school are measured to an extensive degree, these last orientations may be limited by their use of a too restrictive continuum of open-closed characteristics of the school or classroom.

The effort to classify a school in terms of climate has been attempted with social-psychological variables. According to Anderson (1985), the climate dimensions developed by McDill *et al.* (1967, 1969, 1973) and by Brookover *et al.* (1977, 1978, 1979) "expanded the relevant climate factors to include those concerning students as well as teachers and principals" (p. 101). Using more direct measures of climate instead of aggregated student characteristics (once used as proxies for school climate), they were able to find better predictors of student achievement, and to compare them with social background.

McDill *et al.* (1967, 1969, 1973) worked at the secondary school level. The goal of their study was to explain why some schools are more productive than others. They selected ten pairs of high schools that differed in aggregate academic performance and compared them on a number of individual and school characteristics. The dependent variables chosen were achievement in mathematics and aptitude for abstract reasoning. The social-psychological climate variables used were factor analyzed to arrive at 6 dimensions of climate, including:

1. Academic Emulation: the value placed on academics by students.
2. Student Perception of Intellectualism-Estheticism: the degree to which acquisition of knowledge and learning is valued.
3. Cohesive and Egalitarian Estheticism: the extent to which the student social system emphasizes intellectual criteria for status as opposed to family background or other ascribed criteria.
4. Scientism: the emphasis placed on science in the school.
5. Humanistic Excellence: the emphasis placed on art, humanities, social studies and social issues.
6. Academically Oriented Student Status System: the extent to which intellectual and academic performance is rewarded as compared to extracurricular activities.

Their results show that each of the climate dimensions was more strongly related to achievement than was SES with the exception of factor 4. They also found SES and IQ to be highly related to achievement. But when these variables were controlled, their effect disappeared completely while each of the 6 climate dimensions retained a large proportion of their original explanatory power on achievement. Even if none of the dimensions alone accounted for a large portion of the variance, McDill and his associates say that "the SES context of the school does not adequately reflect the shared norms and motivations of students and teachers and that direct measures of school climate should be employed in contextual research whenever feasible" (McDill & Rigsby, 1973. p. 88). The results of this type of research "support the existence of school effects independent of the personal characteristics of the student body [either on individuals or aggregates]" (Boocock, 1980, p. 200).

This type of research was pursued and expanded upon at the elementary school level by Brookover and his colleagues with samples of Michigan schools. This group tried to demonstrate that social climate variables are correlated with various school outcomes by separating their effect from background characteristics of the student body. This research will be reviewed in greater detail because of its direct relationship to the present survey.

The research of Brookover *et al.* developed in several stages. At the beginning, Brookover and Schneider (1975) focused their attention on pairs of elementary schools (24) having similar SES and racial composition but significantly different levels of achievement. A set of climate variables were factor analyzed to produce four factors for the students and six for the teachers. When controlling for the effect of composition variables, significant differences between these schools did appear as developed by their academic climate. This research helped state hypotheses for subsequent investigations since it was clear for the elementary schools that "The role of teachers' and classmates' attitudes in establishing these feelings [was] obviously an important part of the school climate" (Ballantine, 1983, p. 182).

The second stage appears in Brookover *et al.* (1978) in a study on a representative sample of Michigan elementary schools. Using students, teachers and principals as reporters or informants concerning the nature of the sub-culture of the school, they developed a wider set of climate variables embodying most of the aspects of the school normative system. The main hypothesis was that there are differences in school social systems which explain differences in achievement among schools and that there is a school sub-culture—set of norms, expectations, values and beliefs shared by the participants in the school or in particular sub-groups. These norms, expectations and perceived evaluations by significant others in the educational context could also be called school climate, and were said not to be equivalent to composition variables.

As identified in this study, the authors were able to show that composition variables used alone as a measure of school environment are inadequate measures of the impact of school climate. Moreover, the differences attributed to composition may be attributed as well to climate and composition. Indeed, the school climate variables used explained a significant proportion of the difference in achievement between schools, beyond that explained by social composition when the latter variable was placed first in the regression analysis. Much of the variance explained by SES composition is also explained by differences in climate variables which are associated with composition.

In the third stage of their research program, Brookover *et al.* (1979) added other variables of the school social system that may affect achievement as well as other outcomes of the school, like self-concept and self-reliance. They developed three clusters of independent variables (inputs, school social structure and school academic climate) which they compared as to their differential impact on academic achievement, self-concept and self-reliance in three different samples of Michigan schools (a representative sample composed of 68 schools, a majority white sample made up of 61 schools and a majority black sample of 30 schools).

The input variables set is composed in this study of the social composition of the student body as identified by: 1) the mean socio-economic status of the school and the percent of white students in the school, and 2) by characteristics of teachers and other personnel inputs into the social system. The measure of other inputs is composed of seven variables combined by standard scores. They include: size of the school student body, average daily attendance of the student body, number of professional personnel per 1,000 students, number of years of teaching experience of the teachers in the school, length of time that the teachers have taught in the particular school, the percentage of the teachers in the school with graduate degrees, and mean teachers' salaries.

The social structure of the school involves many different variables which were regrouped in "five indices of variables which may contribute to differences in school

outcomes" (1979, p. 14), even though they do not exhaust all dimensions of the school social structure in their view. They are: parent involvement in the school, differentiation among student programs, open and closed classroom organization, time allocation, and staff satisfaction with the school structure.

School social climate is identified in this study "as the composite of norms, expectations, and beliefs which characterize the school social system as perceived by members of the social system, ...students, teachers, and principals [which] are the most relevant participants in the school social system" (p. 19). The variables retained after factor analysis appear as follows:

Student Climate Variables:

1. Student Sense of Academic Futility.
2. Student Perceived Future Evaluations and Expectations.
3. Student Perceived Present Evaluations and Expectations.
4. Student Perception of Teacher Push and Teacher Norms.
5. Student Academic Norms.

Teacher Climate Variables:

1. Ability, Evaluations, Expectations and Quality of Education for College.
2. Teacher Present Evaluations and Expectations for High School Completion.
3. Teacher-Student Commitment to Improve.
4. Teacher Perception of Principal's Expectations.
5. Teacher Academic Futility.

Principal Climate Variables:

1. Parent Concern and Expectations for Quality Education.
2. Principal's Efforts to Improve.
3. Principal and Parent Evaluation of Present School Quality.
4. Principal's Present Expectations and Evaluations of Students.

Finally, the dependent variables were obtained from different sources. The mean school achievement is the average of the percentage of students mastering each of the 49 objectives (reading and arithmetic) in the Michigan School Assessment Tests administered to fourth graders in each school. Self-concept of academic ability was measured with a scale developed and used by Brookover and his colleagues at Michigan State University (Brookover *et al.*, 1962, 1965, 1967, 1973, 1975). Self-reliance is a

modification of a scale developed at Johns Hopkins University (Epstein and McPartland, 1975).

The results provide evidence that a school social system is a reality that can be measured directly and which has an important impact on school outcomes. Using various regression analyses and techniques to partial out the effect of the different clusters of variables, the results show an important school effect that challenges the previous inequality studies done before. "Perhaps the most important finding of this research is that the combination of the three sets of social system variables—social composition and other personnel inputs, social structure of the school, and the school climate—explain most of the variance between schools in all three of the dependent variables" (Brookover *et al.*, 1979, p. 139). The percent of the variance in achievement and self-concept explained by the different subsamples ranges from 66 percent to 94 percent. Moreover:

"The major proportion of the explained variance in mathematics and reading achievement can be attributed to either the socioeconomic and racial composition of the student body or to the school climate variables. The social composition and other personnel input variables, however, contribute little to the explanation of differences in mean self-concept of academic ability or mean self-reliance. The variance explained in each of the latter outcome variables is largely attributable to the school climate variables" (p. 140).

This study, which provides evidence for Michigan that school makes a difference has been replicated in the western part of Saudi Arabia by Al-Thubaiti (1983). This research involved 30 urban public intermediate schools selected in a developing country characterized by its Islamic principles, its hierarchy of authority and a highly centralized school structure forcing a standard curriculum on all schools.

The results show that social system variables explain most of the variance on the measured outcomes as did Brookover and others. However, the main finding of this study is that social-psychological climate variables account for most of the variance in academic achievement and self-concept among schools. The main difference from the original study stems from the fact that family background of the student body "predicted

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less of the variance in mean academic achievement between schools than did socioeconomic status of the students in selected schools in Michigan" (Al-Thubaiti, 1983, p. 155). This result supporting a school effect can be traced to other developing countries as will now be described from the findings of cross-cultural studies.

Cross-Cultural Studies on School Achievement

The studies reviewed in this section will encompass studies conducted outside of the United States as well as those involved in a comparative design incorporating two or more countries. Research aimed at testing hypothesis developed in this country (Al-Thubaiti, 1983; Madaus *et al.*, 1978; Rutter *et al.*, 1979) have been presented before and will not be addressed again.

As mentioned before, the most impressive comparative research on schools has been undertaken by the Association for the Evaluation of Educational Achievement (IEA) in 21 developed and developing countries. The general conclusions of the IEA studies are quite similar to those found in the single nation reports of Coleman and Jencks. Basically, academic performance is generally higher when children come from privileged socioeconomic backgrounds (Thorndike, 1975) and this influence surpasses the sum total of influence resulting from measured effects of school and teacher quality.

These first-hand conclusions are quite interesting given the fact that so many social systems were involved and the fact that one could be tempted to confirm the ineffectiveness of schools in comparison with home background as far as achievement is concerned. However, Farrell (1979), Saha (1983) and Theisen and his associates (1983) have shown large differences between the four developing nations of the study—Chile, Thailand, Iran and India—and the majority of the countries which are considered to be developed. In-school variables have a larger impact in developing nations than in others. In a reanalysis of the IEA data, Heyneman (1976) showed that the association between "pre-

school influence" and academic achievement diminished in linear fashion with the national per capita income of countries—the poorer the country, the weaker the association.

On the other hand, Coleman (1975) questioned some methodological issues of the IEA studies. Using different measures with the same data, he arrived at different results, even though he insists that an exact comparison cannot be made between countries. His main conclusion is that reading achievement is more a result of home influence than science and literature. Influence, then, is subject specific. Husén (1979) noted also that reading is totally related to home background while foreign language is directly related to school. Finally, Postlethwaite (1975) suggests that there are large differences between countries with regard to the relationship between attainment on the one hand and home and school variables on the other. For example, when home background is aggregated at the school level (which gives us a composition effect), the amount of variance accounted for between schools in science achievement is extremely high in Scotland while it is absent in Sweden. However, school factors do contribute largely in Sweden but not in Scotland.

In an extensive reanalysis of the IEA data to directly address the hypothesis of the EEOR, Cherkaoui (1979) found support for the contention that social background is an important variable in all social systems analyzed. However, he concludes that social stratification does not explain as much of the variation in achievement as school stratification does. He shows that school facilities, size, teaching time, teacher training and experience have no effect on achievement in and of themselves. Their importance would suppose a perfect neutrality of the school staff which is indeed not the case. The differences observed lie in the type of school or section attended. One must be reminded that the schools in several European countries are much more segregated and hierarchical than in the comprehensive American school system. The most important determinants of the outcomes in this reanalysis are student expectations linked with school stratification. This comes from a socialization process which acts differently among the various school curricula. "This socialization is so important that it homogenizes the behaviors of students coming from different social

backgrounds while it differentiates those of students originating from similar socioeconomic backgrounds" (p. 196-97). Then, "school creates different identities which do not correspond to ascribed socioeconomic identities" (p. 206) which in turn support differentiation among students.

Besides Rutter and the IEA research, there are relevant studies in the western world which provide evidence of in-school effect. Israel is a case in point. During the two decades following World War II, Israel experienced massive immigration coming from the Near and Middle East, which now forms half of the population of this country, while in 1948, 98 percent of the population was of European origin. Compensatory educational programs implemented over a 10 to 15 year period remained ineffective for these immigrants because the European culture was more important in the schools and society. A school reform was enacted in 1968 to provide ethnically integrated education. Klein and Eshel (1980) studied these integrated learning environments and, in particular, the impact of a teaching method appropriate to it which they developed called "activity classroom". The results are as follows: integration alone is not related to improved school achievement of low class children (immigrants) neither when measured longitudinally nor cross-sectionally. In contrast, integration, in conjunction with the application of the activity classroom technique produces dramatic results—especially in mathematics. They conclude that in-school effect occurs because it is the combination of integration with the application of appropriate educational technologies that yields beneficial results. This has been demonstrated in several other studies of school effects (Brookover *et al.*, 1977, 1979).

In Israel also, drawing on Turner's notion of sponsored versus contest mobility (1960), Yuchtman and Samuel (1975) found that the effect of interpersonal variables on students' aspirations varies considerably within the institutional school context. The influence of significant others is smaller within a rigid sponsored-mobility context, where the credentialing process tends to be the more important determining factor. The effects of differentiation in school orientations have been observed as well by Brutsaert (1982) in

Belgium, at the secondary level. He assessed the influence of the institutional context of schools in two distinctive types of high schools—innovative versus traditional. Evidence provided by this study points to some salient differences between the subjective schooling outcomes and their determinants across school systems. There is enough evidence for him to conclude that innovative schools in this country engender more equality of educational opportunity. He found also that the impact of social-psychological variables was especially pronounced for innovative school students.

As convincing as they may be, studies conducted in developed countries do not provide as meaningful insights on school properties effect as those obtained in Less Developed Countries (LDC) because it is there where the most striking differences appear. The educational conditions of these countries are less similar than those of developed countries, and the quality of the schools and outcomes lag far behind. (It should be added that those societies often pursue objectives quite different from those found in the Western world.)

Theisen and his colleagues (1983) analyzed the results of four types of explanatory variables of achievement in these countries: background characteristics, school resources, school and classroom environment, and general social and cultural context in which instruction takes place. On the average, they found that there is a lot of variance explained by the school factors but that the differences are larger when the general level of economic development of the society in which measurement is obtained is taken into account. Home tends to be more important in more industrialized countries and school resources show much more influence in LDC.

From another point of view, Saha (1983) examined the results obtained by 38 authors in LDC on background and teacher related variables—qualifications and behaviors. Overall, teacher variables exert a positive influence on student achievement and only in a small number of case are they negative. This was also found to be the case from Husén *et al.* (1978) who report that teacher qualification, amount of education, experience and knowledge

of the teachers are positively related to student achievement in these countries. Attributed variables seem highly important as well, especially positive expectations of students which can override negative student self-image. From these studies in LDC, the authors conclude that even if background and resources variables are important, more important is how the equipment and money are used. For Theisen *et al.* (1983) then, "Achievement may be the result of a deliberate cost-benefit analysis of the functional outcomes of the effort that must be expended by the student" (p. 60).

The findings from cross-cultural studies, along with school social systems studies, show how premature it is to generalize the results obtained from the Equality of Educational Opportunity Survey. There seems to be evidence within and outside of the United States that school characteristics play a large role in determining various student outcomes. These studies also suggest that the socialization processes within the school may be supportive of differences between schools. It is important, then, that these processes be observed with a proper theoretical perspective that addresses school internal sub-culture directly.

Symbolic-Interactionism

The research instruments developed by Brookover and his associates to measure school climate and self-concept rest heavily on the assumptions underlying the symbolic interactionist perspective. Since these instruments were adapted for the assessment of the schools of the Province of Québec on these matters, it is important to review some of the basic assumptions of this theoretical orientation.

Symbolic interactionism cannot be considered a theory but a perspective, or a frame of reference, that identifies important aspects to consider in order to explain human behavior. Unlike predispositional and expectational perspectives which place the determinants of behavior on the individual or on encounters in social situations respectively,

symbolic interactionism state that the most important determinant of behavior is the interaction of predispositions and expectations mediated by symbolic environment.

At the heart of symbolic interactionism is the notion that people are the constructors of their own actions and meanings, and active agents in the determination of their behavior. People live in a physical world, but the objects in that world have a meaning for them and people respond to those meanings rather than directly to the objects. The things people encounter in social situations are symbols for them because "they indicate to a person certain meanings which are dependent on them for their construction" (Woods, 1983, p. 1). A symbol is "a stimulus that has a learned meaning and value for people, and man's response to a symbol is in terms of its meaning and value rather than in terms of its physical stimulation of his sense organs" (Rose, 1962, p. 5). People interact through symbols and, as symbol using creatures, humans respond to the world as they conceive and believe it to be, and then act in terms of emergent definitions and meanings (Warriner, 1970).

The functioning of symbolic-interactionism has been described by Blumer as follows:

"...the world that exists for human beings and for their groups are composed of 'objects' and those objects are the product of symbolic interaction...The nature of an object—of any and every object—consists of the meanings it has for the person for whom it is an object. This meaning sets the way in which he sees the object, the way in which he is prepared to act toward it, and the way in which he is ready to talk about it...The meaning of objects for a person arises fundamentally out of the way they are defined to him by others with whom he interacts" (1969, p.11).

The presence of others is determinant in the construction of individuality and for the conduct of individual behavior in this perspective. The interactionist view of the relationship between the individual and society is a dialectical one as expressed by Berger:

"Society is a dialectic phenomenon in that it is a human product and nothing but a human product, that yet continuously acts back upon its producer. Society is a product of man. It has no other being except that which is bestowed upon it by human activity and consciousness. There can be no social reality apart from man. Yet, it may also be stated that man is a product of society. Every individual biography is an episode within the history of society, which both precedes and survives it...What is more, it is within society, and as a result of social processes that the individual becomes a

person, that he attains and holds on to an identity and that he carries out the various projects that constitutes his life..." (1969, p.3).

What enables the construction of meanings, and then of identity, is the individual's possession of a "self" which allows him to develop a view or views of himself. In this symbolic-interactionist perspective, self-image is one general conception an individual has of himself which is based upon his perceptions of other's expectations and evaluations of himself. Sometimes equated with self-concept, it represents the cumulative image of the self taking into account all situations into which the self is enacted (Hewitt, 1984). As implied by the definition, this image is created in situations and interactions, and is elaborated by the symbolic appropriation of others' views of oneself. The processes through which this is done have been described as "role playing" and "role taking" where a child comes to differentiate between what Mead (1934) has called the "I" and the "Me". The first stage of this development is subjective, where people respond as active subjects to objects in situations or to specific or generalized others. The "Me" is termed to represent the objective phase of the process where people respond to themselves as objects in their situation and where they can take the role of the generalized others. The mere ability to imagine oneself in a role and the making of a role are sufficient conditions for the development of the self because the individual learns to think of himself as an object.

However the aspect of the process which gives the individual his particular image is the evaluative dimension of the self-concept. Who an individual thinks he is and the unique traits he believes himself to possess are the determinant of the conceptions of himself (Webster & Sobieszek, 1974). Through what Cooley (1964) has termed the "Looking-glass-self", an individual comes to reflect on himself the ideas he imagines others have of him. This image, says Cooley, is also modified by the individual's knowledge of others and by his assessment of them. The evaluation process is then twofold and always includes interaction with others and "significant others" in a symbolic manner. Through the allocation of attributes to himself, based on his interactions with others in social encounters, the individual

comes to a conception of himself that is determinant in the future presentation of himself and his achievement on that regard.

The consequences of this human way of functioning have been largely described in the literature. For James , "Our self-feeling in this world depends entirely on what we back ourselves to be and do. It is determined by the ratio of our actualities to our supposed potentialities; a fraction of which our pretensions are the denominator and the numerator our success" (1970, p. 375). He was referring to the self-esteem process through which people tend to maintain a positive image of themselves in those areas of social reality considered to be important for them. People who have high self-investment in one aspect will be concerned by evaluations made, will look for them and perform in accordance with the expected behavior (Webster & Sobieszek, 1974). On the other hand, people tend to withdraw self-investment in situations carrying negative feedback for them and will seek not to be evaluated in terms of performance on that role, reduce the importance of that kind of achievement or simply avoid the situation (Goffman, 1959, 1967). Rosenthal and Jacobson's *Pygmalion in the School* (1968) and subsequent replications and reanalyses (Brophy, 1983; Harris & Rosenthal, 1985; Marshall *et al.*, 1986) show such situations where belief in success engenders success and where belief in failure leads to further failure.

The positive or negative consequences of a specific outcome rests in the realm of the individual's capacities because, in order to act, the individual has to identify what he wants, establish objectives or goals and map out a prospective line of behavior to attain them (Blumer, 1976). The oft-quoted passage of W. I. Thomas goes farther with regard to that when it says that "Very often it is the wide discrepancy between the situation as it seems to others and the situation as it seems to the individual that brings about...overt behavior difficulty...If man defines situations as real, they are real in their consequences" (1928, p. 572). For Woods, the message is simple:

"No matter what the objective circumstances are, or the prevailing official definition, if a person defines a situation in a certain way, that will be the context in which his plans for action are formed.

Situations, therefore, are constructed and it is the task of the interactionist to discover how they are constructed, and not to take them for granted" (1983, p. 7).

This perspective has been applied to the educational setting to determine ways in which the interactions between students and teachers influence the process of learning of the actors involved in this encounter, mainly through the student's goals, those of his teachers and through evaluations and expectations of significant others (Johnson, 1970).

This perspective also supported Brookover's climate and self-concept instruments as well as his interpretations of the functioning of the schools:

"The basic theory underlying this research is that the behavior of children in school, especially their achievement in academic subjects, is partly a function of the social and cultural characteristics of the school social system. The children take their cues from those important to them and with whom they interact, attending carefully to their expectations and definitions of appropriate behavior in the student role. In the context of the school social system, students come to perceive the role definitions, the norms, expectations, values, and beliefs that others hold for them and act accordingly" (1979, p. 6).

The concept of school climate holds two general dimensions—norms and expectations—that are transmitted in the socialization process of the school. This was defined in the first chapter as comprehending "the norms of the social system and expectations held for various members as perceived by the members of the group and communicated to members of the group" (Brookover & Erickson, 1975, p. 364). In a similar evaluative fashion, self-concept of academic ability refers specifically to the student's perception of himself as a student in comparison with other classmates and students he knows. In their viewpoint, "Extensive research has demonstrated that individual student scores on the self-concept of academic ability scale are significantly and highly correlated with individual school achievement" (Brookover *et al.*, 1979, pp. 24-25). These correlations are not always as consistent however between mean self-concept and mean school academic achievement as discussed in their research on school social systems and in Passalacqua (1979).

The School System in Québec and Achievement

This last section will attempt to characterize the school system where the data for this research was collected. There are some reasons for doing this. The first chapter showed the ways in which Québec differs from the United States and the ways in which it resembles this country. But this comparison does not permit a reliable understanding of the school social systems considered unless the external and internal context in which the schools in Québec evolve and function is taken into account. This will be attempted here in describing the recent important transformations of this school system and its impact on the organization of the schools and on the objectives pursued.

There is a second reason which supports such a description, the absence of French-Canadian literature on school effect. It may seem surprising to an outsider, due to the fact that Canada is a modern industrial society sharing a long border, economic, and communication ties with the United States, that the questions raised by this research have hardly been considered by researchers in Québec before. A review of the scientific journals in Québec and of the the bilingual publications in sociology and education in Canada show rare interest in this matter.

The problems of equality of educational opportunity are well documented as far as the impact of social background is concerned. The most significant research on this subject in Québec have been done by the ASOPE group (16 volumes published at various dates) which considered the influence of individual background and expectations on later achievement. This longitudinal study involved several cohorts of high school and college students in the seventies. The results show an important influence of home background, years in school, and track placement on later achievement. Results supporting those found by Coleman, Jencks and their colleagues can also be traced in Bélanger and Rocher (1970), CEQ (1972), Mellouki (1983), Laforce and Massot (1983), and Roberge (1979). School variables, such as size, grouping differentiation and expectations, have been addressed, but

always at the individual level. There does not seem to have been an effort to differentiate between schools on those aspects to measure a parallel influence of school level variables.

Similarly, different forms of climate and self-concept scales have been used in some studies but never to measure an effect concerning the school as a unit of analysis. More often than not, these scales were used as dependent variables to show the influence of various independent variables on these achievements considered to be desirable. Finally, if its occurrence is a cue as to its importance, academic achievement is only occasionally considered to be an outcome worthy of consideration in research done on the schools in Québec.

The following section will try to advance reasons for this particularity in describing the evolution of the specificities of this school system. This short description will focus, however, on the sixties and the seventies because the data for this research was collected in 1979. Changes have been made since then, but not so much as to alter the basic state of the art on that matter nor the conclusions reached by this study.

Recent Evolution of the School System in Québec

Prior to 1960, Québec was described as a traditional "clerico-nationalist" society oriented toward the conservation of French-Canadian values and culture. It was controlled by a small powerful elite characterized by the paternalistic authoritarianism of its hierarchy and by intimate relationships between church and state where the church played an important secular role (Guindon, 1964, 1978). The "Quiet Revolution" of the 60's, supported by the aspirations of a new middle-class, was set to change this pattern. As stated by Guindon, "This coming out of the 'Dark Ages', as the ancient dispensation used to be labelled by many, was widely acclaimed. Québec had entered the modern era...Under the aegis of a 'catch up' ideology, Québec was putting its house in order, in a new order more in line with the structural features of developed industrial societies...This new order was a

bureaucratic one" (1978, p. 214). As a consequence, "The educational system was completely revamped and modernized. The provincial state took over the leadership from the church in all spheres of social life. Catholicism as a set of values and as a set of practices collapsed" (p.231).

The changes were tremendous for the school system. Small urban and rural schools had been under the authority of hundreds of local school boards before 1960. Under the initiative of the Parent Report (1964), a *Ministère de l'Éducation* was created and made responsible for administering and coordinating education at all levels. The educational reform was enacted to 1) render public education accessible to everyone regardless of social origin, 2) respond to the post-war population explosion, 3) adapt the system to the more diverse training needs of an industrial society and 4) respond to the awareness that the province was far behind in the area of education.

Changes were made and the general level of education of the population increased sharply under this centralized system. In this period, "priority was given to a more thorough training, to the quality and precise definition of programs, to pedagogical practices, to curriculum, to evaluation of what was being learned, and to pupil grouping based upon pedagogical considerations" (MEQ, 1982, p. 12). Several authors criticized the net results as far as equalizing opportunity (see Bélanger, 1971) while popular opinion questioned the importance placed on restructuring the system over the quality of pedagogy and learning processes. This was the context for a second effort to orient the school system in the late seventies in what was called *The Schools of Quebec: A Plan for Action* (1979). It was decided to "make it a priority to develop educational projects where responsibility was given to local educators and local communities. It also urged that schools become open to their communities and encouraged pluralistic values that corresponded more closely to an increasingly diversified society" (MEQ, 1982, p. 12). Laws were also passed that "laid the foundation for greater participation on the part of the school's partners, mainly parents" (p.13).

The evaluations of the system of education at that time, by the *Ministère de l'Éducation* explain the orientations taken today:

"When addressing the question of the planning and the implementation of the educational project, which is the key to the pedagogical renewal recommended, *L'École québécoise* attempted to approach the problems at their very source and proposed solutions which were just as fundamental as resourceful. This intention was affirmed at a time when the forces of development in our school system were inclined towards local differentiation. For, just as in the course of the first phase of educational reform in the 60's, democratisation had to go through a stage of concentrating powers and resources—no equal accessibility without measure of uniformity in the rules and without a strong central power to redistribute resources—in the same way we had to initiate a return toward local responsibility and recognition of differences. Once conditions of equality and accessibility were firmly established and guarantees of high educational standards were consolidated and reinforced, this very quality led us to turn boldly back to the educational project and the local educational community" (p.14).

Then, in the 60's, the importance was placed on structuring a school system, on expanding the general level of education of the population, and on accessibility. In the 70's, the orientations taken led to pedagogical questioning, the respect for cultural diversity, and local concern. Most research was oriented toward these interests. This, in conjunction with the objectives pursued by the schools (to be seen next), might explain the apparent lack of interest for the effect of school related variables on achievement in this society.

The Schools of Québec and Their Objectives

There are a few major characteristics of the Québec schools which are important to be aware of in order to understand the limits of this research, aspects of the questioning, and to discuss some of the results later on.

This school system is divided into two separate sections according to the language used in the school. The system used to be confessional in its structure with the French schools being catholic and the English schools being protestant. This is no longer the case. Public schools may be legally Catholic, Protestant or non-confessional. In the

confessional schools however, the school program takes care of spiritual matters including either religion or moral formation as options. The latter choice, however, only became more popular in the French schools in the eighties. There is virtually no church-run or "parochial" schools in that part of Québec.

There are school boards responsible for the organization of the schools in their district. They function in a way similar to that which is found in the United States. The school levels are divided into four blocks. The elementary level from K-6, the secondary level from I-V (including general and vocational education), college level I-II or III (including general and vocational education as well), and the university level granting B.A. degrees after three years. Only the first two levels fall under the responsibility of local school boards (which were, for the most part, responsible for only one level at the time the data was collected).

The elementary schools, which concern us most here, vary according to the number of grade levels, services offered, basic instructional material, and organizational or pedagogical functioning. Some schools offer all grades levels, others specialize from K-3 or 4-6 or some other combination, while several schools have double-grade and sometimes triple-grade classrooms. Special education is taken care of in several ways. Large schools usually have special classes, but not necessarily. Some schools have "pulling-out" practices and others integrate children totally in the regular classroom. Large city schools will sometimes move all special students to a specific school while small rural schools usually offer little compensatory services. Some school boards even offer a grade 7 in some schools for students who they consider not ready to have access to the secondary level.

Even though the *Ministère de l'Éducation* is considered to be exerting a strong central control (by defining the objectives, the programs to be taught in the schools, suggesting teaching strategies to be used and textbooks, enforcing evaluation of the students, and providing standardized assessment tests), there exists a large variety of

practices among the schools. In fact, the law on education was modified at the end of the seventies to "reinforce the role of the school as compared with that of the school board by giving the school the legal right to set up educational projects and provide itself with an advisory council and by defining the authority of the school principal" (MEQ, 1982, p. 13). The educational project refers to "the dynamic initiative by which a school, through the concerted will of the parents, the students, the administrators and the staff, undertakes to implement a general plan of action" (MEQ, 1979, p. 35). The functions of this project, which have been subject to much debate (see Anderson & Rahming, no date; Ambroise & Ouellet, 1981), reasserts the desire for diversity already implemented in much of the schools at the time of the latter reform through active participation of the parents.

Durkheim (1956) pointed out that schools reflect the society in which they are elaborated. Canadian Society has been characterized by its cultural diversity, and by its commitment to favor cultural pluralism and to protect the rights of its minorities (Mallea & Young, 1984; Porter, 1965). The school systems where the data for this research were derived do not differ in this regard. The aims and objectives of public education in Québec show this commitment to diversity and pluralism. They may reflect local particularities, but at the same time this has consequences for the identification of compromising cognitive objectives to be pursued throughout the school system. Since academic achievement is not as outspokenly asserted in Québec as in the United States or even in English-Canada and since local interest must be respected for its own values, the aims and objectives of the school system cannot be translated into easily assessed statements.

The Policy Statement and Plan of Action of 1979 describes the aims and objectives of elementary and secondary education as follows:

"Education in Québec aims at developing the personality in all its dimensions: physical, intellectual, emotional. It has a social dimension...[It] aims to promote, by creating a balanced educational environment, the development of a creative personality...to ensure the development of a person who aspires to autonomy, freedom and happiness; who needs to love and to be loved; who is open to transcendental values...considers the person as a social being, in close relation with a

community and groups sharing a common history and a particular culture...should be accessible to all" (MEQ, p. 26).

"The main objectives of education in the schools...[are] to enable children and young people to develop according to their own talents and their own personal resources, to evolve into autonomous and creative individuals and to prepare themselves for their role as citizens...This general objective of education must be further refined...at the primary level, to enable the child to develop harmoniously all the resources of his or her personality by respecting the most fundamental values of his or her age-level, by introducing him or her to life in a society larger than his family and his immediate neighborhood" (p. 29).

Even when stated more clearly, the objectives never go beyond expressions like "acquire basic knowledge and skills" and "ensure the continued progress of the child" (p. 30). Academic achievement is never mentioned as a pursued objective, and only the specific programs of study (french, mathematics, social sciences, and so on) relate more specifically to cognitive learning outcomes. This does not prevent however the daily activities of most schools to be primarily centered on cognitive learning.

These few elements should be helpful in understanding the cultural context in which this research was done. They should be born in mind in comparing these findings with those from the American and Saudi Arabian societies where similar studies were done. Among other things, the school system in Québec seems to be much less centralized and hierarchical than the one found in Saudi Arabia, while it overtly places much less stress on cognitive achievement than the school system in the United States.

CHAPTER III

RESEARCH METHODOLOGY

Introduction

This replication study uses data collected by the author in 1979 in the schools of the Province of Québec. The research undertaken at that time included the material useful for such a replication in addition to data for a more diversified investigation. The author received a grant from the *Ministère de l'Éducation* to do research on elementary schools which would focus on various forms of parental involvement in the schools, school organizational characteristics—such as specialization, formalization, size, and technology, —variation in the tracking practices, rural-urban differences, socioeconomic background of the students, climate, and so forth.

This new context called for a research strategy slightly different from the one followed by Brookover in some aspects of the sampling procedure and data collection, but not so much as to prevent a valid comparison. The present chapter contains details about the procedure followed as well as identifies where this study and Brookover's differ.

This chapter describes first the sample selected and its limits as far as generalization is concerned. Second, it provides information on the research instruments used to collect the data and on the procedure used to do so. Third, it contains a description of the independent and dependent variables selected. Fourth, the data analysis procedure to be followed in the next chapter is briefly introduced.

The School Sample

The schools selected for this research do not constitute a representative sample of the schools in the province of Québec. They were chosen only in the northeastern part of the province of Québec. There were specific reasons for this. First, the author was, and is, actually working in this area. It made sense to gather information from the regions where he was involved. Second, this area of the province provides a large variety of population characteristics which allow for important variations in the schools to be selected in a relatively small area. For economical reasons, and to gather a sample different enough to provide information on all of the variables identified originally in the study, it was important to find this variety close by. But how distinct is it, exactly, from a sample which would have been collected in the total territory?

Population Data

The main characteristic of the population of the Province of Québec is its uneven geographical distribution. Montréal and Québec City are the only two big cities and a large majority of the inhabitants live within a radius of about 100 miles around Montréal in the south of the province. The other regions share the rest of the population which is largely dispersed throughout the territory where we find medium-sized cities, and where most of the administrative services are concentrated. The sample was collected in the area outside of Montréal which is located in the northeast of the province. It includes four natural regions: 1) metropolitan Québec and its surroundings which are characterized by urban population and satellite cities; 2) the Bas-St-Laurent-Gaspésie region on the south shore of the St-Lawrence River includes many small villages, few important cities and is described as socioeconomically disadvantaged; 3) the Côte-Nord on the north shore of the River which is a newly developed area with rapidly growing industrialized cities surrounded by small poor villages; 4) the Saguenay-Lac-St-Jean, north of Québec City,

which includes several mid-sized industrialized cities located fairly close to one another and relatively flourishing agricultural sectors.

These regions provided the necessary variety for the research and their characteristics altogether render them comparable with the rest of the province on most grounds. It does not, however, for research on education. As mentioned in the previous chapter, schools in Québec are divided according to the language used in the classrooms. The areas retained for the selection of the sample are characterized by their primarily french-speaking schools. They are, in fact, rather homogeneous in several ways compared with the south of the province. Only a small percentage of the population is anglophone, protestant, and non French-Canadian in origin. This sample includes almost exclusively French-Canadian children of this part of the province registered in french public elementary schools where the roman-catholic religion is predominant.

The sample includes a total of 61 schools out of the 1,621 identified in the records of french public elementary schools for the year 1978-1979 in Québec. These are institutional schools which means that they identify school entities under the responsibility of one principal, even if more than one building is concerned. This is frequently the case in rural areas where one principal takes charge of two or three small schools located several miles apart in small towns. As can be seen in Table 1, there are 551 schools in the regions where the sample was chosen.

All schools identified in the sample participated in the research even if the data cannot be used with all variables. The schools selected had agreed to take the provincial assessment tests at the end of the year as part of their contribution to the study. This test was strongly encouraged to schools at that time but not enforced by the *Ministère de l'Education*. This resulted in some schools not using them at the end of the year. The main reasons for this withdrawal were their beliefs that testing students with standardized tests was inappropriate or their expressed concerns for developmental objectives over the cognitive achievements measured by the tests. This consequence had been anticipated and

the 50 original schools thought necessary for this research were increased to allow for dismissal. Out of the 61 schools, 5 chose not to take the achievement tests. This outcome is measured on 56 schools in the data analysis chapter. A brief study of these excluded schools shows no particular bias in the reduced sample since these schools have different characteristics. All of the other variables could be used in the whole sample. All principals participated, 331 teachers returned the questionnaires and 5330 students were questioned.

TABLE 1
POPULATION DATA CONCERNING THE FRENCH PUBLIC ELEMENTARY
SCHOOLS* OF THE PROVINCE OF QUEBEC AND THE SCHOOLS SAMPLED

Characteristic	Size
Total Number of French Public Elementary Schools in Québec in 1978-79	1,621
Total Number of French Public Elementary Schools in 1978-79 in the Districts Involved	551
Number of Schools Participating	61
Number of Students Participating	5,330
Number of Teachers Participating	331
Number of Principals Participating	61

* These are institutional schools. These schools are under the responsibility of one principal and may concern more than one building.

Table 2 shows the distribution of the schools among the regions selected. Two regions—Saguenay-Lac-Jean and Côte-Nord—were regrouped because they share similar population characteristics. Twenty schools were selected in each area with the exception of the Bas-St-Laurent-Gaspésie where one school was added at the end. (It consists of one school which was used as a final rehearsal for the research team. It was decided that the data could be integrated in the study because there was no indication that it

TABLE 2

POPULATION DATA CONCERNING THE GEOGRAPHIC LOCATION OF THE
SCHOOLS* SAMPLED

Geographic Location	Total N. of Schools in 78-79**	N. of Schools Sampled	N. of School Districts Involved
Bas-St-Laurent-Gaspésie	84	21	8
Saguenay-Lac-St-Jean, Côte-Nord	148	20	13
Québec City and Area	319	20	8
Total	551	61	29

* These are insitutional schools. These schools are under the responsibility of one principal and may concern more than one building.

** Data obtained from: Ministère de l'Education du Québec. Statistiques de l'Enseignement 1978-79, Répertoire des organismes et des écoles. Gouvernement du Québec, 1979, p.5.

was any different from the data obtained in the other schools.) The number of schools selected in each region is not proportional to the total number of schools. Each area was selected for its characteristics and each provided schools corresponding to the available features. Finally, several school districts were included in each area to insure a variation in the practices.

Sampling Procedure

In order to achieve variability in the sample, the schools were chosen according to their position along several continua. The dimensions which were expected to provide variations in the sample are the following: 1) size of the student body; 2) number of grades offered; 3) level of urbanization of the community; 4) socioeconomic characteristics of the population surrounding the school; 5) teachers' qualifications; 6) innovativeness of the school; and 7) type of leadership exerted by the principal.

The data used to make the first selection came from the *Ministère de l'Éducation*. It was possible to differentiate, based on this primary information, districts and sectors according to several socioeconomic characteristics of the family households. Once the districts were chosen in each area, the head of each school board and civil servants of the *Ministère* involved in running the schools were consulted to identify schools which would have the desired characteristics. This resulted in a sample including large, rural, modern, qualified schools as well as small, traditional, low SES, urban schools, and all possible mixes in most regions.

This type of sampling introduces differences from Brookover's samples. In Brookover's study, the state sample was chosen at random and all schools selected included fourth and fifth graders. In this study, besides direct identification of the selected units, schools vary extensively so far as the number of grades surveyed is concerned, as shown on Table 3. All schools with the exception of two had fifth graders but their compositions vary for the other grades. Data were obtained first from fifth graders, next from sixth graders, and then from fourth graders in order to gather enough responses in each school. Some third and seventh graders had to be included because they were mixed with students of other grades in the schools. This table also shows a large variation in the size of the student body in the schools and in the number of full-time teachers. The mean number of students visited in each school was 87.4 and ranges from 38 to 112. The number of teachers participating varied from school to school but in all cases, with the exception of four schools where some responses are missing, all teachers in charge of the visited classrooms responded to the questionnaire.

Research procedure

The data for this study were obtained from four main sources: 1) a student questionnaire administered to pupils of the second cycle of the elementary level; 2) a

TABLE 3

POPULATION DATA CONCERNING THE SCHOOLS PARTICIPATING **

Sch. No*	F-T Teach.	Part. Teach.	School Size	Part. Stud.	Grade Levels					Part. Class.
					3	4	5	6	7	
1	10	5	230	100		†	†	†		4
2	10	7	260	96		†	†	†		4
3	10	8	180	87		†	†	†	†	4
4	3	3	140	63		†	†	†		3
5	26	6	590	100			†	†		4
6	16	10	310	82			†			4
7	14	11	300	91			†			4
8	7	3	130	66		†	†	†		3
9	27	14	490	87		†	†	†		4
10	16	2	310	85			†	†		4
11	19	7	360	109			†	†		4
12	22	7	450	89			†	†		4
13	11	5	290	89			†	†		4
14	7	3	110	47		†	†	†		3
15	7	4	140	79	†	†	†	†		4
16	12	5	290	93		†	†	†		4
17	6	3	100	52		†	†	†	†	3
18	34	13	810	104			†			4
19	8	3	220	83		†	†	†		3
20	3	2	50	40	†	†	†	†	†	2
21	6	3	150	68	†	†	†	†		3
22	15	4	300	90		†	†	†		4
23	10	4	230	85		†	†	†		4
24	13	4	290	92		†	†	†		4
25	12	4	310	85			†	†		4
26	14	3	350	106			†	†		4
27	8	4	200	85			†	†		4
28	10	4	270	112			†	†		4
29	9	3	180	88			†	†		4
30	7	4	230	100			†	†		4

* Column titles read as follows: 1) School Number. 2) Number of Full-Time teachers in the School. 3) Number of Teachers in Each School Participating in the Study. 4) Size of the Student Body in ten. 5) Number of Students in Each School Participating in the Study. 6) Grade Levels of enrolment of students Participating. 7) Number of Classes Involved in Each School.

** Table continued on next page.

TABLE 3 (Continued)

Sch. No*	F-T Teach.	Part. Teach.	School Size	Part. Stud.	Grade Levels					Part. Class.
					3	4	5	6	7	
31	27	4	620	95			†	†		4
32	26	7	700	89			†			4
33	19	4	520	97			†	†		4
34	13	4	310	92		†	†	†		4
35	19	6	490	94			†	†		4
36	25	4	570	80			†	†		4
37	7	2	180	38		†	†	†		2
38	19	6	480	103			†	†		4
39	12	6	240	102			†	†		4
40	21	10	590	101			†			4
41	16	6	380	107		†		†		4
42	12	3	320	92			†	†		4
43	12	7	230	88			†	†		4
44	22	8	420	103			†			4
45	10	5	270	87			†	†	†	4
46	9	9	240	108				†		4
47	5	3	110	63	†	†	†	†	†	3
48	13	6	320	100			†	†		4
49	12	4	280	98		†	†	†		4
50	3	2	60	38	†	†	†	†		2
51	9	3	240	87		†	†	†		3
52	8	4	170	69		†	†	†	†	4
53	19	6	480	109			†	†		4
54	19	7	450	98			†	†		4
55	18	5	480	103			†	†		4
56	15	6	300	83			†	†	†	4
57	23	10	590	97			†	†	†	4
58	10	3	160	52		†	†	†		3
59	22	10	550	110			†	†		4
60	5	5	120	93			†	†		4
61	24	8	440	101			†	†		4
Total	848	331	19,580	5330	46	560	2827	1839	52	227

* Column titles read as follows: 1) School Number. 2) Number of Full-Time teachers in the School. 3) Number of Teachers in Each School Participating in the Study. 4) Size of the Student Body in ten. 5) Number of Students in Each School Participating in the Study. 6) Grade Levels of enrolment of students Participating. 7) Number of Classes Involved in Each School

teacher questionnaire administered to teachers of these students and other full-time teachers of the school; 3) a principal questionnaire responded to by the administrator in charge of each school; and 4) a principal interview.

Instruments

The three self-administered questionnaires and the interview questionnaire contained the sets of variables developed by Brookover *et al.* as they appear in *School Social Systems and Student Achievement* (1979). These variables assess school social climate, self-concept of academic ability, several aspects of the school social structure, and input characteristics.

These variables were translated and adapted for the school system of the Province of Québec. The main modifications which had to be included, after some pre-testing experiments in regular schools and classrooms of the area, concern: 1) adjustments to the identification of school levels (for example, the vocational stream at the secondary level had to be included, going to college means going to the university, it takes three years to obtain a B.A., and so on); 2) the significant levels of future school expectations had to be reduced considerably (going to "college" is not as value-laden as it is in the United States); 3) the use of the word "academic achievement" and of direct comparisons with peers had to be presented with care. Considering the importance placed on integral child development as a major objective in the school system and the belief that personal improvement does not occur as a result of competition and comparison in the eyes of the school staff in several schools, the use of cognitive achievement and comparison propositions were made with much care. This problem was visible mostly in teachers' reactions and in some principal's comments. Some schools even refused to participate in the study knowing that these aspects were considered, and some of the sampled schools which refused to use the state assessment test later on did it for the same reason. The

verifications made on the responses obtained do not show, however, any difficulty with the wording of the questionnaires. These adaptations from the original instruments do not appear to significantly modify the meanings supported by Brookover's instruments. Copies of the English and French versions of these questionnaires can be found in Appendix A.

The student questionnaire contains almost exclusively measures of climate, self-concept, father's occupation, and student's views of the open-closed characteristics of the classroom. The teacher's questionnaire includes social climate variables and various aspects used as measures of school social structure (grouping practices, teaching strategies, parental involvement in their classroom, hierarchy of authority in their school, and their views of the open-closed characteristics of their classroom).

The principals were considered as important informants on several school organizational characteristics besides school climate. Since this study originally included the measurement of these aspects in the schools, the principals were given two distinct instruments. A self-responder questionnaire measured their climate position, qualifications, time allocation, and parental participation in the running of the school. An interview was used to collect data on a large variety of school inputs, grouping practices, standardization, formalization of school teaching and organizational practices, and so forth. These aspects were expected to vary considerably between schools. The interview was considered the appropriate method to understand the subtleties of school organizational practices in order to be able to compare schools on such matters. The instrument used for the codification of the interviews can be found in appendix A. It should be noted, however, that a lot of the material included there is not used in the present study.

Data Collection

Authorization to enter schools for survey purposes had to be obtained in several different ways. Each school board head was contacted first. In some cases he directed schools to open their doors, while in other cases, a resolution from the school board was necessary. In most situations, he directed the author to the school principal directly who consulted with his staff before agreeing to participate. A written description of the research to be undertaken was made available for this consultation.

The data from school participants were collected during the month of April 1979 in the selected schools. The questionnaires and interviews were administered by a research staff since it was impossible for the author to survey 61 schools in a short period of time for such distant schools. Three former teachers living in each of the main regions involved in the study collected the data. Intensive training was given to the group in order to standardize the collection methods.

The interviewers spent a day in each school in order to gather as many of the responses as possible on the spot. The principal was given his questionnaire at the beginning of the day and it was collected at the end. Student questionnaires were administered in the presence of the research staff. This was useful in making sure the questions were well understood and the responses entered correctly. This was particularly important for identifying the father's occupations where the staff provided much help to younger students. The teacher was asked to leave the room during this period and to answer his or her questionnaire immediately. A copy of the questionnaire was offered to all other teachers in the school and the completed copies were collected at the end of the day. The interview with the principal usually occurred after regular school hours to avoid disturbance. The responses were entered by the interviewer on a prepared sheet with ample room for added comments. Whenever possible or feasible, data taken directly from a file were used instead of the principal's approximation. When the principal could not give

straight immediate answers to quantitative questions, he was left with an extra questionnaire including a list of items to be described and returned later on. All principals cooperated in this process and most data were available for treatment.

Finally, information for the academic achievement outcome variable was obtained with the cooperation of the *Ministère de l'Éducation* from computer files of school level data collected in these schools at the end of the school year.

The School Variables Studied

The problem stated by this study calls for the measurement of three sets of school social system variables over two school outcomes. These independent variables include (1) school inputs, (2) school social system, and (3) school social climate variables. They were described as being linked together and as having an impact on (1) student academic achievement and (2) student self-concept when school is considered as the unit of analysis. The operational definitions of the variables are now described as they were used in this study.

Independent Variables

I. Input Variables

The input variables are composed of two sets which were utilized independently and as a cluster in the present research. They are composed of: 1) social composition of the student body and 2) characteristics of the school and of the teachers involved into the social system.

(1) Social composition of the student body is identified in this study as the mean socioeconomic status background of children in the school. It is based on the father's (or other main breadwinner's) occupation of students included in the study. The occupation was obtained from the students' questionnaires as identified by the children. As

mentioned earlier, the research staff provided necessary assistance to students in describing as precisely as possible the nature of this occupation. This information was rated on Blishen's *Socioeconomic Index for Occupations in Canada* (1967) as revised by Blishen and Mc Roberts (1976). The authors used the same method as the one developed by Duncan in the United States to elaborate this socioeconomic class scale which constitutes the most widely used technique in Canada for this purpose. It ranges from 14 to 75. Since most farmers in the area covered by this study do not correspond to the characteristics usually found in farmers measured by this scale, their score was reduced to represent more precisely the low status of this group in Québec. The score retained for this study is the average of all scores attributed to children's responses in each school. This provides a mean school SES score.

(2) The second set of inputs is identified as other inputs. This measure is composed of 6 variables. The first three variables are related to characteristics of the staff working in the classrooms. First (1) is the mean of teacher's salaries in the school. Second (2) is the mean number of total years of teaching experience of the teachers in the school and third (3) is the mean number of years of teacher training in the school. The next two variables are related to the number of persons in the school. The first (4) identifies the size of the school student body transformed into log size. The second variable in this group (5) is the ratio of the number of professional personnel per 100 students in the school. It includes full-time teachers, part-time teachers, and specialized personnel engaged in teaching activities in the school. Part-time employees were transformed as full-time equivalents to allow for comparison between schools. The data for these other input variables are based on principal's records. The last variable considered as an "other input" (6) is the quantity of technological material available in the school. It was established from the principal's list of the audio-visual material and computing instruments present in the school at the time of the data collection. This material was weighted for sophistication

before computation. Elaborate gear like computers, television sets and film projectors received more weight than record players or retroprojectors.

In several of the analysis reported later on, these "other inputs" variables are combined to provide a single measure identified as "Combined Other Inputs". This measure is based on the summation of the standard score calculated for each variable. These variables were given a score of 0 and a standard deviation of 1. The inclusion of these six variables as an index is based on the correlations between the variables "as well as the variables' common usage as a measure of school inputs" (Brookover *et al.*, 1979, p. 14). As far as comparison is concerned, all these variables appear in Brookover's list with the exception of technological material. Two variables are missing—average daily attendance of the student body (which was not usable) and the percentage of teachers in the school with graduate degrees. This last variable was measured but deemed useless for discrimination purposes.

II. School Social Structure Variables

The social structure of the school refers to social stratification, patterns of relationships, and status-role definitions prevailing within the school. It involves many different variables which were grouped with the help of a factor analysis to be described in the fourth chapter. Seven sets of variables had to be identified to characterize school social structure in the schools sampled. These dimensions do not correspond totally to what Brookover has used in the United States but they identify these aspects of school internal functionings which were reported to contribute to differences in school outcomes in Michigan and other similar studies. The seven variables describing the social structure of interaction among school personnel appear in the following paragraphs. The specific items are grouped in Appendix B and can be traced in the various questionnaires shown in Appendix A.

(1) Open and closed characteristics of the school and of the classroom refer to the level of freedom allowed in the school and to the diversity in daily arrangements within an open or closed type of classroom organization. Four items in each of the student and principal questionnaires, and five in the teacher questionnaire were retained for the composition of that variable. They determine (a) the extent to which students are permitted to move about the school or the classroom without permission, (b) the extent to which students are all working on the same lesson at the same time, (c) the extent to which students are free to express their views in the school and talk to others in the classroom, (d) the extent to which seating arrangements are modified, and (e) the frequency with which teachers meet with parents individually out of the regular prescribed meetings. The standard scores of the responses to the thirteen items used were combined to provide a measure of the degree to which schools and classrooms are open or closed in each school.

(2) Standardization of the processes and of the material used in the school is meant to identify the level of expected similarity in the school system. Eight items from the principal's interview measured this aspect. They concerned: (a) the extent to which the content is organized so that each individual student is exposed to the same material as the others at each grade level and at the end of his stay at the elementary level; (b) the extent to which teachers are using the same books, texts, and teaching material at each grade level and the extent to which the written texts must be seen by all students; (c) the extent to which the same school-made assessment tests are used for all students at each grade level and for each topic; and (d) the extent to which subjective evaluation is present in the school. The standard scores of the responses to the eight items used were combined to provide a measure of the degree of standardization in the school processes. Standardization is high when similar material, content, and objective evaluation strategies are used at each grade level and when each student is equally exposed to them.

(3) Principal's time devoted to parents and teacher's time oriented toward formal instruction refer to the time allotted in the school by the principal and the teachers to

structure their activities. Among the various daily activities of these actors, several concern administrative duties while others are oriented more toward pedagogical concerns. These may affect the school's social structure in more than one way by modifying the patterns of interaction. The six items which could be selected from the factor analysis on that variable address the relationships between the principal and the community and the dealings of the teachers with their class in terms of efforts allocated to these activities. The items come from all three written questionnaires and include: (a) the percent of principal's time devoted to the community and parents, and the number of meetings he has monthly with parents to discuss the children; (b) teacher's time devoted to classroom or small group instruction; (c) the active role of the teacher in running the classroom according to teachers and students. Some items which were expected to be associated with the open-closed characteristics of the classroom turned out to be more appropriate here. This explains why some of the items resemble those described previously. The standard scores of the responses to the six items used were combined as a measure of staff time allocation to academic activities and parents concerns in the school daily activities.

(4) Similarity of the objectives pursued in the school measures the standardization of the teaching objectives. It differs from the standardization of processes and materials described as the second social structure variable in the sense that it refers to the diversity of teaching-role expectations for teachers. Three principal items and one teacher item measured (a) the extent to which the teaching objectives are the same for all teachers and all students at the same grade level, and (b) the extent to which the teaching objectives are the same for all students in the same class. The standard scores of the responses to the four items used were combined as a measure of standardization of teaching objectives in the school.

(5) Practical parental involvement in the school concerns the relationship parents have with the daily activities of the classrooms. The participation of parents in the school takes various forms. In some schools, they favor only political participation, in

others they take an active part in the running of the school and of the classrooms. Sometimes they collaborate with the teachers in their daily activities, and, at times, they limit their participation to general meetings and/or home support. Several questions measured these aspects in each school but could not be included in the present research with the exception of practical parental involvement in the classrooms. None of the other measures related significantly to one another. Practical parental involvement, however, was measured by a Guttman type scale assessing the level of parents participation in classroom activities and came out as such in the analysis. Five questions from the teachers' questionnaires measured the frequency with which parents provided help (a) monitoring or taxiing students when the classroom went on trips, (b) during workshops in the classroom, (c) during teaching activities, (d) with slow learners, and (e) taking responsibility for a regular classroom activity oriented toward instruction. The sum of the response scores to the five items used were combined as a measure of the parents' involvement in the practical classroom activities.

(6) Differentiation of the students in the school and in the classroom is a widely discussed variable about the social structure of the schools. It indicates the degree to which students are classified or differentiated in the school in a way that is conducive to differentiation in student instructional programs and to the separation of students in various categories. Two responses from the teachers' questionnaires and one from the principals' interviews were used to measure differentiation in the school. Teachers were asked to report about (a) the extent of homogeneous grouping according to ability in their school when forming classes at the beginning of the year, and (b) the extent of grouping according to ability in their own classroom when doing team work. Responses were: homogeneous grouping according to ability on all school subjects, homogeneous grouping according to ability in some subjects (e.g. french, math., and so forth), heterogeneous grouping according to ability on all school subjects, heterogeneous grouping according to ability in some subjects (e.g. french, math., and so forth), random grouping , or no

intentional grouping. Responses were coded so that homogeneous grouping was differentiated from the other four responses. Thus, it measures the differences in school practice with regard to homogeneous grouping according to ability in contrast with other grouping practices. The principal was asked the extent to which individualized teaching is a common practice in the school. It has been taken into consideration that differentiation will occur when students have different curricula or different learning paces. The standard scores of the responses to the three items used were combined as a measure of differentiation of the students in the school.

(7) Centralization of the decision-making in the school refers to the hierarchy of authority in the school social structure. It is measured by teachers' and principals' evaluations in reference to decision-making in the school. Teachers were asked (a) to identify the locus of decision on 18 items (hiring new teachers, selecting substitutes, selecting a process for teacher and student evaluation, determining methods and techniques for teaching, determining school policies concerning student discipline, and so forth), and to rate them according to the following: principal makes the decision alone or follows the advice of the school board, principal consults teachers but makes final decision, principal and teachers make a collective decision, group of teachers make decision with or without principal's views, teachers make decision individually. The sum of scores of the responses to the eighteen items suggested were considered as a measure of teachers' opinion on the centralization of the decision-making in the school. Five items from the principal's interview questioned the extent (b) to which he (alone or following the advice of the school board) or the teachers by themselves make decision on classrooms working plans, teaching methods and material to be used in the classroom, taking care of the evaluation of the teachers and determining criteria for the evaluation of the teachers. The sum of scores of the responses to the five items suggested were considered as a measure of the principal's opinion on the centralization of the decision-making in the school. The standard scores of

the responses to these two correlated indexes were combined as a measure of centralization of authority in the school.

These seven social structure variables will be examined in relation to one another in the next chapter. In some analysis, a "Combined Social Structure" will be referred to. It is a composite variable made of the summation of standard scores obtained for each social structure variable. These variables were given a score of 0 and a standard deviation of 1.

III. School Academic Climate Variables

The variables used to measure school academic climate are derived from those used by Brookover and his colleagues in Michigan. The items were taken from the questionnaires written for students, teachers, and principals in the last developmental stage of their study (1979). Most items were kept, but some had to be modified in order to correspond to the organization of the school system in Québec. Some words and sentences were not directly translated because of the meaning they carry in french, and a few equivalent items were added to cover aspects thought to be important to measure school climate in this province. The translation of the items in the English version of the questionnaires in Appendix A and the items included in each set of variables used in Appendix B show where the differences were made. In general however, the set of items proposed to respondents corresponded to Brookover's. The resulting factor analysis of these items shows 14 climate variables. This is the number obtained in Michigan even though some factors are a bit different and are not composed of the same set of items. Each item was responded to on a five-point scale and the value of each variable comes from the summation of total item scores which were modified in some cases to fit the same continuum of positive or negative orientations.

(1) The student climate variables were identified as (a) Student Future Evaluations and Expectations: this variable refers to how students perceive their friends,

teachers and parents believe they will succeed later in school and their own perspectives on this matter; (b) Student Sense of Academic Futility: this variable indicates the extent to which students feel there is nothing they can do about their own success and that school impedes their own ability to succeed in schoolwork (values for these items were reversed so that a high score indicates a low sense of academic futility); (c) Student Academic Norms: this variable refers to the pressure for schoolwork felt by respondents coming from other students in the school; (d) Student Present Evaluations and Expectations for High School: this variable measures 1) the students' actual evaluation of the school and of themselves, 2) students' expected performance in high school, 3) how students perceive teachers and parents evaluate their actual performance, and expect them to succeed at the elementary level; (e) Student Perception of Teacher Push and Teacher Norms: this variable refers to how students perceive the teachers in their school to be concerned with their learning and how committed they are.

(2) Teacher climate was measured by five variables. The grouping obtained from the factor analysis differ slightly from Brookover's, even though the same items were used. These variations will be analyzed in Chapter IV. In this research, the variables retained are (a) Teacher Future Expectations for Students: this variable refers to the expectations teachers have for high school, college and university completion for the students in their school and classroom, and their perceptions of principal's and parents' attitude in these matters; (b) Teacher Present School Evaluation: this variable indicates how teachers rate students academic ability in their school, their perception of principal's rating and of parents' concern for top quality education; (c) Teacher Determination with Having Student Succeed: this variable measures various forms of reported teachers commitment to academic success and their encouragement to the students for higher grade levels; (d) Teacher Perception of Student's commitment to success: this variable measures how teachers perceive students in their school to be concerned with their schoolwork and their grades; (e) Teacher Present Evaluation of Students and Sense of Fatalism: this

variable refers to 1) teacher's perceptions of the students' academic capacity in their school and to their influence on that matter, 2) to their perceptions of the principal's evaluation of the students, and 3) to their perceptions of parents' concerns for the school and their child's success.

(3) There are four principal climate variables. They came out from the factor analysis as (a) Principal's Expectations and Perceptions of Parents' Expectations: this variable measures how far in school the principal expects students to go and his perceptions of parents expectations in reference to this subject; (b) Principal's Present Evaluations of the Students and of the School: this variable refers to the principal's academic rating of the students in his school as compared with other schools and his perceptions of parents' feeling about achievement; (c) Principal's Feelings of Responsibility for Success: this variable indicates to what point the principal is committed to having students in his school succeed and feels it is his responsibility to work toward this end; (d) Principal's Perception of the Interest of the Parents with School Matters: this variable refers to the perceptions of the principal about parents' interest in the school and with the education of their children.

These fourteen climate variables will be examined in relation to one another in the next chapter. In some later analysis, a "Combined School Climate" will be referred to. It is a composite variable made of the summation of scores obtained for each social climate variable in each school.

Dependent Variables

As indicated in the hypotheses and in the model presented in Figure 1 (Chapter I), two dependent variables have been retained in this study: (1) mean school academic achievement and (2) mean school self-concept.

(1) Academic achievement was measured in the province of Québec in 1979 by tests given to 3rd graders and 6th graders in each school of the province which agreed to do so. The majority of the schools administered them to students as was the case for 56 out of the 61 schools included in the sample. Several tests were distributed to schools for use but they were not all available for both grade levels. The most widely used tests included IQ tests, French reading, French writing, mathematics, and english as a foreign language. These tests were based on the topics expected to be taught in each school as stated in the specific subject programs elaborated on by the *Ministère de l'Education*. The *Ministère* developed the tests, assessed their validity and corrected the tests. These national examinations insured that a reliable comparison could be made between schools on such academic achievements. Several researchers have shown that the use of this kind of national test results accurate cues as to the effects of schooling (Rutter *et al.*, 1979; Madaus *et al.*, 1979).

For the present study, French reading, French writing, and mathematics tests given to 6th graders were used. These tests are the most frequently used and measure basic learning appropriate to the elementary level. One may question the validity of measuring only cognitive outcomes when so many other important objectives are pursued in the schools as was described in Chapter II. In fact, in Québec, as in the United States, most of the daily activities of the classrooms are centered on cognitive learning and the other objectives are worked out during academic activities. 6th graders were chosen over 3rd graders for three reasons: 1) many schools are reluctant to test children at that low grade level which would have resulted in missing data; 2) several schools in the sample included only children from grades 4 through 6; 3) finally, and most important, chances are that the measures obtained from older students reflect a truer school effect since students have been socialized for a longer period of time in the sub-culture of each school. The limitation introduced by the use of achievement data only from sixth graders while students from other grades were over-represented in the sample creates a bias but its

validity has not been challenged so far. In fact, Hannan *et al.*, (1976) report no difference between the results at one grade and the results for the entire school as far as mean academic achievement is concerned.

Analysis of the intercorrelations among the school mean test scores revealed correlations of .70 minimum on these three achievements. The mean school scores on each test were standardized, and added, and a mean school score was obtained. It was given a mean of 100 and a standard deviation of 30. It is impossible to know if this distribution of mean academic achievement scores between schools is greater than the differences which could have been observed within schools because individual data was not available for such a computation. The original unweighted school scores for the three tests range from 27 to 66. These scores have a mean of 49.5 and a standard deviation of 9.05.

(2) Self-concept of academic ability was described in the second chapter as the perception a student has of himself as a student and it is viewed as a social product developed through social interaction as is the case for school climate. It is measured in the present study with the self-concept of academic ability scale developed at Michigan State University by Brookover and others (1967) and as used in the school social system study (1979).

The eight items used to measure self-concept of academic ability will be found in Appendix B. They refer "to student's conception of himself as a student and in comparison with other classmates and students whom he knows" (Brookover *et al.*, 1979, p. 24). The original items were used but adapted for the context of the schools in Québec as was the case for the items comprising school climate. The Guttman split-half correlation coefficient provided a reliability of .82 for this self-concept scale.

A one-way analysis of variance (ANOVA) was utilized to test the differences in means for self-concept of academic ability between schools. This was possible for this dependent variable because individual data were available. Table 4 shows that this variable differentiates schools among them at a significant level.

TABLE 4

**ONE-WAY ANALYSIS OF VARIANCE OF THE MEANS OF SELF-CONCEPT OF
ACADEMIC ABILITY IN THE 61 SCHOOLS SAMPLED**

Source of Variation	Sum of Squares	DF	Mean Squares	F Ratio	F Probability
Between Schools	67.6908	60	1.1282	3.156	.0000
Within Schools	1884.0328	5271	.3574		
Total	1951.7236	5331			

Analysis Procedure

One of the main features of this research is its reference to school related data. Researchers used to individual level data may fail to understand the significance of the results unless the method used is clearly expressed. This research focused on the school as a higher unit of analysis in order to question a true school effect associated with social background of the student body and school's internal system characteristics of the kind identified above. It was hypothesized that these school characteristics 1) would differentiate schools, 2) would be related to school level outcomes, and 3) would show relationships among themselves.

Some variables like size of the student body and number of teachers in the school were obviously relevant to a school level analysis because they were direct unitary measures collected at that level. Most others had to be computed. All input variables came from the principal's files with the exception of the childrens' father's occupation. No further computation was necessary for most input variables since a single piece of information was provided. Teacher's salary, experience in the school, and years of training had been transformed to a school mean prior to returning the information to the

research staff. Ratio of professional personnel per 100 students was computer processed from school data and the quantity of technological material was established as described in this chapter from the principals' files. School academic achievement is also a school level variable originating from school mean results on provincial examinations.

All social structure, social climate, and self-concept variables come from individual data aggregated at the school level. The first step consisted of obtaining for each individual a score on each item included in the study. It should be remembered that some items are made up of several indicators. When an indicator was missing, its value was replaced by the mean score of all other indicators for that respondent. When more than 66% of the responses were missing for a respondent, his result was considered to be missing data. Descriptive statistics were applied to these results for principals, teachers, and students on all variables. This led to the exclusion of some items which did not discriminate enough and others which showed too many missing data.

The second step provided aggregated data for each school. Each individual item score was added at each school and divided by the number of respondents to arrive at a school mean for that item. Then, the values of each school item were added to obtain a school score for each variable. In a few instances, principal or teacher data were not available for computation in a school score. Since the scores are based on few informants and two or three items on some variables, when an item score was missing, its value was replaced by the mean score of the school. The school data used in this study are then single data for 61 schools aggregated from the responses of 5,330 students, 331 teachers and 61 principals.

Table 5 shows school means and standard deviations of the school level variables included in the study. Besides "other inputs" variables, social structure variables, and mean school achievement (which were standardized for computation and could not reveal operational variations), it is clear that there exist important differences among schools on most variables measured in the study. Although individual student or teacher

TABLE 5

MEAN AND STANDARD DEVIATION OF MEAN SCHOOL VARIABLES

Variable	Mean	Standard Deviation
<u>Input Variables</u>		
Mean SES	38.64	8.589
Other Inputs*	0.00	1.000
<u>Social Structure Variables*</u>	0.00	1.000
<u>Students' Climate Variables</u>		
1. Future Evaluations and Expectations	39.21	2.367
2. Sense of Academic Futility	40.91	2.272
3. Academic Norms	26.27	1.331
4. Present Eval. and Expectations for H. S.	31.33	.884
5. Perceptions of Teach. Push & Norms	29.69	1.060
<u>Teachers' Climate Variables</u>		
1. Future Expectations for Students	37.72	6.285
2. Present School Evaluation	21.68	2.390
3. Determination w/Having Stud. Succeed	18.69	2.813
4. Percept. of Stud. Commitment to Success	22.68	2.456
5. Present Evaluation of Students and Sense of Fatalism	19.151	2.844
<u>Principals' Climate Variables</u>		
1. Expect. and Percept. of Parents Expect.	18.12	3.387
2. Present Eval. of Students & School	24.88	3.090
3. Feelings of Responsibility for Success	17.05	2.459
4. Percept. of Parents' Interest w/School	12.45	1.622
Combined Climate Variables	359.82	17.361
<u>Output Variables</u>		
Mean School Achievement*	100.00	30.000
Mean School Self-Concept	3.48	0.113

* These variables have been standardized for computation.

perceptions may vary within a school, this dispersion of results among different schools lends credence to the possibility that there exist school differences with regard to those characteristics. The next chapter will try to demonstrate the relationships among these school variables and their distinctive impact on school outcomes through correlation and multiple regression analysis.

Finally, the analysis will regularly refer to two different sub-samples taken from the 61 schools. A "High SES School" sub-sample will identify those schools attended by students originating from majority high socioeconomic backgrounds and a "Low SES School" sub-sample will identify those schools attended by students originating from majority low socioeconomic backgrounds. There are several reasons for this procedure. First, the review of the relevant literature showed frequent references to idiosyncratic results obtained on school effects when particular societies or characteristics of the samples were considered and in some cases, this was enough to alter the general findings of the study. Brookover's study also demonstrated variations on the effect of different clusters of variables on achievement among majority white and majority black samples and among high SES and Low SES majority white school samples. These variations by themselves added to the belief that schools make a difference since the effect is not equivalent everywhere.

Second, Québec has been traditionally characterized by its low socioeconomic population and a relatively differentiated elite (Guindon, 1964) as expressed in the second chapter. Things have changed over the years but the early stratification of the population along these lines between the cities and the rural areas have not completely disappeared along with their cultural differences. These two sub-samples should show the differences if there are any as to the effects of the school and serve as a control for the main observations.

Schools were divided at the mean of the distribution. The low SES school sub-sample shows a range of 11.5, from 27.1 to the mean of the distribution (38.64); the

high SES school sub-sample varies from 38.65 to 66.4 with a range of 27.8. The distribution is rather skewed for that last sub-sample, but since only 5 schools scored above the 50 point mark, the range of the variations is not as large as it appears to be at first glance. These sub-samples will include 28 schools each when academic achievement will be considered due to missing data for 5 of the schools for that variable. Self-concept will be measured over 31 low SES schools and 30 high SES schools.

Table 6 shows each variable mean when the computation described before is done for each sub-sample. The probability that the means differ between sub-samples is significant for half of the other input variables, two social structures variables, several climate variables, and mean school achievement. According to these observations, chances are that the variables identified in this study vary among schools.

TABLE 6

TEST OF SIGNIFICANCE OF THE DIFFERENCE OF MEANS BETWEEN HIGH SES
AND LOW SES SCHOOLS

Variables	School Mean		Probl.
	High SES Sch.	Low SES Sch.	
<u>Input Variables</u>			
Other Inputs			
1. Mean Teachers Salary	.113	-.110	.385
2. Mean Years Of Teachers' Experience	-.012	.012	.926
3. Mean Years Of Teachers' Training	-.022	.021	.866
4. Size of the Student Body	.458	-.441	.000 *
5. Professional Pers. per 100 Students	-.331	.321	.010 *
6. Quant. of Techn. Material in School	.367	-.355	.003 *
Combined Other Inputs	.573	-.552	.082
<u>Social Structure Variables</u>			
1. Opened Charact. of School & Class.	1.376	-1.331	.190
2. Standardization of Proces. & Mat.	.198	-.191	.755
3. Time to Parents & Formal Instr.	.230	-.221	.294
4. Similarity of Objectives	-.033	.032	.929
5. Parental Involvmnt	1.024	-.990	.036 *
6. Differentiation of Students	-.239	.238	.321
7. Centralization	-.518	.498	.015 *
Combined Social Structure	2.039	-1.966	.066
<u>Students' Climate Variables</u>			
1. Future Evaluations and Expectations	40.659	37.806	.000 *
2. Sense of Academic Futility	41.827	40.030	.001 *
3. Academic Norms	25.704	26.811	.001 *
4. Present Eval. and Expect. for H. S.	31.300	31.355	.811
5. Perceptions of Teach. Push & Norms	29.392	29.986	.027 *

* Significant at .05 Level

** Table continued on next page.

TABLE 6 (Continued)

Variables	School Mean		Probl.
	High SES Sch.	Low SES Sch.	
<u>Teachers' Climate Variables</u>			
1. Future Expectations for Students	40.657	34.873	.000 *
2. Present School Evalaluation	21.974	21.391	.345
3. Determ. w/Having Stud. Succeed	18.036	19.314	.076 *
4. Percept. of Stud. Commit. to Success	22.791	22.567	.726
5. Present Evaluation of Students and Sense of Fatalism	19.219	19.086	.857
<u>Principals' Climate Variables</u>			
1. Expect. and Percept. of Par. Expect.	19.867	16.436	.000 *
2. Present Eval. of Students & School	25.475	24.300	.139
3. Feelings of Resp. for Success	16.233	17.839	.010 *
4. Percept. of Par. Interest w/School	12.883	12.032	.039 *
Combined Climate Variables	366.017	353.826	.005 *
<u>Output Variables</u>			
Mean School Achievement	108.255	88.966	.007 *
Mean School Self-Concept	3.506	3.459	.107

* Significant at .05 Level

CHAPTER IV

DATA ANALYSIS

Introduction

One of the problems faced by those researching school social systems, and to a certain extent by those interested in school effect research, is the large number of variables usually involved and their interrelationships. This research is no exception. The length of the questionnaires presented in Appendix A, the description of the variables and their items in Appendix B, and the correlation matrices in Appendix C will show the complexity of such a task. This called for a strategy of analysis which would allow a reduction in the number of variables, comparison among clusters of variables, and a technique to partial out these groups of variables in order to find their single and combined effects. It should be remembered that the hypotheses claimed certain relationships among these sets of variables which we identified as (1) inputs, (2) social structure, and (3) school climate, and that the last two clusters would explain much of the variation in school outcomes expressed as mean school academic achievement and mean school self-concept.

The first part of this chapter will describe how the statistical technique called factor analysis was used to reduce the number of variables and obtain significant clusters for the social structure and school climate variables. The second part will analyze the intercorrelations between the independent variables, the dependent variables, and the correlations between independent and dependent variables. The last part will assess the single and joint contribution of the three independent clusters of variables to school outcomes through various multiple regression analyses.

Elaboration of Clusters of Variables

The measurement of social structure and social climate is not direct as is the case for the measurement of a simple object—even if it carries different meanings for each individual. The only way to derive some understanding of these complex aspects of human functioning is through indirect measurement and through multiple observations of various behaviors associated with the conceptual definition of the object of inquiry. This use of a large number of characteristics or variables presents a problem for the researcher because so many variables would render the statistical analysis extremely complex, and the data analysis more confusing than helpful. It is important to circumscribe a large array of aspects, but which can then be reduced to simple characteristics for purposes of analysis. This result was obtained in the present research with the statistical technique called factor analysis.

Factor analysis has been described by several researchers as a powerful way to produce a more parsimonious description within a domain of study and as a variable—or item—reduction device which provides meaningful dimensions that are highly correlated with each other but which have low correlation with all other factors, and providing approximately the same amount of information (Bennett & Bowers, 1976; Boocock, 1980; Harman, 1967; Hays, 1973). Also, "as a preliminary to regression analysis, [it is useful] to analyze the factorial structure of criterion variables, and hence point the way to those variables which are most likely to be usefully included in a regression equation" (Bennett & Bowers, 1976, p. 142). One of its inconveniencies however is its proclivity to gather elements which may have little substantive meaning. This problem is alleviated by a careful content analysis of the items comprising each factor, and by the elimination of those items not concerned with the factor identified first.

All variables included in the social structure and social climate clusters were generated with a varimax rotated factor analysis. All items that did not have a substantive meaning for each corresponding factor were eliminated. As is common practice in this statistical procedure, a factor loading of .30 or more was used as a minimal criterion in order to allow for the inclusion of items in each factor. The factorial solutions adopted for this research make a compromise between the smallest number of factors for the largest explained cumulative variance in each analysis. Each factor analysis revealed a cumulative percent of the variance explained by the matrix above 60 percent.

School Social Structure Variables

The items included in the social structure variable cluster originate from student's, teacher's, and principal's questionnaires, and from principal's interview. A total of 53 items were introduced in the factor analysis, and missing values were replaced by the variable's mean. The solution retained for operational purposes contains seven factors, and appears as follows after 11 items were removed from the equation because of inadequate loading or unsubstantive meaning. Table 7 shows the distribution of the items within each factor, in the order they are described in Appendix B, and the corresponding factor loadings.

The first factor is comprised of several items taken from all three groups of informants. It is composed of thirteen items whose loadings vary from .32 to .76. These items were considered to serve as indicators of the way the school and the classroom are governed in as much as opened and closed characteristics are concerned. This factor appeared in the Brookover *et al.* (1979) study, with these items and some similar others. It was given the same identification in the present study.

The second factor to emerge was composed of eight items taken from the principal's interviews. Their loadings vary from .35 to .78. This factor was described as

characterizing the "standardization of the processes and of the material used in the school" and the classroom. It concerns the content, books, teaching material, and tests as they are imposed on all or as they differentiate between classrooms, teachers and students. This factor has no direct correlate in Brookover's study, which found, however, some similar items that could be related under a grouping practices variable to be described later.

The third factor provided by the analysis is described as "Principal's time devoted to parents and teacher's time oriented towards formal instruction." Even though the six items appeared at first glance as two different factors, they were correlated highly enough with one another to consider them associated under a staff-time dimension. The factor loadings range from .51 to .76. This variable is present in Brookover's study under "Staff time allocation to instruction and parents concerns." Unlike the original study, this one used teachers' and student's report of time allocation as well as principal's report to measure these aspects.

The fourth factor was related to the objectives pursued in the school, and the extent to which they were similar for all students at the same grade level. Three principal items and one teacher item emerged for this factor, with loadings ranging from .46 to .79. This variable does not appear alone in Brookovers' study. The only item measuring this aspect can be found there under the grouping and differentiation social structure variable.

The fifth factor comprises some high loading items and some middle ones. The five items ranging from .37 to .88 come from the teachers' questionnaire, and were elaborated primarily as an index. The factor analysis results show that they indeed correlate meaningfully with one another and that they differ from the other items in the list. They concern various forms of parental participation in the classrooms, participation intended to provide help to the teacher, and were called "Practical parental involvement in the school." In fact, several other measures of parental participation in the school (level of participation at parent-teacher meetings, degree of activism of school committee, frequency of contacts between teachers and parents, and so on) were included in the analysis, but only practical

parental involvement could be retained as being significantly associated with any others. Such types of participation or contacts appeared in Brookovers' study under "Parent involvement in the school social system."

The sixth factor contains three well correlated items from principal's interviews and teachers' questionnaire. They loaded from .60 to .70 in the analysis. They were meant to describe the practices of differentiating students in the school and in the classroom through grouping according to ability, and through the use of individualized teaching. A similar variable is found in the original study under "Grouping and differentiation of students programs," which included two of the present items plus several others which found a better fit here under the "Standardization of processes' and "Similarity of objectives" factors.

Finally, the two centralization indexes computed respectively from the teacher's and principal's questionnaires turned out to be associated highly enough to be considered as a variable significant enough to include in the present study. The loadings are .65 and .45 for these composite items. No equivalent can be found in Brookovers' study.

Overall, seven factors were used for this study against five in the original study. As described before, the distribution of the grouping and differentiation items under three factors helps explain part of this difference. The centralization variable was not measured in Brookovers' research, but, on the other hand, "Staff satisfaction with the social system" (included in the original study as a social structure variable) was not measured in Québec. It was not considered here because first, it was not previously found to be a "direct measure of the social structure of the school" (Brookover *et al.*, 1979, p. 17), second, it would have extended considerably the length of the already long questionnaires, and, finally, because many other meaningful variables were available to assess aspects of the school social structure.

TABLE 7

**ITEM LOADINGS DERIVED FROM VARIMAX ROTATION FACTOR ANALYSIS OF
SCHOOL SOCIAL STRUCTURE VARIABLES**

School Social Structure Factors	Items*												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Factor 1 : Opened Characteristics of the School and of the Classrooms	.76	.62	.75	.76	.32	.43	.58	.68	.54	.47	.39	.66	.62
Factor 2 : Standardization of the Processes and of the Material Used in the School	.55	.78	.55	.50	.59	.70	.35	.62					
Factor 3 : Principal's Time Devoted to Parents and Teachers' Time Oriented Towards Formal Instruction	.57	.51	.52	.62	.76	.57							
Factor 4 : Similarity of the Objectives Pursued in the School	.75	.79	.57	.46									
Factor 5 : Practical Involvement of the parents in the School	.41	.37	.65	.86	.88								
Factor 6 : Differentiation of the Students in the School and in the Classrooms	.65	.70	.60										
Factor 7 : Centralization of the Decision- Making in the School	.65	.45											

* The items comprising each factor are described in Appendix B.

School Climate Variables

1. Student Climate factors

The items included in the student social climate variable set originate from responses inserted in the varimax rotated factor analysis from student individual questionnaires. A total of 48 items were introduced in the factor analysis, and missing values were replaced by the variable's mean. The solution retained for operational purposes contains five factors, and appears as follows after 4 items were removed from the equation due to inadequate loading or unsubstantive meaning where located. Table 8 shows the distribution of the items within each factor, as described in Appendix B, and the corresponding factor loadings.

The first factor was comprised of ten items loading fairly high on this factor, with a range of .74 to .90. All the items included were concerned with students' beliefs about his or her capacity to go far in school, and with the position he or she thinks his parents, teachers, and friends have on him or her in that regard. This factor emerged as well in Brookover's study with the very same ten items, after minor adaptations for Québec, and was consequently named the same: "Student future evaluations and expectations".

The second student factor to be identified by the factor analysis included eleven items, with loading from .52 to .85. These items measured student's fatalism about his or her school success, and also the feeling that school pressure is preventing one from succeeding. Some of these items were originally written by Coleman *et al.* (1966) to measure "Sense of control" over the environment; others items come from various attempts in Brookover's past research to measure sense of control at the elementary level, including this one which is replicated here (Brookover *et al.*, 1975, 1977, 1979). Since eight out of the eleven variables found under this factor have exact equivalents in Brookover's "Student's sense of academic futility" twelve-item factor, the variable was given the same

TABLE 8

ITEM LOADINGS DERIVED FROM VARIMAX ROTATION FACTOR ANALYSIS OF
STUDENT CLIMATE VARIABLES

Student Climate Factors	Items*										
	1	2	3	4	5	6	7	8	9	10	11
Factor 1 : Students' Future Evaluations and Expectations	.86	.87	.81	.90	.89	.77	.74	.87	.89	.86	
Factor 2 : Students' Sense of Academic Futility	.64	.69	.84	.85	.63	.80	.71	.52	.73	.75	.61
Factor 3 : Students' Academic Norms	.75	.70	.62	.79	.81	.66	.73				
Factor 4 : Students' Present Evaluations and Expectations for High School	.56	.82	.56	.62	.52	.81	.72	.74			
Factor 5 : Students' Perceptions of Teacher Push and teacher Norms	.34	.40	.40	.78	.72	.39	.82	.54			

* The items comprising each factor are described in Appendix B.

title. The three other items are additions to the scale developed for Québec schools by the author.

The third student factor comprised seven items ranging from .66 to .81. It utilizes items measuring the degree to which students feel themselves and their peers to be concerned about doing well in their school work. Although only three items corresponded exactly in Brookover's study under "Student academic norms," substantive meaning analysis of the items associated under this factor suggested that the same name be given to this variable.

The fourth factor to emerge from the analysis was called "Student present evaluations and expectations for high school". Eight items with loadings between .52 and .82 were found to be associated there. The items measured various aspects of the evaluation of the school, and also academic expectations towards students believed to be held by parents and teachers. In fact, six out of these eight items were used to form the equivalent variable in the original study.

Finally, the fifth factor comprised eight items whose loadings range between .39 and .82. These items concerned academic pressure felt by students, pressure stemming from teachers who wished to have them achieve at high levels. This factor was called "Student perception of teacher push and teacher norms" because the four items used in Brookover's study to measure the same aspect loaded together here with other similar newly added items for Québec.

In general, the factors which emerged from the student questions measuring climate aspects resemble closely those used in Brookover's study. It would be appropriate to say that they turned out to be equivalent instruments.

2. Teacher Climate Factors

The items included in the teacher social climate variable set originate from responses inserted in the varimax rotated factor analysis from teacher individual

questionnaires. A total of 47 items were introduced in the factor analysis, and missing values were replaced by the variable's mean. The solution retained for operational purposes contains five factors, and appears as follows after 5 items were removed from the equation due to inadequate loading or unsubstantive meaning where located. Table 9 shows the distribution of the items within each factor, as described in Appendix B, and the corresponding factor loadings.

The first teacher climate factor to be obtained from the factor analysis comprised fifteen items ranging from .60 to .86. These items were fairly similar in the way they measured various school levels which the teachers expected students to achieve, as well as students' perceptions of the principal's and parents' expectations. These items adapted for the school levels in Québec correspond almost exactly to Brookover's "Ability, evaluations, expectations and quality of education for college".

The second teacher factor was found to measure "Teacher present school evaluation". Seven items with loadings between .45 and .82 were regrouped under this factor. These various items measured the level of ability attributed to students, and what they considered to be the principal's attributions on that regard. This factor emerged to a large extent with the same items in the original study. The only difference is that expectations for high school completion were located here under the first factor.

The third factor included six items ranging from .54 to .77. They were all concerned with the stress placed on students with regard to actual and later achievement, and was thus named "Teacher determination with having student succeed". The items considered under this factor appeared in Brookover's study combined with the items which were to become the fourth factor in the present study.

This fourth factor comprised eight items which could not be used as "Student-Teacher commitment to improve" as did Brookover. These items, loading between .39 and .74, identified in the actual research the perception the teachers have about their students' commitment to succeed.

TABLE 9

**ITEM LOADINGS DERIVED FROM VARIMAX ROTATION FACTOR ANALYSIS OF
TEACHER CLIMATE VARIABLES**

Teacher Climate Factors	Items*														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Factor 1 : Teachers' Future Expectations for students	.60	.63	.79	.86	.82	.83	.56	.63	.71	.70	.76	.77	.78	.64	.69
Factor 2 : Teachers' Present School Evaluation	.87	.49	.82	.81	.77	.67	.45								
Factor 3 : Teachers' Determination with Having Students Succeed	.69	.77	.73	.54	.58	.58									
Factor 4 : Teachers' Pesceptions of Students' Commitment to Success	.74	.74	.47	.39	.67	.64	.50	.55							
Factor 5 : Teachers' Present Evaluation of Students and Sense of Fatalism	.83	.75	.81	.47	.32	.41									

* The items comprising each factor are described in Appendix B.

Finally, the fifth factor to emerge was composed of six items hardly identifiable with one name, for it covered two aspects in Brookover's study. The items loaded between .32 and .83, and came to be identified as "Teacher present evaluation of students and sense of fatalism". This factor differs from factor two in that students, and not the school, are evaluated. Some of the variables grouped under "Sense of academic futility" in the original study appeared here, while the others were placed more easily with "Teacher determination with having student succeed."

In general, the factors which emerged from the teacher questions measuring aspects of school climate differ slightly from those used in Brookover's study. It would be inappropriate to say that they turned out to be exact equivalent instruments, even if the first two factors are about the same.

3. Principal Climate Factors

The items included in the principal social climate variable cluster originate from responses inserted in the varimax rotated factor analysis from principal's questionnaire. A total of 25 items were introduced in the factor analysis. The solution retained for operational purposes contains four factors, and appears as follows after 4 items were removed from the equation due to inadequate loading or unsubstantive meaning where located. Table 10 shows the distribution of the items within each factor, as described in Appendix B, and the corresponding factor loadings.

The first principal climate factor comprised six factors. The loadings were high, and ranged between .58 and .81. These items concerned various aspects of future expectations held by the principal towards students, and the expectations which he considered the parents have for their children. Most of these variables are similar in Brookover's like factor.

The second principal climate factor to emerge concerns the present evaluation of the school and of the students. Seven items with loadings from .49 to .80

showed to be meaningfully correlated to one another. This factor measures aspects of principal's appreciation of his school insofar as academic achievement of the students is concerned. This factor emerged under two different groups of items in the original study.

The third factor to be identified by the factor analysis technique in the principal climate items resembles teacher climate three. It consists of five items, three of them loading very highly and two with low loadings. The five items' loadings ranged from .39 to .81. This factor was identified as "Principal's feelings of responsibility for success" because all items pertain to principal's efforts with teachers to find ways to improve student achievement and his impressions about his commitment to students' success. Two of these items formed the equivalent factor in Brookover's study.

The last factor to occur in the analysis was called "Principal's perception of the interest of the parents with school matters". The three items regrouped under this heading had loadings from .39 to .76, and reflected the feelings of the principal about parents' concerns with their children's achievement, and also the function parents attributed to the school. These three items appeared in the original study under the same factor along with two other items.

In general, the factors which emerged from principal's questions measuring aspects of climate differ only slightly from those used in Brookover's study. It would be appropriate to say that they turned out to be equivalent instruments, because most factors' heading and content happened to be about the same. The major difference between both studies on this aspect is the fact that the questions referring to parents loaded at different places.

At the end of this factor analysis, two large clusters of variables were obtained from the original 172 items, and were regrouped as seven social structure factors and fourteen social climate factors. In fact, as applied to items measuring school social structure and school climate in student, teacher, and principal questionnaires, seven social structure factors, five student climate, five teacher climate and four principal climate factors

TABLE 10
ITEM LOADINGS DERIVED FROM VARIMAX ROTATION FACTOR ANALYSIS OF
PRINCIPAL CLIMATE VARIABLES

Principal Climate Factors	Items*						
	1	2	3	4	5	6	7
Factor 1 : Principal's Expectations and Perception of Parents' Expectations	.58	.81	.75	.73	.87	.75	
Factor 2 : Principal's Present Evaluation of the Students and of the School	.76	.80	.56	.49	.72	.53	.52
Factor 3 : Principal's Feelings of Responsibility for Success	.71	.81	.80	.39	.49		
Factor 4 : Principal's Perception of the Interest of the Parents with School matters	.76	.39	.57				

* The items comprising each factor are described in Appendix B.

emerged from the factor analysis, with various numbers of items meaningfully regrouped under each of these twenty-one factors. Each factor identification was used thereafter as the variable name.

Since the purpose of this study is to compare among schools as units of analysis, and does not pertain to results at the individual level, all data used for the elaboration of each reduced variable were aggregated at the school level with the method described in Chapter III under "analysis procedure" (e.g. each individual item score was computed at each school to obtain a mean school score on that item, and then the values of each school item were added to reach a school score on each variable). This procedure helped to reduce the number of variables, yet also to reduce the data gathered from 5,330 students and 331 teachers to school-level data. For the rest of the analysis then, and overall for this study, these new values characterizing 61 schools are used to consider the contribution of school social system variables to student achievement and self-concept.

Relationships Between Variables

Besides the large number of variables involved in such a study, the most important difficulty encountered in this kind of research is the intercorrelations between many of the variables which may affect school outcomes. Before any attempt was made to partial out the contribution of each group of variables to student achievement and self-concept, it was important to verify the degree of association among the variables in each clusters and also among clusters. This would also help clarify the relationships among the independent variables as stated in the hypothesis. Finally, the correlation between the dependent variables was considered, since self-concept was shown to be associated with student achievement in past research. The independent and intervening variables identified in the literature (and reduced with the help of the factor analysis technique) are analyzed here in three clusters: (1) inputs, (2) social structure, (3) school climate. The correlations

between these variables and the outcome variables appear in the tables for the reader's benefit, but will be analyzed in the next section with more information.

Intercorrelations Among Variables

(1) The inputs cluster is composed of two groups of variables: socio-economic composition, and other inputs. These groups will be considered together and then separately in some later analysis; thus, their correlations need be analysed carefully. The other inputs are considered first. Table 11 shows a few relatively important associations among these variables. Teacher salary is correlated to a large extent ($r = .58$ and $.53$) with teacher experience and teacher training in this sample. This observation corresponds to the salary structure found in the bargaining agreement between the teacher's union and the Government in Québec. Experience or training alone warrant higher salaries but are not associated together necessarily ($r = .02$). On the other hand, size of the student body is associated with the ratio of professional personnel per 100 students at $-.49$, and with the availability of technological material in the school at $.50$. This means that the largest schools are better equipped than smaller schools, and that the latter have a much higher ratio of professional personnel than the larger ones. Indeed, large schools have more facilities in Québec and require proportionally less personnel than small ones. This is explained by the fact that the concentration of a large number of students and a large staff in a school allows for more facilities and more sophisticated equipment, and that small schools do not have enough students to attain the expected ratio in each classroom. It is evident also that the characteristics of the professional personnel have little to do with the other input characteristics of the school.

Socioeconomic composition, as measured by father's occupation, is associated with the size of the student body in this sample. This means that large schools are found in high socioeconomic environments as expressed by the $.49$ correlation. In fact,

TABLE 11

CORRELATION MATRIX OF MEAN SCHOOL INPUT VARIABLES AND MEAN
SCHOOL OUTCOMES IN 61 SCHOOLS OF THE NORTHEASTERN PART OF
QUEBEC

Variables		ACH**	SCO	SES	OI1	OI2	OI3	OI4	OI5	OI6	COI
Mean School Ach.	ACH	1.00									
Mean Self-Concept	SCO	-.05	1.00								
Mean SES	SES	.43*	.27*	1.00							
Mean Teach. Salary	OI1	.18	.00	.14	1.00						
Mean Teach. Exp.	OI2	.05	.06	-.02	.58*	1.00					
Mean Teach. Training	OI3	-.03	.02	.13	.53*	-.02	1.00				
Student Body Size	OI4	.30*	.12	.49*	.05	-.11	.12	1.00			
Ratio of personnel	OI5	-.12	-.16	-.35*	-.19	-.21	-.12	-.49*	1.00		
Technology	OI6	.13	.02	.37*	-.06	-.13	.08	.50*	-.24*	1.00	
Comb. Other Inputs	COI	.20	.02	.29*	.75*	.44*	.61*	.42*	-.09	.44*	1.00

* Significant at .05 level

** Correlation coefficients for this variable are based on 56 schools

most of the large schools selected from the northeastern part of Québec could not be found outside of medium or large cities where, as expected, the higher strata of the population usually lives. The smaller schools came, in the majority of cases, from small villages in rural areas, though not always. The composition variable is also associated with the availability of technological material in the school, and further associated with the ratio of professional personnel per 100 students with correlation coefficients at $-.35$ and $.37$. This can be explained by the relationships between size of the student body and these variables. Finally, socioeconomic composition of the student body has very little to do with teacher's characteristics. The standardized score of other personnel inputs correlates with the composition score at $.29$ in these 61 schools.

(2) Several social structure variables are associated together as expected from the partitioning of the factors coming out from the factor analysis, as is demonstrated in Table 12. The open-closed characteristics of the school or of the classroom is significantly related with five of these structural variables at $.32$ and more. Besides staff time with parents and instruction which has nothing to do with this variable, this aspects of the school organization is clearly associated with other characteristics. An open school in this sample has little standardization in its processes ($r = -.57$), has different objectives for its students ($r = -.37$), a diffuse hierarchy of authority ($r = -.52$), favours parental investment in the school ($r = .32$), and differentiates students from one another ($r = .35$). These are characteristics which were expected from opened schools. On the other hand, when processes are standardized in the school, objectives are the same for most students ($r = .33$), and little differentiation is made among students ($r = -.36$). It also appears that centralization of decision-making is correlated with standardization practices and similarity of objectives at $.33$ and $.32$. Finally, parents appear to be more comfortable in school when the school is opened, students are differentiated, decision-making is diffuse, and when objectives vary (correlations between $.24$ and $.35$). The other variables show few significant associations. In general though, most school social structure characteristics

seem to associate with one end or the other of an open-close continuum form of organization.

(3) The school climate variables defined by the factor analysis for the students, the teachers, and the principal seem at first glance to be measuring different things from one another when the correlation coefficients are considered in the matrix shown in Table 13. Several correlations are significant however. Student's future evaluations and expectations is related with sense of academic futility at .24 but these variables are not associated with the other three student climate variables. On the other hand, student's academic norms, student's present evaluations and expectations for high school, and student's perception of teacher push and teacher norms are positively associated from .20 to .58. It is possible then that these two groups of variables have a different impact on the outcomes measured later. The teacher climate variables show several significant correlations. Teacher's future expectations for students correlates at .37 with their evaluation of the school and at .42 with their present evaluation of students and sense of fatalism, but is negatively associated with their determination with having student succeed at -.35. This result would suggest that teachers show less commitment to student's success when they expected them to succeed anyway. Teacher's actual evaluation of the students is also related to his perception of the quality of the school (.33) and to his perception of students' efforts in school (.44). The principals climate variables are all associated with one another to a certain degree. Most noteworthy are the correlations ranging from .32 to .42 between principal's perception of parental interest with regard to school matters and the other three principal variables. As was the case for teachers responses, though to an insignificant degree (-.10), the principals feel less responsibility for achievement when they expect students to succeed than when they anticipate failures.

When the fourteen climate variables are considered altogether, some significant correlations emerge among the groups of actors. Students, teachers, and principals share a fairly similar view of the expectations held for students, with correlations

TABLE 12

**CORRELATION MATRIX OF MEAN SCHOOL SOCIAL STRUCTURE VARIABLES
AND MEAN SCHOOL OUTCOMES IN 61 SCHOOLS OF THE NORTHEASTERN
PART OF QUEBEC**

Variables		ACH**	SCO	SS1	SS2	SS3	SS4	SS5	SS6	SS7	CSS
Mean School Ach.	ACH	1.00									
Mean Self-Concept	SCO	-.05	1.00								
Opened Sch. & Class.	SS1	-.08	-.07	1.00							
Standardization	SS2	.23*	.09	-.57*	1.00						
Parents & Instr. Time	SS3	.05	-.17	-.05	.14	1.00					
Similarity of Obj.	SS4	.22*	-.24*	-.37*	.33*	.13	1.00				
Parental Involvement	SS5	-.05	.17	.32*	-.19	.02	-.35*	1.00			
Differentiation Pract.	SS6	-.01	-.21	.35*	-.36*	.11	-.05	.24*	1.00		
Centralization	SS7	.09	-.14	-.52*	.33*	-.07	.32*	-.27*	.11	1.00	
Comb. Soc. Struct.	CSS	.13	-.13	.60*	.06	.29*	.08	.52*	.48*	-.11	1.00

* Significant at .05 level

** Correlation coefficients for this variable are based on 56 schools

TABLE 13

**CORRELATION MATRIX OF MEAN SCHOOL SOCIAL CLIMATE VARIABLES AND
MEAN SCHOOL OUTCOMES IN 61 SCHOOLS OF THE NORTHEASTERN PART OF
QUEBEC**

Variables	A**	S	S	S	S	S	S	T	T	T	T	T	P	P	P	P	C
	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	A
	H	O	1	2	3	4	5	1	2	3	4	5	1	2	3	4	C
Mean School Ach.	ACH	1.00															
Mean Self-Concept	SCO	-.05															
Students' Expect.	SC1	<u>.32*</u>	<u>.56</u>														
Students' Futility	SC2	<u>.52</u>	-.11	<u>.24</u>													
Students' Norms	SC3	-.08	<u>.27</u>	-.02	-.19												
Students' Eval.	SC4	-.06	<u>.60</u>	-.06	-.18	.20											
S. Percept. of Push	SC5	-.04	<u>.25</u>	-.04	.01	<u>.58</u>	<u>.32</u>										
Teach. Expectations	TC1	<u>.35</u>	.19	<u>.59</u>	<u>.27</u>	-.21	<u>-.28</u>	<u>-.30</u>									
Teach. School Eval.	TC2	<u>.41</u>	.12	<u>.33</u>	<u>.30</u>	.05	-.11	.07	<u>.37</u>								
Teach. Determination	TC3	-.09	.12	<u>-.25</u>	<u>-.27</u>	.20	<u>.34</u>	<u>.27</u>	<u>-.35</u>	.02							
T. Percept. of S.eff.	TC4	.01	-.07	-.02	<u>.25</u>	.17	-.11	.10	.11	<u>.31</u>	.17						
Teach.Eval. of Stud.	TC5	-.10	.04	.18	.02	.16	-.19	-.04	<u>.42</u>	<u>.33</u>	-.04	<u>.44</u>					
Princ. & Par.Expect.	PC1	<u>.43</u>	.14	<u>.65</u>	<u>.46</u>	<u>-.30</u>	-.19	-.17	<u>.51</u>	<u>.48</u>	<u>-.27</u>	.06	.13				
Princ. School Eval.	PC2	<u>.30</u>	.06	.17	<u>.36</u>	.06	-.10	.01	<u>.34</u>	<u>.55</u>	-.16	<u>.40</u>	.24	<u>.32</u>			
Princ. Feel. of Resp.	PC3	-.05	-.09	-.18	.09	<u>.36</u>	.00	.17	-.07	<u>.30</u>	.05	<u>.41</u>	.18	-.10	<u>.37</u>		
P. Percept. of Par.	PC4	.14	.22	<u>.38</u>	<u>.30</u>	-.01	.01	-.07	<u>.27</u>	<u>.45</u>	-.18	<u>.35</u>	<u>.21</u>	<u>.40</u>	<u>.42</u>	<u>.32</u>	
Comb. climate	CAC	<u>.42</u>	<u>.28</u>	<u>.57</u>	<u>.47</u>	.11	-.11	.05	<u>.69</u>	<u>.74</u>	-.06	<u>.54</u>	<u>.56</u>	<u>.62</u>	<u>.67</u>	<u>.36</u>	<u>.59</u>

* Underlined correlations significant at .05 level

** Correlation coefficients for this variable are based on 56 schools

between .51 and .65. Teachers and principals seem to be evaluating the academic quality of their school with about the same criteria (.55) and this teacher variable correlates significantly with all the principal's variables (between .45 and .55). Teachers' perceptions of students' commitment to success is correlated above .34 with most principal's climate variables. More, teacher climate variables are significantly related with most principal variables. Teachers are more committed to students' success when the latter evaluate themselves positively (.34) than when their sense of academic futility is high (-.27). This last variable, student sense of academic futility, is significantly correlated with seven out of the nine teacher and principal climate variables and may be an important determinant of the climate in the school. Finally, students academic norms are higher when principals feel personally responsible for their success (.36) but not when they expect students to succeed (-.30). Several other variables are significantly associated and can be found in the table. The correlations presented above do not imply any causal relationships, but the data suggest that school actors may well be sharing similar interpretations of the situation they are invested in and feel incentives to behave accordingly. This is what school climate is about.

(4) The interrelationships among school social system variables will be found in Table 14. A more detailed matrix is also presented in Appendix C showing the correlations among these variables when controlling for high SES and low SES school sub-samples. For clarification purposes, the analysis will be limited to the standardized computations obtained from each cluster of variables in addition to social background of the student body. This composition variable was shown previously to be correlated with "combined other inputs" at .29, but the associations are much larger with the other variables. Socioeconomic background is significantly correlated with combined social structure at .35, while it is associated at .50 with combined school climate variables. This link between SES background and school climate was found in previous research, and is repeated here. A look at the controlled sub-samples shows important variations in the

results. In high SES schools, school input is not associated with social composition (.06) but in the lower SES school sub-sample, inputs are positively correlated with social composition at .48. This means that the worst school input characteristics—low personnel qualities, small size, and little technology availability—are associated with the SES of the school almost exclusively in the poorer schools of the sample. When school SES level reaches a certain point, all schools resemble one another in this regard.

The opposite occurs when the relationship between social background and school climate is considered. The original correlation of .50 virtually disappears in the low SES school sub-sample (.08) and reaches .63 in the high SES sub-sample. It means that school climate becomes associated with social composition primarily in those schools located in higher socioeconomic environments. In this case, the higher the SES of the school, the higher the climate. The weak association between social background and climate in the low SES school sub-sample can be explained by the fact that these schools are similar in composition on several accounts. The population in this part of Québec is not as segregated as in large American cities. In fact, there is no extremely low SES school because most schools include students from all social origins. The differences in internal social composition between these schools may then not be high enough to show variations in socialization practices. Finally, the positive correlation of .35 between social composition and social structure is maintained in both subsamples but at various degrees (.12 and .38). Thus, it seems evident that social composition of the student body is associated with all clusters of variables but that this relationship is not linear.

The "combined other inputs" measure, which excludes father's occupation, shows little association with the other clusters. In the total sample and in the sub-samples, the coefficients of correlation between this standardized score and combined social structure range from non-significant -.01 to .12. The relationships between combined other inputs and combined school climate vary from -.05 in the total sample to -.32 in the low SES school sub-sample. This last correlation is the only one found to be significant. It means

TABLE 14**

CORRELATION MATRIX OF MEAN SCHOOL INPUTS, SOCIAL STRUCTURE,
SOCIAL CLIMATE AND MEAN SCHOOL OUTCOMES IN 61 SCHOOLS OF THE
NORTHEASTERN PART OF QUEBEC

Variables		ACH**	SCO	SES	OI1	OI2	OI3	OI4	OI5	OI6	COI	SS1	SS2	SS3	SS4	SS5	SS6
Mean School Ach.	ACH	1.00															
Mean Self-Concept	SCO	-.05	1.00														
Mean SES	SES	<u>.43*</u>	<u>.27</u>	1.00													
Mean Teach. Salary	OI1	.18	.00	.14	1.00												
Mean Teach. Exp.	OI2	.05	.06	-.02	<u>.58</u>	1.00											
Mean Teach. Training	OI3	-.03	.02	.13	<u>.53</u>	-.02	1.00										
Student Body Size	OI4	<u>.30</u>	.12	<u>.49</u>	.05	-.11	.12	1.00									
Ratio of personnel	OI5	-.12	-.16	<u>-.35</u>	-.19	-.21	-.12	<u>-.49</u>	1.00								
Technology	OI6	.13	.02	<u>.37</u>	-.06	-.13	.08	<u>.50</u>	<u>-.24</u>	1.00							
Comb. Other Inputs	COI	.20	.02	<u>.29</u>	<u>.75</u>	<u>.44</u>	<u>.61</u>	<u>.42</u>	-.09	<u>.44</u>	1.00						
Opened Sch. & Class.	SS1	-.08	-.07	<u>.35</u>	-.02	<u>-.39</u>	<u>.37</u>	<u>.26</u>	-.08	<u>.22</u>	.14	1.00					
Standardization	SS2	<u>.23</u>	.09	-.06	.04	<u>.38</u>	<u>-.26</u>	-.01	-.15	.09	.03	<u>-.57</u>	1.00				
Parents & Instr. Time	SS3	.05	-.17	.07	.21	<u>.25</u>	.04	.01	<u>-.25</u>	.03	.11	-.05	.14	1.00			
Similarity of Obj.	SS4	<u>.22</u>	<u>-.24</u>	-.12	.07	.18	-.06	.20	-.05	-.07	.11	<u>-.37</u>	<u>.33</u>	.13	1.00		
Parental Involvement	SS5	-.05	.17	<u>.40</u>	-.10	-.15	-.02	.13	-.12	.18	-.03	<u>.32</u>	-.19	.02	<u>-.35</u>	1.00	
Differentiation Pract.	SS6	-.01	-.21	-.03	<u>-.27</u>	<u>-.31</u>	-.04	.01	.07	-.08	<u>-.24</u>	<u>.35</u>	<u>-.36</u>	.11	-.05	<u>.24</u>	1.00
Centralization	SS7	.09	-.14	<u>-.47</u>	-.13	.09	<u>-.29</u>	<u>-.26</u>	<u>.22</u>	-.19	<u>-.22</u>	<u>-.52</u>	<u>.33</u>	-.07	<u>.32</u>	<u>-.27</u>	.11
Comb. Soc. Struct.	CSS	.13	-.13	<u>.35</u>	-.06	-.16	.11	<u>.32</u>	<u>-.22</u>	<u>.26</u>	.10	<u>.60</u>	.06	<u>.29</u>	.08	<u>.52</u>	<u>.48</u>
Students' Expect.	SC1	<u>.32</u>	<u>.56</u>	<u>.76</u>	.16	.11	.00	<u>.44</u>	<u>-.31</u>	<u>.22</u>	<u>.24</u>	<u>.23</u>	-.03	-.09	-.17	<u>.38</u>	-.06
Students' Futility	SC2	<u>.59</u>	-.11	<u>.46</u>	-.06	-.11	-.13	.20	.01	-.07	-.06	.10	-.02	.02	<u>.25</u>	.12	.00
Students' Norms	SC3	-.08	<u>.27</u>	<u>-.45</u>	.09	.10	-.02	<u>-.29</u>	<u>.25</u>	<u>-.42</u>	-.10	-.19	-.06	<u>-.23</u>	-.09	<u>-.23</u>	-.10
Students' Eval.	SC4	-.06	<u>.60</u>	-.13	.06	.14	.13	-.12	-.05	-.06	.04	<u>-.39</u>	<u>.23</u>	.03	-.07	-.18	<u>-.37</u>
S. Percept. of Push	SC5	-.04	<u>.25</u>	<u>-.26</u>	-.04	-.09	.13	<u>-.21</u>	<u>.31</u>	<u>-.30</u>	-.07	-.10	-.12	-.08	-.15	-.17	-.07
Teach. Expectations	TC1	<u>.35</u>	.19	<u>.68</u>	.15	.02	.07	<u>.23</u>	<u>-.27</u>	<u>.23</u>	.17	<u>.36</u>	-.06	.04	<u>-.22</u>	<u>.41</u>	.07
Teach. School Eval.	TC2	<u>.41</u>	.12	<u>.27</u>	-.06	-.13	-.13	.11	-.06	-.12	-.15	-.11	.04	-.18	.16	-.06	.04
Teach. Determination	TC3	-.09	.12	<u>-.27</u>	-.17	.07	-.13	<u>-.21</u>	.08	-.08	-.18	<u>-.43</u>	.17	.12	-.09	<u>-.28</u>	-.06
T. Percept. of S.eff.	TC4	.01	-.07	-.05	.07	.03	-.16	-.07	-.04	-.19	-.14	-.06	-.13	-.01	.03	-.09	-.04
Teach. Eval. of Stud.	TC5	-.10	.04	.16	.15	.10	-.01	<u>-.33</u>	.15	-.19	-.05	.07	<u>-.23</u>	.00	<u>-.30</u>	.03	.08
Princ. & Par.Expect.	PC1	<u>.43</u>	.14	<u>.68</u>	.04	-.20	.05	<u>.44</u>	<u>-.24</u>	.20	.11	<u>.24</u>	-.13	-.09	.09	.20	.07
Princ. School Eval.	PC2	<u>.30</u>	.06	.19	-.03	-.20	.04	<u>.03</u>	-.08	-.19	-.17	.01	-.08	-.18	.11	-.01	-.03
Princ. Feel. of Resp.	PC3	-.05	-.09	<u>-.36</u>	.04	.00	-.04	<u>-.23</u>	.15	<u>-.28</u>	-.14	<u>-.24</u>	-.03	<u>-.22</u>	<u>.21</u>	-.20	-.03
P. Percept. of Par.	PC4	.14	.22	.20	-.08	-.17	<u>-.23</u>	.12	-.10	-.00	-.18	-.04	-.04	-.17	-.02	<u>.21</u>	.01
Comb. climate	CAC	<u>.42</u>	<u>.28</u>	<u>.50</u>	.07	-.06	-.05	.11	-.13	-.07	-.05	.07	-.10	-.12	-.06	.15	.00

* Underlined correlations significant at .05 level

** Correlation coefficients for this variable are based on 56 schools

***Table continued on next page

TABLE 14 (CONTINUED)

Variables		SS7	CSS	SC1	SC2	SC3	SC4	SC5	TC1	TC2	TC3	TC4	TC5	PC1	PC2	PC3	PC4	CAC
Mean School Ach.	ACH																	
Mean Self-Concept	SCO																	
Mean SES	SES																	
Mean Teach. Salary	OI1																	
Mean Teach. Exp.	OI2																	
Mean Teach. Training	OI3																	
Student Body Size	OI4																	
Ratio of personnel	OI5																	
Technology	OI6																	
Comb. Other Inputs	COI																	
Opened Sch. & Class.	SS1																	
Standardization	SS2																	
Parents & Instr. Time	SS3																	
Similarity of Obj.	SS4																	
Parental Involvement	SS5																	
Differentiation Pract.	SS6																	
Centralization	SS7	1.00																
Comb. Soc. Struct.	CSS	-.11	1.00															
Students' Expect.	SC1	-.40	.21	1.00														
Students' Futility	SC2	-.14	.20	.24	1.00													
Students' Norms	SC3	.30	-.36	-.02	-.19	1.00												
Students' Eval.	SC4	.11	-.40	-.06	-.18	.20	1.00											
S. Percept. of Push	SC5	.11	-.29	-.04	.01	.58	.32	1.00										
Teach. Expectations	TC1	-.26	.39	.59	.27	-.21	-.28	-.30	1.00									
Teach. School Eval.	TC2	.11	-.06	.33	.30	.05	-.11	.07	.37	1.00								
Teach. Determination	TC3	.22	-.41	-.25	-.27	.20	.34	.27	-.35	.02	1.00							
T. Percept. of S.eff.	TC4	.07	-.16	-.02	.25	.17	-.11	.10	.11	.31	.17	1.00						
Teach. Eval. of Stud.	TC5	-.01	-.13	.18	.02	.16	-.19	-.04	.42	.33	-.04	.44	1.00					
Princ. & Par. Expect.	PC1	-.28	.22	.65	.46	-.30	-.19	-.17	.51	.48	-.27	.06	.13	1.00				
Princ. School Eval.	PC2	.02	-.05	.17	.36	.06	-.10	.01	.34	.55	-.16	.40	.24	.32	1.00			
Princ. Feel. of Resp.	PC3	.42	-.23	-.18	.09	.36	.00	.17	-.07	.30	.05	.41	.18	-.10	.37	1.00		
P. Percept. of Par.	PC4	-.06	-.01	.38	.30	-.01	.01	-.07	.27	.45	-.18	.35	.21	.40	.42	.32	1.00	
Comb. climate	CAC	-.07	.01	.57	.47	.11	-.11	.05	.69	.74	-.06	.54	.56	.62	.67	.36	.59	1.00

that the better the inputs in the lower SES schools, the lower the climate. When considering the associations involving social composition and other inputs with school climate, the results show then the high SES school sub-sample to be more sensitive to social composition differences and the low SES school sub-sample to be more associated with the other inputs.

Finally, the combined social structure standard scores show no association at all with the scores combining school climate variables. A correlation of .01 results from the total sample, and -.09, and -.06 from the two sub-samples. Some single variables are correlated significantly between these two groups in the total sample, but these associations almost completely disappear in the sub-samples as can be confirmed by the correlation matrices.

(5) The relationship between the two dependent or outcome variables does not turn out as expected from the literature on individual self-concept of academic ability, which had shown consistent positive correlations with academic achievement (Brookover *et al.*, 1962, 1965, 1967). It also cannot be equated well with the comparative study (Brookover *et al.*, 1979), which demonstrated a strong reversal of this relationship (-.55), the results reflecting the difference between the mean self-concept of academic ability of students in majority black schools and those in majority white schools. In this study, these variables are correlated at -.05 in the total sample; the low SES school sub-sample reveals a negative relationship at -.12 and the high SES school sub-sample a larger one at -.17. These correlations are not significant, but it is evident that the relationship is negative. These data do not allow further explanation for this occurrence. The best that can be done is to hypothesize an ecological effect as did previous studies (Brookover *et al.*, 1979; Passalacqua, 1979), and suggest that the phenomenon is a function of the reference group to which students compare themselves. Since the data show unexpected results and no consistency between both studies, however, it is possible that a measurement effect explain

the results obtained. It may well be that self-concept of academic ability is an individual characteristic and that it cannot be aggregated at the school level.

Correlations Between Independent and Dependent Variables

Before any attempt was made to measure the effect of each group of variables on academic achievement and self-concept, simple correlations were calculated between each independent variable and the outcome variables in each sample. It should be remembered that five mean school academic achievement scores were missing, and, accordingly, the data referring to this independent variable will be based on 56 schools.

1. Input Variables and Outcome Variables

The variables included in the input cluster comprise social composition and six other inputs in the school. The results show the following associations between each of them and the outcomes, and appear in Tables 15 and 16.

(1) Mean student socioeconomic status composition is positively and significantly correlated with mean school academic achievement. The relationship is significant at .433 and is reflected in both sub-samples at .298 and .224, though not significantly. Since some of variance in composition is controlled in the sub-samples, the correlation coefficients remain substantial. The same observation emerges from the relationship between this background variable and mean school self-concept. The only difference is that the correlations are much lower when this outcome is considered. The coefficients range from .136 in the low SES school sample to a significant .275 in the total sample. These correlations suggest that the higher the level of mean school father's occupation, the higher the achievement and self-concept in the school.

(2) The "other inputs" included qualities of the personnel, and some other characteristics of the school. Among these six variables, the only one showing a significant correlation with one outcome variable is size of the student body, which is

TABLE 15
SIMPLE CORRELATION OF INPUT VARIABLES WITH MEAN SCHOOL
ACHIEVEMENT

Input Variables	All Schools	High SES	Low SES
<u>Student Body Composition</u>			
Mean Student SES	.4333*	.2981	.2244
<u>Other Inputs</u>			
1. Mean Teachers Salary	.1793	.1819	.1372
2. Mean Years of Teachers' Experience	.0525	.1438	.0051
3. Mean Years of Teachers' Training	-.0327	.0138	-.0352
4. Size of the Student Body	.2951*	.2764	.0967
5. Professional Personnel per 100 Students	-.1152	-.0271	.0129
6. Quantity of technological material in the school	.1320	.1203	-.1773
Combined Other Inputs (Standard Score of all 6 Variables)	.2035	.2708	.0245
Number of Schools	56	28	28

*Significant at .05 level

TABLE 16
SIMPLE CORRELATION OF INPUT VARIABLES WITH MEAN SELF-CONCEPT OF
ACADEMIC ABILITY

Input Variables	All Schools	High SES	Low SES
<u>Student Body Composition</u>			
Mean Student SES	.2748*	.2553	.1356
<u>Other Inputs</u>			
1. Mean Teachers Salary	.0009	-.2687	.1503
2. Mean Years of Teachers' Experience	.0620	-.2213	.2099
3. Mean Years of Teachers' Training	.0208	-.0201	.0610
4. Size of the Student Body	.1191	.1384	-.0260
4. Professional Personnel per 100 Students	-.1646	.2769	-.2842
6. Quantity of technological material in the school	.0225	-.0057	-.1056
Combined Other Inputs (Standard Score of all 6 Variables)	.0235	-.0729	.0048
Number of Schools	61	30	31

*Significant at .05 level

correlated at .295 with mean student achievement in the total school sample. This correlation is still important in the high SES school sub-sample (.276), but is considerably reduced in the low SES school sub-sample (.097). This result suggests overall that the larger the school, the higher the student's achievement in the school. Since earlier on size of the student body was shown to be highly related to mean school SES, it is probable therefore that this relationship is spurious however it was not controlled at this point.

No other input variable is related to the outcome variables in a significant way even though some surprising results occurred. Mean teacher salary shows some association with mean student achievement at .179 but the other two personnel characteristics (mean years of teacher's experience and mean years of teacher training) have apparently very little to do with this outcome in schools, contrary to popular beliefs. Curiously, mean teacher salary and experience draw a negative correlation with mean self-concept in the high SES schools sub-sample (-.269 and -.221) compared with a positive correlation in the low SES school sub-sample (.150 and .210). Since the mean of mean school self-concept is not much different in those two sub-samples (see Table 6), it is possible that these teachers' characteristics play a different role in both types of schools. The data would have to be significant in order to be sure of this. The age of the teachers might have something to do with this since experienced and best paid teachers are older. Ratio of personnel per 100 students and quantity of technological material were shown to be associated with the size of the student body previously but are not related significantly with any of the outcome variables. Noteworthy perhaps is the positive but not significant association between the ratio of personnel per 100 students with self-concept at .277 in the high SES school sub-sample while the relationship is negative at -.284 in the low SES school sub-sample. These correlations between the other input variables and the outcomes measured, with the exception of size, suggest that these inputs have very little to do with student's achievement and self-concept in the schools.

2. Social Structure Variables and Outcome Variables

The variables included in this cluster identify seven different aspects of the school social structure. Each of these variables show a significant correlation on one or more samples and will then be analyzed in order. The detailed results appear in Tables 17 and 18.

(1) Open or closed characteristics of the school and of the classroom do not appear to be significantly related to student achievement even if open characteristics tend to be found more in lower achieving schools (-.083). The most striking observation about this variable concerns its relation with self-concept of academic ability. The correlation is slightly negative in the total sample at -.074 but positive in the high SES school sub-sample at .202 and significantly negative in the low SES school sub-sample at -.310. This result suggests that more open schools coincide with students low self-concepts of academic ability in those schools located in the lower socioeconomic environments of the areas included in this sample. The analysis of this surprising difference is beyond the scope of the present research. It may be hypothesized though that opened schools in those low SES environments are pursuing developmental objectives and not academic objectives. It is possible then that students do not invest themselves in academic competition of the kind measured by self-concept.

(2) Standardization of the processes and of the material used in the school is positively and significantly correlated with student achievement at .234 and this positive correlation is true for both sub-samples (.287 and .170). There is no reason to believe that this variable has an important impact on self-concept. These data indicate that the higher the standardization introduced in schools' operations, the higher the achievement of the students in these schools.

(3) Principal's time devoted to parents, and teachers' time spent on formal instruction have apparently little to do with students' achievement in these schools. Correlations range from -.030 to .051. However, these are associated with students' self-

concept to a large extent. The correlation is $-.173$ in the whole sample but reaches a significant $-.395$ in the high SES school sub-sample. This correlations suggests that the more time devoted to parents by the principal and to formal instruction by teachers, the lower the self-concept of academic ability, particularly for students attending the higher socioeconomic schools.

(4) Similarity of the objectives pursued in the school by teachers and by students is associated both with academic achievement and self-concept. This variable is positively correlated with academic achievement in the 56 schools at $.224$ but positively and significantly correlated at $.337$ in the high SES school sub-sample. The correlation is still positive in the low SES school sub-sample but not significant and much lower then $(.107)$. The correlations with self-concept are all negative and significantly so in the total sample at $-.239$ and in the high SES school sub-sample at $-.459$. These results show the more privileged schools, so far as socioeconomic background is concerned, to be more influenced by this social structure variable. The correlations suggest that the more similar the objectives pursued in the school, the higher the achievement of the students but the lower their self-concept of academic ability. This low self-concept might come from the fact that students compare themselves with clear expectations and also with higher achievers in those schools.

(5) Involvement of the parents in the daily activities of the classrooms show surprising results given the alleged virtues of parental participation in popular beliefs. This variable presents no significant correlation with academic achievement and it even shows a negative association $(-.301)$ in the high SES school sub-sample. Their participation is, however, positively correlated with mean self-concept at $.172$ in the total sample and significantly at $.353$ in the high SES school sub-sample. Once again, the results show the more privileged the schools, so far as socioeconomic background is concerned, to be more influenced by a social structure variable. The correlations suggest that the higher the

TABLE 17
SIMPLE CORRELATION OF SOCIAL STRUCTURE VARIABLES WITH MEAN
SCHOOL ACHIEVEMENT

Social Structure Variables	All Schools	High SES	Low SES
1. Opened Characteristics of the School and of the Classrooms	-.0833	-.1466	-.1379
2. Standardization of the Processes and of the Material Used in the School	.2335*	.2873	.1701
3. Time Devoted to Parents and to Formal Instruction	.0511	-.0297	.0291
4. Similarity of Objectives Pursued in the School	.2236	.3368*	.1069
5. Practical Parental Involvement in the School	-.0485	-.3005	.0380
6. Differentiation of the students in the school and in the classrooms	-.0097	-.0687	.1489
7. Centralization of the Decision-Making in the School	.0868	.1067	.3578*
Combined Social Structure Variables (Standard Score of all 7 Variables)	.1327	.0329	.0944
Number of Schools	56	28	28

*Significant at .05 level

TABLE 18

SIMPLE CORRELATION OF SOCIAL STRUCTURE VARIABLES WITH MEAN
SELF-CONCEPT OF ACADEMIC ABILITY

Social Structure Variables	All Schools	High SES	Low SES
1. Opened Characteristics of the School and of the Classrooms	-.0742	.2023	-.3098*
2. Standardization of the Processes and of the Material Used in the School	.0852	-.0936	.2239
3. Time Devoted to Parents and to Formal Instruction	-.1732	-.3952*	-.0588
4. Similarity of Objectives Pursued in the School	-.2385*	-.4592*	-.0776
5. Practical Parental Involvement in the School	.1721	.3534*	-.0707
6. Differentiation of the students in the school and in the classrooms	-.2079*	-.2529	-.1424
7. Centralization of the Decision-Making in the School	-.1378	-.0566	-.1020
Combined Social Structure Variables (Standard Score of all 7 Variables)	-.1297	-.0276	-.3011*
Number of Schools	61	30	31

*Significant at .05 level

practical involvement of the parents in the school, the lower the achievement of the students but the higher their self-concept of academic ability in those higher strata schools.

(6) Much has been said and written about the influence of grouping practices on various school outcomes. In the present study, differentiation of the students in the school and in the classrooms has very little to do with a student's achievement in the school. The correlations range from $-.069$ in the high SES school sub-sample to $.149$ in the low SES school sub-sample. This variable is, however, linked with student's mean self-concept. In the total school sample, the negative correlation is significant at $-.208$ and negative in both sub-samples. These correlations suggest that the more students are differentiated according to ability in the school, the lower their general self-concept of academic ability.

(7) Centralization of the decision-making in the school shows significant correlation on one outcome variable in the low SES school sub-sample only. It is unrelated with school academic achievement in the total sample ($.087$), but consistent is the $.358$ correlation in the sub-sample composed of the lower SES schools. The correlations are all negative with self-concept but they are not very high. This would indicate that the higher the level at which decision is made in the low SES schools, the higher the achievement of the students.

These correlations between the social structure variables and the outcomes suggest that these variables are more related to the outcomes than the 'other input variables', that these relationships are more important over mean school self-concept than mean school academic achievement, and that there exist differences between the samples in reference to this. (The latter observation is more appropriate for self-concept of academic ability).

3. School Climate Variables and Outcome Variables

The variables included in this set identify fourteen different aspects of the school academic climate for students, teachers, and principals. These variables show significant correlation on several samples and will be analyzed for each group of respondents. The detailed results appear in Tables 19 and 20.

(1) Some student climate variables are correlated with mean school achievement and all of them are associated with the self-concept outcome. Worthy of consideration are future evaluations and expectations for higher education which are correlated at .322 with student achievement in the total sample. Most significant, however, are the high correlations between this outcome and student sense of academic futility. The positive correlations range from .404 in the low SES school sub-sample to .638 in the high SES school sub-sample. The .589 coefficient on the total sample is the highest obtained for a variable in this study related to mean school achievement. No other student variable is significantly associated with achievement in either sample. Since a positive score reflects a low sense of academic futility in this study, these correlations indicate that the higher the future evaluations and expectations of students, and the lower their sense of academic futility, the higher the mean achievement in the school.

The correlations with self-concept of academic ability for student climate variables show significant results on almost all variables and for most samples. With the exception of sense of academic futility which is negatively correlated with self-concept in the low SES school sub-sample (-.385), and to a lesser degree in the total sample (-.114), all correlations are positive and strong. Student climate 1 and student climate 4 measuring present and future evaluations in addition to expectations correlate significantly above .55 in all samples while students' academic norms and perceptions of teachers push and teachers norms do so with correlations between .291 and .510. These correlations suggests that the higher the students 1) evaluate themselves, 2) have high future expectations, 3) develop academic norms and 4) feel teachers' academic norms, the higher

TABLE 19

SIMPLE CORRELATION BETWEEN MEAN SCHOOL SCORES ON CLIMATE
VARIABLES AND MEAN SCHOOL ACHIEVEMENT

School Climate Variables	All Schools	High SES	Low SES
<u>Students' Climate Variables</u>			
1. Future Evaluations and Expectations	.3221*	.2380	.0629
2. Sense of Academic Futility (Fut=low)	.5885*	.6384*	.4040*
3. Academic Norms	-.0820	.0598	.1176
4. Present Eval. and Expectations for H. S.	-.0569	-.0951	-.0097
5. Perceptions of Teach. Push & Norms	-.0388	.0818	.2857
<u>Teachers' Climate Variables</u>			
1. Future Expectations for Students	.3500*	.1909	.2693
2. Present School Evalaluation	.4095*	.5590*	.2053
3. Determination w/Having Stud. Succeed	-.0853	.0348	-.0655
4. Percept. of Stud. Commitment to Success	.0062	-.0295	.0407
5. Present Evaluation of Students and Sense of Fatalism	-.1008	-.0285	-.1931
<u>Principals' Climate Variables</u>			
1. Expect. and Percept. of Parents Expect.	.4360*	.4822*	.0837
2. Present Eval. of Students & School	.2963*	.4190*	.0919
3. Feelings of Responsibility for Success	-.0477	.2343	.0078
4. Percept. of Parents' Interest w/School	.1472	.2416	-.0230
Combined Climate Variables (Standard Score of all 14 Variables)	.4175*	.5265*	.1743
Number of Schools	56	28	28

* Significant at .05 level

TABLE 20

**SIMPLE CORRELATION BETWEEN MEAN SCHOOL SCORES ON CLIMATE
VARIABLES AND MEAN SELF-CONCEPT OF ACADEMIC ABILITY**

School Climate Variables	All Schools	High SES	Low SES
<u>Students' Climate Variables</u>			
1. Future Evaluations and Expectations	.5609*	.5629*	.5570*
2. Sense of Academic Futility (Fut=low)	-.1139	.0315	-.3851*
3. Academic Norms	.2740*	.3040*	.5098*
4. Present Eval. and Expectations for H. S.	.5977*	.6540*	.6045*
5. Perceptions of Teach. Push & Norms	.2509*	.3941*	.2911
<u>Teachers' Climate Variables</u>			
1. Future Expectations for Students	.1946	.0435	.1793
2. Present School Evaluation	.1150	-.0163	.1639
3. Determination w/Having Stud. Succeed	.1218	.0028	.2874
4. Percept. of Stud. Commitment to Success	-.0707	-.1455	-.0428
5. Present Evaluation of Students and Sense of Fatalism	.0385	.0161	.0472
<u>Principals' Climate Variables</u>			
1. Expect. and Percept. of Parents Expect.	.1410	.0300	.0531
2. Present Eval. of Students & School	.0564	-.1229	.1110
3. Feelings of Responsibility for Success	-.0947	-.2371	.0786
4. Percept. of Parents' Interest w/School	.2238	-.1053	.2859
Combined Climate Variables (Standard Score of all 14 Variables)	.2757*	.0922	.2935
Number of Schools	61	30	31

* Significant at .05 level

the mean self-concept of academic ability in the school. On the other hand, a high sense of academic futility seems to be related to high student self-concept in the lower socio-economic strata schools. This indicates perhaps that in such schools, students feel that they are good students but that the academic system is stacked against them. Brookover found the same thing in his low SES white schools sample as well, while it was reversed in the sample of black schools.

(2) Teachers' climate variables reveal some significant correlations with student mean achievement but none with their self-concept of academic ability. The actual evaluation of the academic quality of the school represented by the variable Teacher climate 2 is highly related with students' achievement. The total sample shows a correlation of .410 between these variables and the high SES school sub-sample is correlated at .559. Given these high positive correlations, it is rather surprising to find some small negative correlations (-.029 to -.193) between student achievement and Teacher climate 5 measuring teachers' evaluation of the students and sense of fatalism. The other variable associated with achievement is future expectations for students. It is significantly correlated at .350 in the total sample and positively in the others (.190 and .269). These are the most important associations found in that group of variables. These correlations suggest 1) that teachers climate variables have little to do with student mean self-concept in the school and 2) that the higher the evaluation of the quality of the school and the expectations for students by teachers, the higher the achievement of the students in that school.

(3) The climate variables constructed from principal's climate items show a pattern of association with the two outcome variables which is quite similar to the one described for teacher climate variables. Although some correlations between principal's climate variables and self-concept of academic ability show some degree of association, no coefficient turns out to be significant. The positive correlations found for three principal climate variables in the low SES school sub-sample with self-concept (.111, .079, and

.286) contrast, however, with the negative correlations obtained for the same associations in the high SES school sub-sample (-.123, -.237, and -.105). The most significant correlations appear between the first two principal climate variables and student achievement in the total sample and in the high SES school sub-sample. Principal's expectations and perceptions of parents expectations are associated at .436 and .482 in both samples. Principal's present evaluations of the students and of the school is significantly correlated at .296 and .419 in the same samples. These variables are unrelated in the low SES school sub-sample, however (.084 and .092). The correlations are far apart as well between the sub-samples on the last two principal climate variables. These correlations from both outcome variables suggest perhaps, that principals view schools differently depending upon whether their school is located in a high or a low socioeconomic environment. They indicate also that principal climate variables are much more strongly associated with student achievement in the high SES school sub-sample. In this case, and to a lesser degree in the total sample, the data suggest that the higher the principal's evaluations and expectations of students, the higher the achievement of the students in the school.

The climate variables elaborated for students, teachers and principals in this study showed correlations with mean school achievement and mean school self-concept of academic ability that are larger and more frequently significant than those which were found between the outcome variables and either social structure or inputs variables if we exclude social composition.

However, since several of these variables—within and between clusters—are interrelated to some degree, as discussed from Table 14 and Appendix C, and since they all show some relationship with the outcomes (Table 15 to Table 20), the next step consisted of finding a way to differentiate between the contribution of each of these variables to school variations in student achievement and self-concept.

Contribution of Social System Variables to Outcomes

The hypothesis elaborated in the first chapter called for a measurement of the joint and single effect of input, social structure, and climate variables over school outcomes. All of these variables were considered to be aspects of the school social system and were expected to produce differentiated effects on the outcomes. Of particular relevance to researchers was the hypothesis stating that social structure and school climate explain much of the variance usually attributed to input variables. Since social composition—as an input variable—and school climate were found to be highly correlated (.50), and since all clusters of variables showed some relationships at one point or another, it became important to find a methodology which would help dissociate those interconnected aspects of school social systems.

Regression Analysis Technique

One of the most powerful statistical tools in this regard is multiple regression analysis developed for handling a large number of independent variables at a time. This general statistical technique was widely used in past research on school effect to measure the contribution of several interrelated independent variables on some individual or school outcomes. Besides its descriptive utility, however, is its predictive quality which is more useful in this kind of research. Multiple regression helps to find the best linear prediction equation for a given set of data and to evaluate its predictive accuracy. It leads to the identification of specific variables or sets of variables that contribute to a specific outcome by controlling for other confounding factors and it specifies the level of this contribution. Hence, multiple regression computed on a set of variables can indicate how much of the variation in the dependent variable considered can be accounted for by each variable singly, or by groups of variables, exclusive of any other variable or set of variables (Hays, 1976; Guilford, 1965; Kerlinger & Pedhazur, 1973).

This statistical technique is powerful but presents some problems which we tried to avoid in processing the data presented here. One of these problems occurs when the independent variables are highly correlated (Sullivan, 1980). Multicollinearity can be avoided in more than one way though. In this study, the first strategy used was to identify a smaller load of variables through factor analysis as suggested by Bennett and Bowers (1976). This helped to reduce several potential intercorrelations by regrouping meaningful data under one significant factor. The second strategy used to avoid part of this multicollinearity problem was to introduce the variables successively in the regression analyses through the procedure called "stepwise multiple regression." This allowed for the computation of the contribution of one variable at a time, by order of importance, while maintaining constant the other variables. The third method used called for the introduction of the variables as sets or clusters in the stepwise multiple regression analyses but in alternating the order of introduction so as to force the regression analysis to consider the contribution of each set of variables before any other, no matter what its prediction coefficient. The analyses presented next will show how this was done with the actual data.

The second problem with the use of multiple regression in this kind of research is the limit of the sample size. It has been shown that too large a number of variables in the regression equations leads to undifferentiation when the sample is small. The proportion of variance in some dependent variables accounted for by one or several independent variables is expressed in this statistical technique by the coefficient of determination represented as R^2 . When the number of independent variables equals the sample size, all of the variance turns out to be explained with a perfect result in the prediction ($R^2 = 1.0$) from mathematical computations only (Sullivan, 1980). For this reason, it has become common practice in this kind of situation to accept a number of variables that remain less than half the size of the sample. This presents no problem to this study when the total sample is considered, but it becomes problematic when the sub-samples are considered. As a result, an attempt was made to further reduce the number of

variables by using the "combined" score in the other inputs cluster for the forced regression analyses. (The consequences of this choice will be analyzed in the coming pages). Since it was not possible to reduce any further the other variables which had already been reduced with the factor analysis technique, the computations were done with these remaining variables. The level of the variance explained in the sub-samples may be overestimated in some cases, but it will then be possible to compare the results with those obtained from the main sample.

Regression Analyses on the outcomes

Several successive regression analyses were performed in order to evaluate the relative contribution of these social system variables on mean school achievement and mean school self-concept. The following analyses will describe the amount of the variance explained by (1) school climate variables alone, (2) social composition of the student body associated with other variables, and (3) all the variables introduced in clusters identified as inputs, social structure and school climate. Supplementary tables will be found in Appendix D in addition to the tables described in this chapter.

1. Variance Explained by Climate Variables

The first regression analysis performed assessed the relative contribution of the 14 climate variables to school outcome explanations. This was done since this set of variables showed the largest and most frequent significant correlations with academic achievement and self-concept previously.

Table 21 shows that twelve out of the fourteen variables account for over 51 percent of the variance (R^2) in mean school achievement in the total school sample. Student climate 2, "Sense of academic futility," accounts by itself for 34 percent of this result. This variable was shown before to be highly related with this specific outcome in the simple correlation descriptions. Three teacher climate variables add thirteen percent to

TABLE 21

**SUMMARY OF MULTIPLE REGRESSION ANALYSIS OF MEAN SCHOOL
ACHIEVEMENT ON MEAN SCHOOL CLIMATE IN 56 SCHOOLS OF THE
NORTHEASTERN PART OF QUEBEC**

Variables	Signif- icance	Multiple R	R ²	R ² Change	Simple R
Student Climate 2, Sense of Academic Futility	.000	.58849	.34632		.588
Teacher Climate 2, Present School Evaluation	.026	.63637	.40497	.05865	.410
Teacher Climate 5, Present Eval. of S. & Fatalism	.102	.65963	.43512	.03015	-.101
Teacher Climate 1, Future Expectations for students	.042	.69241	.47944	.04432	.350
Principal Climate 4, Percept.of Parents' Int. w/Sch.	.326	.69962	.48947	.01004	.147
Student Climate 3, Academic Norms	.363	.70577	.49811	.00863	-.082
Principal Climate 3, Feelings of Resp. for Success	.403	.71095	.50545	.00734	-.048
Student Climate 4, Present Eval. & Expect. for H. S.	.613	.71286	.50817	.00272	-.057
Student Climate 5, Percept. of T. Push & Norms	.719	.71384	.50957	.00140	.039
Principal Climate 2, Present Eval. of Stud. & School	.752	.71461	.51066	.00110	.296
Teacher Climate 4, Percept. of S. Comm.to Success	.732	.71553	.51198	.00132	.006
Teacher Climate 3, Determ. w/Having S.Succeed	.639	.71729	.51450	.00252	-.085

Two climate variables, Student Climate 1 and Principal Climate 1, were omitted because the F-level was insufficient for computation

TABLE 22

SUMMARY OF MULTIPLE REGRESSION ANALYSIS OF MEAN SCHOOL SELF-
CONCEPT ON MEAN SCHOOL CLIMATE IN 61 SCHOOLS OF THE
NORTHEASTERN PART OF QUEBEC

Variables	Signif- icance	Multiple R	R ²	R ² Change	Simple R
Student Climate 4, Present Eval. & Expect. for H. S.	.000	.59765	.35719		.598
Student Climate 1, Future Eval. & Expectations	.000	.84734	.71799	.36080	.561
Principal Climate 1, Expect. & Percept. of Parents'	.010	.86551	.74910	.03111	.141
Student Climate 3, Academic Norms	.102	.87230	.76090	.01180	.274
Student Climate 2, Sense of Academic Futility	.162	.87712	.76933	.00843	-.114
Teacher Climate 1, Future Expectations for students	.236	.88052	.77531	.00598	.195
Principal Climate 2, Present Eval. of Stud. & School	.424	.88206	.77803	.00272	.056
Principal Climate 3, Feelings of Resp. for Success	.509	.88312	.77990	.00188	-.095
Principal Climate 4, Percept. of Parents' Int. w/Sch.	.594	.88382	.78114	.00124	.224
Student Climate 5, Percept. of T. Push & Norms	.570	.88462	.78256	.00142	.251
Teacher Climate 3, Determ. w/Having S. Succeed	.649	.88515	.78349	.00093	.122
Teacher Climate 5, Present Eval. of S. & Fatalism	.679	.88559	.78427	.00078	.038

Two climate variables, Teacher Climate variables 2 and 4, were omitted because the F-level was insufficient for computation

this amount before a principal climate variable appears. These variables are: "Teachers' present school evaluation", "Teachers' present evaluation of the students and sense of fatalism", and "Teachers' future expectations for students."

The same number of variables could be used in the regression analysis measuring the effect of the climate variables on mean school self-concept of academic ability in the total school sample as is shown in Table 22. In this case, however, over 78 percent of the variance is accounted for by these variables. Two student variables contribute much to this amount by adding 36 percent each to the total. It appears that the present and future evaluations the students hold for themselves, as well as their close and future school expectations (Student climate 4 and Student climate 1), contribute much in defining the perception they have of themselves as academic achievers in the school. It is possible also that these independent and dependent variables influence one another in the school. This interaction was not measured in the present study, however.

The tables presented in Appendix D show similar results for the high SES and low SES sub-samples when the same type of regression is computed. Student's sense of academic futility and some teachers variables contribute most to student academic achievement in school whereas students variables seem to have much more impact on self-concept of academic ability than any of the teacher or principal climate variables.

The results can best be compared and appreciated when isolating the climate variables that contribute significantly ($P < .05$) to the variance in mean school academic achievement in the total sample and in the low and high SES school sub-samples. Table 23 presents this summary for mean school academic achievement. In all three samples, students' sense of academic futility clearly contributes more to the difference in student academic achievement among schools than any of the other climate variables. This variable is much more important in the prediction of achievement in the high SES school sub-sample than in the low SES school sub-sample however. The second most significant contributor to the explanation of student achievement in the total sample and in the high

SES school sub-sample is the present evaluation of the school by the teachers. These two variables account for more than 40 percent of the between-school variance in achievement in the 56 schools of this sample and over 51 percent in the high SES school sub-sample alone. Student sense of academic futility is the only climate variable significant at the .05 level in the low SES school sub-sample. Although it explains just a little more than 16 percent of the variance, other climate variables accounted for an additional 37 percent of the variance in mean school achievement (see Appendices D-1 and D-2 for a summary of multiple regression analyses with these sub-samples).

Table 24 presents the same summary for mean school self-concept of academic ability. The similarity in the patterns found by the regression analysis for each sample will easily be found. In all three samples, two student climate variables emerged first from the computation and in the same order. These two variables alone explain between 71 percent and 75 percent of the total variance in self-concept of academic ability between schools. Moreover, in the total sample and in the high SES school sub-sample, the same principal climate variable comes in third place and at a significant level to add an additional 3 and 4 percent to the explanation of the variance. The variables that contribute most to self-concept are the following: Students' present evaluations and expectations for high school; Students' future evaluations and expectations; and Principal's expectations and perceptions of parents expectations. Over 81 percent of the total variance in self-concept is explained in the high SES school sub-sample and over 83 percent in the low SES school sub-sample (see Appendices D-3 and D-4 for a summary of multiple regression analyses with these sub-samples).

2. Variance Explained by the Social Composition of the School and Climate Variables

Social composition deserved special attention in this study for two important reasons. First, the review of the literature showed this variable to be frequently associated

TABLE 23

MULTIPLE REGRESSION ANALYSIS OF MEAN SCHOOL CLIMATE VARIABLES THAT CONTRIBUTE SIGNIFICANTLY ($P < .05$) TO VARIANCE IN MEAN SCHOOL ACHIEVEMENT IN 56 QUEBEC ELEMENTARY SCHOOLS AND IN THE HIGH AND LOW SUB-SAMPLES

Variables	Signif- icance	Multiple R	R ²	R ² Change	Simple R
<u>Total schools</u>					
Student Climate 2, Sense of Academic Futility	.000	.58849	.34632		.588
Teacher Climate 2, Present School Evaluation	.026	.63637	.40497	.05865	.410
<u>High SES schools</u>					
Student Climate 2, Sense of Academic Futility	.000	.63936	.40878		.639
Teacher Climate 2, Present School Evaluation	.026	.71912	.51714	.10836	.560
<u>Low SES schools</u>					
Student Climate 2, Sense of Academic Futility	.033	.40400	.16322		.404

TABLE 24

MULTIPLE REGRESSION ANALYSIS OF MEAN SCHOOL CLIMATE VARIABLES THAT CONTRIBUTE SIGNIFICANTLY ($P < .05$) TO VARIANCE IN MEAN SCHOOL SELF-CONCEPT IN 61 QUEBEC ELEMENTARY SCHOOLS AND IN THE HIGH AND LOW SUB-SAMPLES

Variables	Signif- icance	Multiple R	R ²	R ² Change	Simple R
<u>Total schools</u>					
Student Climate 4, Present Eval. & Expect. for H. S.	.000	.59765	.35719		.598
Student Climate 1, Future Eval. & Expectations	.000	.84734	.71799	.36080	.561
Principal Climate 1, Expect. & Percept. of Parents'	.010	.86551	.74910	.03111	.141
<u>High SES schools</u>					
Student Climate 4, Present Eval. & Expect. for H. S.	.000	.65396	.42766		.654
Student Climate 1, Future Eval. & Expectations	.000	.84461	.71337	.28571	.563
Principal Climate 1, Expect. & Percept. of Parents'	.030	.87260	.76143	.04805	.030
<u>Low SES schools</u>					
Student Climate 4, Present Eval. & Expect. for H. S.	.000	.60446	.36538		.604
Student Climate 1, Future Eval. & Expectations	.000	.86922	.75555	.39018	.557

with school outcomes, either as an individual background variable or as a student body composition variable. Very often, it was considered as a proxy to estimate school's internal properties and their effects on various outcomes. This made some sense since, in this research as well, composition of the student body is considered to be part of the social system of the school. However, the main reason for considering the contribution of composition by itself, aside from other inputs, is to separate the effect of this variable from school climate variables. It is clear from the correlations described before that social composition and climate are highly correlated (.50) in the main sample. In addition, Student climate 2, (Sense of academic futility), which turned out to be the most significant predictor of differences in achievement between schools, is even more highly correlated with socioeconomic background of the student body (.59). This was expected in the general model, Figure 1, when it was hypothesized that norms, expectations and feelings that characterize the school, (identified as climate), are in part a function of the composition of the student body. It was believed that these norms, expectations and feelings developed by students teachers and principals resulted in part from their perceptions of the characteristics of the student body. In order to estimate the specific contribution of social composition and school climate variables to the outcomes, they were isolated in the regression analyses prior to measuring the contribution of the three clusters of variables identified in the original model.

The strategy used to separate the effect of the intercorrelated composition and climate variables was to carry two successive regression analyses on each sample to assess the *unique* contribution of these variables to the prediction of student academic achievement and self-concept. In the first multiple regression analysis, mean socioeconomic composition was entered prior to the 14 climate variables. In the second analysis, the 14 climate variables were entered as a set into the regression analysis before mean socioeconomic composition of the student body.

Table 25 shows that more than one-half of the total possible variance in mean achievement between schools in the three samples is explained by the combination of socioeconomic background and climate variables. The high SES school sub-sample is particularly influenced by this combination of variables with 71 percent of the variance accounted for. About one-fifth of the variance in achievement between schools (.188) in the total sample is explained by the composition variable when entered prior to climate variables. This amount is reduced considerably in each of the sub-samples to less than 9 percent of the variance explained by socioeconomic background alone.

TABLE 25

SUMMARY OF MULTIPLE REGRESSION ANALYSIS COMPARING THE EFFECT
OF MEAN SOCIO-ECONOMIC STATUS AND CLIMATE VARIABLES ON
VARIANCE IN MEAN SCHOOL ACHIEVEMENT

Independent Variables	All Schools		High SES		Low SES	
	R ²	R ² add	R ²	R ² add	R ²	R ² add
SES	.188		.089		.050	
Climate	.517	.329	.715	.626	.539	.489
Climate	.514		.656		.539	
SES	.515	.001	.713	.057	.540	.001

In each of the samples, the proportion of the variance added (R^2) by the 14 climate variables is considerable when they are entered after composition. One third of the total variance is added in the main sample and one-half in the others. The climate variables, therefore, make an important contribution toward the prediction of mean school achievement over and above that made by the socioeconomic composition of the student body.

The second portion of table 25 presents the results of the multiple regression analysis when the 14 climate variables are entered prior to mean socioeconomic status. In this case, the composition variable adds very little to the explanation of the differences in academic achievement between schools. In the total sample and in the low SES school sub-sample, the climate variables account for virtually all of the variance on that outcome and the additional variance explained in the high SES school sub-sample is less than 6 percent after controlling for the climate variables. It is clear from the analysis that the school climate variables identified in this study explain a very significant portion of the difference in achievement between schools beyond that explained by socioeconomic composition and much of the contribution of socioeconomic composition is better explained by school climate variables.

A similar regression analysis was performed with this combination of variables on student self-concept of academic ability in the schools. The results of this analysis are shown in Table 26. In the first multiple regression analysis, mean socioeconomic composition was entered prior to the 14 climate variables. In the second analysis, the 14 climate variables were entered as a set into the regression analysis before mean socioeconomic composition of the student body.

This table shows that approximately four fifths of the total possible variance in mean self-concept between schools in the three samples is explained by the combination of socioeconomic background and climate variables. The high SES school sub-sample is the most influenced by this combination of variables with 89 percent of the variance accounted for. Less than 7 percent of the variance in self-concept between schools in the total sample and in the high SES school sub-sample is explained by the composition variable when entered prior to the climate variables. This amount is reduced considerably in the low SES school sub-samples to less than one percent of the variance explained by socioeconomic background alone.

As a consequence, in each of the samples, the proportion of the variance added (R^2) by the 14 climate variables is considerable when they are entered after composition. Between 72 percent and 83 percent of the total variance is added in the three samples. The climate variables, therefore, make an important contribution toward the prediction of mean school self-concept over and above that made by the socioeconomic composition of the student body.

TABLE 26

SUMMARY OF MULTIPLE REGRESSION ANALYSIS COMPARING THE EFFECT OF MEAN SOCIO-ECONOMIC STATUS AND CLIMATE VARIABLES ON VARIANCE IN MEAN SELF-CONCEPT

Independent Variables	All Schools		High SES		Low SES	
	R^2	R^2 add	R^2	R^2 add	R^2	R^2 add
SES	.067		.063		.008	
Climate	.792	.725	.894	.831	.838	.830
Climate	.788		.873		.832	
SES	.792	.004	.893	.020	.837	.005

The second portion of table 26 presents the results of the multiple regression analysis when the 14 climate variables are entered prior to mean socioeconomic status. It is no surprise to find that the composition variable adds very little to the explanation of the differences in self-concept of academic ability between schools. In the total sample and in the low SES school sub-sample, the climate variables account for virtually all of the variance for that outcome, and the additional variance explained in the high SES school sub-sample amounts to two percent after controlling for the climate variables. It is clear

from the analysis that the school climate variables identified in this study explain a very significant portion of the difference in self-concept between schools beyond that explained by socioeconomic composition, and, once again, much of the contribution of socio-economic composition is better explained by school climate variables.

3. Variance Explained by the Social Composition of the School and Other Input Variables

Social composition deserved special attention in the school input cluster of variables as well because of its importance in past literature. But the main reason this combination of variables is considered here is the fact that other inputs will be computed in future regression analyses from the "Combined other inputs" score of each school. In order to reduce the number of variables in the multiple regression processing so as to render the coefficients of determination (R^2) usable, the choice was made to use this combined score. It was based on the fact that these variables had not already been reduced, as were the social structure and the climate variables in the factor analysis, and on the fact that they were not highly correlated with the independent variables. The following regressions assessed the reduction in the total variance resulting from this decision.

The strategy used to separate the effect of the socioeconomic composition and "other input variables" was to perform two successive regression analyses on each sample in order to assess the *unique* contribution of these variables to the prediction of student academic achievement and self-concept, as was done for the assessment of composition against climate variables. In the first multiple regression analysis, mean socioeconomic composition was entered prior to the six other input variables. In the second analysis, these other input variables were entered as a set into the regression analysis before mean socioeconomic composition of the student body.

Table 27 shows that less than 28 percent of the variance in mean achievement between schools in the three samples is explained by the combination of

socioeconomic background and other input variables. The low SES school sub-sample is particularly impervious to this combination of variables, with less than 17 percent of the variance accounted for. As described before, about one-fifth of the variance in achievement between schools (.188) in the total sample is explained by the composition variable when entered first in the analysis. In the total school sample, the proportion of the variance added (R^2) by the six other input variables amounts to over 8 percent when they are entered after composition. When controlling partially for school composition in the sub-samples, this percentage doubles the original one and ranges from 11 to 17. It must be recognized though that a large part of the variation in social composition is eliminated when controlling for the results in the sub-samples. The "other input variables," therefore, make some additional contribution toward the prediction of mean school achievement over and above that made by the socioeconomic composition of the student body.

The second portion of Table 27 shows the results of the multiple regression analysis when the six other input variables are entered prior to mean socioeconomic status. In the total sample, the other input variables account for almost as much of the variance in academic achievement between schools as did social composition when entered first. The contribution of these input variables to achievement in the sub-samples remains important in about the same proportions (.144 and .125) in this regression analyses. The low SES school sub-sample seems to be influenced more by the other input variables than from social composition however. In this regression analysis, the composition variable adds as much to the explanation of the differences in academic achievement between schools as did the other input variables in the previous regression. It appears from the analysis that the other input variables identified in this study and social composition explain approximately the same portion of the variance in achievement between schools except for the low SES school sub-sample where other inputs contribute more even if this level of contribution is limited. Once again, the results from the sub-samples must be considered with care when social composition is introduced in the regression analyses.

TABLE 27

SUMMARY OF MULTIPLE REGRESSION ANALYSIS COMPARING THE EFFECT
OF MEAN SOCIO-ECONOMIC STATUS AND OTHER PERSONNEL INPUTS ON
VARIANCE IN MEAN SCHOOL ACHIEVEMENT

Independent Variables	All Schools		High SES		Low SES	
	R ²	R ² add	R ²	R ² add	R ²	R ² add
SES	.188		.089		.050	
Other Inputs	.272	.084	.261	.172	.165	.115
Other Inputs	.165		.144		.125	
SES	.269	.104	.261	.117	.165	.040

TABLE 28

SUMMARY OF MULTIPLE REGRESSION ANALYSIS COMPARING THE EFFECT
OF MEAN SOCIO-ECONOMIC STATUS AND OTHER PERSONNEL INPUTS ON
VARIANCE IN MEAN SELF-CONCEPT

Independent Variables	All Schools		High SES		Low SES	
	R ²	R ² add	R ²	R ² add	R ²	R ² add
SES	.067		.063		.008	
Other Inputs	.127	.060	.280	.217	.193	.185
Other Inputs	.073		.259		.192	
SES	.127	.054	.279	.020	.193	.001

Two similar two-step regression analyses were performed with this combination of variables on student self-concept of academic ability in the school. The results in Table 28 show that between 12 and 28 percent of the variance in mean self-concept between schools in the three samples is explained by the combination of socioeconomic background and climate variables. The total school sample is the least influenced by this combination of variables, with less than 13 percent of the variance accounted for. The composition variable, when entered prior to the six other input variables, contributes very little to the total variance explained, and adds even less when entered second. The proportion of the variance explained by composition is reduced considerably when part of the variation in SES is controlled. In the low SES school subsample, for example, less than one percent of the variance is explained by socioeconomic background alone.

These results suggest that the other input variables are contributing as much as social composition to the between-school difference in achievement and self-concept, and, contributing perhaps more in the low SES school sample; but nowhere do they contribute close to the amount of variance obtained from the climate variable set. Given this information, further regression analyses were carried out in order to measure the consequences, if any, of a reduction of the six input variables to the "combined other inputs" score.

Table 29 presents a comparison of the total variance explained by different combinations of clusters of variables, when using in the regression analyses (1) the six other input variable scores (Teachers' salary, Experience, Training, and Size of the student body, Ratio, and Technology) or (2) the single "Combined other inputs" score. No special attention will be given here to the results, beyond a comparison of the differences obtained in each pair of measures. The table shows differences in the total variance explained in all samples as well as for both outcome variables. It is obvious that using a single score for the "other inputs" reduces the proportion of the variance explained by these six variables.

TABLE 29

SUMMARY OF MULTIPLE REGRESSION ANALYSES SHOWING THE
DIFFERENT EFFECT OF TWO COMBINATIONS OF INPUT VARIABLES ON
VARIANCE IN MEAN SCHOOL ACHIEVEMENT AND MEAN SCHOOL
SELF-CONCEPT

Total variance Explained by the:	Achievement			Self-concept		
	All Sch. R ²	High SES R ²	Low SES R ²	All Sch. R ²	High SES R ²	Low SES R ²
<u>Input Variables as:</u>						
SES plus Other Inputs*	.272	.261	.165	.127	.280	.193
SES plus Combined OI**	.195	.151	.058	.079	.073	.023
<u>Social Structure Variables With:</u>						
SES plus Other Inputs	.438	.665	.493	.293	.775	.318
SES plus Combined OI	.374	.615	.279	.238	.511	.247
<u>School Climate Variables With:</u>						
SES plus Other Inputs	.632	.947	.605	.821	.897	.888
SES plus Combined OI	.570	.812	.540	.807	.870	.847
<u>Social Structure & School Climate Variables With:</u>						
SES plus Other Inputs	.706			.843		
SES plus Combined OI	.687			.837		

* Other inputs: includes 6 variables (salaries, experience and training of the teachers, size of the student body, ratio of personnel, and technology).

** Combined other inputs (OI) : is based on the computation of the standard score of all six other input variables. It is used as a single score in the regression analyses.

The combination of social composition (SES) plus the single "Combined other inputs" score to measure the variance in mean school achievement accounted by the input variables as a set, results in a loss of from more than 7 percent in the total sample to more than 10 percent in the low SES school sub-sample, compared to the total variance explained by social composition added to the six other input variables. These percentages vary from approximately 4 to 20 percent when self-concept is considered as the dependent variable.

Similar or larger differences, up to 25 percent, occur when comparing the results obtained in computing either the six input variables or the "Combined other inputs" score with the seven social structure variables. However, when the climate variables are introduced in the multiple regression analysis instead of the social structure variables, the differences are considerably reduced. Besides the 13 percent found in the high SES school sub-sample over achievement, no other difference reaches 7 percent. This is probably explained by the fact that the climate variables account for much of the difference in achievement and self-concept, as was demonstrated before; then, the addition of either set of input measures makes little difference. It is possible also that a suppression effect have led to the reduction of the effect of the input variables in the regression analyses. The intercorrelations between inputs and social structure, and inputs and school climate are not important in the total sample, but they show up more in the sub-samples. Finally, the total variance explained by the 28 variables included in the study is only reduced by less than 2 percent when using the "Combined other inputs" scores instead of the six "other input" variables. It is not useful to consider the data for the sub-samples here, because the number of variables introduced equals the number of schools in some regression analyses.

Based on these findings, it was decided to proceed further with the "Combined other input" score for the rest of the analyses. The consequences were that some variance that could be accounted for would be lost and that the relative contribution of the input variables would be slightly underestimated. However, the introduction of the climate variables gave confidence that much of the variance lost would nevertheless be

recovered, and even better explained, by these variables which had higher correlations with the outcomes. This allowed for the computation of the regression analyses with a convenient load of variables; further, it made possible the partitioning of the contribution of different clusters of variables to the variance in achievement and self-concept.

4. Variance Explained by the Three Clusters

In order to examine the relative contribution of the three sets of social system variables—inputs (social composition and combined other inputs), social structure and school climate (as described and reduced in the present chapter)—so that one may explain the differences between schools in mean school achievement and mean school self-concept in the various samples, all the variables were introduced in the multiple regression analyses. The objective was to determine the extent to which these variables contribute to the explanation of between-school differences, and also to examine, insofar as possible, the relative contribution of each of these sets to the explanation of the differences. To examine these questions, the variables were introduced as sets in three successive steps in the regression analysis, in the order the step-wise multiple regression would choose them. The set contributing most to the explanation of the outcome measured was expected to emerge first, and the one explaining less of the variance was expected to appear at the end. The results of these analyses are presented in Table 30 and in Table 31.

The amount of variance in mean school academic achievement explained by these three sets of variables in the total school sample is above 68 percent, and much higher in the two sub-samples. The results of these last sub-samples must be considered with care, because the number of variables used is more than half of the sample size. There exist a small difference (below 10 percent) between the two sub-samples in the explanation of the total variance in achievement, but it should not modify the interpretation—given the fact that both sub-samples surpass the total sample, and are fairly high. Quite convincingly, as seen in Table 30, when the three sets compete in the explanation of the

TABLE 30

SUMMARY OF MULTIPLE REGRESSION ANALYSIS SHOWING THE
CONTRIBUTION OF THREE CLUSTERS* OF INDEPENDENT VARIABLES TO THE
VARIANCE IN MEAN SCHOOL ACHIEVEMENT

Indep. Variables in Clusters	All Schools			High SES			Low SES	
	R ²	R ² add		R ²	R ² add		R ²	R ² add
Climate	.515		Climate	.655		Climate	.539	
Structure	.620	.105	Inputs	.772	.117	Structure	.811	.272
Inputs	.687	.067	Structure	.911	.139	Inputs	.814	.003

*The variables included in each cluster are listed in Appendix B

TABLE 31

SUMMARY OF MULTIPLE REGRESSION ANALYSIS SHOWING THE
CONTRIBUTION OF THREE CLUSTERS* OF INDEPENDENT VARIABLES TO THE
VARIANCE IN MEAN SCHOOL SELF-CONCEPT

Indep. Variables in Clusters	All Schools			High SES			Low SES	
	R ²	R ² add		R ²	R ² add		R ²	R ² add
Climate	.784		Climate	.819		Climate	.838	
Structure	.815	.031	Structure	.950	.131	Structure	.907	.069
Inputs	.837	.022	Inputs	.976	.026	Inputs	.917	.010

* The variables included in each cluster are listed in Appendix B

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variance in achievement between schools, school climate turns out to be the most important in all three samples. In no case, did the amount of variance explained after school climate had been removed exceed 28 percent. In the total sample and in the low SES school sub-sample, the social structure set of variables comes second in importance with regard to the explanation of the variance in achievement and the input set seems more important in the high SES school sub-sample, although social structure adds almost 14 percent, even after school climate and inputs have been removed.

The contribution of the three sets of variables to the explanation of the variance in mean school self-concept of academic ability between schools is more impressive than the total variance explained using mean school achievement as an outcome. Table 31 shows that well above 80 percent of the variance in self-concept between schools is accounted for in all three samples. In the overall sample, 83.7 percent of the total variance in self-concept is explained by inputs, social structure, and school climate, and almost all of the variance is accounted for in the high SES school sub-sample (97.6 %). In all three samples, the set of school climate variables came out first from the regression analyses, and explained almost all of the variance in self-concept between schools. School social structure and inputs fell in second and third positions respectively in all three samples and added only between 5 and 13 percent to the total variance explained.

Altogether, these data clearly indicate that a major portion of the variance in mean achievement and mean self-concept between schools (among the schools selected for this study) can be explained by characteristics of the school social system identified by these three sets of variables.

Variance Partitioned by Clusters

Although it seemed evident that school climate explained much more of the variance between schools on the measured outcomes than the other two sets of variables, a

further step was taken to partition the effect of these intercorrelated sets of variables. The correlation analysis showed that many of these variables were related to one another, and that several variables were correlated significantly with achievement and self-concept in each set of variables in one or more samples. A consequence of these intercorrelations may be that removing the effect of a set of variables before the others in the regression analysis have reduced considerably the contribution of the other two sets. It is possible also that the different numbers of variables included in each set may have given an undue advantage to the larger sets.

In order to understand the relative contribution of each set of variables, two distinct strategies were used. First, the three sets of variables were entered in the regression analyses in all possible sequences. It was then possible to determine the amount of variance in mean school achievement and mean school self-concept removed by each set, and also the amount of additional variance explained by each of the sets when forced into second and third positions. Second, the variance attributable to each of the three sets, and common to the combination of the variables, was partitioned in all three samples.

When entered in various sequences in the regression analysis, Table 32 shows differences among the sets and among the samples in the percent of the variance in mean school academic achievement explained by each set. When entered first, the input variables explain about 20 percent of the variance in achievement; social structure explains less than 10 percent; and school climate accounts for over 51 percent in the total sample. In this sample, social structure adds between 10 percent and 18 percent to the variance when entered in second or in third position after either of the other sets. The input cluster of variables adds 28 percent when considered immediately after social structure, but contributes less than 7 percent to any additional variance in other cases. However, when entered in either second or third position, school climate variables contribute a substantial 31 to 52 percent.

TABLE 32

SUMMARY OF MULTIPLE REGRESSION ANALYSIS SHOWING THE
CONTRIBUTION OF THREE CLUSTERS* OF INDEPENDENT VARIABLES,
INPUTS, STRUCTURE, AND CLIMATE IN VARIOUS SEQUENCES TO THE
VARIANCE IN MEAN SCHOOL ACHIEVEMENT

Independent Variables as Entered	All Schools		High SES		Low SES	
	R ²	R ² add	R ²	R ² add	R ²	R ² add
Inputs	.195		.151		.058	
Structure	.374	.179	.615	.464	.279	.221
Climate	.687	.313	.911	.296	.814	.535
Inputs	.195		.151		.058	
Climate	.570	.375	.812	.661	.540	.482
Structure	.687	.117	.911	.099	.814	.274
Structure	.094		.246		.161	
Inputs	.374	.280	.615	.369	.279	.118
Climate	.687	.313	.911	.296	.814	.535
Structure	.094		.246		.161	
Climate	.620	.526	.772	.526	.811	.650
Inputs	.687	.067	.911	.139	.814	.003
Climate	.515		.655		.539	
Inputs	.570	.055	.812	.157	.540	.001
Structure	.687	.117	.911	.099	.814	.274
Climate	.515		.655		.539	
Structure	.620	.105	.772	.117	.811	.272
Inputs	.687	.067	.911	.139	.814	.003

* The variables included in each cluster are listed in Appendix B

TABLE 33

SUMMARY OF MULTIPLE REGRESSION ANALYSIS SHOWING THE
CONTRIBUTION OF THREE CLUSTERS* OF INDEPENDENT VARIABLES,
INPUTS, STRUCTURE, AND CLIMATE IN VARIOUS SEQUENCES TO THE
VARIANCE IN MEAN SCHOOL SELF-CONCEPT

Independent Variables as Entered	All Schools		High SES		Low SES	
	R ²	R ² add	R ²	R ² add	R ²	R ² add
Inputs	.079		.073		.023	
Structure	.238	.159	.511	.438	.247	.224
Climate	.837	.599	.976	.465	.917	.670
Inputs	.079		.073		.023	
Climate	.807	.728	.870	.797	.847	.824
Structure	.837	.030	.976	.106	.917	.070
Structure	.181		.456		.218	
Inputs	.238	.057	.511	.055	.247	.029
Climate	.837	.599	.976	.465	.917	.670
Structure	.181		.456		.218	
Climate	.815	.634	.950	.494	.907	.689
Inputs	.837	.022	.976	.026	.917	.010
Climate	.784		.819		.838	
Inputs	.807	.023	.870	.051	.847	.009
Structure	.837	.030	.976	.106	.917	.070
Climate	.784		.819		.838	
Structure	.815	.031	.950	.131	.907	.069
Inputs	.837	.022	.976	.026	.917	.010

* The variables included in each cluster are listed in Appendix B

The basic tendencies towards a higher impact of climate variables is found in the sub-samples as well. When the sample is controlled in part for the social composition of the schools in these cases, social structure is more linked with school achievement than inputs. If the social structure variables are entered after the input variables, they consistently add an important amount of variance, which is superior to the amount accounted for by the input variables (except in one occasion). Of particular relevance is the poor contribution of inputs to additional variance in achievement when considered either in second or third place in the low SES school sub-sample (from 0 percent to 12 percent). Climate variables consistently contribute an additional 29 percent or more to the variance in mean school achievement wherever they are located in the table.

The relative contribution of the climate variables to outcomes is demonstrated even more clearly in Table 33, which shows that 46 percent or more of the variance in mean self-concept is added by these variables in any position and in any sample. As found previously, social structure variables are the next best predictor of self-concept after climate variables, and their role is more important in the high SES school sample. Moreover, the input variables never contribute above 8 percent to the explanation of the variance in self-concept at any location in this table.

Finally, an attempt was made to partition the variance explained among these clusters of variables into the separate amount of variance which is attributable to each set of variables independently of the others, and that amount of variance, if any, which is common to pairs of clusters and to all three sets. Mood (1971) developed a technique to help separate this variance into parts that are *unique* to each source and parts that are common to groups of sources. His strategy will be followed in this last analysis.

The results from Table 34 show that almost one-half of the total variance in mean achievement between schools accounted for by the three sets of variables can be attributed to the school climate variables alone (31.3 percent). The variance proper to social structure amounts to almost 12 percent, and that explained by the input variables in less

than 7 percent. The input and social structure clusters have nothing in common with which to explain variations between schools in achievement; in addition, social structure and climate share very little of this variance. While 21 percent can be attributed to input and climate variables together, the three sets have no variance in common. The low SES school sub-sample confirms these figures, with the exception that two-thirds of the total variance is exclusively explained by the climate variables and about one-fourth by the social structure variables. In the high SES school sub-sample, inputs are more important by themselves (14 percent); but the combination of inputs and climate (with 23 percent) and that of structure and climate variables (with 36 percent) account for more of the between-school variations in achievement. This partition suggest that the cluster of variables which explains most of the variance in achievement is decidedly the climate set. It indicates also that the three sets have nothing in common, but that inputs and climate are linked together to some degree, and also that in the more affluent schools sample, structure and climate are very much tied together.

As far as mean school self-concept is concerned, the results from Table 35 show a rather obvious contribution of the climate cluster to the explanation of the total variance between schools in all three samples. The portion *unique* to inputs and social structure is inferior to 11 percent in all cases and that of school climate ranges from 46 percent (in the high SES school sub-sample) to 67 percent (in the low SES school sub-sample). All three clusters share no variance in the explanation of differences between schools in mean self-concept although social structure and school climate have some common elements. This is especially true for the high SES school sub-sample where the variance accounted for by these two clusters reaches 33 percent. These data confirm to a large extent what was previously found in the partitioning of the variance for mean school academic achievement.

After these regression analyses, it would be appropriate to conclude that school social system variables contribute much to variations between schools in mean

TABLE 34

PERCENT OF VARIANCE IN MEAN SCHOOL ACHIEVEMENT REMOVED BY
THREE CLUSTERS OF VARIABLES AND COMBINATION OF THESE CLUSTERS,
THE PARTITIONS OF THE VARIANCE UNIQUELY ATTRIBUTABLE TO EACH
AND COMMON TO COMBINATIONS

Percent of the:	All Schools	High SES	Low SES
<u>Variance Removed by:</u>			
Inputs	.195	.151	.058
Structure	.094	.246	.161
Climate	.515	.655	.539
Inputs and Structure	.374	.615	.279
Inputs and Climate	.570	.812	.540
Structure and Climate	.620	.772	.811
Inputs and Structure and Climate	.687	.911	.814
<u>Partitioned Variance :</u>			
Unique to Inputs	.067	.139	.003
Unique to Structure	.117	.099	.274
Unique to Climate	.313	.296	.535
Common to Inputs and Structure	-.012	.018	-.002
Common to Inputs and Climate	.213	.230	.115
Common to Structure and Climate	.062	.365	-.053
Common to All Three	-.073	-.236	-.058

TABLE 35

PERCENT OF VARIANCE IN MEAN SCHOOL SELF-CONCEPT REMOVED BY
THREE CLUSTERS OF VARIABLES AND COMBINATION OF THESE CLUSTERS,
THE PARTITIONS OF THE VARIANCE UNIQUELY ATTRIBUTABLE TO EACH
AND COMMON TO COMBINATIONS

Percent of the:	All Schools	High SES	Low SES
<u>Variance Removed by:</u>			
Inputs	.079	.073	.023
Structure	.181	.456	.218
Climate	.784	.819	.838
Inputs and Structure	.238	.511	.247
Inputs and Climate	.807	.870	.847
Structure and Climate	.815	.950	.907
Inputs and Structure and Climate	.837	.976	.917
<u>Partitioned Variance :</u>			
Unique to Inputs	.022	.026	.010
Unique to Structure	.030	.106	.070
Unique to Climate	.599	.465	.670
Common to Inputs and Structure	.001	.025	-.001
Common to Inputs and Climate	.035	.029	.019
Common to Structure and Climate	.129	.332	.154
Common to All Three	.021	-.007	-.005

school academic achievement and mean school self-concept, and that some sets of variables are evidently more linked with these outcomes. The results which were described in this chapter will now be discussed more systematically in light of the preoccupations of this study as stated in the general model of relationship defined in Figure 1 and in the working hypotheses.

CHAPTER V

INTERPRETATION, SUMMARY AND CONCLUSION

Interpretation

The data analysed in Chapter IV assessed the relative influence of school level social system characteristics over two school outcomes in a sample of schools chosen in the northeastern part of the Province of Québec. The results presented in this previous chapter provided information on the relationships which were expected from the general model described in Figure 1 and those stated in the hypothesis. These results will now be addressed more systematically in relationship to each hypothesis. Since the concern of this study involved two main types of questioning, this section will discuss (1) the main findings on school social systems in Québec, and (2) compare the results obtained with those from similar studies to which it is related.

Main Findings

The general hypothesis was concerned with the fact that "There are differences in school social systems in Québec which explain differences in student academic achievement and self-concept of academic ability among schools." This main hypothesis was measured through five working hypothesis.

The first hypothesis stated that "Each school has a set of student status-role definitions, norms, evaluations, and expectations characterizing the behavior expected of the students." This hypothesis was concerned with the presence or absence of such

characteristics in schools which would render them *unique* . It was called climate in this study. The factor analysis, and the item analysis that followed, showed that there exists such a group of variables which define aspects of the school that were called climate variables. The overall percentage of the variance accounted for in such a regrouping of variables in the factor analyses matrices is above 60 percent for each of the students', teachers', and principals' sets of variables. The majority of these variables are significantly correlated within each set and among the sets proper to each group of actors. The school means for most climate variables and for the "combined climate variables" scores are significantly ($P < .05$) different between the high SES school sub-sample and the low SES school sub-sample. This would render it difficult to accept the null hypothesis that there is no such characteristic as school climate (as defined here) and that schools are alike in that regard. Therefore, it is likely that French public elementary schools in the northeastern part of Québec have specific sets of student status-role definitions, norms, evaluations, and expectations characterizing the behavior expected of their own students.

The second hypothesis stated that "the nature of the student body in terms of socioeconomic background and of the other inputs of the school social system affect the schools' social structure and academic climate as well as the level of mean student academic achievement and self-concept of academic ability." The two intervening variable sets (social structure and school climate) positioned as such in the general model of relationships were not formally assessed as dependent variables to compute the statistical effect of the input variables on them. They were considered in that order for logical reasons. Student body composition and formal features of the schools like personal characteristics, size, ratio and technology are aspects over which schools have very little power by themselves. These input characteristics exist before any interpretation of the situations in the school by the actors and any social structuring of relationships can be made. The role played by the input variables was then measured with simple correlations. Student body composition, as measured by father's occupation, is significantly correlated

($P < .05$) with both sets of intervening variables. When the general "combined other inputs" measured is used, no significant correlation is seen between this group of variables and either social structure or school climate. However, the variables associated with size of the student body—which are also linked with social composition—correlate with social structure combined scores. Therefore, school social composition, as a dimension of school inputs, does have an influence on the social structure of the schools and on the climate of the schools in this Québec sample. The other inputs have very little or no influence except for the size of the student body which seems to play a role in affecting aspects of the social structuring of the school.

The effect of social composition and other inputs of the school social system on the level of student academic climate and self-concept of academic ability is not as obvious as expected. Student body composition is significantly ($P < .05$) and positively correlated with both outcome variables but no other input variable (except for size of the student body), is associated at a significant level with either outcome in any sample. Size is correlated significantly with student achievement but was shown to be highly correlated with social composition. In fact, its effect is no more visible when controlling partly for SES in the sub-samples. Therefore, the only input which significantly affects mean student academic achievement and mean student self-concept of academic ability in the schools selected in Québec is social composition of the student body.

The third hypothesis stated that "the special structure which defines the patterns of interaction that occur within the school is related with the social-psychological variables." Several social structure variables were shown to be highly correlated with one or several school climate variables but the combined measure of these two sets reveals no correlation at all. Even if there exist important and significant relationships between aspects of the social structure of the school and aspects of the social climate, it is not possible to reject the null hypothesis. Therefore, as measured and assessed in this study, school

social structure as a set cannot be said to be significantly related to school climate in the schools sampled in Québec.

The fourth hypothesis stated that "both the social structure and the social-psychological climate variables affect the outcomes identified by students' cognitive achievement and their self-concept of academic ability." The influence of each set of variables will be addressed alternatively here. The combined standard score of all seven school social structure variables is not related significantly with mean school achievement in either samples and only few single variables correlate at a significant level ($P < .05$) with academic achievement in one sample or the other. However, several social structure variables correlate significantly with student mean self-concept academic ability in one or more samples. Moreover, the combined score is negatively and significantly associated with self-concept in the less affluent schools sub-sample. Therefore, school social structure patterns have a very limited impact on student academic achievement in the schools selected in Québec for this study, but they affect mean student self-concept of academic ability in many ways and their importance is mostly found in the less privileged group of schools.

Several of the fourteen school climate variables are positively and significantly ($P < .05$) associated with mean school academic achievement while the standard combined score is correlated significantly in the total sample and in the high SES school sub-sample. Several climate variables, all originating from the student set of variables, are correlated significantly with student self-concept of academic ability, as is the case for the combined score in the total sample. Therefore, mean student academic achievement and self-concept is affected in these schools by some aspects of the climate variables and by their general combination in most samples.

It is not impossible, however, that these two outcomes influence in turn the way school social structure and social climate are developed in the school. It is a

particularity of social systems to have interrelationships and interdependencies in several of their components. These *return* effects were not measured in this study.

Finally, the fifth hypothesis stated that "social structure and social climate explain much of the variance in outcomes frequently attributed to the input variables." This hypothesis is probably the most important one because of the attention it received in past research and because it goes beyond descriptive status. It is also the one for which the most precautions were taken in this study and which takes us closer to the general hypothesis that states differences among schools attributable to those school social system variables.

The results showed a substantial contribution of the three clusters of variables to the explanation of the variance in mean student academic achievement and mean student self-concept of academic ability that confirm the importance of social system variables in accounting for differences among those Québec schools on these outcomes. It is hard to decide at what point a contribution becomes statistically meaningful with this kind of reasoning, but with over 68 percent of the variance explained in all samples for student academic achievement and over 83 percent for student self-concept, it is probable that these variables mean something to school achievement and self-concept as school level variables.

The results obtained in comparing the relative effects of input variables, social structure variables and school climate variables give support to the hypothesis that views the latter as being better explicators of student achievement and student self-concept than the input variables. Even if the net influence of the input variables have been slightly reduced through the variable reduction procedure used, there is evidence that much of the variance in mean school academic achievement and mean school academic self-concept should be attributed to schools internally developed characteristics. Social composition is the only input variable which accounts for some variation in the measured outcomes of the school and its influence is considerably reduced if not nullified by the impact of the schools' own internal variables.

One striking finding of this study is that school climate variables are by far the most powerful school characteristics that explain variations in student achievement and self-concept in the schools sampled in the northeastern part of Québec. School climate variables account by themselves for much more of the variance in achievement and self-concept than any of the other sets, or their combination, in any sample. It was also found that some climate variables related significantly ($P < .05$) to the variance on these outcomes and explained a large portion of this variation.

The contribution of school social structure variables, either alone or combined with any of the other sets, provide inconsistent results among samples. Its influence on self-concept is slightly higher when compared with the input variables but the latter explain more of the variance in student achievement than social structure variables—alone or combined with school climate variables—than does social structure in some samples. Therefore, school climate explains much more of the variance in student academic achievement and student self-concept of academic ability than the input variables, and school social structure explains more of the variance in self-concept than inputs, but shares its influence on student achievement with the input variables on different samples.

It is clear from the above findings that schools in Québec possess different social characteristics which considerably influence the way students, teachers, and principals behave with regard to cognitive outcomes and to the development of the self-concept academic ability within the school. Several of these characteristics are interrelated and reinforce themselves in influencing the learning outcome of the students in the school. It is probable, for example, that the knowledge teachers and principals have of the socioeconomic background of the students in their school influences their perception of students' ability to succeed and led them to behave accordingly. The findings from this study render it difficult, however, to consider social composition of the student body as the only significant variable that contributes to differences in achievement between schools and to concur with past research which concluded that nothing about the school social system

can affect the learning outcomes produced by the school as a social unit. Nor do these data support (to a large extent) the repeated contention that aspects of the school viewed as an organization (like centralization of authority, standardization of processes, or even grouping practices) contribute much to student cognitive outcomes in the schools. The results mainly suggest that school academic achievement and self-concept is a product of the academic climate that develops within the school through the evaluations of the quality of the students and of the school by the personnel and by the students themselves. Academic climate and self-concept also develop through the expectations held for the performance of the students and their future achievement, through the perceptions of students and staff interest in achievement, through the normative system that is defined accordingly to direct cognitive behaviors, and through the feelings of futility with regard to school and life matters that appear in the schools.

The findings mostly support the results obtained from the bodies of research aimed at measuring a school effect with sets of variables proper to that level of analysis instead of proxies for school-related variables. These findings also join the findings from other such studies measuring school outcomes as aspects of the schools' own doing—either in single countries or cross-culturally,—in suggesting that "schools can make a difference."

Comparison with Similar Studies

Besides its purpose of testing the relative influence of school induced characteristics in accounting for differences between the schools in Québec in mean school academic achievement and mean self-concept, this study set up a design to replicate the research made by Brookover *et al.*, (1979) in Michigan on the effects of schools as a social system. Similar sets of variables and a comparable research strategy were used to achieve this comparison as described in Chapter III.

This section of Chapter V will now compare the main findings provided by this study from 61 selected schools in the northeastern part of Québec with the findings from the original research done in the State of Michigan over a representative sample of 68 schools, and with those reached by Al-Thubaiti (1983) in Saudi Arabia using a similar research design in 30 randomly selected boys' schools from urban locations in the western part of that country. All these schools were public elementary schools.

The data cannot be exactly compared as in most comparative research because of the adaptations done in each country to render the variables and the sets of variables equivalent. This does not appear to be a major problem for the climate variables which turned out to be assessed similarly enough in each country to waive any particular caution (Chapter III made the specific comparison between school climate variables in Michigan and in Québec). The social structure variables show some differences among these studies. Some aspects were not expected to be meaningful in some countries and were not measured while others were introduced in the questionnaires. More important, however, is the fact that the factor analysis technique revealed different ways of reducing the variables. The social structure sets of variable do include, nevertheless, in each study, several similar variables and some different ones which are supported by past literature. When considering the cluster scores in the analyses instead of the individual variables, the comparison can be accepted as valid. Finally, the input variables cannot be compared as such without explanation of the composition of each set in the studies: 1) the research done in Michigan includes social composition of the student body as a composite of mean father's occupation of the students and percent white students in the school as well as other input variables; 2) the present research, done in Québec, includes mean father's occupation of the students as the only composition variable and other input variables similar to those used in Brookovers' study; and 3) the research done in Saudi Arabia considered a set of family background variables to be the only significant input variables.

The amount of the variance in student academic achievement between schools that was explained in each of these studies can be compared in Figure 2. The total variance explained and the variance accounted for by each set of variables is smaller in the schools of Québec when they are introduced first in the regression analyses. While the total variance is about 17 percent less explained, each set shows more important reductions when compared with the original study and most sets in Saudi Arabia. Particularly impressive is the difference between the percentages of the variance explained by the input variables in Michigan and in Québec which amounts to 55 percent. This should, however, be considered in light of the composition of the input set in Brookover's study, where the social composition variable used comprises SES and percentage of whites. When SES was introduced first and alone in the regression analyses done in Michigan, 46 percent of the variance in academic achievement was removed (Brookover *et al.*, 1979, p. 38) and percentage of whites added 29 percent to the combined student body composition for a total of 75 percent of the variance explained (p. 53). This left very little to the other input variables for explanation. The comparable percentage in this original study should then be somewhere around 46 to 50 percent. The reduction of the other input variables to the 'combined other inputs' score for computation should not be considered as an explanation for this difference either because the same reduction was used in Michigan. A second important difference between the original study and this one is the variance explained by the social structure variables. Very little indeed is accounted for in Québec by this set of variables.

Despite these differences, all three studies show similar patterns of explanation. In all cases, school climate explains more of the variance in achievement than any other set of variables when inputs is rendered comparable in Brookover's study. In all situations as well, social structure comes in third place. The large differences between the studies as far as the amount of variance accounted for in each set can be explained by the interrelationships among the variables. In Michigan schools, 36 percent of the explained

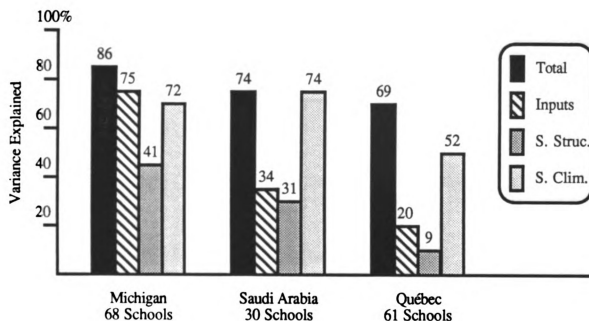


FIGURE 2

PERCENT OF VARIANCE IN MEAN SCHOOL ACHIEVEMENT REMOVED BY THREE CLUSTERS OF VARIABLES AND COMBINATION OF THESE CLUSTERS IN MICHIGAN, SAUDI ARABIA AND QUEBEC MAIN SAMPLES

variance is common to all three sets, against 20 percent in Saudi Arabia and none in Québec. Much more of the variance is unique to each set of variables in Québec than in the two other countries. It should be considered, however, that the majority white schools sub-samples in Brookover's study show results that compare almost exactly with those obtained in the present study.

Another similarity between these studies is the finding that school climate variables explain much of the variance in achievement after social composition of the student body has been removed. More than half of the total variance in achievement removed by SES is added (R^2) when climate variables are entered in second place in Michigan and Saudi Arabia, and almost twice as much is added in Québec. When school climate variables are entered first, SES add very little to the difference between schools on that outcome at all locations.

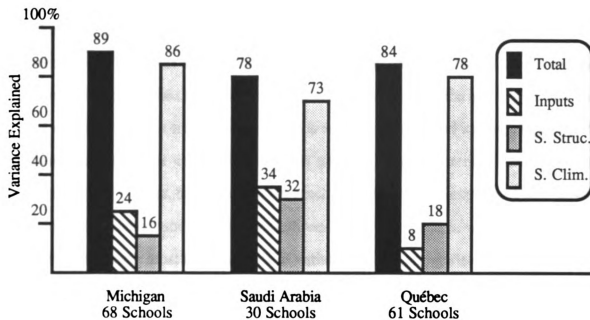


FIGURE 3

PERCENT OF VARIANCE IN MEAN SELF-CONCEPT REMOVED BY THREE CLUSTERS OF VARIABLES AND COMBINATION OF THESE CLUSTERS IN MICHIGAN, SAUDI ARABIA AND QUEBEC MAIN SAMPLES

As far as the second measured outcome is concerned, the results obtained are almost equivalent with those obtained when achievement was the dependent variable. The amount of the variance in self-concept of academic ability between schools that was explained in each of these studies are compared in Figure 3. The general tendency of the results is maintained for the total variance and for each set of variables, except for school inputs in Québec, which have almost no relationship to differences between schools in student self-concept. Once again, school climate explains almost all of the variance in self-concept by itself, and shares little with the other sets. This compares with the majority whites sub-samples in Brookover's study more strongly than with the state sample, even if the results do not differ considerably with this sample. Although the differences are small on self-concept, the variable sets seem to be more linked in Saudi Arabia than in Québec or Michigan.

This study involving 61 schools in Québec confirms the general findings of the Michigan study that school social system variables explain much of the difference between schools, as far as student academic achievement and self-concept are concerned. It supports the conclusions that school climate and social composition are related, and that school climate explains much of the variance in achievement and self-concept usually attributed to the social composition of the school. Two differences are worthy of discussion though. First, school inputs are much less important in explaining differences in student achievement and self-concept between schools in Québec, which leaves school climate as the single most important set of variables in this comparison. Second, school social system variables are not as interrelated in Québec as they are in Michigan and in Saudi Arabia, and school social structure means much less to the differences between schools, particularly for academic achievement.

It is not easy to account for cross-cultural differences here since it was not the main task of this study. Some tentative explanations can be attempted, however, on the basis of the comparative elements described in the first and second chapters. To account for the small variance in achievement coming from social composition in these schools, some particularities of Québec are worthy of consideration. Most researchers present French-Canada as a society characterized as socioeconomically less advantaged than the United States, much less achievement oriented, and whose socialization practices reveal that children seem to have a low sense of control over their future. The 61 schools selected in this study comprise schools from all socioeconomic levels; but given that the differentiations are not as important in Québec between high and low SES groups, especially so in the area where the schools were sampled, it is probable that social class does not have as much influence on achievement as it does in a country like the United States where it is frequently identified, and where the spread of differentiation is larger.

A second explanation may be that achievement is not as influenced by social background because it is simply not as important a value in Québec as it is in the United

States. People in Canada do not place as much emphasis on achievement as they do in the USA, as demonstrated by Lipset (1970) and Brym (1986) (see Chapter I). On the other hand, the objectives pursued at the elementary school level in the school system in Québec lend support to the belief that academic achievement is not a fundamental value for that society. The general objectives which were described in Chapter II showed that academic achievement is never referred to before the very description of the specific subject programs.

A third reason could come from the fact that youngsters in Québec may indeed have a lower sense of control over their future. The most significant climate variable which explains variance in achievement in Québec is "Students' sense of academic futility," and it includes a measure of sense of control over the environment and school matters. This variable is so important that it is possible its effect overrode that of any other variable, social background included. The combined effect of these three explanations should not be dismissed either, but their real influence remains speculative within the realm of this study.

The relatively weak effect of the social structure variables in Québec and their inconsistent relations to school climate variables come probably from the fact that diversity and pluralism are important values in the structuring of the schools in that society. In order to respect individual values, a large emphasis was placed on local differentiation, as shown in Chapter II, and a fairly important responsibility was bestowed (at least by the law) upon the local authorities and parents over several decisions taken in the schools. This may have led to differences in the patterns of relationships, status-role definitions and interactions among school personnel that elude in part the traditional school internal power hierarchy. Then, open-closed characteristics of the school, parental participation, and grouping practices for example may originate as well from school decisions as from environmental press. If it is a political matter, as this explanation would imply, it should not be surprising that these variables relate only to a moderate extent in the social system of

the schools in Québec, and account for little of the variance in academic achievement between schools. It is risky to go beyond hypothesizing on this account however.

These differences between the studies should not diminish the fact that the findings resemble one another on most important accounts. On the other hand, differences due to countries themselves should not be overemphasized, since the results in Québec compare almost exactly with the results obtained in Michigan when the majority black schools are removed from the samples.

Summary

This study aimed at enlarging the information known about school effect as it has been developed in school social system research. Using school level characteristics and outcomes, it tested the relative influence of school-induced properties over mean school academic achievement and mean school self-concept, and their impact above and beyond social composition of the student body and input resources in the schools. More specifically, it tested the findings obtained by Brookover *et al.* (1979) in Michigan by using a sample of schools selected from the public elementary schools of the northeastern part of the Province of Québec.

The research problem developed in Chapter I originated from the skepticism regarding learning theories and popular beliefs which supported and emphasized the convictions that the individual is solely responsible for his success or failure. This chapter looked at various forms of school effectiveness research that partly supported these beliefs by giving credence to the fact that school means little or nothing to the modification of this order beyond the effect of social background of the students. The problem was stated after reviewing several studies disputing these results and a research problem was elaborated to test the findings of one of those significant studies which addressed these issues (Brookover *et al.*, 1979). The model and the hypothesis developed in this original study

were adapted to Québec schools in order to provide a comparative design to be tested. This research tried to account for differences in school social systems which could explain differences in student academic achievement and self-concept of academic ability among schools; it also attempted to separate the effect of school social-psychological variables beyond family background.

Chapter II reviewed more directly the findings from past literature on school effect. It focused on single nation research and cross-cultural studies that questioned this issue. Importance was given to studies following the Coleman Report (Coleman *et al.*, 1966) in assessing the influence of socioeconomic background of the student body, and also to studies stressing in-school characteristics with a research designs developed for this level. The conceptual definitions and the findings of Brookover and his associates were then described. A second section in this chapter presented the theoretical perspective supporting the data collected in this research in identifying the principal assumptions of symbolic-interactionism and their importance in this study. Links with general theories of socialization were shown to be appropriate in this research, as human beings come to behave in the ways that they perceive others around them expect them to and define as appropriate for them. Third, the school system of the province of Québec was introduced. Particular attention was given to the changes which occurred during the last twenty years in these schools and to their effects on the schools analysed in this study. Finally, the general objectives pursued by the school system in Québec were analyzed briefly.

Chapter III described the research methodology developed and followed in this study. It showed how the 61 schools sampled were chosen in selected areas of the province, their representativeness, and the characteristics of the schools and actors participating. Four research instruments had to be developed and are presented there along with the procedure chosen to collect the data. This chapter described also the four different sets of variables as operationalized in this setting. The sets contain (1) input characteristics of the schools pertaining to social composition of the student body and other inputs

provided to the schools, (2) social structure variables which identify different forms of interactions, processes, and status-role definitions in the school, (3) school social-psychological variables which describe the expectations, evaluations and norms defined and developed in the social system of the school by students, teachers and principal which were identified as school climate variables, and (4) two dependent variables, mean school academic achievement and mean school self-concept of academic ability. Finally, the procedure followed in the analysis to obtain data pertaining to the school level was presented and the two sub-samples were introduced.

In chapter IV, the analysis procedure was discussed and the data analysed in numerous steps. Several techniques were used to assess the hypothesis stated in the first chapter. First, four different factor analyses were used to reduce the data on the social structure to seven logical variables, students' climate items and teachers' climate items to five variables, and principal's items to four variables. The second part of this chapter analyzed the intercorrelations between the independent variables, the dependent variables, and the correlations between independent and dependent variables. It showed some significant relationships among several variables in different sub-samples and the weak association between the social structure and "other inputs" sets of variables with the other sets of variables. It stressed the important correlations between social composition of the student body and climate variables and between these two sets of variables and the outcomes measured. The third part of this chapter showed the different regression analyses performed to separate the between-schools variance explained on the independent variables by each of the sets of independent variables. The results showed a combined effect of these social system variables in explaining most of the difference between schools in mean academic achievement and mean self-concept. Furthermore, they identified clearly the supremacy of school climate variables over any other set of variables or social composition of the student body in accounting for differences on these school level outcomes.

This last chapter (Chapter V) demonstrated that most of the hypotheses were confirmed by the data. The only noteworthy exception is the inconsistent association between the social structure variables and the other variables measured in this study. The main findings were shown to correspond to a considerable extent with the study done by Brookover and others in 1979 on school social systems as well as with a replication of this original research in Saudi Arabia in 1983. The main difference in the present study concerns the most prevailing impact of school social-psychological variables over student achievement in the schools selected in Québec.

Conclusion

Some widely acknowledged studies and commonly held ideas consider that school does not do much in influencing student achievement beyond characteristics ascribed or achieved prior to enrolling in the school system. At best, they assume that the social background of the students attending a school and their general level of ability explain almost all of the variance in achievement between schools and that schools by themselves cannot make a difference in student cognitive outcomes. This study confirms the results submitted by those researchers which looked at variables within the school, and (or) originating from internal processes, in order to consider an effect of the school that is genuine and not approximated from outside aggregated characteristics. Such significant studies include Al-Thubaiti (1983), Brookover *et al.* (1979), McDill and Rigsby (1973), Rutter *et al.* (1979), and to a certain extent, the reanalysis of the IEA studies by Cherkaoui (1979).

More directly, the findings presented in this analysis confirm the general proposition stated in Brookover's study that the social interactions which occur within the school social system explain much of the difference in achievement among schools. The data obtained in 61 french public elementary schools located in the Bas-St-Laurent-

Gaspésie, Saguenay-Lac-St-Jean–Côte-Nord, and Metropolitan Québec City regions reaffirm that the social-psychological characteristics of the school social system have a tremendous impact on the student learning outcomes in the schools. It reasserts also the finding, which is becoming more and more supported in different societies, that social background of the student body as a school characteristic can no longer be accounted as the single most important variable influencing academic achievement. Furthermore, the data obtained in Québec led to the conclusion that school social-psychological processes developed in this setting by the members of this unit, above and beyond family background, can and do make a great difference in students' achievement in school.

This study considered the school as the unit of analysis. All data were aggregated for the school because the attention was focused on the social system which exists at that level. In order to appreciate the social interactions in a meaningful social unit, the school building was set as the border of the social system. This does not imply that outside interactions or educative influences are trivial in influencing the learning of the students in school, nor does it mean that there are no differences between individual students or groups or even between classrooms within a school. This study simply examined the common characteristics of the school social systems that existed at a certain time, no matter where and when they developed in the school through the years students have attended a particular school. The conclusions are only valid for that level of analysis.

Some more words of caution are in order at the end of this study. First, it should be recalled that the schools selected are not representative of Québec schools. The schools were originally identified to test variations on more variables than those kept in the present study (see Chapter III for more information). Schools were selected in order to provide differentiation on some important characteristics to make sure all the variation necessary to assess the variables included in the first design were present. Second, Québec has a system of public English elementary schools that runs parallel to the French public system. These schools are located mostly in the southern part of the province (Montréal

being the most important source of students), and attract students mostly from Protestant parents. It is possible that a Québec representative random sample would have provided different results. However, the schools selected with the method described in the third chapter certainly account, to a large extent, for most characteristics of the French public elementary schools of the province. They include urban and rural schools, small and large schools, traditional and innovative schools, as well as high and low SES schools from regions having characteristics found almost everywhere in Québec.

This research shares the same weaknesses as all other similar studies which used data collected in a single society at one point in time. It is common to call for longitudinal data in order to understand how the internal characteristics of the school social system form and evolve through time. This would be in order to add to the knowledge on the schools of Québec and on those elsewhere. In the absence of such studies and as far as school effect is concerned, this study renders more sound the general belief that "school makes a difference." As stated by Warwick and Osherson, "cross-cultural comparison is essential, for there is no other way to determine the generality of findings than to test them in all relevant cultural settings" (1973, p.9).

All cultural settings have not been tested on these findings but evidence becomes more and more insistent. If this study and previous similar studies are valid, there are reasons to believe that the learning which occurs in schools is indeed, to a large extent, a product of the evaluations made of the students, of students' role definitions and expectations, and of the normative climate characterizing the patterns of interaction that develop within the school social system. In all likelihood, children learn to behave and succeed in school according to what is defined as appropriate for them by their own school environment.

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APPENDICES

APPENDIX A
QUESTIONNAIRES IN ENGLISH AND
FRENCH VERSIONS

APPENDIX A
QUESTIONNAIRES IN ENGLISH AND FRENCH VERSIONS

STUDENT QUESTIONNAIRE

School Organization at the Elementary Level

Research directed by Yvon Bouchard
with the collaboration
of the Ministère de l'Éducation du Québec,
of the La Neigette School Board, Rimouski,
of the Université du Québec at Rimouski

DIRECTIONS: This questionnaire is part of a survey conducted to know more about students and their work in schools. This is not an examination, nor a test, and it will have no effect on your grades. Your answers will not be given to your teacher, nor to the principal of the school. There is no right or wrong answer. What interests us is your idea on the questions asked.

ANSWER EACH QUESTION AND MAKE ONLY ONE CHOICE. CIRCLE THE NUMBER CORRESPONDING TO THE ANSWER WHICH TELLS MORE ABOUT YOUR IDEA.

Here are two examples:

1. What is the capital city of the Province of Québec?

- Montréal — 1
- Québec — ②
- Ottawa — 3
- Chicoutimi — 4
- Rimouski — 5

2. How many teachers in your school are older than you are?

- All of them — ①
 - Most of them — 2
 - Half of them — 3
 - Some of them — 4
 - None of them — 5
-

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Student Questionnaire

1. Write your name here.

2. What is the name of your teacher?

3. Tell us the name of your school and the city or village where it is located.

School: _____

Location: _____

4. How old were you on your last birthday?

8 years old — 1
9 years old — 2
10 years old — 3
11 years old — 4
12 years old — 5
13 years old — 6
14 years old — 7

5. Are you a boy or a girl?

a boy — 1
a girl — 2

6. What grade are you in?

3rd grade — 1
4th grade — 2
5th grade — 3
6th grade — 4
7th grade — 5

7. How many years have you been at this school?

One year or less — 1
2 years — 2
3 or 4 years — 3
5 or 6 years — 4
7 or 8 years — 4
9 years or more — 5

8. What type of work does your father do?

[Give a short description of his work and where he works.]

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Student Questionnaire

ANSWER THE FOLLOWING QUESTIONS BY PICKING THE RESPONSE WHICH FITS MOST AMONG THOSE SUGGESTED. REMEMBER THAT NO ONE WILL SEE YOUR ANSWERS EXCEPT SOME OF US AT THE UNIVERSITE DU QUEBEC AT RIMOUSKI. BE FRANK AND TELL US EXACTLY AND WITHOUT FEAR WHAT YOU THINK. *[Pick only one answer.]*

9. If you could go as far as you wanted in school, how far would you like to go?
- Finish elementary level (6th or 7th grade) — 1
 - Go to high school for a while — 2
 - Finish high school (12th grade) — 3
 - Go to cegep (14th or 15th grade) — 4
 - Go to university — 5
10. Sometimes, what one would like to see happen is not what one thinks will happen. How far do you really think you will go in school?
- Finish elementary level (6th or 7th grade) — 1
 - Go to high school for a while — 2
 - Finish high school (12th grade) — 3
 - Go to cegep (14th or 15th grade) — 4
 - Go to university — 5
11. How many students in this school always try to get good grades on weekly assignments?
- All of the students — 1
 - Most of the students — 2
 - Half of the students — 3
 - Some of the students — 4
 - Almost none of the students — 5
12. How many students in your school will work hard to get better grades on weekly assignments than their friends do?
- All of the students — 1
 - Most of the students — 2
 - Half of the students — 3
 - Some of the students — 4
 - Almost none of the students — 5
13. How many students in your school don't care if they get bad grades?
- All of the students — 1
 - Most of the students — 2
 - Half of the students — 3
 - Some of the students — 4
 - Almost none of the students — 5
14. How many students in this school work more than it is necessary to succeed on weekly assignments?
- All of the students — 1
 - Most of the students — 2
 - Half of the students — 3
 - Some of the students — 4
 - Almost none of the students — 5

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Student Questionnaire

15. According to you, if most students in this school could go as far as they wanted in school, how far would they go?

- Finish elementary level (6th or 7th grade) — 1
- Go to high school for a while — 2
- Finish high school (12th grade) — 3
- Go to cegep (14th or 15th grade) — 4
- Go to university — 5

16. How important is it for you to be a good student?

- Very important — 1
- Important — 2
- Somewhat important — 3
- Not very important — 4
- Not important at all — 5

17. How important do most of the students in this class feel it is to do well in school?

- They feel it is very important — 1
- They feel it is important — 2
- They feel it is somewhat important — 3
- They feel it is not very important — 4
- They feel it is not important at all — 5

18. According to you, do most of the students in this school feel it is important to do well in school?

- They feel it is very important — 1
- They feel it is important — 2
- They feel it is somewhat important — 3
- They feel it is not very important — 4
- They feel it is not important at all — 5

19. How many students in this class feel it is fun to study?

- All of the students — 1
- Most of the students — 2
- Half of the students — 3
- Some of the students — 4
- Almost none of the students — 5

20. How many students in your school make fun of or tease students who get real good grades?

- All of the students — 1
- Most of the students — 2
- Half of the students — 3
- Some of the students — 4
- Almost none of the students — 5

21. How many students don't do as well as they could do in school because they are afraid other students won't like them as much?

- All of the students — 1
- Most of the students — 2
- Half of the students — 3
- Some of the students — 4
- Almost none of the students — 5

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Student Questionnaire

REMEMBER, YOU MUST GIVE ONLY ONE ANSWER BY CIRCLING THE NUMBER WHICH CORRESPONDS TO YOUR RESPONSE.

22. How many students don't do as well as they could do in school because they are afraid their best friends won't like them as much?

- All of the students — 1
- Most of the students — 2
- Half of the students — 3
- Some of the students — 4
- Almost none of the students — 5

23. Should the teachers not grade the work done in class, how many students in this school would work hard anyway?

- All of the students — 1
- Most of the students — 2
- Half of the students — 3
- Some of the students — 4
- Almost none of the students — 5

24. People like me will not have much of a chance to do what we want to in life.

- Strongly agree — 1
- Agree — 2
- Agree more or less — 3
- Disagree — 4
- Strongly disagree — 5

25. People like me will never be successful in school even if we try.

- Strongly agree — 1
- Agree — 2
- Agree more or less — 3
- Disagree — 4
- Strongly disagree — 5

26. I can do well in school when I work hard.

- Strongly agree — 1
- Agree — 2
- Agree more or less — 3
- Disagree — 4
- Strongly disagree — 5

27. In this school, students like me don't have any luck, nothing good ever happens to them.

- Strongly agree — 1
- Agree — 2
- Agree more or less — 3
- Disagree — 4
- Strongly disagree — 5

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Student Questionnaire

28. You have to be lucky to get good grades in this school.

- Strongly agree — 1
- Agree — 2
- Agree more or less — 3
- Disagree — 4
- Strongly disagree — 5

29. Think of your best friends. Do you think you can do school work better, the same or poorer than them?

- Better than all of them — 1
- Better than most of them — 2
- About the same — 3
- Poorer than most of them — 4
- Poorer than all of them — 5

30. Think of the students in your class. Do you think you can do school work better, the same or poorer than them?

- Better than all of them — 1
- Better than most of them — 2
- About the same — 3
- Poorer than most of them — 4
- Poorer than all of them — 5

31. When you get to high school, how good of a student will you be in comparison with the others students?

- One of the best — 1
- Better than most of the students — 2
- Same as most of the students — 3
- Below most of the students — 4
- One of the worst — 5

32. Do you think you could succeed at university?

- Yes, for sure — 1
- Yes, probably — 2
- Maybe — 3
- No, probably not — 4
- No, for sure — 5

33. If you went to university, do you think you would be a very good student, same as most or a bad student?

- One of the best — 1
- Better than most of the students — 2
- Same as most of the students — 3
- Below most of the students — 4
- One of the worst — 5

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Student Questionnaire

34. Someone who wants to be a doctor or a teacher must go to the university for at least three years. Do you think you could do that?

- Yes, for sure — 1
- Yes, probably — 2
- Maybe — 3
- No, probably not — 4
- No, for sure — 5

35. Forget about how your teachers mark your work. How good do you think your own work at school is?

- It is excellent work — 1
- It is good work — 2
- It is as good as others' — 3
- It is worse than others' — 4
- It is bad work — 5

36. How good of a student do you think you are in this school?

- Yes, for sure — 1
- Yes, probably — 2
- Maybe — 3
- No, probably not — 4
- No, for sure — 5

37. How far do you think your best friend believes you will go in school?

- Finish elementary level (6th or 7th grade) — 1
- Go to high school for a while — 2
- Finish high school (12th grade) — 3
- Go to cegep (14th or 15th grade) — 4
- Go to university — 5

NOW HERE ARE SOME QUESTIONS ABOUT THE TEACHERS IN THIS SCHOOL. ANSWER THESE QUESTIONS AS YOU ANSWERED THE OTHER ONES BY CIRCLING THE NUMBER. REMEMBER, NO TEACHER IN THE SCHOOL WILL SEE YOUR ANSWERS. PLEASE, BE HONEST.

38. Of the teachers that you know in this school, how many tell students to try hard to get good grades at examinations, tests and school work?

- All of the teachers — 1
- Most of the teachers — 2
- Half of the teachers — 3
- Some of the teachers — 4
- Almost none of the teachers — 5

39. How many teachers in this school tell students to try to get better grades than other students in the class?

- All of the teachers — 1
- Most of the teachers — 2
- Half of the teachers — 3
- Some of the teachers — 4
- Almost none of the teachers — 5

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Student Questionnaire

40. Of the teachers that you know in this school, how many feel really sorry when students get bad grades?

- All of the teachers — 1
- Most of the teachers — 2
- Half of the teachers — 3
- Some of the teachers — 4
- Almost none of the teachers — 5

41. Of the teachers that you know in this school, how many tell their students to do extra work after school to get better grades?

- All of the teachers — 1
- Most of the teachers — 2
- Half of the teachers — 3
- Some of the teachers — 4
- Almost none of the teachers — 5

42. Of the teachers that you know in this school, how many ask too much work from the students?

- All of the teachers — 1
- Most of the teachers — 2
- Half of the teachers — 3
- Some of the teachers — 4
- Almost none of the teachers — 5

43. It is useless to work hard in this school since the teachers are satisfied as long as you just pass.

- Strongly agree — 1
- Agree — 2
- Agree more or less — 3
- Disagree — 4
- Strongly disagree — 5

44. Think of the teacher you like best. How far does he believe you will go in school?

- Finish elementary level (6th or 7th grade) — 1
- Go to high school for a while — 2
- Finish high school (12th grade) — 3
- Go to cegep (14th or 15th grade) — 4
- Go to university — 5

45. Think of the teacher you like best. Does he expect you to be a good student, an average student or a poor student in this school?

- One of the best — 1
- Better than most of the students — 2
- Same as most of the students — 3
- Below most of the students — 4
- One of the worst — 5

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Student Questionnaire

46. Think of your teacher. Does he think you can do school work better, the same or poorer than other people your age?

- Better than all of them — 1
- Better than most of them — 2
- About the same — 3
- Poorer than most of them — 4
- Poorer than all of them — 5

47. Would your teacher say that you will graduate from high school with grades which are better, the same or poorer than other high school students?

- Better grades than them — 1
- Very good grades — 2
- About the same as them — 3
- Not as good grades — 4
- Worst grades than them — 5

48. Do you often find teachers in this school which try to help students which are not as successful as the others.

- They always try to help them — 1
- They usually try to help them — 2
- They sometimes try to help them — 3
- They seldom try to help them — 4
- They never try to help them — 5

49. Compare with students from other schools, do students in this school learn more, the same or less than other students?

- They learn a lot more in this school — 1
- They learn a little more in this school — 2
- About the same as other school — 3
- They learn a little bit less in this school — 4
- They learn a lot less in this school — 5

50. Compared to students from other schools, will the students from this school be successful in high school?

- They will be among the best — 1
- They will do bit better than most — 2
- They will be about the same as most — 3
- They will do poorer than most — 4
- They will do worst than most — 5

51. How important is it for the teachers in this school that the students learn what is thought in class?

- It is the most important thing to the teachers — 1
- It is very important to the teachers — 2
- It is somewhat important to the teachers — 3
- It is not very important to the teachers — 4
- It is not important at all to the teachers — 5

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Student Questionnaire

52. Think of the teachers you know in this school. Do you believe that they care more or less than teachers in other schools about whether or not students learn what is thought in class?

- Teachers in this school care a lot more — 1
- Teachers in this school care a little more — 2
- There is no difference — 3
- Teachers in this school care a little less — 4
- Teachers in this school care a lot less — 5

53. When most of the students in this class fail in an assignment, does your teacher always try to help you understand or does he never?

- They always try to help us — 1
- They usually try to help us — 2
- They sometimes try to help us — 3
- They seldom try to help us — 4
- They never try to help us — 5

54. Does your teacher think you could attend university some day?

- Yes, for sure — 1
- Yes, probably — 2
- Maybe — 3
- No, probably not — 4
- No, for sure — 5

55. Remember that one needs at least three years of university to become a teacher or a doctor. Would your teacher think you could do that?

- Yes, for sure — 1
- Yes, probably — 2
- Maybe — 3
- No, probably not — 4
- No, for sure — 5

56. How far do you think your parents believe you will go in school?

NOW WE ARE ASKING YOU SOME QUESTIONS ABOUT YOUR PARENTS.
ANSWER THE SAME WAY YOU ANSWERED THE OTHER ONES.

57. Do your parents say you can do school work better, the same or poorer than your friends?

- Finish elementary level (6th or 7th grade) — 1
- Go to high school for a while — 2
- Finish high school (12th grade) — 3
- Go to cegep (14th or 15th grade) — 4
- Go to university — 5

58. Do your parents say your grades will be better, the same or poorer than other students when you finish high school?

- Better than all of them — 1
- Better than most of them — 2
- About the same — 3
- Poorer than most of them — 4
- Poorer than all of them — 5

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Student Questionnaire

59. How good of a student would your parents like you to be in school?

- One of the best — 1
- Better than most of the students — 2
- Same as most of the students — 3
- Below most of the students — 4
- One of the worst — 5

60. Do your parents believe you could attend university some day?

- Yes, for sure — 1
- Yes, probably — 2
- Maybe — 3
- No, probably not — 4
- No, for sure — 5

61. Remember that one needs at least three years of university to become a teacher or a doctor. Do your parents think you could do that?

- Yes, for sure — 1
- Yes, probably — 2
- Maybe — 3
- No, probably not — 4
- No, for sure — 5

READ EACH STATEMENT BELOW. CIRCLE THE NUMBER WHICH INDICATES IF THIS STATEMENT IS TRUE OR NOT FOR YOU.

62. In class, I can move about the room without asking my teacher.

- Always — 1
- Often — 2
- Sometimes — 3
- Seldom — 4
- Never — 5

63. I can talk to other students while I am working.

- Always — 1
- Often — 2
- Sometimes — 3
- Seldom — 4
- Never — 5

64. In the classroom, I sit at the same place and besides the same students.

- Always — 1
- Often — 2
- Sometimes — 3
- Seldom — 4
- Never — 5

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Student Questionnaire

65. When I am working on something in class, the other students are also working on the same thing.

Always — 1
Often — 2
Sometimes — 3
Seldom — 4
Never — 5

66. In most of my classes, the teacher tells me what I must work on; I have no choice.

Always — 1
Often — 2
Sometimes — 3
Seldom — 4
Never — 5

67. In class, the teacher stands in front and works with all of the students at the same time.

Always — 1
Often — 2
Sometimes — 3
Seldom — 4
Never — 5

NOW, ANSWER THE FOLLOWING FEW QUESTIONS BY CIRCLING THE ANSWER WHICH INDICATES BEST WHAT YOU THINK.

68. Think of the students in this school. Do they say that there are too many rules which force them to work in this school?

They say so every day — 1
They often say so — 2
They sometimes say so — 3
They seldom say so — 4
They never say so — 5

69. In this school, it is impossible to know when we are doing good or when we are doing bad.

Strongly agree — 1
Agree — 2
Agree more or less — 3
Disagree — 4
Strongly disagree — 5

70. In this school, we would learn much more things if the teachers would tell us what to do.

Strongly agree — 1
Agree — 2
Agree more or less — 3
Disagree — 4
Strongly disagree — 5

TEACHER QUESTIONNAIRE

School Organization at the Elementary Level

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DIRECTIONS: The information which is provided by this questionnaire is completely confidential. No one will see your answers except the members of the research staff. The report which will follow this survey will use school aggregated data so that no one person will be identified with his or her data. After your questionnaire has been transferred on IBM cards, it will be destroyed. Complete confidentiality is assured. It is very important for us that you be as candid as possible in your answers. Even if all answers are important, do not feel compelled to answer those questions that you feel are too personal or that you for any other reason prefer to avoid. Given the little sample used in this research, it is necessary that all teachers identified participate. Your name will allow the verification of our sample and provide information on the importance of the error introduced if you decide not to participate.

We very sincerely thank you for your collaboration.

=====

1. Name

2. Write the name of the school where you are working

CIRCLE THE NUMBER CORRESPONDING TO THE CHOSEN ANSWER.

3. Are you a male or a female?

Female — 1
Male — 2

4. How many years of teaching experience have you, including the present year?

This is my first year — 1
2 to 4 years — 2
5 to 9 years — 3
10 to 15 years — 4
16 years or more — 5

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Teacher Questionnaire

5. How long have you taught in this school?

- This is my first year — 1
- 2 to 4 years — 2
- 5 to 9 years — 3
- 10 to 15 years — 4
- 16 years or more — 5

6. What grade level are you teaching?

- 4th grade only — 1
- 5th grade only — 2
- 6th grade only — 3
- 7th grade only — 4
- Combination 4th & 5th — 5
- Combination 5th & 6th — 6
- Combination 6th & 7th — 7
- Combination 4th, 5th & 6th or 5th, 6th & 7th — 8

7. How many years of training are you recognized by your employer?

- 13 years or less — 1
- 14 years — 2
- 15 years — 3
- 16 years — 4
- 17 years — 5
- 18 years or more — 6

8. Indicate your highest diploma obtained according to the following list.

- Less than A or B Certificate — 1
- A or B Certificate or the equivalent — 2
- Bachelor's degree in education — 3
- Some graduate work but less than Master's degree — 4
- Master's degree or the equivalent — 5

HERE ARE SOME QUESTIONS ABOUT GROUPING PRACTICES IN THE SCHOOL. WRITE ANY IMPORTANT ADDITIONAL INFORMATION BELOW THE ANSWER.

9. At the beginning of the school year, how are students in the same grade level assigned to different classes in this school?

- Homogeneous grouping according to general level of ability in all subject — 1
- Homogeneous grouping by level of ability in some subjects (e. g. french, maths., and so on.) — 2
- Heterogeneous grouping according to general level of ability in all subject — 3
- Heterogeneous grouping by level of ability in some subjects (e. g. french, maths., and so on.) — 4
- Random grouping or according to special features (sex, bussing, and so on.) — 5
- No intentional grouping — 6

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Teacher Questionnaire

10. Students are very often grouped within a classroom to do schoolwork. If you do so, how do you group students within your class?

- Homogeneous grouping according to general level of ability in all subject — 1
- Homogeneous grouping by level of ability in some subjects (e. g. french, maths., and so on.) — 2
- Heterogeneous grouping according to general level of ability in all subject — 3
- Heterogeneous grouping by level of ability in some subjects (e. g. french, maths., and so on.) — 4
- Random grouping or according to special features (sex, space, and so on.) — 5
- There is no intentional grouping in my class — 6

11. Up until now this year, how did you work with your students?

[If you have combined grades, consider each as a class in the answer. If you changed your method during the year, consider the longer lasting one only.]

- Almost exclusively with the class as a whole — 1
- Mostly class work but individual attention to slower and faster students — 2
- An equal mix of class work and group work — 3
- Most work is done in small teams or groups — 4
- Mostly individualized work — 5

WE ALL DEVELOP THOUGHTS ABOUT FUTURE OPPORTUNITIES FOR CHILDREN IN OUR SCHOOL AND CLASSROOM EVEN KNOWING THAT CERTAIN OUTSIDE FACTORS MAY INFLUENCE IN A WAY OR THE OTHER EACH STUDENT FUTURE ACHIEVEMENT. ANSWER THE FOLLOWING QUESTIONS ON THE BASIS OF YOUR ACTUAL FEELINGS AND ESTIMATE THE ACHIEVEMENT OF STUDENTS FROM YOUR OWN DATA EVEN IF UNVERIFIABLE. IF YOU SEE DIFFERENCES BETWEEN YOUR CLASS AND THE SCHOOL, EXPRESS THEM; IF NOT, GIVE THE SAME ANSWER FOR BOTH.

12. What percent of the students in this school do you expect to complete high school?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

13. What percent of the students in your class do you expect to complete high school?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

14. What percent of the students in this school do you expect to choose the vocational sector in high school?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

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Teacher Questionnaire

15. What percent of the students in your class do you expect to choose the vocational sector in high school?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

16. What percent of the students in this school do you expect to go to college?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

17. What percent of the students in your class do you expect to go to college?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

18. What percent of the students in this school do you expect to go to university?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

19. What percent of the students in your class do you expect to go to university?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

20. What percent of the students in this school do you think will be able to get a master's degree if they want?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

21. What percent of the students in your class do you think will be able to get a master's degree if they want?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

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Teacher Questionnaire

22. How many students in this school are capable of getting mostly A's and B's or the equivalent?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

23. How many students in your class are capable of getting mostly A's and B's?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

24. How would you rate the academic ability of the students in this school, compared to other elementary schools which you know?

- Ability is much higher here — 1
- Ability is somewhat higher here — 2
- Ability is about the same here — 3
- Ability is somewhat lower here — 4
- Ability is much lower here — 5

25. What percent of the students in this school would you say are attracted by the idea of studying for a long period of time?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

26. How would you rate the academic ability of the students in your class, compared to other elementary schools which you know?

- Ability is much higher here — 1
- Ability is somewhat higher here — 2
- Ability is about the same here — 3
- Ability is somewhat lower here — 4
- Ability is much lower here — 5

THE FOLLOWING QUESTIONS CONCERN THE PRINCIPAL OF THIS SCHOOL. ANSWER AS YOU DID PREVIOUSLY USING YOUR PERCEPTIONS TO ANSWER, NO MATTER THE INFORMATION YOU ARE HAVING. NO ANSWER IS WRONG OR RIGHT, SO, WE WOULD APPRECIATE AS CANDID A RESPONSE AS POSSIBLE. WE REMIND YOU THAT THIS STUDY IS CONFIDENTIAL.

27. What percent of the students in this school do you think the principal expects to complete high school?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

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Teacher Questionnaire

28. What percent of the students in this school do you think the principal expects to go to college?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

29. What percent of the students in this school do you think the principal expects to obtain a university degree?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

30. What percent of the students in this school do you think the principal consider capable of getting mostly A's and B's or the equivalent?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

31. How do you think your principal rates the academic ability of the students in this school, compared to other elementary schools which you know?

- It is rated much higher — 1
- It is rated somewhat higher — 2
- It is rated about the same — 3
- It is rated somewhat lower — 4
- It is rated much lower — 5

THE FOLLOWING QUESTIONS CONCERN YOURSELF. DO NOT FORGET TO WRITE ANY ADDITIONAL COMMENT USEFUL TO UNDERSTAND YOUR ANSWER IF YOU CARE TO.

32. Completion of a high school vocational degree is a realistic goal which you set for what percentage of your students?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

33. Completion of a college degree is a realistic goal which you set for what percentage of your students?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

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Teacher Questionnaire

34. Completion of a university degree is a realistic goal which you set for what percentage of your students?

- Almost all, at least 90% — 1
- About 75% — 2
- About one-half — 3
- About 25% — 4
- Very few, less than 10% — 5

35. How often do you stress to your students the necessity to go to school for a long period of time in order to obtain better chances of success in the future?

- Very often — 1
- Often — 2
- Sometimes — 3
- Seldom — 4
- Never — 5

36. Do you encourage your students whose parents do not have much economic resources to try to stay in school for a long period of time and to go to university if possible?

- Very often — 1
- Usually — 2
- Sometimes — 3
- Seldom — 4
- Never — 5

37. Do you push your students whose academic ability looks deficient to try to stay in school for a long period of time and to go to university if possible?

- Very often — 1
- Usually — 2
- Sometimes — 3
- Seldom — 4
- Never — 5

38. According to you, how many teachers in this school believe that all students should be taught to read well and master other academic subjects in the elementary program, even though some students may not appear to be interested with school?

- Almost all of the teachers — 1
- Most of the teachers — 2
- Half of the teachers — 3
- Some of the teachers — 4
- Almost none of the teachers — 5

39. It would be unfair for teachers in this school to insist on a higher level of achievement from students than they now seem capable of achieving.

- Strongly agree — 1
- Agree — 2
- Agree more or less — 3
- Disagree — 4
- Strongly disagree — 5

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Teacher Questionnaire

40. If I think a student is not able to do some school work, I try to push him anyway.
- Very often — 1
Usually — 2
Sometimes — 3
Seldom — 4
Never — 5
41. I am generally very very careful not to push students to a level of frustration.
- Strongly agree — 1
Agree — 2
Agree more or less — 3
Disagree — 4
Strongly disagree — 5
42. How many students in your class work hard to do better school work than their classmates do?
- Strongly agree — 1
Agree — 2
Agree more or less — 3
Disagree — 4
Strongly disagree — 5
43. How many teachers in this school encourage students to seek extra work so that they get better grades?
- Almost all of the teachers — 1
Most of the teachers — 2
Half of the teachers — 3
Some of the teachers — 4
Almost none of the teachers — 5
44. How many students in this school do you feel try hard to improve on previous work?
- Almost all of the students — 1
Most of the students — 2
Half of the students — 3
Some of the students — 4
Almost none of the students — 5
45. How many students in your class do you feel try hard to improve on previous work?
- Almost all of the students — 1
Most of the students — 2
Half of the students — 3
Some of the students — 4
Almost none of the students — 5
46. How many students in this school do you feel will try hard to do better school work than their best friends?
- Almost all of the students — 1
Most of the students — 2
Half of the students — 3
Some of the students — 4
Almost none of the students — 5

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Teacher Questionnaire

47. How many students in your class work hard to do better school work than their classmates do?

- Almost all of the students — 1
- Most of the students — 2
- Half of the students — 3
- Some of the students — 4
- Almost none of the students — 5

48. How many students in this school do you feel are content to do less than they can?

- Almost all of the students — 1
- Most of the students — 2
- Half of the students — 3
- Some of the students — 4
- Almost none of the students — 5

49. How many students in your class are content to do less than they can?

- Almost all of the students — 1
- Most of the students — 2
- Half of the students — 3
- Some of the students — 4
- Almost none of the students — 5

50. As far as you can say, how many students in this school seek extra work so that they get better grades?

- Almost all of the students — 1
- Most of the students — 2
- Half of the students — 3
- Some of the students — 4
- Almost none of the students — 5

51. How many students in your class seek extra work so that they get better grades?

- Almost all of the students — 1
- Most of the students — 2
- Half of the students — 3
- Some of the students — 4
- Almost none of the students — 5

52. According to your judgment, what level of achievement can be expected of the students in this school?

- Much above provincial norm — 1
- Above provincial norm — 2
- Approximately at provincial norm — 3
- Slightly below provincial norm — 4
- Much below provincial norm — 5

53. On the average, what level of achievement can be expected of the students in your class?

- Much above provincial norm — 1
- Above provincial norm — 2
- Approximately at provincial norm — 3
- Slightly below provincial norm — 4
- Much below provincial norm — 5

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Teacher Questionnaire

THE NEXT QUESTIONS REFER TO PARENTS OF THE STUDENTS IN THIS SCHOOL. ESTIMATE THEIR ANSWERS FROM YOUR OWN OBSERVATIONS.

54. The parents of students regard this school primarily as a "baby-sitting" agency?
Strongly agree — 1
Agree — 2
Agree more or less — 3
Disagree — 4
Strongly disagree — 5
55. The parents of students in this school are deeply concerned that their children receive a top quality education.
Strongly agree — 1
Agree — 2
Agree more or less — 3
Disagree — 4
Strongly disagree — 5
56. How many of the parents of students in this school do you think expect their children to complete high school?
Almost all of the parents — 1
Most of the parents — 2
Half of the parents — 3
Some of the parents — 4
Almost none of the parents — 5
57. How many of the parents of students in this school do you think expect their children to go to university some day?
Almost all of the parents — 1
Most of the parents — 2
Half of the parents — 3
Some of the parents — 4
Almost none of the parents — 5
58. How many of the parents of students in this school do you feel don't care if their children obtain low grades?
Almost all of the parents — 1
Most of the parents — 2
Half of the parents — 3
Some of the parents — 4
Almost none of the parents — 5
59. What proportion of your students' parents do you know when you see them?
Almost all of them — 1
About 75% — 2
About 50% — 3
About 25% — 4
Only some of them — 5

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Teacher Questionnaire

THESE LAST QUESTIONS REFER TO ASPECTS OF THE ADMINISTRATION AND OF THE PEDAGOGY IN THIS SCHOOL. BE CAREFUL TO INSTRUCTIONS BEFORE ANSWERING IRREGULAR FORMS OF QUESTIONS.

60. How would you characterize your teaching objectives?

- They are the same for all students — 1
- They are the same for most students — 2
- They are the same for some students — 3
- They are different for most students — 4
- They are different for each student — 5

61. Here are some assertions coming from teachers. Tell us up to what point they represent what you do in your class.

[Circle the number corresponding to your answer for each assertion.]

	very much	much	more or less	little	not at all
a) When a student is wrong in a schoolwork, I tell him right away unambiguously.	1	2	3	4	5
b) In my class, I apply this: "A good student does not need to be told he is right, he knows it."	1	2	3	4	5
c) When a poor student makes several mistakes in a work, I try not to signal all of them not to discourage him.	1	2	3	4	5
d) In my behavior in class, I always try to find a way to reinforce students even if this might lead to skip important mistakes.	1	2	3	4	5
e) I always tell students about those behaviors I feel right or wrong in class.	1	2	3	4	5
f) At times, I note inappropriate mistakes when I feel this is good for a student.	1	2	3	4	5
g) In my class, I insist only on good answers and good works and I avoid mentioning errors.	1	2	3	4	5
h) Not to hurt a student which turns in a bad work, I will generally tell him "This is a good try."	1	2	3	4	5
i) If a poor student improves considerably, I congratulate him while telling him exactly what is before him.	1	2	3	4	5
j) I am much more strict toward works of good students than poor students.	1	2	3	4	5

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Teacher Questionnaire

62. Continue answering the same way and indicate up to what point the following statements apply to your class this year.

	very much	much	more or less	little	not at all
a) I encourage students to talk each other when doing their school work in class.	1	2	3	4	5
b) I usually determine by myself where students will seat in class.	1	2	3	4	5
c) Usually, students are permitted to move about the class without asking permission.	1	2	3	4	5
d) Seating and furniture arrangements are frequently modified (at least 5 times per semester).	1	2	3	4	5
e) Students are usually working on the same lesson at the same time	1	2	3	4	5

63. Think of your last typical day of schoolwork with students. Indicate the portion of the time you talked compared with students.

- 95% and more of the time — 1
81-94% of the time — 2
61-80% of the time — 3
31-60% of the time — 4
less than 30% — 5

64. Think of last week (or of the last regular week). Distribute your time spent with students according to the following categories:

[Read all choices before answering and be as accurate as possible.]

Time spent on administrative duties (attendance, records, notes to parents)	___	___	%
Time spent on planning class life, group functioning and maintaining order	___	___	%
Time spent on instruction or on an instructional activity (in large or small groups)	___	___	%
Time spent on relatively free activities (free time, reading or studying, library, and so on.)	___	___	%
Time reserved to relaxation or entertaining (plays, sports, recreation, and so on.)	___	___	%
Time spent on evaluation, corrections, or on conferring with a student about individual problem	___	___	%
others (please specify) _____	___	___	%
_____	___	___	%
TOTAL	100		%

65. What do you consider to be your primary responsibility to students in your class?

[Circle only one answer.]

- Teaching of academic subjects — 1
Enhance social skills and social interaction — 2
Personal growth individual development (*actualization*) — 3
Encouraging educational and occupational aspirations — 4
Other (please specify) _____ — 5
_____ — 6

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Teacher Questionnaire

66. In certain schools, parents play an active role in school activities, but through different forms. Here are some such examples. Tell us the frequency with which these forms are used in your class, if they are.

[Give one answer for each case using the following scale. Indicate your answer by circling the corresponding number at the end of each line.]

1. This happens every day
2. This happens at least twice a week
3. This happens once a week
4. This happens about once a month
5. This happens very occasionally
6. This never happens

- | | |
|---|-----------------------|
| a) Take part in a support activity (student transportation, monitoring when the class goes out, and so on.) | 1 2 3 4 5 6 |
| b) Take charge of a workshop (sewing, woodwork, and so on.) | 1 2 3 4 5 6 |
| c) Provide help for a teaching activity (library, tale reading, and so on.) | 1 2 3 4 5 6 |
| d) Provide support to children slower at reading or at other school subject | 1 2 3 4 5 6 |
| e) Take responsibility for a regular classroom activity directly oriented towards instruction | 1 2 3 4 5 6 |
| f) Other (specify) _____ | 1 2 3 4 5 6 |
| _____ | 1 2 3 4 5 6 |

67. On an average, how many individual meetings are you having at school with students' parents each month to discuss subjects concerning their children? Do not consider regular report meetings.

- 21 and more — 1
13 to 20 — 2
6 to 12 — 3
3 to 5 — 4
1 or 2 — 5
none — 6

68. On an average, how many telephone conversations are you having with students' parents each month to discuss subjects concerning their children?

- 21 and more — 1
13 to 20 — 2
6 to 12 — 3
3 to 5 — 4
1 or 2 — 5
none — 6

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Teacher Questionnaire

69. You are now presented a scale which indicates levels of decision-making at school.
Tell us who decides in your school on the following eighteen (18) aspects.
[As you did previously, answer by circling a number at the end of each line.]

- | | | | | | |
|---|---|---|---|---|---|
| 1. Principal makes decision alone or follows the advice of the school board | | | | | |
| 2. Principal consults teachers but makes final decision | | | | | |
| 3. Principal and teachers make a collective decision | | | | | |
| 4. Teachers as a group make decision with or without principal's view | | | | | |
| 5. Teachers make decision individually | | | | | |
| | | | | | |
| a. Hiring new teachers. | 1 | 2 | 3 | 4 | 5 |
| b. Selecting teacher aides. | 1 | 2 | 3 | 4 | 5 |
| c. Selecting substitutes. | 1 | 2 | 3 | 4 | 5 |
| d. Determining the criteria for the evaluation of the teachers. | 1 | 2 | 3 | 4 | 5 |
| e. Selecting a process for the evaluation of the teachers. | 1 | 2 | 3 | 4 | 5 |
| f. Selecting a process for the evaluation of the students. | 1 | 2 | 3 | 4 | 5 |
| g. Deciding students' setting in the classroom. | 1 | 2 | 3 | 4 | 5 |
| h. Determining methods and techniques of teaching. | 1 | 2 | 3 | 4 | 5 |
| i. Modifying the schedule to allow for special activities. | 1 | 2 | 3 | 4 | 5 |
| j. Planifying the schedule for teachers workshops. | 1 | 2 | 3 | 4 | 5 |
| k. Selecting the subjects for education related meetings. | 1 | 2 | 3 | 4 | 5 |
| l. Selecting the program to be pursued during each year. | 1 | 2 | 3 | 4 | 5 |
| m. Deciding on the class list at the beginning of the year. | 1 | 2 | 3 | 4 | 5 |
| n. Selecting school books to be used. | 1 | 2 | 3 | 4 | 5 |
| o. Contacting parents in case of emergency. | 1 | 2 | 3 | 4 | 5 |
| p. Contacting parents for minor problems. | 1 | 2 | 3 | 4 | 5 |
| q. Determining the objectives to be pursued during the year. | 1 | 2 | 3 | 4 | 5 |
| r. Setting school's policy over students' discipline. | 1 | 2 | 3 | 4 | 5 |

70. Several schools have internal rules concerning the whereabouts of personnel, attendance, work plans, record keeping, teaching objectives to pursue, and so on. To what extent do such rules exist in this school?

- There is a tremendous number of rules here — 1
 There are a lot of rules here — 2
 Rules are average here — 3
 There are not much rules here — 4
 There are no rules stated here — 5

71. If there are rules stated in this school, how rigorously are they implemented?

- They are implemented to the letter in all cases — 1
 They are implemented to the letter in most cases — 2
 Their level of implementation varies — 3
 They are barely implemented — 4
 They are not implemented at all — 5

PRINCIPAL QUESTIONNAIRE

School Organization at the Elementary Level

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This research is sponsored by the La Neigette School Board, Rimouski, and the Université du Québec at Rimouski, with a grant from the Ministère de l'Éducation du Québec (project 78-57 DGDP)

DIRECTIONS: The information which is provided by this questionnaire is completely confidential. No one will see your answers except the members of the research staff. The report which will follow this survey will use school aggregated data so that no one person will be identified with his or her data. After your questionnaire has been transferred on IBM cards, it will be destroyed. Complete confidentiality is assured. It is very important for us that you be as candid as possible in your answers. Even if all answers are important, do not feel compelled to answer those questions that you feel are too personal or that you for any other reason prefer to avoid. Given the little sample used in this research, it is necessary that all principals identified participate. We would be grateful if you would return this questionnaire as soon as possible.

Thank you for your collaboration and your participation.

=====

1. Name

2. Write the name of the school where you are working and which is identified in this research

CIRCLE THE NUMBER CORRESPONDING TO THE CHOSEN ANSWER.

3. Are you a male or a female?

Female — 1
Male — 2

4. How long have you been the principal in this school?

This is my first year — 1
2 to 4 years — 2
5 to 9 years — 3
10 to 15 years — 4
16 years or more — 5

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Principal Questionnaire

5. How long have you been a principal?

This is my first year — 1
2 to 4 years — 2
5 to 9 years — 3
10 to 15 years — 4
16 years or more — 5

6. How long did you teach before becoming a principal?

I never taught — 1
1 to 4 years — 2
5 to 9 years — 3
10 to 15 years — 4
16 years or more — 5

7. Indicate your highest diploma obtained according to the following list.

Less than A or B Certificate — 1
A or B Certificate or the equivalent — 2
Bachelor's degree in education — 3
Some graduate work but less than Master's degree — 4
Master's degree or the equivalent — 5

8. In your judgment, what is the general reputation of this school among educators?

Among the best — 1
Better than average — 2
About average — 3
Below average — 4
Bad — 5

9. How would you rate this school as far as the academic ability of the students is concerned?

Among the best — 1
Better than average — 2
About average — 3
Below average — 4
Bad — 5

10. With regard to student achievement, how good a school do you think this school can objectively be?

Among the best — 1
Better than average — 2
About average — 3
Below average — 4
Bad — 5

11. What do you consider to be the school's primary responsibility to the students?
[Circle only one answer.]

Teaching of academic subjects — 1
Enhancing social skills and social interaction — 2
Personal growth and individual development (*actualization*) — 3
Enhance educational and occupational aspirations — 4
Others (please specify) _____ — 5
_____ — 6

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Principal Questionnaire

ANSWER THE FOLLOWING QUESTIONS BY CIRCLING THE NUMBER CORRESPONDING TO WHAT INDICATES BEST YOUR OPINION, NO MATTER YOUR BASIS FOR SUCH A CHOICE. WE ARE NOT INTERESTED HERE BY THE ACCURACY OF YOUR RESPONSES BUT BY YOUR OWN POINT OF VIEW.

12. On the average, what achievement level can be expected of the students in this school?
- Much above provincial norm — 1
 - Above provincial norm — 2
 - Approximately at provincial norm — 3
 - Below provincial norm — 4
 - Much below provincial norm — 5
13. What percent of the students in this school do you expect to complete high school?
- Almost all, more than 90% — 1
 - About 75% — 2
 - About half — 3
 - About 25% — 4
 - Very few, less than 10% — 5
14. What percent of the students in this school do you expect to choose vocational education in high school?
- Almost all, more than 90% — 1
 - About 75% — 2
 - About half — 3
 - About 25% — 4
 - Very few, less than 10% — 5
15. What percent of the students in this school do you expect to go to college?
- Almost all, more than 90% — 1
 - About 75% — 2
 - About half — 3
 - About 25% — 4
 - Very few, less than 10% — 5
16. What percent of the students in this school do you expect to go to university and obtain a degree there?
- Almost all, more than 90% — 1
 - About 75% — 2
 - About half — 3
 - About 25% — 4
 - Very few, less than 10% — 5
17. How many of the students in this school are really capable of getting good grades?
- Almost all, more than 90% — 1
 - About 75% — 2
 - About half — 3
 - About 25% — 4
 - Very few, less than 10% — 5

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Principal Questionnaire

18. How would you personally rate the academic ability of the students in this school compared to those in other elementary schools that you know?

- Ability is much higher here — 1
- Ability is somewhat higher here — 2
- Ability is about the same — 3
- Ability is somewhat lower here — 4
- Ability is much lower here — 5

19. The parents of your students regard this school primarily as a "baby-sitting" agency.

- Strongly agree — 1
- Agree — 2
- Agree more or less — 3
- Disagree — 4
- Strongly disagree — 5

20. The parents of students in this school are deeply concerned that their children receive a top quality education.

- Strongly agree — 1
- Agree — 2
- Agree more or less — 3
- Disagree — 4
- Strongly disagree — 5

21. How many of the parents of students in this school do you think expect their children to complete high school?

- Almost all of the parents — 1
- Most of the parents — 2
- Half of the parents — 3
- Some of the parents — 4
- Almost none of the parents — 5

22. How many of the parents of students in this school expect their children to go to college?

- Almost all of the parents — 1
- Most of the parents — 2
- Half of the parents — 3
- Some of the parents — 4
- Almost none of the parents — 5

23. How many of the parents of students in this school do you think expect their children to obtain a university degree some day?

- Almost all of the parents — 1
- Most of the parents — 2
- Half of the parents — 3
- Some of the parents — 4
- Almost none of the parents — 5

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Principal Questionnaire

24. How many of the parents of students in this school do not matter if their child gets bad grades?

- Almost all of the parents — 1
- Most of the parents — 2
- Half of the parents — 3
- Some of the parents — 4
- Almost none of the parents — 5

25. How many of the parents of students in this school want feedback from the principal or teachers on how their children are doing in school?

- Almost all of the parents — 1
- Most of the parents — 2
- Half of the parents — 3
- Some of the parents — 4
- Almost none of the parents — 5

26. What percentage of the students in this school do you feel are capable of learning to read conveniently by the end of the second grade?

- 100% — 1
- 90-99% — 2
- 80-89% — 3
- 70-79% — 4
- 50-69% — 5
- Less than 50% — 6

27. How often do you suggest ways of improving student achievement to your teachers?

- Very often — 1
- Often — 2
- Sometimes — 3
- Seldom — 4
- Never — 5

28. How often do you meet with the teachers as a group to discuss concrete ways of improving student achievement?

- Very often — 1
- Often — 2
- Sometimes — 3
- Seldom — 4
- Never — 5

29. As a principal, which effect do you think you are having on students' achievement?

- A major effect — 1
- Substantial effect — 2
- Some effect — 3
- Very little effect — 4
- No effect at all — 5

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Principal Questionnaire

30. It is the principal's responsibility to make sure that all students in his school succeed at a high level.

Strongly agree — 1
Agree — 2
Agree more or less — 3
Disagree — 4
Strongly disagree — 5

31. No matter the students in a school, it is possible for a principal, with the help of the teachers, to change a low achieving school into a high achieving school.

Strongly agree — 1
Agree — 2
Agree more or less — 3
Disagree — 4
Strongly disagree — 5

32. In general, how do your students' parents feel about the achievement of their children?

Nearly all feel they are doing well — 1
Most think students are achieving as well as they should — 2
Most think they should achieve better — 3
Nearly all feel they should achieve better — 4
They do not mind — 5

33. How do you feel about the achievement of the students in this school?

Nearly all students are achieving as well as they can — 1
Most students are achieving as well as they can — 2
Half the students are achieving as well as they can — 3
Less than half the students are achieving as well as they can — 4
Only a few of the students are achieving as well as they can — 5

34. What proportion of your time during a regular week is attributed to each of the following activities?

Long-term planification		%
Supervision of teaching personnel		%
Supervision of non-teaching personnel		%
Conferring with parents and social environment		%
Discipline		%
Other administrative duties		%
Educational activities (specify) _____		%
Other (specify) _____		%
_____		%
TOTAL	100	%

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Principal Questionnaire

THE FOLLOWING QUESTIONS CONCERN THE PARENTS OF THE STUDENTS ATTENDING THIS SCHOOL. BE AS ACCURATE AS POSSIBLE IN YOUR ANSWERS, PLEASE.

35. During the last three (3) years, how many regular formation or information meetings with all parents have been held in this school?

[Answer according to an annual mean and forget about special meetings.]

5 or more per year — 1
3 or 4 per year — 2
2 per year — 3
1 per year — 4
none — 5

36. What percentage of the parents did show for these meetings?

90% or more — 1
70 to 89% — 2
50 to 69% — 3
30 to 49% — 4
Less than 30% — 5

37. During the last three (3) years, on the average, how many school committee meetings have been held each year?

15 meetings or more per year — 1
10 to 14 meetings per year — 2
7 to 9 meetings per year — 3
3 to 6 meetings per year — 4
2 meetings or less per year — 5

38. What percentage of the parents' representatives on the school committee did show for these meetings?

90% or more — 1
70 to 89% — 2
50 to 69% — 3
30 to 49% — 4
Less than 30% — 5

39. On the average, how many individual meetings at school are you having with parents to discuss about their children?

21 or more per month — 1
15 to 20 per month — 2
9 to 14 per month — 3
4 to 8 per month — 4
2 or 3 per month — 5
1 or none — 6

40. On the average, how many meetings are you having with group of parents at school?

21 or more per month — 1
15 to 20 per month — 2
9 to 14 per month — 3
4 to 8 per month — 4
2 or 3 per month — 5
1 or none — 6

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Principal Questionnaire

41. Do you happen frequently to go to parents' home to meet some of them?

- Almost every day — 1
Often and at each week — 2
Several times a week — 3
Occasionally — 4
Never — 5

42. What proportion of the students' parents do you know when you see them?

- Nearly all — 1
About 75% — 2
About 50% — 3
About 25% — 4
Only a few — 5

43. Indicate the level of participation of parents in this surrounding according to the seven (7) following activities.

[Answer by circling the number corresponding to to the percentage of parents participating.]

	less than 10%	from 11% to 39%	from 40% to 59%	from 60% to 89%	more than 90%
a) Vote to School Board members elections	1	2	3	4	5
b) Attend at least one School Board meeting per year	1	2	3	4	5
c) Attend at least one Parent-School meeting per year	1	2	3	4	5
d) Meet with their children's teachers at least <u>once</u> a year	1	2	3	4	5
e) Meet with their children's teachers at least <u>three times</u> per year	1	2	3	4	5
f) Provide help to school or classroom for activities (day out, workshops, and so on.)	1	2	3	4	5
g) Take part in a committee or a group interested with educational matters linked with the school or not	1	2	3	4	5

44. What would describe best the participation of parents to your school committee this year?

- Parents are very active and protest a lot — 1
Parents are very active and protest sometimes — 2
Parents are very active but do not protest — 3
Parents are lightly involved — 4
Parents content themselves with receiving information — 5

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Principal Questionnaire

45. Here are some school matters which must be decided on. Tell us about the influence of parents of this surrounding on these aspects.

[Choose one answer for each aspect and indicate your answer by circling the corresponding number at the end of each line.]

- | | | | | | |
|---|---|---|---|---|---|
| 1. Parents participate and have a decisive influence | | | | | |
| 2. Parents participate and influence sometimes the decision | | | | | |
| 3. Parents participate but have little influence | | | | | |
| 4. Parents do not participate much and have no influence | | | | | |
| 5. Parents do not participate | | | | | |
| | | | | | |
| a) Selecting school books | 1 | 2 | 3 | 4 | 5 |
| b) Selecting teaching material | 1 | 2 | 3 | 4 | 5 |
| c) Selecting objectives to be pursued (beside those specified by the Ministère) | 1 | 2 | 3 | 4 | 5 |
| d) Selecting teaching methods | 1 | 2 | 3 | 4 | 5 |
| e) Deciding on weekly activities and lessons | 1 | 2 | 3 | 4 | 5 |
| f) Fixing and modifying school schedule | 1 | 2 | 3 | 4 | 5 |
| g) Scheduling Parent-Teacher meetings | 1 | 2 | 3 | 4 | 5 |
| h) Deciding on agenda for Parent-Teacher meetings | 1 | 2 | 3 | 4 | 5 |
| i) Distributing school budget | 1 | 2 | 3 | 4 | 5 |
| j) Determining student evaluation policies | 1 | 2 | 3 | 4 | 5 |
| k) Establishing disciplinary norms | 1 | 2 | 3 | 4 | 5 |
| l) Selecting new teachers | 1 | 2 | 3 | 4 | 5 |
| m) Establishing policies and procedures to evaluate teachers | 1 | 2 | 3 | 4 | 5 |
| n) Establishing criteria for students assignment in class | 1 | 2 | 3 | 4 | 5 |
| o) Deciding on policies regarding homeworks | 1 | 2 | 3 | 4 | 5 |

PRINCIPAL'S INTERVIEW

School Organization at the Elementary Level

Interviewer's Document

A) General Informations

1. Name: _____
2. School: _____
3. Title: principal () Assistant ()
4. Principal's status:
 - Full-time in this school only ()
 - Part-time in this school ()
 - how many schools _____ administrative duty ()
 - % of time here _____
 - Part-time principal ()
 - Other _____ ()

B) Location of the school

5. Description of school's community (students' origin)
 - City → homogeneous districts only ()
 (5m. +) → several mostly homogeneous districts ()
 → several heterogeneous districts ()
 - Village → only one village and surroundings ()
 → several homogeneous villages ()
 → several heterogeneous villages ()
 - Mix → urban _____ % rural _____ %
 6. Population of the community : _____
 7. Population of area served by the school: _____
 8. Distance in miles from a significant urban community: _____
 (city if rural area — downtown if urban)
 9. School transportation? _____ % of students using
 10. Mean distance to travel? _____ Farthest distance? _____
 11. Type of work of population?
-
-

C) Students' characteristics (use file whenever possible)

12. et 13. % years of schooling above secondary level: father _____ % mother _____ %
14. et 15. % years of schooling below 7th grade: father _____ % mother _____ %
16. % of fathers professional, administrators, technologists _____
17. % of fathers skilled workers, civil servants, teachers _____
18. % of fathers day labourer _____
19. % of fathers unemployed for more than 3 months per year _____
20. % of fathers with salary below 6,000\$ _____
21. % of fathers with salary above 18,000\$ _____ file
22. % of working mothers _____ ()

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Principal's Interview

- Teacher preparation (include list or enter mean) List ()
33. Years of schooling recognized _____
34. Years of teaching experience _____
35. Years of teaching experience in this school _____
36. Last diploma (Brevet A, B, C, Bacc., MA, Med) _____
37. Teaching certification: - number with teaching permit _____
 - number with temporary authorization _____
 - other _____
38. Mean teachers' salaries _____

- Job allocation among teachers
39. How many teachers teach all subjects in one single class (do not count specialists)?
 Number _____ all ()
 If exceptions: describe number of classes and subjects taught

F) Pedagogical organization

- Students grouping
40. Describe how students are grouped at the beginning of the year:
 - homogeneous grouping according to general ability ()
 - homogeneous grouping according to ability in one or 2 subjects ()
 - heterogeneous grouping according to general ability ()
 - heterogeneous grouping according to ability in one or 2 subjects ()
 - at random or according to practical features ()
 - no intentional grouping ()
41. Describe the form of grouping practiced:
 - none ()
 - strong, normal, slow ()
 - advanced, lightened ()
 - other ()
42. The level of grouping?
 - by year, grade level, or age ()
 - among grade levels ()
 - other ()
43. Describe how special students are integrated, if they are.
 (several choices may be necessary)
 - pulling-out ()
 - special classes ()
 - partial integration (some subjects) ()
 - total integration (all subjects) ()
 → Level to which integration is generalized:
 - all students in the school ()
 - some students or classes ()

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Principal's Interview

44. Orthopedagogy processing
- no orthopedagogy ()
 - special classes only ()
 - groups of students only ()
 - individuals or groups ()
 - individuals only ()
 - if orthopedagogy, frequency of meetings _____
 - average of months students attend orthopedagogy _____
 - selection by subject () or general ()
45. Reasons for functioning this way? (e. g.: parents pressure, past experiences, faster students can go faster, we can adapt to each student's capacity, and so on.)
-
46. What are the basis for grouping, if there is any, and rank them.
- IQ tests () _____
 - last year's grades () _____
 - this year's grades () _____
 - teachers' evaluations () _____
 - others _____ () _____
- Teaching strategies
47. Are teaching objectives used? yes () no ()
48. Level of generalization of pursued objectives?
- They are the same for:
- a) - all teachers at the same level ()
 - most teachers at the same level ()
 - some teachers at the same level ()
 - no teacher at the same level ()
 - b) - all students at the same level ()
 - most students at the same level ()
 - some students at the same level ()
 - no student at the same level ()
 - c) - all students in the same class ()
 - most students in the same class ()
 - some students in the same class ()
 - no student in the same class ()
49. Up to what point is individualized teaching practiced?
- totally | | | | | not at all
- variations in individualization practices: (specify)
-
50. Are teachers following a precise plan?
- very precise | | | | | none
51. Who makes decision?
- principal ()
 - teachers and principal ()
 - teachers in group ()
 - teachers individually ()
52. Is material scheduled so that each student sees the same thing as other students while he or she is at the elementary level? (consider special classes).
- yes | | | | | no

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Principal's Interview

53. Is material scheduled so that each student sees the same thing as other students at each level?
yes | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | no
54. Are teachers all using the same books or texts?
yes | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | no
55. Must they make sure that all student do see them during the year?
yes | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | no
56. As far as classroom teaching methods are concerned (e. g.: french teaching method), how are they generalized in the school?
same for all | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | different for all
57. Who makes decision? - principal ()
 - teachers and principal ()
 - teachers in group ()
 - teachers individually ()
58. Is teaching material, besides books, the same for all classes? (e. g.: educational games, cards, and so on.).
yes | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | no
59. Who makes decision? - principal ()
 - teachers and principal ()
 - teachers in group ()
 - teachers individually ()
60. Are Ministère de l'Education's assessment tests used? yes () no ()
- which ones: - IQ tests ()
 - grade levels:
 - for how many years
 - subjects: - french ()
 - mathematics ()
 - others ()
 - grade levels:
 - for how many years
61. School tests? yes | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | no
 - grade levels
 - which subjects
 - used in the whole school or different for each class?
 whole | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | class
62. What room is made for other forms of evaluation?
(e. g.: teacher assessments, self-evaluation, and so on.)
large room | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | no room
63. What are test results used for? (rank the choices)
- student classifications ()
- high school graduation or not ()
- informations to parents ()
- achievement improvement ()
- other ()
64. Who is allowed to consult the results from Ministère de l'Education's tests and those from school-made tests? (who sees them?)
- | | <u>MEQ</u> | <u>School-made</u> |
|----------------------|------------|--------------------|
| - students | () | () |
| - parents | () | () |
| - all teachers | () | () |
| - principal | () | () |
| - School Board | () | () |

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Principal's Interview

65. What would describe best, for the whole school, what happens in classes?

a) Students are allowed to move freely

yes ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ no

b) Who allocates seats?

teacher ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ student decide

c) Frequency with which seats are changed?

several times per day ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ once per semester

d) Students are encouraged to talk each others?

yes ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ no

e) Students are all working on the same material at the same time?

yes ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ no

66. Are there differences among classes with regard to these questions?

yes ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ no

(details): _____

G) Administrative organization

Are you having on file the following documents?

[on file = ()]

67. A written description of everyone's responsibility in the school (teachers, principal, assistant, specialists, and so on.) and of the limits of their responsibilities?

yes ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ no ()

68. A written schedule for the year, including timetable, holidays, special activities?

yes ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ no ()

69. A description of each teacher's objectives for the year? (given at the beginning of the school year)

yes ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ no ()

70. Student evaluation procedures to be followed during the year?

yes ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ no ()

71. Is there a code of rules or regulations regarding the staff?

yes ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ no ()

a) for general situations only ()

b) for litigious situations only ()

c) for all reasons to avoid confusion and conflicts ()

d) other ()

72. Written material about restrictions placed on personal and professional activities?

a) regulation which specify when a teacher can leave the school () ()

b) regulations with regard to participating in outside activities () ()

c) regulations regarding what teachers can and cannot say in class () ()

d) regulations regarding teachers' movement in the school?

(caution, opened classroom ≠ absence of control) () ()

e) regulations regarding students' movement in the school () ()

73. Up to what point are these rules enforced in the school?

maximum ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ minimum

74. Procedure to be followed to implement:

a) an important feature (experimentation or innovation) (describe):

b) minor feature (outing) (describe):

c) departure from a rule:

→ important: - individual: _____
 - group: _____
 → minor: - individual: _____
 - group: _____

75. Are teachers evaluated each year?

yes () no ()

[illegible]

77. Are criteria to be used for evaluation decided prior to assessment?

at the beginning of the year | | | | | no criteria

78. Who decides on criteria? - School Board ()
 - principal ()
 - teachers ()
 - principal and teachers ()

79. Criteria applied for everyone without exception?

yes | | | | | | | no

80. Use made of the results of the evaluation? (describe)

81. How is information transmitted in the school?

a) nature	frequency in %
1) H_2O	100
2) H_2O	100
3) H_2O	100
4) H_2O	100
5) H_2O	100
6) H_2O	100
7) H_2O	100
8) H_2O	100
9) H_2O	100
10) H_2O	100
11) H_2O	100
12) H_2O	100
13) H_2O	100
14) H_2O	100
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36) H_2O	100
37) H_2O	100
38) H_2O	100
39) H_2O	100
40) H_2O	100
41) H_2O	100
42) H_2O	100
43) H_2O	100
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93) H_2O	100
94) H_2O	100
95) H_2O	100
96) H_2O	100
97) H_2O	100
98) H_2O	100
99) H_2O	100
100) H_2O	100

- posters	()	_____
- letters	()	_____
- meetings	()	_____
- individual meetings	()	_____
- others	()	_____

b) reasons for differences if appropriate

H) Technology

**Number of new things introduced in the school during the last three (3) years?
(innovations for the school)**

Indicate their degree of survival according to the following scale:

- 1- adopted for the whole school
- 2- adopted for part of the school
- 3- more or less kept
- 4- tried for a while and then rejected
- 5- rapidly rejected

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Principal's Interview

82. List new pedagogical features:

(teaching methods , books, grouping, and so on.)

<input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____	<input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____
--	--

83. List new administrative features:

(new programs, staff differentiation, rules, and so on.)

<input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____	<input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____
--	--

84. Percentage of teachers which accept innovations and change easily?

100% | _ | _ | _ | _ | _ | 0%

85. How would you like your school to be considered outside?

(do not suggest answers)

Technical Equipment

86. List audio-visual material available in the school (projectors, calculators, and so on.) and how often they are used.

List

Use (times per week)

87. Availability of outside material and frequency of its use in the school.

Availability

Use (times per week)

Interviewer's notes:

QUESTIONNAIRE AUX ETUDIANTS

Organisation Scolaire au primaire

Recherche dirigée par Yvon Bouchard
avec la collaboration
du Ministère de l'Éducation du Québec,
de la Commission Scolaire La Neigette, Rimouski,
de l'Université du Québec à Rimouski

DIRECTIONS: Ce questionnaire fait partie d'une enquête pour connaître plus de choses à propos des étudiants et de leur travail dans l'école. Il ne s'agit pas d'un examen, ni d'un test et il n'aura aucun effet sur tes résultats scolaires. Tes réponses ne seront pas remises à ton professeur, ni au principal de ton école. Il n'y a donc aucune bonne ni mauvaise réponse. Tout ce qui nous intéresse est ton idée sur les questions qui tes sont posées.

REPONDS A CHAQUE QUESTION ET FAIS UN SEUL CHOIX. ENCERCLE LE CHIFFRE CORRESPONDANT A LA REPONSE QUI EXPRIME LE MIEUX TON IDÉE.

Voici deux exemples:

1. Quelle est la capitale de la province de Québec?

- Montréal — 1
- Québec — ②
- Ottawa — 3
- Chicoutimi — 4
- Rimouski — 5

2. Combien de professeurs dans ton école sont plus âgés que toi?

- Tous — ①
- La plupart — 2
- la moitié — 3
- Quelques-uns — 4
- Aucun — 5

1. Inscris ton nom ici

2. Quel est le nom de ton professeur

3. Indique nous le nom de ton école et la ville ou le village où elle est situé.

Ecole: _____

Endroit: _____

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Student Questionnaire (French)

4. Quel âge as-tu eu à ton dernier anniversaire se naissance?

- 8 ans — 1
- 9 ans — 2
- 10 ans — 3
- 11 ans — 4
- 12 ans — 5
- 13 ans — 6
- 14 ans — 7

5. Es-tu un garçon ou une fille?

- garçon — 1
- filie — 2

6. En quelle année es-tu?

- 3^e année — 1
- 4^e année — 2
- 5^e année — 3
- 6^e année — 4
- 7^e année — 5

Depuis combien d'années es-tu dans cette école-ci?

- 1 an ou moins — 1
- 2 ans — 2
- 3 ou 4 ans — 3
- 5 ou 6 ans — 4
- 7 ou 8 ans — 4
- 9 ans ou plus — 5

8. Quelle sorte de travail fait ton père?

[Décris-nous en quelques mots ce qu'il fait et où il travaille.]

REPONDS AUX QUESTIONS QUI SUIVENT EN CHOISSANT LA REPONSE QUI TE SEMBLE LA PLUS JUSTE PARMİ CELLES SUGGEREES. SOUVIENS-TOI QUE PERSONNE NE VERRA TES REPONSES EN DEHORS DE QUELQUES-UNS PARMİ NOUS A L'UNIVERSITE DU QUEBEC A RIMOUSKI. SOIS FRANC ET DIS-NOUS EXACTEMENT ET SANS CRAINTE CE QUE TU PENSES.

[Choisis une seule réponse.]

9. Si tu pouvais aller aussi loin que tu le désires à l'école, jusqu'où aimerais-tu te rendre?

- A la fin du primaire (6^e ou 7^e année) — 1
- Au secondaire pour quelques années — 2
- A la fin du secondaire (12^e année) — 3
- Au Cégep (14^e ou 15^e année) — 4
- A l'Université — 5

Student Questionnaire (French)

10. Il arrive parfois que ce qu'on voudrait voir se réaliser n'est pas ce qu'on pense qui va se produire. Jusqu'où penses-tu réellement te rendre à l'école?

- A la fin du primaire (6^e ou 7^e année) — 1
- Au secondaire pour quelques années — 2
- A la fin du secondaire (12^e année) — 3
- Au Cégep (14^e ou 15^e année) — 4
- A l'Université — 5

11. Combien d'élèves dans ton école essaient toujours d'avoir des bons résultats aux travaux de chaque semaine?

- Tous les élèves — 1
- La plupart des élèves — 2
- La moitié des élèves — 3
- Quelques élèves — 4
- Presqu'aucun élève — 5

12. Combien d'élèves dans ton école vont travailler fort pour essayer d'obtenir des meilleurs résultats que leurs amis aux travaux de chaque semaine?

- Tous les élèves — 1
- La plupart des élèves — 2
- La moitié des élèves — 3
- Quelques élèves — 4
- Presqu'aucun élève — 5

13. Combien d'élèves dans ton école ne s'en font pas lorsqu'ils obtiennent des mauvais résultats?

- Tous les élèves — 1
- La plupart des élèves — 2
- La moitié des élèves — 3
- Quelques élèves — 4
- Presqu'aucun élève — 5

14. Combien d'élèves dans ton école étudient plus que nécessaire, pour pouvoir réussir les travaux de chaque semaine?

- Tous les élèves — 1
- La plupart des élèves — 2
- La moitié des élèves — 3
- Quelques élèves — 4
- Presqu'aucun élève — 5

15. Si la plupart des élèves ici pouvaient aller aussi loin qu'ils le désirent à l'école, jusqu'où se rendraient-ils d'après-toi?

- A la fin du primaire (6^e ou 7^e année) — 1
- Au secondaire pour quelques années — 2
- A la fin du secondaire (12^e année) — 3
- Au Cégep (14^e ou 15^e année) — 4
- A l'Université — 5

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Student Questionnaire (French)

16. Est-ce très important pour toi d'être un bon élève?

- Très important — 1
- Important — 2
- Plus ou moins important — 3
- Pas très important — 4
- Pas important du tout — 5

17. Est-ce que la plupart des élèves dans ta classe trouvent que c'est important de bien réussir à l'école?

- Ils trouvent que c'est très important — 1
- Ils trouvent que c'est important — 2
- Ils trouvent que c'est plus ou moins important — 3
- Ils trouvent que ce n'est pas très important — 4
- Ils trouvent que ce n'est pas important du tout — 5

18. Selon ce que tu penses, est-ce que la plupart des élèves dans cette école-ci trouvent que c'est important de bien réussir à l'école?

- Ils trouvent que c'est très important — 1
- Ils trouvent que c'est important — 2
- Ils trouvent que c'est plus ou moins important — 3
- Ils trouvent que ce n'est pas très important — 4
- Ils trouvent que ce n'est pas important du tout — 5

19. Combien d'élèves dans ta classe trouvent qu'il est plaisant d'étudier?

- Tous les élèves — 1
- La plupart des élèves — 2
- La moitié des élèves — 3
- Quelques élèves — 4
- Presqu'aucun élève — 5

20. Combien d'élèves dans ton école agacent ou se moquent des élèves qui ont de vrais bons résultats?

- Tous les élèves — 1
- La plupart des élèves — 2
- La moitié des élèves — 3
- Quelques élèves — 4
- Presqu'aucun élève — 5

21. Combien d'élèves ne réussissent pas aussi bien à l'école qu'ils le pourraient parce qu'ils ont peur que les autres élèves les aiment moins?

- Tous les élèves — 1
- La plupart des élèves — 2
- La moitié des élèves — 3
- Quelques élèves — 4
- Presqu'aucun élève — 5

N'OUBLIE PAS, IL FAUT DONNER UNE SEULE REPONSE PAR QUESTION EN ENCERCLANT LE CHIFFRE CORRESPONDANT A TA REPONSE.

22. Combien d'élèves ne réussissent pas aussi bien à l'école qu'ils le pourraient parce qu'ils ont peur que leurs amis préférés les aiment moins?

- Tous les élèves — 1

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Student Questionnaire (French)

- La plupart des élèves — 2
- La moitié des élèves — 3
- Quelques élèves — 4
- Presqu'aucun élève — 5

23. Si les professeurs ne corrigeaient pas les travaux, combien d'élèves dans ton école travailleraient fort quand même?

- Tous les élèves — 1
- La plupart des élèves — 2
- La moitié des élèves — 3
- Quelques élèves — 4
- Presqu'aucun élève — 5

24. Des personnes comme moi n'auront pas beaucoup de chances de faire ce qu'elles veulent dans la vie.

- Tout à fait d'accord — 1
- D'accord — 2
- Plus ou moins d'accord — 3
- Pas d'accord — 4
- Pas du tout d'accord — 5

25. Des personnes comme moi ne réussiront jamais à l'école même si on essaie.

- Tout à fait d'accord — 1
- D'accord — 2
- Plus ou moins d'accord — 3
- Pas d'accord — 4
- Pas du tout d'accord — 5

26. Je suis capable d'être très bon à l'école lorsque je travaille fort.

- Tout à fait d'accord — 1
- D'accord — 2
- Plus ou moins d'accord — 3
- Pas d'accord — 4
- Pas du tout d'accord — 5

27. Dans cette école-ci, les élèves comme moi n'ont aucune chance, il ne leur arrive rien de bon.

- Tout à fait d'accord — 1
- D'accord — 2
- Plus ou moins d'accord — 3
- Pas d'accord — 4
- Pas du tout d'accord — 5

28. Il faut être chanceux pour obtenir des bons résultats dans cette école-ci.

- Tout à fait d'accord — 1
- D'accord — 2
- Plus ou moins d'accord — 3
- Pas d'accord — 4
- Pas du tout d'accord — 5

Student Questionnaire (French)

29. Pense à tes meilleurs amis. Penses-tu être capable de faire tes travaux scolaires mieux, pareil ou moins bien qu'eux?

Mieux que tous — 1
 Mieux que la plupart — 2
 A peu près pareil — 3
 Moins bien que la plupart — 4
 Moins bien que tous — 5

30. Pense aux élèves dans ta classe. Penses-tu être capable de faire tes travaux scolaires mieux, pareil ou moins bien qu'eux?

Mieux que tous — 1
 Mieux que la plupart — 2
 A peu près pareil — 3
 Moins bien que la plupart — 4
 Moins bien que tous — 5

31. Quand tu vas aller au secondaire, quelle sorte d'étudiant penses-tu que tu seras en comparaison avec les autres?

Un des meilleurs — 1
 Meilleur que la plupart — 2
 A peu près pareil — 3
 Moins bien que la plupart — 4
 Un des moins bons — 5

32. Penses-tu que tu pourrais être capable de réussir à l'Université?

Oui, sûrement — 1
 Oui, probablement — 2
 Peut-être — 3
 Non, probablement pas — 4
 Non, sûrement pas — 5

33. Si tu te rendais à l'Université, penses-tu que tu serais un très bon étudiant, un étudiant moyen ou un mauvais étudiant?

Un des meilleurs — 1
 Meilleur que la plupart — 2
 A peu près pareil — 3
 Moins bien que la plupart — 4
 Un des moins bons — 5

34. Une personne qui veut devenir médecin ou professeur doit aller au moins trois ans à l'Université. Penses-tu que tu serais capable de faire cela?

Oui, sûrement — 1
 Oui, probablement — 2
 Peut-être — 3
 Non, probablement pas — 4
 Non, sûrement pas — 5

35. Oublie un instant les résultats que tes professeurs te donnent et dis-nous comment toi tu évalues ton travail à l'école.

C'est un excellent travail — 1
 C'est un bon travail — 2
 Il est aussi bon que celui des autres — 3

Student Questionnaire (French)

Il est moins bon que celui des autres — 4
C'est un mauvais travail — 5

36. Penses-tu être un des bons étudiants de ton école?

Oui, sûrement — 1
Oui, probablement — 2
Peut-être — 3
Non, probablement pas — 4
Non, sûrement pas — 5

37. Jusqu'à quel degré ton meilleur ami ou ta meilleure amie s'attend-t-il ou s'attend-t-elle que tu te rendes à l'école?

A la fin du primaire (6^e ou 7^e année) — 1
Au secondaire pour quelques années — 2
A la fin du secondaire (12^e année) — 3
Au Cégep (14^e ou 15^e année) — 4
A l'Université — 5

MAINTENANT, VOICI QUELQUES QUESTIONS A PROPOS DES PROFESSEURS DANS TON ECOLE. REPONDS DE LA MEME FACON QUE POUR LES AUTRES QUESTIONS EN ENCERCLANT UN CHIFFRE. RAPPELE-TOI QU'AUCUN PROFESSEUR DANS TON ECOLE NE VERRA TES REPONSES. SOIS HONNETE.

38. Parmi les professeurs que tu connais dans l'école, combien disent aux élèves de toujours forcer pour bien réussir aux examens, aux tests et dans les travaux scolaires?

Tous les professeurs — 1
La plupart des professeurs — 2
La moitié des professeurs — 3
Quelques professeurs — 4
Presqu'aucun professeur — 5

39. Combien de professeurs dans ton école disent à leurs élèves d'essayer d'avoir des meilleurs résultats que les autres élèves dans la classe?

Tous les professeurs — 1
La plupart des professeurs — 2
La moitié des professeurs — 3
Quelques professeurs — 4
Presqu'aucun professeur — 5

40. Parmi les professeurs que tu connais dans l'école, combien sont vraiment déçus lorsque les élèves obtiennent des mauvais résultats?

Tous les professeurs — 1
La plupart des professeurs — 2
La moitié des professeurs — 3
Quelques professeurs — 4
Presqu'aucun professeur — 5

Student Questionnaire (French)

41. Parmi les professeurs que tu connais dans l'école, combien disent à leurs élèves de faire du travail en dehors de la classe pour obtenir des meilleurs résultats?

- Tous les professeurs — 1
- La plupart des professeurs — 2
- La moitié des professeurs — 3
- Quelques professeurs — 4
- Presqu'aucun professeur — 5

42. Parmi les professeurs que tu connais dans ton école, combien font trop travailler les élèves?

- Tous les professeurs — 1
- La plupart des professeurs — 2
- La moitié des professeurs — 3
- Quelques professeurs — 4
- Presqu'aucun professeur — 5

43. Il est inutile de travailler très fort dans cette école-ci puisque les professeurs se contentent uniquement de nous faire passer.

- Tout à fait d'accord — 1
- D'accord — 2
- Plus ou moins d'accord — 3
- Pas d'accord — 4
- Pas du tout d'accord — 5

44. Pense au professeur que tu aimes le mieux. Jusqu'où croit-il que tu peux te rendre à l'école?

- A la fin du primaire (6^e ou 7^e année) — 1
- Au secondaire pour quelques années — 2
- A la fin du secondaire (12^e année) — 3
- Au Cégep (14^e ou 15^e année) — 4
- A l'Université — 5

45. Pense encore au professeur que tu aimes le mieux. Est-ce qu'il s'attend à ce que tu sois un bon élève, un élève moyen ou un mauvais élève dans cette école?

- Un des meilleurs — 1
- Meilleur que la plupart — 2
- A peu près pareil — 3
- Moins bon que la plupart — 4
- Un des moins bons — 5

46. Pense à ton professeur. Pense-t-il que tu peux faire tes travaux mieux, aussi bien ou moins bien que les autres personnes de ton âge?

- Mieux que tous — 1
- Mieux que la plupart — 2
- A peu près pareil — 3
- Moins bien que la plupart — 4
- Moins bien que tous — 5

Student Questionnaire (French)

47. Est-ce que ton professeur dirait que tu vas finir le secondaire avec des résultats meilleurs, pareils ou moins bons que les autres élèves du secondaire?

- Meilleurs résultats — 1
- Très bons résultats — 2
- A peu près pareils à ceux des autres — 3
- Moins bons résultats — 4
- Pires résultats — 5

48. Est-ce qu'il arrive souvent que les professeurs dans ton école essaient d'aider les élèves qui réussissent moins bien que les autres?

- Ils essaient toujours de les aider — 1
- Ils essaient la plupart du temps de les aider — 2
- Ils essaient parfois de les aider — 3
- Ils essaient rarement de les aider — 4
- Ils n'essaient jamais de les aider — 5

49. Si tu compares avec les élèves de d'autres écoles, est-ce que les élèves dans cette école-ci apprennent plus, pareil ou moins que les autres?

- Ils apprennent beaucoup plus dans cette école-ci — 1
- Ils apprennent un peu plus dans cette école-ci — 2
- C'est à peu près pareil — 3
- Ils apprennent un peu moins dans cette école-ci — 4
- Ils apprennent beaucoup moins dans cette école-ci — 5

50. Si tu compares avec les élèves de d'autres écoles, est-ce que les élèves de cette école-ci vont bien réussir au secondaire?

- Ils vont être parmi les meilleurs — 1
- Ils vont être un peu mieux que la plupart — 2
- Ils vont être comme la plupart — 3
- Ils vont être plus faibles que la plupart — 4
- Ils vont être pires que la plupart — 5

51. Est-ce très important pour les professeurs de cette école-ci que les élèves apprennent ce qui leur est montré en classe?

- C'est la chose la plus importante pour les professeurs — 1
- C'est très important pour les professeurs — 2
- C'est un peu important pour les professeurs — 3
- Ce n'est pas très important pour les professeurs — 4
- Ce n'est pas important du tout pour les professeurs — 5

52. Pense aux professeurs que tu connais dans cette école-ci. Crois-tu qu'ils sont plus intéressés ou moins intéressés que les professeurs des autres écoles à ce que les élèves apprennent ce qui leur est montré en classe?

- Les professeurs dans cette école-ci sont beaucoup plus intéressés — 1
- Les professeurs dans cette école-ci sont un peu plus intéressés — 2
- Il n'y a pas de différence — 3
- Les professeurs dans cette école-ci sont un peu moins intéressés — 4
- Les professeurs dans cette école-ci sont beaucoup moins intéressés — 5

Student Questionnaire (French)

53. Lorsque la plupart des élèves dans ta classe réussissent mal un travail, est-ce ton professeur essaie toujours de vous aider à comprendre où s'il ne le fait jamais?

- Ils essaient toujours de nous aider — 1
- Ils essaient la plupart du temps de nous aider — 2
- Ils essaient parfois de nous aider — 3
- Ils essaient rarement de nous aider — 4
- Ils n'essaient jamais de nous aider — 5

54. Est-ce ton professeur pense que tu seras capable d'aller à l'Université plus tard?

- Oui, sûrement — 1
- Oui, probablement — 2
- Peut-être — 3
- Non, probablement pas — 4
- Non, sûrement pas — 5

55. Souviens-toi qu'il faut trois ans d'Université aux personnes qui veulent devenir professeur ou médecin. Est-ce ton professeur te croirait capable de faire cela?

- Oui, sûrement — 1
- Oui, probablement — 2
- Peut-être — 3
- Non, probablement pas — 4
- Non, sûrement pas — 5

NOUS TE DEMANDONS MAINTENANT QUELQUES QUESTIONS A PROPOS DE TES PARENTS. REPONDS DE LA MEME FACON QUE POUR LES AUTRES QUESTIONS.

56. Jusqu'où crois-tu que tes parents s'attendent à ce que tu te rendes à l'école?

- A la fin du primaire (6^e ou 7^e année) — 1
- Au secondaire pour quelques années — 2
- A la fin du secondaire (12^e année) — 3
- Au Cégep (14^e ou 15^e année) — 4
- A l'Université — 5

57. Est-ce que tes parents disent que tu peux réussir mieux, aussi bien ou moins bien que tes amis dans les travaux scolaires?

- Mieux que tous — 1
- Mieux que la plupart — 2
- A peu près pareil — 3
- Moins bien que la plupart — 4
- Moins bien que tous — 5

58. Est-ce que tes parents disent que tes résultats seront meilleurs, aussi bons ou moins bons que ceux des autres élèves lorsque tu vas terminer le secondaire?

- Meilleurs résultats — 1
- Très bons résultats — 2
- A peu près pareils à ceux des autres — 3
- Moins bons résultats — 4
- Pires résultats — 5

Student Questionnaire (French)

59. Tes parents voudraient que tu sois quelle sorte d'élève à l'école?

- Un des meilleurs — 1
- Meilleur que la plupart — 2
- Pareil à la plupart — 3
- Moins bon que la plupart — 4
- Un des moins bons — 5

60. Tes parents pensent-t-ils que tu pourrais aller à l'Université?

- Oui, sûrement — 1
- Oui, probablement — 2
- Peut-être — 3
- Non, probablement pas — 4
- Non, sûrement pas — 5

61. Rappelle-toi, il faut trois ans d'Université aux personnes qui veulent devenir professeur ou médecin. Est-ce que tes parents pensent que tu pourrais faire cela?

- Oui, sûrement — 1
- Oui, probablement — 2
- Peut-être — 3
- Non, probablement pas — 4
- Non, sûrement pas — 5

LIS CHAQUE PHRASE QUI SUIV. ENCERCLE LE CHIFFRE QUI INDIQUE SI CELA SE PRODUIT SOUVENT OU NON POUR TOI.

62. En classe, je peux me promener dans la pièce sans demander la permission à mon professeur.

- Toujours — 1
- Souvent — 2
- Parfois — 3
- Rarement — 4
- Jamais — 5

63. Je peux parler aux autres élèves lorsque je fais un travail.

- Toujours — 1
- Souvent — 2
- Parfois — 3
- Rarement — 4
- Jamais — 5

64. En classe, je m'assois à la même place et à côté des mêmes étudiants.

- Toujours — 1
- Souvent — 2
- Parfois — 3
- Rarement — 4
- Jamais — 5

Student Questionnaire (French)

65. Lorsque je travaille sur quelque chose en classe, les autres élèves travaillent aussi sur la même chose.

- Toujours — 1
- Souvent — 2
- Parfois — 3
- Rarement — 4
- Jamais — 5

66. Dans la plupart de mes classes, le professeur me dit ce sur quoi je dois travailler, je n'ai pas le choix.

- Toujours — 1
- Souvent — 2
- Parfois — 3
- Rarement — 4
- Jamais — 5

67. En classe, le professeur se tient en avant et travaille avec tout le monde en même temps.

- Toujours — 1
- Souvent — 2
- Parfois — 3
- Rarement — 4
- Jamais — 5

REPONDs MAINTENANT AUX QUELQUES QUESTIONS QUI SUIVENT EN ENCERCLANT LA REPONSE QUI REPRESENTe LE PLUS CE QUE TU PENSES.

68. Pense aux élèves de ton école. Est-ce qu'ils disent qu'il y a trop de règlements qui les obligent à travailler dans cette école-ci?

- Ils le disent tous les jours — 1
- Ils le disent souvent — 2
- Ils le disent parfois — 3
- Ils le disent rarement — 4
- Ils ne le disent jamais — 5

69. Dans mon école, il est à peu près impossible de savoir quand on fait quelque chose de bien ou quand on fait quelque chose de mal.

- Tout à fait d'accord — 1
- D'accord — 2
- Plus ou moins d'accord — 3
- Pas d'accord — 4
- Pas du tout d'accord — 5

70. Dans cette école-ci, on apprendrait beaucoup plus de choses si les professeurs nous disaient plus quoi faire.

- Tout à fait d'accord — 1
- D'accord — 2
- Plus ou moins d'accord — 3
- Pas d'accord — 4
- Pas du tout d'accord — 5

QUESTIONNAIRE AUX ENSEIGNANTS

Organisation scolaire au primaire

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DIRECTIONS: L'information qui est fournie par ce questionnaire est absolument confidentielle. Personne en dehors de l'équipe de recherche ne verra vos réponses. Le rapport faisant suite à cette enquête utilisera des données au niveau de l'ensemble de l'école de sorte qu'aucun répondant ne pourra être identifié avec ses réponses. Lorsque votre questionnaire aura été transféré sur carte IBM pour utilisation, celui-ci sera détruit. Nous vous assurons de l'absolue confidentialité. Il est donc très important pour nous que vous répondiez de manière aussi franche que possible. Même si toutes les réponses sont importantes, ne vous sentez pas forcés de répondre aux questions que vous croyez trop personnelles ou que vous préférez éviter pour une raison ou l'autre.

Etant donné le faible échantillon utilisé pour cete recherche, il est nécessaire que tous les enseignants visés par l'enquête répondent. Votre nom sert à vérifier si nous avons atteint cet objectif ou pour apprécier l'ampleur de l'erreur introduite si vous décidez de ne pas répondre.

Nous vous remercions vivement pour votre collaboration.

1. Nom

2. Veuillez inscrire le nom de l'école où vous travaillez

REPONDEZ EN ENCERCLANT LE CHIFFRE CORRESPONDANT A LA REPONSE QUE VOUS AVEZ CHOISIE

3. Quel est votre sexe?

Femme — 1
Homme — 2

Teacher Questionnaire (French)

4. Au total, combien d'années d'expérience possédez-vous dans l'enseignement, en incluant l'année scolaire en cours?

C'est ma première année — 1
 2 à 4 ans — 2
 5 à 9 ans — 3
 10 à 15 ans — 4
 16 ans ou plus — 5

5. Depuis combien de temps enseignez-vous dans la présente école?

C'est ma première année — 1
 2 à 4 ans — 2
 5 à 9 ans — 3
 10 à 15 ans — 4
 16 ans ou plus — 5

6. A quelle année enseignez-vous?

4^e année seulement — 1
 5^e année seulement — 2
 6^e année seulement — 3
 7^e année seulement — 4
 4^e et 5^e années jumelées — 5
 5^e et 6^e années jumelées — 6
 6^e et 7^e années jumelées — 7
 4^e, 5^e et 6^e ou 5^e, 6^e et 7^e années jumelées — 8

7. Combien d'années de scolarité vous sont reconnues par votre employeur?

13 ans ou moins — 1
 14 ans — 2
 15 ans — 3
 16 ans — 4
 17 ans — 5
 18 ans ou plus — 6

8. Situez votre formation professionnelle en fonction de l'échelle de diplomation suivante en indiquant la plus élevée seulement.

Diplôme inférieur au Brevet A ou B — 1
 Brevet A ou B ou l'équivalent — 2
 Baccalauréat d'enseignement — 3
 Etudes au niveau de la Maîtrise sans le diplôme — 4
 Licence ou Maîtrise terminée — 5

VOICI QUELQUES QUESTIONS A PROPOS DES HABITUDES DE GROUPEMENT D'ELEVES DANS LES ECOLES. VEUILLEZ INSCRIRE TOUTE INFORMATION ADDITIONNELLE NECESSAIRE AU BAS DE LA REPONSE S'IL Y A LIEU.

9. En début d'année, comment sont répartis les élèves d'un même niveau scolaire parmi les différentes classes dans votre école?

En classes homogènes formées à partir du niveau d'habileté
 général pour l'ensemble des matières scolaires — 1

Teacher Questionnaire (French)

- En classes homogènes formées à partir du niveau d'habileté dans quelques matières scolaires (ex: français, maths, etc.) — 2
- En classes hétérogènes formées à partir du niveau d'habileté général pour l'ensemble des matières scolaires — 3
- En classes hétérogènes formées à partir du niveau d'habileté dans quelques matières scolaires (ex: français, maths, etc.) — 4
- Le groupement se fait au hasard ou à partir de données spéciales (sexe, transport scolaires, etc.) — 5
- Il n'y a pas de groupement intentionnel — 6

10. Il arrive fréquemment que les élèves soient regroupés à l'intérieur d'une même classe pour effectuer les travaux scolaires. Si tel est votre cas, comment s'effectue le regroupement dans votre classe?

- En classes homogènes formées à partir du niveau d'habileté général pour l'ensemble des matières scolaires — 1
- En classes homogènes formées à partir du niveau d'habileté dans quelques matières scolaires (ex: français, maths, etc.) — 2
- En classes hétérogènes formées à partir du niveau d'habileté général pour l'ensemble des matières scolaires — 3
- En classes hétérogènes formées à partir du niveau d'habileté dans quelques matières scolaires (ex: français, maths, etc.) — 4
- Le groupement se fait au hasard ou à partir de données spéciales (sexe, espace, etc.) — 5
- Il n'y a pas de groupement intentionnel dans ma classe — 6

11. Jusqu'ici cete année, quelle a été votre manière de travailler avec vos élèves?

[Si vous avez des niveaux multiples, considérez chaque niveau comme une classe pour la réponse. Si vous avez changé de méthodes au cours de l'année, considérez celle qui a duré plus longtemps seulement.]

- A peu près exclusivement du travail avec l'ensemble de la classe — 1
- Surtout du travail avec l'ensemble, mais travail individuel avec quelques élèves plus lents ou plus rapides — 2
- Un mélange égal de travail d'ensemble et de travaux d'équipes — 3
- Le travail se fait surtout en petites équipes ou petits groupes — 4
- Le travail est surtout individualisé — 5

NOUS NOUS FAISONS TOUS UNE IDEE SUR LES CHANCES DE REUSSITE FUTURE DES ELEVES DANS NOTRE ECOLE ET DANS NOTRE CLASSE MEME SI NOUS SOMMES CONSCIENTS QUE CERTAINS FACTEURS HORS DE NOTRE CONTROLE PEUVENT INFLUENCER FAVORABLEMENT OU DEFAVORABLEMENT LA REUSSITE DE CHAQUE ELEVE DANS L'AVENIR. REPONDEZ AUX QUESTIONS QUI SUIVENT EN VOUS BASANT SUR VOS IMPRESSIONS ACTUELLES ET ESTIMEZ LE POURCENTAGE DE REUSSITE DES ELEVES A PARTIR DES DONNEES QUI SONT VOTRES MEME SI ELLES NE SONT PAS TOUJOURS VERIFIABLES. SI VOUS VOYEZ DES DIFFERENCES ENTRE VOTRE CLASSE ET L'ENSEMBLE DE L'ECOLE, FAITES-LES RESSORTIR; SINON, FOURNISSEZ UNE REPONSE SEMBLABLE POUR LES DEUX.

Teacher Questionnaire (French)

12. D'après vous, quel pourcentage d'élèves dans votre école vont être capable de terminer leur secondaire?

- Presque tous, soit au moins 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

13. D'après vous, quel pourcentage d'élèves dans votre classe vont être capable de terminer leur secondaire?

- Presque tous, soit au moins 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

14. Quel pourcentage d'élèves dans votre école vont vraisemblablement opter pour le secteur professionnel au secondaire selon vous?

- Presque tous, soit au moins 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

15. Quel pourcentage d'élèves dans votre classe vont vraisemblablement opter pour le secteur professionnel au secondaire selon vous?

- Presque tous, soit au moins 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

16. Quel pourcentage d'élèves dans votre école vous attendez-vous à voir aller au Cégep?

- Presque tous, soit au moins 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

17. Quel pourcentage d'élèves dans votre classe vous attendez-vous à voir aller au Cégep?

- Presque tous, soit au moins 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

18. Quel pourcentage d'élèves dans cette école peut-on s'attendre à voir aller à l'Université?

- Presque tous, soit au moins 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

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Teacher Questionnaire (French)

19. D'après vous, quel pourcentage d'élèves dans votre classe peut-on s'attendre à voir aller à l'Université?

- Presque tous, soit au moins 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

20. D'après vous, quel pourcentage d'élèves dans votre école seront capables d'obtenir un diplôme de maîtrise s'ils le désirent?

- Presque tous, soit au moins 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

21. D'après vous, quel pourcentage d'élèves dans votre classe seront capables d'obtenir un diplôme de maîtrise s'ils le désirent?

- Presque tous, soit au moins 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

22. Combien d'élèves dans votre école sont capable d'obtenir surtout des A et des B ou l'équivalent?

- Presque tous, soit au moins 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

23. Combien d'élèves dans votre classe sont capable d'obtenir surtout des A et des B ou l'équivalent?

- Presque tous, soit au moins 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

24. Comment évalueriez-vous personnellement l'habileté scolaire des élèves dans votre école comparativement aux autres écoles élémentaires que vous connaissez?

- L'habileté est beaucoup plus élevée ici — 1
- L'habileté est un peu plus élevée ici — 2
- L'habileté est à peu près pareille ici — 3
- L'habileté est un peu plus faible ici — 4
- L'habileté est beaucoup plus faible ici — 5

Teacher Questionnaire (French)

25. Quel pourcentage d'élèves dans votre école, diriez-vous, sont attirés par l'idée d'étudier longtemps?

- Presque tous, soit au moins 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

26. Comment évalueriez-vous personnellement l'habileté scolaire des élèves dans votre classe comparativement aux autres écoles élémentaires que vous connaissez?

- L'habileté est beaucoup plus élevée ici — 1
- L'habileté est un peu plus élevée ici — 2
- L'habileté est à peu près pareille ici — 3
- L'habileté est un peu plus faible ici — 4
- L'habileté est beaucoup plus faible ici — 5

VOICI QUELQUES QUESTIONS A PROPOS DU (DE LA) PRINCIPAL (E) DE VOTRE ECOLE. REPONDEZ COMME POUR LES QUESTIONS PRECEDENTES EN VOUS APPUYANT SUR VOS PERCEPTIONS DE LA REALITE, POUR FAIRE VOS ESTIMES, PEU IMPORTE LA QUANTITE OU LA QUALITE D'INFORMATION QUE VOUS PENSEZ AVOIR. IL N'Y A PAS DE BONNES OU DE MAUVAISES REPONSES. AUSSI, NOUS APPRECIERIONS BEAUCOUP UNE REPONSE AUSSI NATURELLE QUE POSSIBLE. NOUS VOUS RAPPELONS QUE CETTE RECHERCHE EST ABSOLUMENT CONFIDENTIELLE.

27. D'après ce que vous pensez, quel pourcentage d'élèves dans votre école, le ou la principal (e) s'attend à voir compléter le secondaire?

- Presque tous, soit au moins 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

28. D'après vous, quel pourcentage d'élèves dans votre école, le ou la principal (e) s'attend à voir aller au Cégep?

- Presque tous, soit au moins 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

29. Quel pourcentage d'élèves dans votre école, le ou la principal (e) s'attend à voir obtenir un diplôme universitaire, selon vous?

- Presque tous, soit au moins 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

Teacher Questionnaire (French)

30. Quel pourcentage d'élèves dans votre école estimez-vous que le ou la principal (e) croit capable d'obtenir surtout des A ou des B ou l'équivalent?

Presque tous, soit au moins 90% — 1

Environ 75% — 2

A peu près la moitié — 3

Environ 25% — 4

Très peu, soit moins de 10% — 5

31. A quel niveau pensez-vous que le ou la principal (e) évalue l'habileté scolaire des élèves dans votre école comparativement à d'autres écoles?

Elle est considérée comme bien meilleure — 1

Elle est considérée un peu meilleure — 2

Elle est considérée sur le même pied — 3

Elle est considérée un peu plus faible — 4

Elle est considérée beaucoup plus faible — 5

LES QUESTIONS QUI SUIVENT VOUS CONCERNENT. N'OUBLIEZ PAS D'AJOUTER TOUT RENSEIGNEMENT QUI SERAIT NECESSAIRE POUR COMPRENDRE VOTRE REPONSE SI VOUS EN SENTEZ LE DESIR.

32. Obtenir un diplôme secondaire professionnel est un objectif réaliste que vous fixez pour quel pourcentage de vos élèves?

Presque tous, soit au moins 90% — 1

Environ 75% — 2

A peu près la moitié — 3

Environ 25% — 4

Très peu, soit moins de 10% — 5

33. Obtenir un diplôme collegial est un objectif réaliste que vous fixez pour quel pourcentage de vos élèves?

Presque tous, soit au moins 90% — 1

Environ 75% — 2

A peu près la moitié — 3

Environ 25% — 4

Très peu, soit moins de 10% — 5

34. Obtenir un diplôme universitaire est un objectif réaliste que vous fixez pour quel pourcentage de vos élèves?

Presque tous, soit au moins 90% — 1

Environ 75% — 2

A peu près la moitié — 3

Environ 25% — 4

Très peu, soit moins de 10% — 5

35. Vous arrive-t-il souvent de parler à vos élèves de la nécessité d'aller à l'école pendant longtemps pour obtenir de meilleures chances de réussite dans le futur?

Très souvent — 1

Souvent — 2

Parfois — 3

Rarement — 4

Jamais — 5

Teacher Questionnaire (French)

36. Encouragez-vous vos élèves dont les parents sont peu fortunés à essayer d'aller longtemps à l'école, jusqu'à l'université si possible?

- Très souvent — 1
- Souvent — 2
- Parfois — 3
- Rarement — 4
- Jamais — 5

37. Poussez-vous vos élèves dont l'habileté scolaire vous paraît déficiente à essayer d'aller longtemps à l'école, jusqu'à l'université si possible?

- Très souvent — 1
- Souvent — 2
- Parfois — 3
- Rarement — 4
- Jamais — 5

38. D'après vous, combien de professeurs dans cette école croient qu'on doit montrer à tous les élèves à lire correctement et à maîtriser les autres matières au programme du primaire, même si quelques élèves semblent manifester peu d'intérêt pour l'école?

- Presque tous les professeurs — 1
- La majorité des professeurs — 2
- La moitié des professeurs — 3
- Quelques professeurs — 4
- Presqu'aucun professeurs — 5

39. Ce serait injuste de la part des professeurs dans cette école-ci d'insister auprès des élèves pour qu'ils obtiennent des résultats scolaires plus élevés que ce qu'ils sont actuellement capables de faire?

- Tout à fait d'accord — 1
- D'accord — 2
- Plus ou moins d'accord — 3
- Pas d'accord — 4
- Pas du tout d'accord — 5

40. Lorsque je pense qu'un élève est incapable de faire certains travaux scolaires, j'essaie quand même de le pousser?

- Toujours — 1
- Habituellement oui — 2
- Parfois — 3
- Rarement — 4
- Jamais — 5

41. Je suis généralement très très prudent (e) pour éviter d'amener les élèves jusqu'à un niveau de frustration.

- Tout à fait d'accord — 1
- D'accord — 2
- Plus ou moins d'accord — 3
- Pas d'accord — 4
- Pas du tout d'accord — 5

Teacher Questionnaire (French)

42. Dans cette école-ci, il est à peu près impossible pour un professeur de faire en sorte que tous ses élèves réussissent à un niveau élevé?

- Tout à fait d'accord — 1
- D'accord — 2
- Plus ou moins d'accord — 3
- Pas d'accord — 4
- Pas du tout d'accord — 5

43. A combien estimeriez-vous le nombre de professeurs dans votre école qui encouragent les élèves à demander du travail supplémentaire afin d'obtenir des meilleurs résultats?

- Presque tous les professeurs — 1
- La majorité des professeurs — 2
- La moitié des professeurs — 3
- Quelques professeurs — 4
- Presqu'aucun professeurs — 5

44. Combien d'élèves dans votre école essaient toujours de s'améliorer par rapport à leurs travaux précédents, selon vous?

- Presque tous les élèves — 1
- La plupart des élèves — 2
- La moitié des élèves — 3
- Quelques élèves — 4
- Presqu'aucun élève — 5

45. Combien d'élèves dans votre classe essaient toujours de s'améliorer par rapport à leurs travaux précédents, selon vous?

- Presque tous les élèves — 1
- La plupart des élèves — 2
- La moitié des élèves — 3
- Quelques élèves — 4
- Presqu'aucun élève — 5

46. Combien d'élèves dans votre école vont forcer afin de faire de meilleurs travaux que leurs amis préférés, selon ce que vous seriez portés à croire?

- Presque tous les élèves — 1
- La plupart des élèves — 2
- La moitié des élèves — 3
- Quelques élèves — 4
- Presqu'aucun élève — 5

47. Combien d'élèves dans votre classe travaillent fort dans le but de faire des meilleurs travaux que les autres dans la classe?

- Presque tous les élèves — 1
- La plupart des élèves — 2
- La moitié des élèves — 3
- Quelques élèves — 4
- Presqu'aucun élève — 5

Teacher Questionnaire (French)

48. Y a-t-il beaucoup d'élèves dans votre école qui se satisfont de résultats scolaires inférieurs à leurs capacités, selon vous?

- Presque tous les élèves — 1
- La plupart des élèves — 2
- La moitié des élèves — 3
- Quelques élèves — 4
- Presqu'aucun élève — 5

49. Combien d'élèves dans votre classe se satisfont de résultats scolaires inférieurs à leurs capacités?

- Presque tous les élèves — 1
- La plupart des élèves — 2
- La moitié des élèves — 3
- Quelques élèves — 4
- Presqu'aucun élève — 5

50. Selon vos observations, y a-t-il beaucoup d'élèves dans votre école qui demandent des travaux supplémentaires afin d'obtenir de meilleurs résultats?

- Presque tous les élèves — 1
- La plupart des élèves — 2
- La moitié des élèves — 3
- Quelques élèves — 4
- Presqu'aucun élève — 5

51. Combien d'élèves dans votre classe demandent des travaux supplémentaires afin d'obtenir de meilleurs résultats?

- Presque tous les élèves — 1
- La plupart des élèves — 2
- La moitié des élèves — 3
- Quelques élèves — 4
- Presqu'aucun élève — 5

52. En vous basant sur vos appréciations, quel niveau de réussite scolaire peut-on s'attendre des élèves dans cette école-ci?

- Très au dessus de la moyenne provinciale — 1
- Au dessus de la moyenne provinciale — 2
- A peu près dans la moyenne provinciale — 3
- Légèrement en dessous de la moyenne provinciale — 4
- Très en dessous de la moyenne provinciale — 5

53. En moyenne, quel niveau de réussite scolaire peut-on s'attendre des élèves dans votre classe?

- Très au dessus de la moyenne provinciale — 1
- Au dessus de la moyenne provinciale — 2
- A peu près dans la moyenne provinciale — 3
- Légèrement en dessous de la moyenne provinciale — 4
- Très en dessous de la moyenne provinciale — 5

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Teacher Questionnaire (French)

LES PROCHAINES QUESTIONS SE RAPPORTENT AUX PARENTS DES ELEVES DANS VOTRE ECOLE. ESTIMEZ A NOUVEAU QUELLES DEVRAIENT ETRE LEURS REPONSES EN VOUS APPUYANT SUR VOS PROPRES OBSERVATIONS.

54. Les parents des élèves considèrent cette école-ci principalement comme une garderie ou une place pour s'occuper des enfants?

- Tout à fait d'accord — 1
- D'accord — 2
- Plus ou moins d'accord — 3
- Pas d'accord — 4
- Pas du tout d'accord — 5

55. Les parents des élèves dans cette école-ci ont un souci très marqué pour que leurs enfants reçoivent une formation de première qualité.

- Tout à fait d'accord — 1
- D'accord — 2
- Plus ou moins d'accord — 3
- Pas d'accord — 4
- Pas du tout d'accord — 5

56. D'après vous, combien de parents d'élèves dans votre école pensent que leurs enfants vont terminer leur secondaire?

- Presque tous les parents — 1
- La plupart des parents — 2
- La moitié des parents — 3
- Quelques parents — 4
- Presqu'aucun parent — 5

57. Selon vous, combien de parents d'élèves dans cette école-ci s'attendent à ce que leurs enfants se rendent à l'université un jour?

- Presque tous les parents — 1
- La plupart des parents — 2
- La moitié des parents — 3
- Quelques parents — 4
- Presqu'aucun parent — 5

58. Combien de parents d'élèves dans votre école restent indifférents lorsque leurs enfants obtiennent des mauvais résultats, d'après vous?

- Presque tous les parents — 1
- La plupart des parents — 2
- La moitié des parents — 3
- Quelques parents — 4
- Presqu'aucun parent — 5

59. Quelle proportion parmi les parents de vos élèves reconnaissez-vous lorsque vous les rencontrez?

- Presque tous — 1
- A peu près 75% — 2
- A peu près 50% — 3
- A peu près 25% — 4
- Seulement quelques-uns — 5

LES DERNIERES QUESTIONS TOUCHENT A CERTAINS ASPECTS DU FONCTIONNEMENT ADMINISTRATIF ET PEDAGOGIQUE DE VOTRE ECOLE. SUIVEZ BIEN LES DIRECTIVES AVANT DE REpondre AUX QUESTIONS A FORME IRRégULIERE.

60. Comment administrez-vous vos objectifs pédagogiques?

- Ils sont les mêmes pour tous les étudiants — 1
Ils sont les mêmes pour la plupart des étudiants — 2
Ils sont les mêmes pour quelques étudiants — 3
Ils sont différents pour la plupart des étudiants — 4
Ils sont différents pour chaque étudiant — 5

61. Voici une série d'affirmations relevées auprès d'enseignants. Dites jusqu'à quel point celles-ci sont représentatives de votre comportement en classe.

[Encerlez le chiffre correspondant à votre réponse pour chaque affirmation.]

	Très représentatif	représentatif	+ ou - représentatif	Peu représentatif	Pas représentatif
a) Lorsqu'un élève en général commet une erreur dans un travail, je lui note aussitôt la faute sans équivoque.	1	2	3	4	5
b) Dans ma classe, j'applique le dicton qui veut qu'"un bon élève n'a pas besoin qu'on lui dise qu'il a raison, il le sait."	1	2	3	4	5
c) Lorsqu'un élève que je considère faible commet plusieurs erreurs dans un travail, j'essaie de ne pas toutes les souligner pour ne pas le décourager.	1	2	3	4	5
d) Dans mon travail en classe, j'essaie toujours de trouver un moyen pour renforcer les élèves même si cela peut leur faire négliger de corriger des erreurs importantes.	1	2	3	4	5
e) J'informe toujours les élèves des comportements que je considère acceptables et ceux non désirables en classe.	1	2	3	4	5
f) En certaines occasions, il m'arrive volontairement de noter des fautes lorsqu'il n'y a pas lieu parce que cela m'apparaît un service à l'élève.	1	2	3	4	5
g) Dans ma classe, je ne souligne que les bonnes réponses ou les bons travaux et j'évite de parler des erreurs.	1	2	3	4	5

Teacher Questionnaire (French)

- h) Pour éviter de blesser un élève qui fournit un mauvais travail, je vais généralement lui souligner que c'est un "bon essai".
- 1 2 3 4 5
- i) Si un élève faible s'améliore considérablement, je l'en félicite tout en lui notant clairement le chemin qu'il reste à parcourir.
- 1 2 3 4 5
- j) Je suis beaucoup plus sévère pour les bons élèves dans mes corrections que pour les mauvais.
- 1 2 3 4 5
62. En utilisant le même mode de réponse, que pour la question précédente, dites jusqu'à quel point les énoncés suivants sont caractéristiques de votre classe cette année.
- | | Très re-
présen-
tatif | repré-
sent-
tatif | + ou -
repré-
sentatif | Peu re-
présen-
tatif | Pas re-
présen-
tatif |
|--|------------------------------|--------------------------|------------------------------|-----------------------------|-----------------------------|
| a) J'encourage les élèves à parler entre eux lorsqu'ils font leurs travaux en classe. | 1 | 2 | 3 | 4 | 5 |
| b) C'est habituellement moi qui détermine où les élèves vont s'asseoir. | 1 | 2 | 3 | 4 | 5 |
| c) Règle générale, les élèves sont autorisés à se promener à leur guise sans demander la permission. | 1 | 2 | 3 | 4 | 5 |
| d) La disposition des élèves et des meubles est modifiée fréquemment (au moins 5 fois par session). | 1 | 2 | 3 | 4 | 5 |
| e) Les élèves travaillent habituellement tous sur le même sujet en même temps. | 1 | 2 | 3 | 4 | 5 |
63. Pensez à hier ou à la dernière journée où vous avez travaillé avec vos élèves sur des tâches régulières. Déterminez la proportion du temps où vous avez eu la parole comparativement aux élèves.
- 95% et plus du temps — 1
 81-94% du temps — 2
 61-80% du temps — 3
 31-60% du temps — 4
 moins de 30% — 5

Teacher Questionnaire (French)

64. En vous référant à la semaine dernière (ou la dernière semaine régulière), répartissez votre temps de présence avec les élèves selon les catégories suivantes:

[Lisez tous les choix avant de répondre et soyez aussi précis que possible.]

Temps consacré à des tâches administratives (présences, dossiers, notes aux parents, etc.)	1 1 1	%
Temps passé à organiser la vie de la classe, le fonctionnement du groupe et à maintenir l'ordre	1 1 1	%
Temps consacré à l'enseignement ou à une activité (en grands ou en petits groupes) centrés sur l'instruction directement	1 1 1	%
Temps consacré à des activités plus ou moins dirigées (travail libre, temps de lecture ou d'étude, bibliothèque, etc.)	1 1 1	%
Temps réservé à des activités de détente ou de divertissement (jeux, activités sportives, récréation, etc.)	1 1 1	%
Temps passé à faire de l'évaluation, correction ou à discuter avec un élève de problèmes particuliers	1 1 1	%
Autres (spécifiez s'il vous plaît) _____	1 1 1	%
	1 1 1	%
TOTAL	100	%

65. Que considérez vous comme étant votre principale responsabilité envers les élèves dans votre classe?

[Encerclez une seule réponse.]

- L'enseignement des matières scolaires — 1
- Favoriser la socialisation et la capacité d'entrer en
relation avec les autres — 2
- La croissance personnelle et le développement
de l'individu (actualisation) — 3
- Susciter le désir de réussir à l'école et dans le travail — 4
- Autres (spécifiez) _____ — 5
- _____ — 6

66. Dans certaines écoles, les parents prennent une part active aux travaux scolaires, mais celle-ci prend des formes différentes. Voici quelques exemples de participation. Indiquez-nous la fréquence avec laquelle ces domaines sont touchés dans votre classe, si tel est le cas.

[Choisissez une réponse pour chaque cas en vous servant de l'échelle suivante et indiquez-la en encerclant le chiffre correspondant au bout de la ligne.]

1. Cela se présente tous les jours
2. Cela se présente au moins deux fois par semaine
3. Cela se présente 1 fois par semaine
4. Cela se présente environ une fois par mois
5. Cela se présente très occasionnellement
6. Cela ne se présente jamais

- | | |
|--|-----------------------|
| a) Participer à un travail de support (transport d'élèves,
surveillance pour sorties, etc.) | 1 2 3 4 5 6 |
| b) Diriger un atelier en classe (couture, menuiserie, etc.) | 1 2 3 4 5 6 |
| c) Aider lors d'une activité pédagogique (bibliothèque,
lecture d'un conte, etc.) | 1 2 3 4 5 6 |

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Teacher Questionnaire (French)

d) S'occuper d'aider les enfants plus lents en lecture ou en d'autres matières scolaires 1 2 3 4 5 6

e) Prendre en charge la classe pour une activité directement éducative 1 2 3 4 5 6

f) Autre (spécifiez): _____ 1 2 3 4 5 6
_____ 1 2 3 4 5 6

67. En moyenne, combien de rencontres individuelles à l'école avez-vous chaque mois avec des parents de vos élèves, en dehors des périodes de remise de bulletins, pour discuter de divers sujets concernant leurs enfants?

21 et plus — 1
13 à 20 — 2
6 à 12 — 3
3 à 5 — 4
1 ou 2 — 5
Aucune — 6

68. En moyenne, combien de conversations téléphoniques avez-vous chaque mois avec des parents de vos élèves pour discuter de divers sujets concernant leurs enfants?

21 et plus — 1
13 à 20 — 2
6 à 12 — 3
3 à 5 — 4
1 ou 2 — 5
Aucune — 6

69. Nous vous présentons maintenant une échelle qui identifie des niveaux de prise de décision à l'école. Dites-nous, par rapport aux dix-huit (18) éléments suivants, qui prend les décisions dans votre école.

[Comme précédemment, indiquez votre réponse en encerclant un chiffre au bout de chaque ligne.]

1. Le principal décide seul ou en suivant l'avis de la Commission Scolaire
2. Le principal consulte les professeurs mais décide finalement
3. Le principal et les professeurs décident collectivement
4. Les professeurs décident en comité avec ou sans l'avis du principal
5. Les professeurs décident individuellement

a. L'engagement de nouveaux professeurs	1	2	3	4	5
b. La sélection d'assistants ou d'aides pédagogiques	1	2	3	4	5
c. La sélection des remplaçants	1	2	3	4	5
d. La sélection des critères d'évaluation des professeurs	1	2	3	4	5
e. La procédure d'évaluation des professeurs	1	2	3	4	5
f. La procédure d'évaluation des étudiants	1	2	3	4	5
g. La disposition des élèves en classe	1	2	3	4	5
h. Les méthodes d'enseignement à utiliser	1	2	3	4	5
i. Les modifications à l'horaire pour sorties ou autres	1	2	3	4	5
j. L'horaire des arrêts pédagogiques	1	2	3	4	5

Teacher Questionnaire (French)

k) Les thèmes traités lors des rencontres pédagogiques	1	2	3	4	5
l) Le programme à voir chaque année	1	2	3	4	5
m) Le classement des élèves en début d'année	1	2	3	4	5
n) Les manuels de classe à utiliser	1	2	3	4	5
o) Prendre contact avec les parents pour les cas graves	1	2	3	4	5
p) Prendre contact avec les parents pour les cas mineurs	1	2	3	4	5
q) Les objectifs à poursuivre durant l'année	1	2	3	4	5
r) L'établissement des méthodes de discipline relativement aux étudiants	1	2	3	4	5

70. Beaucoup d'écoles possèdent des règlements internes relativement au va-et-vient du personnel, heures de présence, plan de travail à suivre, remise des dossiers, objectifs scolaires à poursuivre, etc.

Jusqu'à quel point de tels règlements existent-ils dans votre école?

- Il y a énormément de règlements ici — 1
- Il y a beaucoup de règlements ici — 2
- Il y a plus ou moins de règlements ici — 3
- Il y a peu de règlements ici — 4
- Il n'y a pas de règlements énoncés ici — 5

71. S'il y a des règlements énoncés dans votre école, jusqu'à quel point sont-ils mis en application?

- Ils sont appliqués à la lettre dans tous les cas — 1
- Ils sont appliqués à la lettre dans la plupart des cas — 2
- La force de leur application varie — 3
- Ils sont peu appliqués — 4
- Ils ne sont pas du tout appliqués — 5

QUESTIONNAIRE AUX PRINCIPAUX

Organisation scolaire au primaire

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DIRECTIONS: L'information qui est fournie par ce questionnaire est absolument confidentielle. Personne en dehors de l'équipe de recherche ne verra vos réponses. Le rapport faisant suite à cette enquête utilisera des données au niveau de l'ensemble de l'école de sorte qu'aucun répondant ne pourra être identifié avec ses réponses. Lorsque votre questionnaire aura été transféré sur carte IBM pour utilisation, celui-ci sera détruit. Nous vous assurons de l'absolue confidentialité. Il est donc très important pour nous que vous répondiez de manière aussi franche que possible. Même si toutes les réponses sont importantes, ne vous sentez pas forcés de répondre aux questions que vous croyez trop personnelles ou que vous préférez éviter pour une raison ou l'autre.

Étant donné le faible échantillon utilisé pour cette recherche, il est nécessaire que tous les principaux visés par l'enquête répondent. Nous vous serions évidemment reconnaissants de nous retourner ce questionnaire le plus tôt possible.

Merci de votre collaboration et de votre participation.

1. Nom

2. Veuillez inscrire le nom de l'école où vous travaillez et qui est visée par cette recherche.

REPONDEZ EN ENCERCLANT LE CHIFFRE CORRESPONDANT A LA REPONSE QUE VOUS AVEZ CHOISIE

3. Quel est votre sexe?

Femme — 1
Homme — 2

Principal Questionnaire (French)

4. Depuis combien de temps êtes-vous principal (e) dans cette école-ci?

- C'est ma première année — 1
- 2 à 4 ans — 2
- 5 à 9 ans — 3
- 10 à 15 ans — 4
- 16 ans ou plus — 5

5. Depuis combien de temps êtes-vous principal (e)?

- C'est ma première année — 1
- 2 à 4 ans — 2
- 5 à 9 ans — 3
- 10 à 15 ans — 4
- 16 ans ou plus — 5

6. Quelles étaient vos années d'expérience dans l'enseignement avant de devenir principal (e)?

- Je n'ai jamais enseigné (e) — 1
- 1 à 4 ans — 2
- 5 à 9 ans — 3
- 10 à 15 ans — 4
- 16 ans ou plus — 5

7. Situez votre formation professionnelle en fonction de l'échelle de diplomation suivante en indiquant la plus élevée seulement.

- Diplôme inférieur au Brevet A ou B — 1
- Brevet A ou B ou l'équivalent — 2
- Baccalauréat d'enseignement — 3
- Etudes au niveau de la Maîtrise sans le diplôme — 4
- Licence ou Maîtrise terminée — 5

8. Selon votre jugement, quelle est la réputation de cette école-ci parmi les éducateurs en général?

- Une des meilleures — 1
- Meilleure que la moyenne — 2
- Dans la moyenne — 3
- En dessous de la moyenne — 4
- Mauvaise — 5

9. Comment évalueriez-vous cette école en regard de la réussite des élèves?

- Une des meilleures — 1
- Meilleure que la moyenne — 2
- Dans la moyenne — 3
- En dessous de la moyenne — 4
- Mauvaise — 5

10. En ce qui concerne la réussite des élèves, quel niveau cette école est-elle objectivement capable d'atteindre selon vous?

- Une des meilleures — 1
- Meilleure que la moyenne — 2
- Dans la moyenne — 3
- En dessous de la moyenne — 4
- Mauvaise — 5

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Principal Questionnaire (French)

11. Que considérez vous comme étant la principale responsabilité de l'école envers les élèves?

[Encerclez une seule réponse.]

- L'enseignement des matières scolaires — 1
- Favoriser la socialisation et la capacité d'entrer en relation avec les autres — 2
- La croissance personnelle et le développement de l'individu (actualisation) — 3
- Susciter le désir de réussir à l'école et dans le travail — 4
- Autres (spécifiez s'il vous plaît) _____ — 5
- _____ — 6

VEUILLEZ REPONDRE AUX QUESTIONS QUI SUIVENT EN ENCERCLANT LE CHIFFRE CORRESPONDANT A CE QUI REPRESENTE LE MIEUX VOTRE OPINION, PEU IMPORTE LA QUANTITE OU LA QUALITE DE L'INFORMATION QUE VOUS PENSEZ AVOIR POUR LE FAIRE. CE N'EST PAS L'EXACTITUDE DES REPONSES QUI NOUS INTERESSE ICI MAIS BIEN VISION DES CHOSES.

12. En moyenne, quel niveau de réussite scolaire peut-on attendre des élèves de cette école-ci?

- Très au-dessus de la moyenne provinciale — 1
- Au-dessus de la moyenne provinciale — 2
- A peu près dans la moyenne provinciale — 3
- En dessous de la moyenne provinciale — 4
- Très en dessous de la moyenne provinciale — 5

13. D'après vous, quel pourcentage d'élèves dans cette école vont être capable de terminer leur secondaire?

- Presque tous, soit plus de 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

14. Quel pourcentage d'élèves dans cette école vont vraisemblablement opter pour le secteur professionnel au secondaire selon vous?

- Presque tous, soit plus de 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

15. Quel pourcentage d'élèves dans cette école vous attendez-vous à voir aller au Cégep?

- Presque tous, soit plus de 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

Principal Questionnaire (French)

16. Quel pourcentage d'élèves dans cette école vous attendez-vous à voir aller à l'université et y obtenir un diplôme?

- Presque tous, soit plus de 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

17. Combien parmi les élèves de cette école sont réellement capable d'obtenir des bons résultats?

- Presque tous, soit plus de 90% — 1
- Environ 75% — 2
- A peu près la moitié — 3
- Environ 25% — 4
- Très peu, soit moins de 10% — 5

18. Comment évalueriez-vous personnellement l'habileté scolaire des élèves de cette école-ci comparativement à ceux de d'autres écoles élémentaires que vous connaissez?

- L'habileté est beaucoup plus élevée ici — 1
- L'habileté est un peu plus élevée ici — 2
- L'habileté est à peu près pareille — 3
- L'habileté est un peu plus faible ici — 4
- L'habileté est beaucoup plus faible ici — 5

19. Les parents des élèves d'ici regardent cette école principalement comme une garderie ou comme une place pour occuper les enfants.

- Tout à fait d'accord — 1
- D'accord — 2
- Plus ou moins d'accord — 3
- Pas d'accord — 4
- Pas du tout d'accord — 5

20. Les parents des élèves dans cette école-ci ont un souci très marqué pour que leurs enfants reçoivent une formation scolaire de première qualité.

- Tout à fait d'accord — 1
- D'accord — 2
- Plus ou moins d'accord — 3
- Pas d'accord — 4
- Pas du tout d'accord — 5

21. Parmi les parents des élèves de cette école-ci, combien s'attendent à voir leur (s) enfant (s) terminer leur secondaire, selon vous?

- Presque tous les parents — 1
- La plupart des parents — 2
- A peu près la moitié des parents — 3
- Quelques parents — 4
- Presqu'aucun parent — 5

Principal Questionnaire (French)

22. Parmi les parents des élèves de cette école-ci, combien s'attendent à voir leur (s) enfant (s) se rendre au Cégep?

- Presque tous les parents — 1
- La plupart des parents — 2
- A peu près la moitié des parents — 3
- Quelques parents — 4
- Presqu'aucun parent — 5

23. D'après vous, parmi les parents des élèves de cette école-ci, combien s'attendent à voir leur (s) enfant (s) obtenir un diplôme universitaire un jour?

- Presque tous les parents — 1
- La plupart des parents — 2
- A peu près la moitié des parents — 3
- Quelques parents — 4
- Presqu'aucun parent — 5

24. Parmi les parents des élèves de cette école-ci, combien restent indifférents lorsque leur (s) enfant (s) obtiennent des mauvais résultats?

- Presque tous les parents — 1
- La plupart des parents — 2
- A peu près la moitié des parents — 3
- Quelques parents — 4
- Presqu'aucun parent — 5

25. Parmi les parents des élèves de cette école-ci, combien désirent recevoir de l'information (feedback) de la part du (de la) principal (e) ou des professeurs à propos de leurs enfants à l'école?

- Presque tous les parents — 1
- La plupart des parents — 2
- A peu près la moitié des parents — 3
- Quelques parents — 4
- Presqu'aucun parent — 5

26. Quel pourcentage d'élèves dans cette école-ci croyez-vous capable d'apprendre à lire convenablement pour la fin de la 2^e année?

- 100% — 1
- 90-99% — 2
- 80-89% — 3
- 70-79% — 4
- 50-69% — 5
- Moins de 50% — 6

27. Vous arrive-t-il souvent de suggérer à vos professeurs des moyens pour améliorer le rendement scolaire?

- Très souvent — 1
- Souvent — 2
- Parfois — 3
- Rarement — 4
- Jamais — 5

Principal Questionnaire (French)

28. Vous arrive-t-il fréquemment de rassembler les professeurs en groupe pour discuter de moyens concrets pour améliorer le rendement scolaire?

- Très souvent — 1
- Souvent — 2
- Parfois — 3
- Rarement — 4
- Jamais — 5

29. Comme principal (e), quel effet pensez-vous avoir personnellement sur la réussite des élèves?

- Un effet majeur — 1
- Un effet assez important — 2
- Un effet important — 3
- Un effet peu important — 4
- Pas d'effet du tout — 5

30. C'est la responsabilité du (de la) principal (e) de s'assurer que tous les élèves dans son école réussissent à un niveau élevé.

- Tout à fait d'accord — 1
- D'accord — 2
- Plus ou moins d'accord — 3
- Pas d'accord — 4
- Pas du tout d'accord — 5

31. Peu importe le type d'élèves dans une école, c'est possible pour un (e) principal (e), avec la collaboration des professeurs, de changer une école qui a un faible taux de réussite en une école qui réussit bien.

- Tout à fait d'accord — 1
- D'accord — 2
- Plus ou moins d'accord — 3
- Pas d'accord — 4
- Pas du tout d'accord — 5

32. Quelle est, en général, l'appréciation des parents des élèves de cette école-ci, en regard de la réussite de leurs enfants?

- Presque tous trouvent qu'ils réussissent très bien — 1
- La majorité pensent qu'ils font aussi bien qu'ils devraient — 2
- La majorité pensent qu'ils devraient réussir mieux — 3
- Presque tous pensent qu'ils devraient réussir mieux — 4
- Ils sont indifférents — 5

33. Quelle est votre attitude en regard de la réussite des élèves dans cette école-ci?

- Presque tous les élèves réussissent aussi bien qu'ils le peuvent — 1
- La plupart des élèves réussissent aussi bien qu'ils le peuvent — 2
- La moitié des élèves réussissent aussi bien qu'ils le peuvent — 3
- Moins de la moitié des élèves réussissent aussi bien qu'ils le peuvent — 4
- Seulement quelques élèves réussissent aussi bien qu'ils le peuvent — 5

Principal Questionnaire (French)

34. Quelle proportion de votre temps dans une semaine normale est consacrée à chacune des activités suivantes?

Planification à long-terme	<input type="text"/>	<input type="text"/>	%
Supervision du personnel enseignant	<input type="text"/>	<input type="text"/>	%
Supervision du personnel non-enseignant	<input type="text"/>	<input type="text"/>	%
Rapport avec les parents et le milieu social	<input type="text"/>	<input type="text"/>	%
Discipline	<input type="text"/>	<input type="text"/>	%
Autres tâches administratives	<input type="text"/>	<input type="text"/>	%
Activités pédagogiques (spécifiez) _____	<input type="text"/>	<input type="text"/>	%
Autres (spécifiez) _____	<input type="text"/>	<input type="text"/>	%
TOTAL	100	%	

VOICI UNE SERIE DE QUESTIONS CONCERNANT LES PARENTS DES ELEVES QUI FREQUENTENT CETTE ECOLE. SOYEZ AUSSI PRECIS QUE POSSIBLE DANS VOS REPNSES, S'IL VOUS PLAIT.

35. Dans les (3) trois dernières années, combien de rencontres régulières avec l'ensemble des parents, ont été organisées dans cette école pour des activités de formation ou d'information?

[Basez votre réponse sur une moyenne annuelle et ne calculez pas les rencontres extraordinaires pour régler un cas précis.]

- 5 ou plus par année — 1
- 3 ou 4 par année — 2
- 2 par année — 3
- 1 par année — 4
- Aucune rencontre — 5

36. Quel a été le taux moyen de participation des parents à ces rencontres d'ensemble?

- 90% ou plus — 1
- 70-89% — 2
- 50-69% — 3
- 30-49% — 4
- moins de 30% — 5

37. Dans les (3) trois dernières années, quel a été le nombre moyen de rencontres du comité d'école par année?

- 15 rencontres ou plus par année — 1
- 10 à 14 rencontres par année — 2
- 7 à 9 rencontres par année — 3
- 3 à 6 rencontres par année — 4
- 2 rencontres ou moins par année — 5

38. Quel a été le taux moyen de participation des parents membres du comité à ces rencontres?

- 90% ou plus — 1
- 70-89% — 2
- 50-69% — 3
- 30-49% — 4
- moins de 30% — 5

Principal Questionnaire (French)

39. En moyenne, combien de rencontres individuelles, à l'école, avez-vous chaque mois avec des parents des élèves pour discuter de divers sujets concernant leurs enfants?

- 21 ou plus par mois — 1
- 15 à 20 par mois — 2
- 9 à 14 par mois — 3
- 4 à 8 par mois — 4
- 2 ou 3 par mois — 5
- Une ou aucune — 6

40. En moyenne, combien de rencontres avez-vous avec des groupes de parents à l'école chaque mois?

- 21 ou plus par mois — 1
- 15 à 20 par mois — 2
- 9 à 14 par mois — 3
- 4 à 8 par mois — 4
- 2 ou 3 par mois — 5
- Une ou aucune — 6

41. Vous arrive-t-il fréquemment d'aller rencontrer à la maison certains parents des élèves de cette école-ci?

- Presque tous les jours — 1
- Souvent et à chaque semaine — 2
- Plusieurs fois par mois — 3
- Occasionnellement — 4
- Jamais — 5

42. Quelle proportion parmi les parents des élèves de cette école reconnaissez-vous lorsque vous les rencontrez?

- Presque tous — 1
- A peu près 75% — 2
- A peu près 50% — 3
- A peu près 25% — 4
- Seulement quelques-uns — 5

43. Par rapport aux (7) sept activités suivantes, indiquez le taux de participation des parents du secteur couvert par cette école.

[Répondez en encerclant le chiffre correspondant au pourcentage de participation des parents.]

	moins de 10%	de 11% à 39%	de 40% à 59%	de 60% à 89%	plus de 90%
a) Voter aux élections des Commissaires d'école	1	2	3	4	5
b) Assister à au moins une réunion de la Commission Scolaire par année	1	2	3	4	5
c) Assister à au moins une rencontre parents-école par année	1	2	3	4	5
d) Rencontrer le (s) professeur (s) de leur (s) enfant (s) au moins <u>une</u> fois par année	1	2	3	4	5

Principal Questionnaire (French)

- e) Rencontrer le (s) professeur (s) de leur (s) enfant (s) au moins trois fois par année 1 2 3 4 5
- f) Aider à des activités de l'école ou de la classe (surveillance pour sorties, ateliers en classe, etc.) 1 2 3 4 5
- g) Participer à un comité ou groupe intéressé à un domaine éducatif relié ou non à l'école 1 2 3 4 5

44. Qu'est-ce qui décrirait le mieux le rôle joué par les parents dans votre comité d'école cette année?

- Les parents sont très actifs et très revendicateurs — 1
 Les parents sont très actifs et revendiquent parfois — 2
 Les parents sont très actifs mais ne revendiquent pas — 3
 Les parents s'impliquent faiblement — 4
 Les parents se contentent de recevoir de l'information — 5

45. Voici une série de domaines scolaires qui font objet de décisions. Nous vous demandons d'indiquer la part prise par les parents de ce secteur en regard de leur influence sur ces aspects.

[Choisissez une réponse pour chaque cas en vous servant de l'échelle suivante et indiquez-là en encerclant le chiffre correspondant au bout de la ligne.]

1. Les parents participent et ont une influence décisive
 2. Les parents participent et orientent parfois la décision
 3. Les parents participent mais ont peu de pouvoir d'influence
 4. Les parents participent peu et n'ont aucune influence
 5. Les parents ne participent pas
- a. La sélection de manuels de classe 1 2 3 4 5
- b. La sélection du matériel didactique 1 2 3 4 5
- c. L'établissement des objectifs à poursuivre par l'école (en dehors de ceux fixés par le Ministère) 1 2 3 4 5
- d. Le choix des méthodes d'enseignement 1 2 3 4 5
- e. La détermination des activités et des leçons de chaque semaine 1 2 3 4 5
- f. L'établissement ou la modification de l'horaire de l'école 1 2 3 4 5
- g. La détermination de la date des réunions parents-professeurs 1 2 3 4 5
- h. La détermination de l'ordre du jour des réunions parents-professeurs 1 2 3 4 5
- i. La répartition du budget de l'école 1 2 3 4 5
- j. La politique d'évaluation des étudiants 1 2 3 4 5
- k. L'établissement des normes disciplinaires 1 2 3 4 5
- l. La sélection des nouveaux professeurs 1 2 3 4 5
- m. L'établissement des politiques et des procédures pour évaluer les professeurs 1 2 3 4 5
- n. L'établissement des critères utilisés pour le classement des élèves 1 2 3 4 5
- o. La politique en regard des travaux à domicile (devoirs et leçons) 1 2 3 4 5

SCHEMA D'ENTREVUE: PRINCIPAL (E)

Organisation scolaire au primaire

Document de l'interviewer

A) Renseignements généraux

1. Nom du répondant: _____
2. Ecole: _____
3. Fonction: principal () Assistant-principal ()
4. Statut du (de la) principal (e):
 - plein temps dans cette école seulement ()
 - temps partiel dans cette école ()
 - combien d'écoles _____ poste administratif ()
 - % du temps ici _____
 - principal (e) à temps partiel ()
 - autre _____ ()

B) Localisation de l'école

5. Description du secteur couvert par l'école (provenance des élèves)
 - ville
 - quartiers homogènes exclusivement ()
 - (5m. et +) → plusieurs quartiers surtout homogènes ()
 - plusieurs quartiers hétérogènes ()
 - village
 - un seul village et environs ()
 - plusieurs villages homogènes ()
 - plusieurs villages hétérogènes ()
 - mélange → ville _____% campagne _____%
6. Population de la localité de l'école: _____
7. Population du secteur desservi par l'école: _____
8. Distance en milles d'un centre significatif: _____
(ville si milieu rural — centre-ville si urbain)
9. Transport scolaire? _____% d'élèves utilisateurs
10. Distance moyenne à parcourir? _____ Plus longue distance? _____
11. Travail type des habitants du secteur? _____

C) Caractéristiques des élèves (utiliser dossiers si possible)

12. et 13. % scolarité supérieure à secondaire: père _____% mère _____%
14. et 15. % scolarité inférieure à 7e année: père _____% mère _____%
16. % des pères professionnels, administrateurs, technologistes _____
17. % des pères ouvriers spécialisés, fonctionnaires, profs. _____
18. % des pères journaliers _____
19. % des pères en chômage plus de 3 mois par année ... _____
20. % des pères à salaire inférieur à 6,000\$ _____
21. % des pères à salaire supérieur à 18,000\$ _____ dossier
22. % des mères qui travaillent à l'extérieur _____ ()

D) Caractéristiques de l'école

23. Nombre d'élèves au 30 mars 1979 _____

Principal's Interview (French)

24. Niveaux offerts: - tous les niveaux () _____
 - 2e cycle seulement () _____
 - 7e année: oui () non ()
 → pré-secondaire () additionnelle ()
25. Nombre de classes (incluant EI): _____
26. Organisation des classes:
 - combien à niveau unique _____ toutes ()
 - combien à niveau multiples _____
 (décrire) _____
 - motifs pour classes multiples _____
 - combien de classes pour inadaptés _____ aucune ()
 → origine locale _____ externe ()
 → décrire: _____
 - classes d'attente, de récupération ou de maturation ()
27. Taux de fréquentation quotidien moyen _____ %
28. A part le français et les mathématiques, quelles matières sont enseignées ici?
 - catéchèse ()
 - sciences humaines ()
 - éducation physique ()
 - sciences de la nature ()
 - musique (arts rythmiques) ()
 - autres ()
29. Faire la liste des spécialistes travaillant dans l'école et leur taux de participation.

<u>Liste</u>	<u>Nombre</u>	<u>Nombre d'heures de présence</u> par semaine (1/10 de semaine) pour chacun.
- éducation physique	_____	_____
- musique	_____	_____
- orthopédagogue	_____	_____
- enseignement moral	_____	_____
- _____	_____	_____
- _____	_____	_____
30. Nombre moyen d'heures assurées par les spécialistes pour une classe type par semaine? _____
31. Faire la liste des ressources professionnelles accessibles et leur taux de présence dans l'école.

<u>Liste</u>	<u>Nombre</u>	<u>Nombre d'heures de présence</u> par semaine (1/10 de semaine) pour chacun.
- infirmier (ère)	_____	_____
- psychologue	_____	_____
- c. d'orientation	_____	_____
- travailleur social	_____	_____
- c. en enfance inad.	_____	_____
- _____	_____	_____
- E) Caractéristiques des professeurs
32. Nombre de professeurs: - temps plein _____
 - temps partiel _____
 - assistants (aides pédagogiques) _____

33. Années de scolarité reconnues _____

34. Années d'expérience dans l'enseignement _____

35. Années d'expérience dans cette école _____

36. Dernier diplôme obtenu (Brevet A, B, C, Bacc. Spec., MA, Med) _____

37. Qualification légale: - nombre de permis d'enseignement _____
 - nombre d'autorisations provisoires _____
 - autre _____

38. Salaire moyen des professeurs _____

39. Combien de professeurs enseignent toutes les matières dans une seule classe (à part les spécialistes)?

Nombre _____ tous ()

Si exceptions: décrire nombre de classes et matières enseignées

Groupement des élèves

40. Décrire le mode de groupement des élèves en début d'année:
- homogène selon les habiletés d'ensemble ()
 - homogène selon les habiletés dans une ou 2 matières ()
 - hétérogène selon les habiletés d'ensemble ()
 - hétérogène selon les habiletés dans une ou 2 matières ()
 - au hasard ou selon des particularités pratiques ()
 - non intentionnel ()
41. Décrire la forme de regroupement des élèves utilisée:
- aucune ()
 - forte, moyenne, lente ()
 - avancée, allégée ()
 - autre ()
42. Le niveau de regroupement?
- par année ou niveau scolaire ou âge ()
 - entre les niveaux ()
 - autre ()
43. Décrire le mode d'intégration des élèves spéciaux s'il y a lieu.
(utiliser plus d'une case si nécessaire)
- dénombrement flottant ()
 - classes fermées ()
 - intégration partielle (quelques matières) ()
 - intégration totale (toutes les matières) ()
- Niveau de généralisation de l'intégration:
- tous les élèves de l'école ()
 - quelques élèves ou classes ()

44. Fonctionnement du travail d'orthopédagogie

- pas d'orthopédagogie ()
- classes spéciales seulement ()
- travail avec des groupes d'élèves seulement ()
- travail individuel et en groupe ()
- travail individuel seulement ()
- si orthopédagogie, fréquence des rencontres _____
- durée de fréquentation moyenne des élèves en mois _____
- recrutement par matière () ou d'ensemble ()

45. Raisons ou motifs pour avoir choisi de fonctionner de cette manière? (ex.: pressions des parents, résultats d'expériences passées, cela aide les plus forts à progresser plus vite, on s'adapte au rythme de chacun, etc.)

46. Sur quelles données se base-t-on pour effectuer le regroupement s'il y a lieu et donner l'importance de chacune.

- tests de fonctionnement intellectuel ou IQ () _____
- résultats scolaires de l'an passé () _____
- résultats scolaires de l'année en cours () _____
- évaluations des professeurs () _____
- autres () _____

Stratégies d'enseignement

47. L'enseignement se fait-il à partir d'objectifs? oui () non ()

48. Degré d'application des objectifs à atteindre?

Ils sont les mêmes pour:

- a) - tous les professeurs d'un même niveau ()
- la plupart des professeurs d'un même niveau ()
- quelques professeurs d'un même niveau ()
- aucun professeur d'un même niveau ()
- b) - tous les étudiants d'un même niveau ()
- la plupart des étudiants d'un même niveau ()
- quelques étudiants d'un même niveau ()
- aucun étudiant d'un même niveau ()
- c) - tous les étudiants d'une même classe ()
- la plupart des étudiants d'une même classe ()
- quelques étudiants d'une même classe ()
- aucun étudiant d'une même classe ()

49. Jusqu'à quel point l'enseignement est-il individualisé?

complètement | | | | | pas du tout

- diversité d'application: (spécifier) _____

50. Les professeurs suivent-ils un plan de travail précis?

très précis | | | | | aucun

51. Qui le dicte?
- principal (e) ()
 - professeurs et principal (e) ()
 - professeurs en groupe ()
 - professeurs individuellement ()

52. Le matériel est-il planifié de façon à ce que chaque élève voit le même matériel que les autres sur l'ensemble de son programme à l'élémentaire? (attention classes spéciales).

oui | | | | | non

Principal's Interview (French)

53. Le matériel est-il planifié de façon à ce que chaque élève voit le même matériel que les autres sur l'ensemble de son programme à chaque niveau?
oui | | | | | non
54. Les professeurs utilisent-ils les mêmes livres ou textes?
oui | | | | | non
55. Doivent-ils s'assurer que tous les élèves les voient durant une année?
oui | | | | | non
56. Au niveau des méthodes d'enseignement apprentissage utilisées dans chaque classe (ex.: méthode pour l'enseignement du français), quel est le niveau d'application dans l'école?
même pour tous | | | | | différent pour tous
57. Qui les dicte? - principal (e) ()
- professeurs et principal (e) ()
- professeurs en groupe ()
- professeurs individuellement ()
58. Le matériel didactique utilisé en dehors des manuels est-il le même dans toutes les classes? (ex.: jeux éducatifs, fiches, etc.).
oui | | | | | non
59. Qui le dicte? - principal (e) ()
- professeurs et principal (e) ()
- professeurs en groupe ()
- professeurs individuellement ()
60. Utilisation des tests du Ministère de l'Education? oui () non ()
- lesquels: - fonctionnement intellectuel ()
- quelles années:
- depuis combien d'années
- discipline: - français ()
- mathématiques ()
- autres ()
- quelles années:
- depuis combien d'années
61. Tests maison? oui | | | | | non
- à quels niveaux
- pour quelles matières
- sont-ils appliqués pour l'ensemble de l'école ou niveaux, ou réservés à chaque classe?
ensemble | | | | | classe
62. Quelle place est faite aux autres formes d'évaluation? (ex.: appréciation des professeurs, auto-évaluation, etc.)
large place | | | | | aucune place
63. A quoi servent les résultats aux tests ou examens? (indiquer un ordre de priorité)
- classement des élèves ()
- passage ou non au secondaire ()
- bulletin aux parents ()
- amélioration du rendement ()
- autre

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Principal's Interview (French)

64. A qui sont accessibles les résultats aux tests du Ministère et ceux maison?
(qui les voit?)

	<u>MEQ</u>	<u>Maison</u>
- élèves	()	()
- parents	()	()
- tous les professeurs	()	()
- principal (e)	()	()
- Commission Scolaire	()	()

65. Comment pourrait-on décrire, pour l'ensemble de l'école, le type de fonctionnement en classe?

a) Liberté de déplacement des élèves

oui | | | | | non

b) Qui assigne les sièges ou places?

professeur | | | | | élève décide

c) Fréquence des changements dans la disposition des places?

plusieurs fois par jours | | | | | 1 fois semestre

d) Encouragement des élèves à parler entre eux?

oui | | | | | non

e) Elèves travaillent tous en même temps sur le même matériel?

oui | | | | | non

66. Y-a-t-il des différences entre les classes par rapport à ces questions?

oui | | | | | non

(détails) : _____

G) Organisation administrative

Possédez-vous en filière des données ou des dossiers sur les éléments suivants?

[filière = ()]

67. Une définition écrite de la tâche de chacun dans l'école (professeurs, principal, adjoint, spécialistes, etc.) et des limites de leurs responsabilités?

oui | | | | | non ()

68. Cédule écrite pour l'année incluant horaire, congés, activités particulières?

oui | | | | | non ()

69. Une description des objectifs de chaque professeur pour l'année? (remise en début d'année)

oui | | | | | non ()

70. Les méthodes d'évaluation des élèves devant être utilisées durant l'année?

oui | | | | | non ()

71. Existence d'un code de règles ou règlements en regard du travail des employés?

oui | | | | | non ()

a) pour cas généraux seulement ()

b) pour cas litigieux seulement ()

c) pour toutes les raisons de façon à préciser la confusion et les frictions. ()

d) autre ()

72. Ecrits sur le degré de restriction placé sur les activités professionnelles et personnelles?

a) règles qui spécifient quand un professeur peut partir de l'école () ()

b) règles en regard de la participation à des organismes externes () ()

c) règlements qui déterminent ce que les professeurs peuvent dire
ou ne pas dire en classe () ()

d) liberté de mouvement dans l'école des professeurs?
(attention, classe ouverte ≠ absence de contrôle) () ()

e) liberté de mouvement des élèves dans l'école () ()

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Principal's Interview (French)

H) Technologie

Nombre de nouveautés introduites dans l'école au cours des trois (3) dernières années? (innovations pour l'école)

Indiquer leur degré de survie selon l'échelle suivante:

- 1- adopté pour l'ensemble de l'école
- 2- adopté pour une partie de l'école
- 3- plus ou moins conservé
- 4- essayé quelques temps, puis rejeté
- 5- rejeté rapidement

82. Faire la liste au niveau pédagogique:
(méthodes d'enseignement, livres, regroupements, etc.)

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

83. Faire la liste au niveau administratif:
(nouveaux programmes, différenciation du personnel, réglementation, etc.)

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

84. Pourcentage des professeurs qui acceptent la nouveauté et le changement facilement?
100% | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | 0%

85. Comment aimeriez-vous voir votre école reconnue à l'extérieur?
(ne pas suggérer de choix de réponses)

Équipement technique

86. Faire la liste du matériel audio-visuel disponible dans l'école (projecteurs, calculatrices, etc.) et le taux d'utilisation.

Liste Utilisation (fois par semaine)

87. Disponibilité du matériel extérieur et fréquence d'utilisation dans l'école.

Disponibilité Utilisation (fois par semaine)

Remarques de l'interviewer:

APPENDIX B
ITEMS INCLUDED IN EACH SET OF VARIABLES
USED IN THE ANALYSIS

APPENDIX B

ITEMS INCLUDED IN EACH SET OF VARIABLES USED IN THE ANALYSIS

I. SCHOOL INPUT VARIABLES AND ITEMS

A- Social Composition of the Student Body

- 1- Mean school socio-economic status based on Blishen rating of father's (or other main breadwinner) occupation of students included in the study.

B- Other Inputs into the School

- 1- Mean teachers' salary in the school.
- 2- Mean years of teaching experience of the teachers in the school.
- 3- Mean years of training of the teachers in the school.
- 4- Size of the student body.
- 5- Number of professional personnel per 100 students in the school.
- 6- Quantity of technological material available in the school (weighted for sophistication).

II. SCHOOL SOCIAL STRUCTURE VARIABLES AND ITEMS

A- Opened Characteristics of the School and of the Classrooms

- 1- Mean students' response to "In class, I can move about the room without asking my teacher".
- 2- Mean students' response to "I can talk to other students while I am working".
- 3- Mean students' response to "When I am working on something in class, the other students are also working on the same thing".
- 4- Mean students' response to "In most of my classes, the teacher tells me what I must work on; I have no choice".
- 5- Mean teachers' report of the extent to which students select own seats or are assigned by teacher.
- 6- Mean teachers' report of the extent to which students are permitted to move about the room without permission.

- 7- Mean teachers' report of the extent to which students are all working on the same lesson at the same time.
- 8- Mean teachers' report of the extent to which they are working with the class as a whole.
- 9- Mean teachers' report of the frequency with which they meet with parents individually outside of the regular prescribed meetings.
- 10- Principal's report of the extent to which students are allowed to move freely about the school.
- 11- Principal's report of the frequency with which seats are changed in the classrooms.
- 12- Principal's report of the extent to which students are allowed to express their views in the school.
- 13- Principal's report of the extent to which students are all working on the same subject at the same time.

B- Standardization of the Processes and of the Material Used in the School

- 1- Principal's report of the extent to which the content is organized so that each individual student has seen the same content as the others at the end of his stay at the elementary level.
- 2- Principal's report of the extent to which the content is organized so that each individual student sees the same content as the others at each grade level.
- 3- Principal's report of the extent to which the teachers are using the same books or texts at each grade level.
- 4- Principal's report of the extent to which the books or texts must be seen by all of the students during a school year.
- 5- Principal's report of the extent to which the teaching material used (other than books or texts) is the same in every classroom.
- 6- Principal's report of the extent to which school-made assessment tests are used in the school at each grade level and for each topic.
- 7- Principal's report of the extent to which school-made assessment tests used in the school at each grade level are the same for all classes.
- 8- Principal's report of the extent to which evaluation methods other than school-made assessment tests (teachers' judgment, self-evaluation, etc.) are present or absent in the school.

C- Principal's Time Devoted to Parents and Teachers' Time Oriented Toward Formal Instruction

- 1- Percent of principal's time devoted to community and parents concern.
- 2- Number of meetings per month between the principal and individual parents to discuss about their children.
- 3- Mean teachers' report of the percent of their time devoted to classroom or small group instruction.
- 4- Mean teachers' report of the proportion of the time they do the talking compared with the students.
- 5- Mean teachers' report of the extent to which students are encouraged to talk to each other while working on assignments.
- 6- Mean students' response to "In class, the teacher stands in front and works with all of the students at the same time".

D- Similarity of The Objectives Pursued in the School

- 1- Principal's report of the extent to which the teaching objectives are the same for all teachers at the same grade level.
- 2- Principal's report of the extent to which the teaching objectives are the same for all students at the same grade level.
- 3- Principal's report of the extent to which the teaching objectives are the same for all students in the same class.
- 4- Mean teachers' report of the extent to which their teaching objectives are the same for all or different for each student.

E- Practical Involvement of the Parents in the School

- 1- Mean teachers' report of the frequency with which parents provide help (monitoring or taxiing) when the classroom goes out .
- 2- Mean teachers' report of the frequency with which parents provide help during a workshop in the classroom.
- 3- Mean teachers' report of the frequency with which parents provide help for a teaching activity.
- 4- Mean teachers' report of the frequency with which parents provide help with slow learners.
- 5- Mean teachers' report of the frequency with which parents take responsibility for a regular classroom activity oriented toward instruction.

F- Differentiation of the Students in the School and in the classrooms

- 1- Mean teachers' report of the extent of homogeneous grouping according to ability when forming classes at the beginning of the year.
- 2- Mean teachers' report of the extent of grouping according to ability when doing team work in the classroom.
- 3- Principal's report of the extent to which individualized teaching is common practice in the school.

G- Centralization of the Decision-Making in the School

- 1- Mean teachers' report of the extent to which the principal alone (or following the advice of the school board) or the teachers by themselves make the decision on each of the following subjects:
 - a. Hiring new teachers.
 - b. Selecting teacher aides.
 - c. Selecting substitutes.
 - d. Determining the criteria for the evaluation of the teachers.
 - e. Selecting a process for the evaluation of the teachers.
 - f. Selecting a process for the evaluation of the students.
 - g. Deciding students' setting in the classroom.
 - h. Determining methods and techniques of teaching.
 - i. Modifying the schedule to allow for special activities.
 - j. Planifying the schedule for teachers workshops.
 - k. Selecting the subjects to be treated in the education related meetings.
 - l. Selecting the program to be pursued during each year.
 - m. Deciding on the class list at the beginning of the year.
 - n. Selecting school books to be used.
 - o. Contacting parents in case of emergency.
 - p. Contacting parents for minor problems.
 - q. Determining the objectives to be pursued during the year.
 - r. Setting school's policy over students discipline.

- 2- Principal's report of the extent to which he (alone or following the advice of the school board) or the teachers by themselves make decision on each of the following subjects:
 - a. Deciding on classroom's working plan.
 - b. Deciding on the teaching methods to be used in the classroom.
 - c. Selecting the teaching material to be used in the classrooms.
 - d. Taking care of the evaluation of the teachers.
 - e. Determining the criteria for the evaluation of the teachers.

III. SCHOOL ACADEMIC CLIMATE VARIABLES AND ITEMS

A- Student Climate Variables

- 1- Students' future evaluations and expectations. Mean student response to the following questions:
 - a. If you could go as far as you wanted in school, how far would you like to go?
 - b. Sometimes, what one would like to see happen is not what one thinks will happen. How far do you really think you will go in school?
 - c. According to you, if most students in this school could go as far as they wanted in school, how far would they go?
 - d. How far do you think your best friend believes you will go in school?
 - e. Think of the teacher you like best. How far does he believe you will go in school?
 - f. Does your teacher think you could attend university some day?
 - g. Remember that one needs at least three years of university to become a teacher or a doctor. Would your teacher think you could do that?
 - h. How far do you think your parents believe you will go in school?
 - i. Do your parents believe you could attend university some day?
 - j. Remember that one needs at least three years of university to become a teacher or a doctor. Do your parents think you could do that?
- 2- Students' sense of academic futility. Mean student response to the following questions:
 - a. How many students in your school don't care if they get bad grades?

- b. How many students in your school make fun of or tease students who get real good grades?
 - c. How many students don't do as well as they could do in school because they are afraid other students won't like them as much?
 - d. How many students don't do as well as they could do in school because they are afraid their best friends won't like them as much?
 - e. People like me will not have much of a chance to do what we want to in life.
 - f. People like me will never be successful in school even if we try.
 - g. In this school, students like me don't have any luck, nothing good ever happens to them.
 - h. You have to be lucky to get good grades in this school.
 - i. It is useless to work hard in this school since the teachers are satisfied as long as you just pass.
 - j. In this school, it is impossible to know when we are doing good or when we are doing bad.
 - k. In this school, we would learn much more things if the teachers would tell us what to do.
- 3- Students' academic norms. Mean student response to the following questions:
- a. How many students in this school always try to get good grades on weekly assignments?
 - b. How many students in this school work more than it is necessary to succeed on weekly assignments?
 - c. How important is it for you to be a good student?
 - d. How important do most of the students in this class feel it is to do well in school?
 - e. According to you, do most of the students in this school feel it is important to do well in school?
 - f. How many students in this class feel it is fun to study?
 - g. Should the teachers not grade the work done in class, how many students in this school would work hard anyway?
- 4- Students' present evaluations and expectations for high school. Mean student response to the following questions:
- a. I can do well in school when I work hard.

- b. Think of the teacher you like best. Does he expect you to be a good student, an average student or a poor student in this school?
- c. Think of your teacher. Does he think you can do school work better, the same or poorer than other people your age?
- d. Would your teacher say that you will graduate from high school with grades which are better, the same or poorer than other high school students?
- e. Compared to students from other schools, will the students from this school be successful in high school?
- f. Do your parents say you can do school work better, the same or poorer than your friends?
- g. Do your parents say your grades will be better, the same or poorer than other students when you finish high school?
- h. How good of a student would your parents like you to be in school?

5- Students' perception of teacher push and teacher norms. Mean student response to the following questions:

- a. How many teachers in this school tell students to try to get better grades than other students in the class?
- b. Of the teachers that you know in this school, how many feel really sorry when students get bad grades?
- c. Of the teachers that you know in this school, how many ask too much work from the students?
- d. Do you often find teachers in this school which try to help students which are not as successful as the others.
- e. How important is it for the teachers in this school that the students learn what is thought in class?
- f. Think of the teachers you know in this school. Do you believe that they care more or less than teachers in other schools about whether or not students learn what is thought in class?
- g. When most of the students in this class fail in an assignment, does your teacher always try to help you understand or does he never?
- h. Think of the students in this school. Do they say that there are too many rules which force them to work in this school?

B- Teacher Climate Variables

1- Teachers' future expectations for students. Mean teacher response to the following questions:

- a. What percent of the students in this school do you expect to complete high school?
- b. What percent of the students in your class do you expect to complete high school?
- c. What percent of the students in this school do you expect to go to college?
- d. What percent of the students in your class do you expect to go to college?
- e. What percent of the students in this school do you expect to go to university?
- f. What percent of the students in your class do you expect to go to university?
- g. What percent of the students in this school do you think will be able to get a masters degree if they want?
- h. What percent of the students in your class do you think will be able to get a masters degree if they want?
- i. What percent of the students in this school do you think the principal expects to complete high school?
- j. What percent of the students in this school do you think the principal expects to go to college?
- k. What percent of the students in this school do you think the principal expects to obtain a university degree?
- l. Completion of a college degree is a realistic goal which you set for what percentage of your students?
- m. Completion of a university degree is a realistic goal which you set for what percentage of your students?
- n. How many of the parents of students in this school do you think expect their children to complete high school?
- o. How many of the parents of students in this school do you think expect their children to go to university some day?

2- Teachers' present school evaluation. Mean teacher response to the following questions:

- a. How would you rate the academic ability of the students in this school, compared to other elementary schools which you know?

- b. What percent of the students in this school would you say are attracted by the idea of studying for a long period of time?
 - c. How would you rate the academic ability of the students in your class, compared to other elementary schools which you know?
 - d. How do you think your principal rates the academic ability of the students in this school, compared to other elementary schools which you know?
 - e. According to your judgment, what level of achievement can be expected of the students in this school?
 - f. On the average, what level of achievement can be expected of the students in your class?
 - g. The parents of students in this school are deeply concerned that their children receive a top quality education.
- 3- Teachers' determination with having students succeed. Mean teacher response to the following questions:
- a. How often do you stress to your students the necessity to go to school for a long period of time in order to obtain better chances of success in the future?
 - b. Do you encourage your students whose parents do not have much economic resources to try to stay in school for a long period of time and to go to university if possible?
 - c. Do you push your students whose academic ability looks deficient to try to stay in school for a long period of time and to go to university if possible?
 - d. It would be unfair for teachers in this school to insist on a higher level of achievement from students than they now seem capable of achieving.
 - e. If I think a student is not able to do some school work, I try to push him anyway.
 - f. How many teachers in this school encourage students to seek extra work so that they get better grades?
- 4- Teachers' perception of students' commitment to success. Mean teacher response to the following questions:
- a. How many students in this school do you feel try hard to improve on previous work?
 - b. How many students in your class do you feel try hard to improve on previous work?

- c. How many students in this school do you feel will try hard to do better school work than their best friends?
 - d. How many students in your class work hard to do better school work than their classmates do?
 - e. How many students in this school do you feel are content to do less than they can?
 - f. How many students in your class are content to do less than they can?
 - g. As far as you can say, how many students in this school seek extra work so that they get better grades?
 - h. How many students in your class seek extra work so that they get better grades?
- 5- Teachers' present evaluation of students and sense of fatalism. Mean teacher response to the following questions:
- a. How many students in this school are capable of getting mostly A's and B's or the equivalent?
 - b. How many students in your class are capable of getting mostly A's and B's or the equivalent?
 - c. What percent of the students in this school do you think the principal consider capable of getting mostly A's and B's or the equivalent?
 - d. In this school, it is virtually impossible for a teacher to insure that all of his/her students achieve at a high level.
 - e. The parents of students regard this school primarily as a "baby-sitting" agency?
 - f. How many of the parents of students in this school do you feel don't care if their children obtain low grades?

C- Principal Climate Variables

- 1- Principal's expectations and perception of parents' expectations. Principal's response to the following questions:
- a. What percent of the students in this school do you expect to complete high school?
 - b. What percent of the students in this school do you expect to go to college?
 - c. What percent of the students in this school do you expect to go to university and obtain a degree there?
 - d. How many of the parents of students in this school do you think expect their children to complete high school?

- e. How many of the parents of students in this school expect their children to go to college?
 - f. How many of the parents of students in this school do you think expect their children to obtain a university degree some day?
- 2- Principal's present evaluation of the students and of the the school. Principal's response to the following questions:
- a. How would you rate this school as far as the academic ability of the students is concerned?
 - b. With regard to student achievement, how good a school do you think this school can objectively be?
 - c. On the average, what achievement level can be expected of the students in this school?
 - d. How many of the students in this school are really capable of getting good grades?
 - e. How would you personnaly rate the academic ability of the students in this school compared to those in other elementary schools that you know?
 - f. What percentage of the students in this school do you feel are capable of learning to read conveniently by the end of the second grade?
 - g. In general, how do your students' parents feel about the achievement of their children?
- 3- Principal's feelings of responsibility for success. Principal's response to the following questions:
- a. How often do you suggest ways of improving student achievement to your teachers?
 - b. How often do you meet with the teachers as a group to discuss concrete ways of improving student achievement?
 - c. As a principal, which effect do you think you are having on students' achievement?
 - d. It is the principal's responsibility to make sure that all students in his school succeed at a high level.
 - e. No matter the students in a school, it is possible for a principal, with the help of the teachers, to change a low achieving school into a high achieving school.

- 4- Principal's perception of the interest of the parents with school matters. Principal's response to the following questions:
 - a. The parents of our students regard this school primarily as a "baby-sitting" agency.
 - b. The parents of students in this school are deeply concerned that their children receive a top quality education.
 - c. How many of the parents of students in this school want feedback from the principal or teachers on how their children are doing in school?

IV. OUTCOME VARIABLES AND ITEMS

A. Mean School Achievement.

- 1- School mean of Ministère de l'Education's achievement tests in mathematics, reading and writing passed to 6th graders (june 79).

B. Mean Student Self-Concept of Academic Ability: Mean student response to self-concept of academic ability scale items as follows:

- 1- Think of your best friends. Do you think you can do school work better, the same or poorer than them?
- 2- Think of the students in your class. Do you think you can do school work better, the same or poorer than them?
- 3- When you get to high school, how good of a student will you be in comparison with the others students?
- 4- Do you think you could succeed at university?
- 5- If you went to university, do you think you would be a very good student, same as most or a bad student?
- 6- Someone who wants to be a doctor or a teacher must go to the university for at least three years. Do you think you could do that?
- 7- Forget about how your teachers mark your work. How good do you think your own work at school is?
- 8- How good of a student do you think you are in this school?

APPENDIX C
CORRELATION MATRIX OF VARIABLES IN
HIGH AND LOW SES SCHOOLS

APPENDIX C, TABLE 1 ****

CORRELATION MATRIX OF MEAN SCHOOL INPUTS, SOCIAL STRUCTURE, SOCIAL CLIMATE AND MEAN SCHOOL OUTCOMES IN 30 HIGH SOCIO-ECONOMIC SCHOOLS AND 31 LOW SOCIO-ECONOMIC SCHOOLS OF THE NORTHEASTERN PART OF QUEBEC (HIGH SES, TOP, LOW SES, BOTTOM) ***

Variables	ACH**	SCO	SES	OI1	OI2	OI3	OI4	OI5	OI6	COI	SS1	SS2	SS3	SS4	SS5	SS6
Mean School Ach.	ACH		-.17	.29	.18	.14	.01	.28	-.03	.12	.27	-.16	.29	-.03	<u>.34*</u>	-.07
Mean Self-Concept	SCO	-.12		.26	-.27	-.22	-.02	.14	.28	-.01	-.07	.20	-.09	<u>-.40</u>	<u>-.46</u>	-.25
Mean SES	SES	.22	.14		-.06	-.28	.27	.15	-.08	.09	.06	<u>.55</u>	-.19	-.08	<u>-.34</u>	<u>.37</u>
Mean Teach. Salary	OI1	.14	.15	<u>.37*</u>		<u>.53</u>	<u>.56</u>	.04	-.10	-.15	<u>.79</u>	.09	-.07	.30	-.06	-.13
Mean Teach. Exp.	OI2	.01	.21	<u>.36</u>	<u>.64</u>		-.18	-.27	-.02	-.24	<u>.32</u>	<u>-.43</u>	.15	<u>.61</u>	.20	-.15
Mean Teach. Training	OI3	-.04	.06	.16	<u>.51</u>	.09		.19	-.25	-.06	<u>.58</u>	<u>.59</u>	-.15	-.03	-.25	.16
Student Body Size	OI4	.10	-.03	<u>.50</u>	-.03	-.05	.12		-.19	<u>.31</u>	<u>.39</u>	.14	-.08	-.21	.16	-.08
Ratio of personnel	OI5	.01	-.28	<u>.36</u>	-.21	<u>.31</u>	-.07	<u>-.49</u>		-.06	<u>.08</u>	-.13	.04	<u>-.32</u>	-.19	.02
Technology	OI6	-.18	-.11	.26	-.07	-.07	.25	<u>.47</u>	-.18		<u>.31</u>	-.04	<u>.36</u>	-.17	-.12	.13
Comb. Other Inputs	COI	.02	.00	<u>.48</u>	<u>.71</u>	<u>.53</u>	<u>.68</u>	<u>.35</u>	-.07	<u>.47</u>		.14	.09	.09	-.13	.03
Opened Sch. & Class.	SS1	-.14	<u>-.31</u>	.09	-.15	<u>-.37</u>	.19	.25	.04	<u>.35</u>	.08		<u>-.42</u>	-.16	<u>-.47</u>	.20
Standardization	SS2	.17	.22	-.04	.15	<u>.58</u>	<u>.38</u>	.00	-.29	-.25	-.04	<u>-.77</u>		.21	<u>.39</u>	-.14
Parents & Instr. Time	SS3	.03	-.06	.03	.08	-.01	.14	.05	-.17	.16	.08	.01	.04		.24	-.05
Similarity of Obj.	SS4	.11	-.08	.17	.21	.18	.16	<u>.31</u>	.04	-.02	<u>.35</u>	-.30	.26	.00		<u>-.59</u>
Parental Involvement	SS5	.04	-.07	.21	-.24	-.17	-.24	.09	-.09	.04	-.24	<u>.39</u>	<u>-.31</u>	.03	-.06	.13
Differentiation Pract.	SS6	.15	-.14	-.16	<u>-.40</u>	<u>-.51</u>	-.20	-.01	<u>.31</u>	.05	-.30	<u>.43</u>	<u>-.41</u>	.09	-.09	<u>.48</u>
Centralization	SS7	<u>.36</u>	-.10	-.30	-.08	-.05	<u>-.34</u>	-.29	.25	-.16	-.24	<u>-.37</u>	.26	.06	-.02	.23
Comb. Soc. Struct.	CSS	.09	<u>-.30</u>	.12	-.18	-.19	-.13	<u>.34</u>	-.05	.23	-.01	<u>.69</u>	<u>-.32</u>	.25	.11	<u>.69</u>
Students' Expect.	SC1	.06	<u>.56</u>	<u>.52</u>	.24	<u>.31</u>	-.06	.14	<u>-.32</u>	-.06	.10	-.01	.10	-.21	-.08	.25
Students' Futility	SC2	<u>.40</u>	<u>-.39</u>	-.01	-.17	-.25	-.01	.07	.06	<u>-.30</u>	-.22	.10	-.18	-.03	<u>.33</u>	.21
Students' Norms	SC3	.12	<u>.51</u>	-.06	.19	.15	-.05	-.24	-.10	-.30	-.11	-.16	.12	.08	-.20	-.14
Students' Eval.	SC4	-.01	<u>.60</u>	-.13	.09	.15	.26	-.24	-.11	-.12	.01	<u>-.54</u>	.23	.12	-.08	-.27
S. Percept. of Push	SC5	.29	.29	-.01	-.21	-.27	.14	-.02	.09	-.11	-.15	-.15	-.04	.19	-.02	-.07
Teach. Expectations	TC1	.27	.17	.24	.20	.25	-.18	-.04	-.22	-.05	.00	.20	.07	.02	-.17	.12
Teach. School Eval.	TC2	.21	.16	.06	-.03	-.09	-.28	-.06	.07	<u>-.32</u>	-.25	-.24	.06	-.29	.11	-.11
Teach. Determination	TC3	-.07	.29	.01	-.12	.05	-.15	-.18	-.01	.01	-.16	<u>-.49</u>	.23	.27	-.22	-.21
T. Percept. of S.eff.	TC4	.04	-.04	-.01	-.16	-.14	-.25	-.11	.02	-.27	-.33	.01	-.06	-.11	.12	.09
Teach. Eval. of Stud.	TC5	-.19	.05	-.24	.13	.04	-.11	<u>-.46</u>	.30	-.28	-.12	-.10	-.03	-.26	-.21	-.23
Princ. & Par. Expect.	PC1	.08	.05	.30	.02	-.16	-.08	.06	-.02	-.09	-.10	.05	-.14	-.15	.09	.26
Princ. School Eval.	PC2	.09	-.11	-.20	-.07	-.15	-.07	-.19	.03	<u>-.61</u>	-.38	.02	-.09	-.12	.13	.07
Princ. Feel. of Resp.	PC3	.01	.08	-.10	.00	-.17	.05	-.22	.05	<u>-.41</u>	-.25	.00	-.20	-.26	.05	-.01
P. Percept. of Par.	PC4	-.02	.29	-.02	-.20	-.25	-.22	.00	-.12	<u>-.31</u>	<u>-.42</u>	.00	-.14	<u>-.37</u>	-.08	.22
Comb. climate	CAC	.17	.29	.08	.02	-.04	-.20	-.20	-.05	<u>-.43</u>	<u>-.32</u>	-.10	-.03	-.18	-.04	.06

* Underlined Correlations significant at .05 level

** Correlation coefficients for this variable are based on 28 schools in each Sub-sample

*** The high SES sub-sample includes 30 schools and the low SES sub-sample includes 31 schools

**** Table continued on next page

APPENDIX C, TABLE 1 (CONTINUED)

Variables		SS7	CSS	SC1	SC2	SC3	SC4	SC5	TC1	TC2	TC3	TC4	TC5	PC1	PC2	PC3	PC4	CAC
Mean School Ach.	ACH	.11	.03	.24	<u>.64</u>	.06	-.10	.08	.19	<u>.56</u>	.03	-.03	-.03	<u>.48</u>	<u>.42</u>	.23	.24	<u>.53</u>
Mean Self-Concept	SCO	-.06	-.03	<u>.56</u>	.03	<u>.30</u>	<u>.65</u>	<u>.39</u>	.04	-.02	.00	-.15	.02	.03	-.12	-.24	-.11	.09
Mean SES	SES	-.43	<u>.38</u>	<u>.72</u>	<u>.44</u>	-.30	-.24	-.10	<u>.76</u>	<u>.41</u>	-.26	-.21	<u>.48</u>	<u>.62</u>	.22	-.29	.01	<u>.63</u>
Mean Teach. Salary	OI1	-.13	.01	-.07	-.06	.12	.03	.21	.02	-.13	-.18	<u>.32</u>	.17	-.06	-.05	.22	.05	.06
Mean Teach. Exp.	OI2	.27	-.11	-.18	.07	.07	.10	.17	-.26	-.19	.10	<u>.31</u>	.20	-.33	-.28	<u>.33</u>	.05	-.10
Mean Teach. Training	OI3	-.29	<u>.38</u>	.13	-.27	-.02	-.07	.12	<u>.34</u>	.03	-.13	-.06	.10	.20	.16	-.19	-.30	.14
Student Body Size	OI4	.04	.10	<u>.41</u>	-.05	.03	.15	-.22	.11	.25	-.04	-.11	-.27	<u>.54</u>	.14	.18	-.02	.21
Ratio of personnel	OI5	-.01	-.32	.22	<u>.35</u>	<u>.44</u>	.05	<u>.49</u>	-.04	-.17	.03	-.11	-.03	-.18	-.09	.04	.28	.06
Technology	OI6	-.01	.15	.06	-.20	-.32	.06	-.32	.17	-.04	.00	-.18	-.16	.09	.05	.13	.25	.00
Comb. Other Inputs	COI	-.09	.12	.19	-.10	.10	.11	.16	.16	-.10	-.10	.08	.03	.09	-.01	.25	.10	.14
Opened Sch. & Class.	SS1	-.64	<u>.47</u>	<u>.42</u>	-.03	-.11	-.13	.07	<u>.46</u>	.00	-.28	-.17	.28	<u>.31</u>	-.08	-.52	-.30	.16
Standardization	SS2	<u>.43</u>	.40	-.27	.09	-.18	.26	-.18	-.21	.01	.14	-.21	-.43	-.20	-.09	.21	.10	-.24
Parents & Instr. Time	SS3	-.08	.29	-.24	-.04	-.39	-.07	-.24	-.07	-.13	.05	.07	.23	-.20	-.30	-.10	.00	-.19
Similarity of Obj.	SS4	.60	.08	-.34	.23	-.02	-.06	-.29	-.31	.22	.02	-.07	-.38	.12	.10	<u>.45</u>	.10	-.09
Parental Involvement	SS5	-.32	<u>.32</u>	<u>.34</u>	-.15	-.13	-.09	-.13	<u>.49</u>	-.08	-.26	-.30	.25	-.06	-.19	-.27	.09	.06
Differentiation Pract.	SS6	-.06	<u>.41</u>	.10	-.05	-.31	-.53	-.41	.22	.07	.06	-.02	.23	.29	-.10	-.26	-.22	.08
Centralization	SS7		-.07	<u>.35</u>	-.06	.10	.26	-.05	-.35	.05	.11	.09	-.31	-.12	.11	<u>.53</u>	.13	-.11
Comb. Soc. Struct.	CSS	-.01		.15	.00	-.42	-.10	-.37	<u>.37</u>	.05	-.24	-.43	.01	.17	-.26	-.27	-.15	-.06
Students' Expect.	SC1	-.22	.03		<u>.38</u>	.20	.04	.19	<u>.52</u>	<u>.36</u>	-.17	-.24	.30	<u>.62</u>	.05	-.10	.12	<u>.60</u>
Students' Futility	SC2	.03	.22	-.26		.09	-.25	.14	.27	<u>.43</u>	-.18	-.04	.20	<u>.37</u>	.20	.11	.21	<u>.52</u>
Students' Norms	SC3	<u>.34</u>	-.15	<u>.44</u>	-.16		.24	<u>.75</u>	-.29	.02	.09	.23	-.08	-.16	-.05	.19	-.05	.09
Students' Eval.	SC4	.01	-.59	-.11	-.14	.20		<u>.33</u>	-.38	-.14	.03	.04	-.28	-.21	-.16	.04	-.08	-.24
S. Percept. of Push	SC5	.11	-.12	.15	.14	.28	.33		-.13	.00	.20	.27	.19	-.19	.00	.04	-.20	.20
Teach. Expectations	TC1	.13	.27	<u>.37</u>	-.05	<u>.33</u>	-.27	-.27		<u>.34</u>	-.43	-.20	<u>.48</u>	<u>.51</u>	<u>.33</u>	-.10	.16	<u>.68</u>
Teach. School Eval.	TC2	.26	-.22	<u>.31</u>	.16	.21	-.09	.19	<u>.38</u>		.07	.03	.22	<u>.67</u>	<u>.58</u>	.03	.06	<u>.73</u>
Teach. Determination	TC3	.21	-.49	-.12	-.21	.13	<u>.52</u>	.23	-.14	.03		.19	-.18	-.18	-.07	-.08	-.25	-.10
T. Percept. of S. eff.	TC4	.09	.03	.06	<u>.48</u>	.19	-.20	.00	<u>.40</u>	<u>.52</u>	.18		<u>.43</u>	-.14	.13	.12	.01	.22
Teach. Eval. of Stud.	TC5	<u>.34</u>	-.27	.16	-.15	<u>.48</u>	-.14	-.23	<u>.44</u>	<u>.43</u>	.07	<u>.45</u>		.17	.17	-.34	.13	<u>.56</u>
Princ. & Par. Expect.	PC1	-.19	.05	<u>.42</u>	.27	-.03	-.22	.15	.18	<u>.30</u>	-.18	.23	.10		<u>.50</u>	.08	.21	<u>.73</u>
Princ. School Eval.	PC2	.04	.04	.09	<u>.40</u>	<u>.37</u>	-.06	.12	.25	<u>.50</u>	-.16	<u>.61</u>	<u>.30</u>	.01		.08	.12	<u>.63</u>
Princ. Feel. of Resp.	PC3	.23	-.10	.10	<u>.36</u>	<u>.32</u>	-.03	.13	.26	<u>.57</u>	.00	<u>.66</u>	<u>.55</u>	.09	<u>.73</u>		.22	.11
P. Percept. of Par.	PC4	-.04	-.05	<u>.35</u>	.24	.22	.06	.11	.19	<u>.63</u>	-.09	<u>.51</u>	.27	<u>.42</u>	<u>.54</u>	<u>.53</u>		.26
Comb. climate	CAC	.19	-.09	<u>.41</u>	.29	<u>.51</u>	-.04	.15	<u>.61</u>	<u>.76</u>	.11	<u>.79</u>	<u>.62</u>	<u>.40</u>	<u>.68</u>	<u>.76</u>	<u>.68</u>	

APPENDIX D
SUPPLEMENTARY MULTIPLE REGRESSION ANALYSES

APPENDIX D, TABLE 1

SUMMARY OF MULTIPLE REGRESSION ANALYSIS OF MEAN SCHOOL
ACHIEVEMENT ON MEAN SCHOOL CLIMATE IN 28 HIGH SES SCHOOLS OF
 THE NORTHEASTERN PART OF QUEBEC

Variables	Signif- icance	Multiple R	R ²	R ² Change	Simple R
Student Climate 2, Sense of Academic Futility	.000	.63936	.40878		.639
Teacher Climate 2, Present School Evaluation	.026	.71912	.51714	.10836	.560
Teacher Climate 5, Present Eval. of S. & Fatalism	.170	.74456	.55437	.03723	-.028
Principal Climate 4, Percept. of Parents' Int. w/Sch.	.138	.77186	.59577	.04141	.241
Principal Climate 2, Present Eval. of Stud. & School	.286	.78524	.61661	.02084	.419
Student Climate 5, Percept. of T. Push & Norms	.316	.79682	.63492	.01831	.082
Teacher Climate 3, Determin. w/Having S. Succeed	.571	.80056	.64089	.00597	.035
Student Climate 4, Present Eval. & Expect. for H. S.	.573	.80436	.64699	.00610	-.095
Student Climate 1, Future Eval. & Expectations	.760	.80552	.64887	.00187	.238
Principal Climate 1, Expect. & Percept. of Parents'	.678	.80779	.65252	.00366	.482
Teacher Climate 1, Future Expectations for students	.822	.80849	.65365	.00113	.191
Student Climate 3, Academic Norms	.818	.80927	.65491	.00126	.060
Teacher Climate 4, Percept. of S. Comm. to Success	.901	.80951	.65531	.00040	-.029

One climate variable, Principal Climate 3, was omitted because the F-level was insufficient for computation

APPENDIX D, TABLE 2

SUMMARY OF MULTIPLE REGRESSION ANALYSIS OF MEAN SCHOOL
ACHIEVEMENT ON MEAN SCHOOL CLIMATE IN 28 LOW SES SCHOOLS OF THE
 NORTHEASTERN PART OF QUEBEC

Variables	Signif- icance	Multiple R	R ²	R ² Change	Simple R
Student Climate 2, Sense of Academic Futility	.033	.40400	.16322		.404
Teacher Climate 1, Future Expectations for students	.085	.50857	.25864	.09542	.270
Teacher Climate 4, Percept. of S. Comm.to Success	.072	.59489	.35390	.09526	.041
Student Climate 5, Percept. of T. Push & Norms	.146	.64177	.41187	.05797	.286
Teacher Climate 3, Determ. w/Having S.Succeed	.316	.66235	.43871	.02684	-.066
Teacher Climate 2, Present School Evaluation	.517	.67087	.45006	.01135	.206
Principal Climate 1, Expect. & Percept. of Parents'	.364	.68764	.47285	.02279	.083
Principal Climate 3, Feelings of Resp. for Success	.276	.71101	.50554	.03269	.008
Student Climate 1, Future Eval. & Expectations	.612	.71607	.51276	.00722	.062
Principal Climate 4, Percept.of Parents' Int. w/Sch.	.622	.72102	.51987	.00711	-.023
Teacher Climate 5, Present Eval. of S. & Fatalism	.753	.72313	.52292	.00305	-.193
Student Climate 3, Academic Norms	.614	.72885	.53122	.00830	.118
Principal Climate 2, Present Eval. of Stud. & School	.641	.73396	.53870	.00748	.091
Student Climate 4, Present Eval. & Expect. for H. S.	.901	.73435	.53926	.00057	-.010

APPENDIX D, TABLE 3

SUMMARY OF MULTIPLE REGRESSION ANALYSIS OF MEAN SCHOOL SELF-CONCEPT ON MEAN SCHOOL CLIMATE IN 30 HIGH SES SCHOOLS OF THE NORTHEASTERN PART OF QUEBEC

Variables	Significance	Multiple R	R ²	R ² Change	Simple R
Student Climate 4, Present Eval. & Expect. for H. S.	.000	.65396	.42766		.654
Student Climate 1, Future Eval. & Expectations	.000	.84461	.71337	.28571	.563
Principal Climate 1, Expect. & Percept. of Parents'	.030	.87260	.76143	.04805	.030
Principal Climate 3, Feelings of Resp. for Success	.072	.88936	.79096	.02953	-.237
Principal Climate 2, Present Eval. of Stud. & School	.336	.89389	.79904	.00809	-.123
Teacher Climate 5, Present Eval. of S. & Fatalism	.450	.89670	.80407	.00503	.016
Principal Climate 4, Percept. of Parents' Int. w/Sch.	.635	.89784	.80611	.00204	-.105
Teacher Climate 2, Present School Evaluation	.638	.89899	.80819	.00208	-.016
Student Climate 2, Sense of Academic Futility	.616	.90036	.81065	.00246	.032
Teacher Climate 3, Determ. w/Having S. Succeed	.612	.90181	.81326	.00261	.003
Teacher Climate 1, Future Expectations for students	.580	.90360	.81650	.00324	.044
Student Climate 3, Academic Norms	.753	.90421	.81760	.00110	.304
Student Climate 5, Percept. of T. Push & Norms	.786	.90469	.81847	.00087	.394
Teacher Climate 4, Percept. of S. Comm. to Success	.854	.90493	.81889	.00042	-.146

APPENDIX D, TABLE 4

SUMMARY OF MULTIPLE REGRESSION ANALYSIS OF MEAN SCHOOL SELF-CONCEPT ON MEAN SCHOOL CLIMATE IN 31 LOW SES SCHOOLS OF THE NORTHEASTERN PART OF QUEBEC

Variables	Signif- icance	Multiple R	R ²	R ² Change	Simple R
Student Climate 4, Present Eval. & Expect. for H. S.	.000	.60446	.36538		.604
Student Climate 1, Future Eval. & Expectations	.000	.86922	.75555	.39018	.557
Student Climate 2, Sense of Academic Futility	.158	.87937	.77328	.01773	-.385
Principal Climate 2, Present Eval. of Stud. & School	.056	.89645	.80363	.03034	.111
Teacher Climate 1, Future Expectations for students	.306	.90102	.81183	.00821	.172
Teacher Climate 5, Present Eval. of S. & Fatalism	.338	.90502	.81905	.00722	.047
Teacher Climate 4, Percept. of S. Comm.to Success	.441	.90761	.82376	.00470	-.043
Student Climate 3, Academic Norms	.384	.91096	.82986	.00610	.510
Principal Climate 1, Expect. & Percept. of Parents'	.516	.91286	.83332	.00346	.053
Teacher Climate 3, Determ. w/Having S.Succeed	.622	.91399	.83538	.00206	.287
Principal Climate 3, Feelings of Resp. for Success	.675	.91484	.83693	.00155	.079
Student Climate 5, Percept. of T. Push & Norms	.785	.91522	.83763	.00069	.291
Teacher Climate 2, Present School Evaluation	.921	.91527	.83772	.00010	.163
Principal Climate 4, Percept.of Parents' Int. w/Sch.	.902	.91536	.83788	.00016	.286

APPENDIX D, TABLE 5

SUMMARY OF STEPWISE MULTIPLE REGRESSION ANALYSIS OF MEAN
SCHOOL ACHIEVEMENT ON SCHOOL SOCIAL SYSTEM VARIABLES IN 56
SCHOOLS OF THE NORTHEASTERN PART OF QUEBEC

Step	Variable Entered		Signif- icance	Multiple R	R ²	R ² Change	Simple R
1	Stud. Academic Futility	SC2	.000	.58849	.34632		.588
2	Standardization	SS2	.024	.63776	.40674	.06042	.233
3	Teachers' School Eval.	TC2	.026	.67887	.46087	.05413	.410
4	Teachers Salary	OI1	.022	.71693	.51398	.05312	.179
5	Technology	OI6	.052	.74149	.54981	.03583	.132
6	Centralization	SS7	.120	.75607	.57164	.02183	.087
7	Princ. Feel. of Resp.	PC3	.067	.77521	.60094	.02930	-.048
8	Teach. Eval. of Students	TC5	.138	.78701	.61939	.01845	-.101
9	Teach. Future Expect.	TC1	.094	.80131	.64209	.02270	.350
10	Similarity of Objectives	SS4	.225	.80855	.65375	.01166	.224
11	Parent Involvement	SS5	.134	.81924	.67115	.01740	-.049
12	Princ. Eval of St. & Sch.	PC2	.338	.82352	.67818	.00704	.296
13	Stud. Academic Norms	SC3	.408	.82672	.68346	.00528	-.082
14	Differentiation of Stud.	SS6	.367	.83052	.68976	.00630	-.010
15	Opened Characteristics	SS1	.427	.83347	.69468	.00491	-.083
16	Teach. Percept. of Stud.	TC4	.541	.83524	.69763	.00295	.006
17	Stud. Eval. & Expect.	SC4	.545	.83700	.70057	.00295	-.057
18	Social Composition	SES	.714	.83766	.70168	.00110	.433
19	Stud. Perc. of T. Norms	SC5	.762	.83812	.70244	.00077	.039
20	Years of Training	OI3	.736	.83870	.70343	.00098	-.033
21	Time Devoted	SS3	.805	.83903	.70397	.00054	.051
22	Teach. Determination	TC3	.767	.83950	.70477	.00080	-.085
23	Size of Stud. Body	OI4	.767	.83999	.70559	.00082	.295
24	Stud. Future Expect.	SC1	.913	.84006	.70570	.00011	.322

APPENDIX D, TABLE 6

SUMMARY OF STEPWISE MULTIPLE REGRESSION ANALYSIS OF MEAN
SCHOOL SELF-CONCEPT ON SCHOOL SOCIAL SYSTEM VARIABLES IN 61
SCHOOLS OF THE NORTHEASTERN PART OF QUEBEC

Step	Variable Entered		Signif- icance	Multiple R	R ²	R ² Change	Simple R
1	Stud. Eval. & Expect.	SC4	.000	.59719	.35719		.598
2	Stud. Future Expect.	SC1	.000	.84734	.71799	.36080	.561
3	Princ. Feel. of Resp.	PC3	.010	.86551	.74910	.03111	.141
4	Standardization	OI2	.014	.88034	.77500	.02590	.062
5	Time Devoted	SS3	.096	.88666	.78616	.01116	-.173
6	Stud. Academic Futility	SC2	.159	.89104	.79395	.00779	-.114
7	Technology	OI6	.116	.89635	.80345	.00950	.022
8	Teach. Future Expect.	TC1	.121	.90135	.81244	.00899	.195
9	Teachers Salary	OI1	.197	.90471	.81850	.00607	.001
10	Similarity of Objectives	SS4	.335	.90657	.82188	.00337	-.239
11	Stud. Academic Norms	SC3	.401	.90799	.82444	.00257	.274
12	Princ. Feel. of Resp.	PC3	.444	.90917	.82660	.00215	-.095
13	Teach. Percept. of Stud.	TC4	.392	.91066	.82931	.00271	-.071
14	Teachers' School Eval.	TC2	.524	.91150	.83082	.00152	.115
15	Teach. Determination	TC3	.499	.91244	.83256	.00173	.122
16	Social Composition	SES	.504	.91338	.83426	.00171	.275
17	Parent Involvement	SS5	.583	.91402	.83543	.00117	.172
18	Opened Characteristics	SS1	.580	.91468	.83664	.00121	-.074
19	Years of Training	OI3	.628	.91520	.83759	.00095	.021
20	Stud. Perc. of T. Norms	SC5	.575	.91590	.83887	.00129	.251
21	Teach. Eval. of Students	TC5	.642	.91639	.83977	.00090	.038
22	Ratio of Personnel	OI5	.472	.91759	.84196	.00219	-.165
22	Princ. Eval of St. & Sch.	PC2	.670	.91801	.84275	.00078	.056
23	Parents' Interest	PC4	.833	.91812	.84295	.00020	.224
25	Centralization	SS7	.855	.91820	.84310	.00015	-.138
26	Standardization	SS2	.893	.91825	.84318	.00008	.085
27	Differentiation of Stud.	SS6	.895	.91830	.84327	.00008	-.208

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