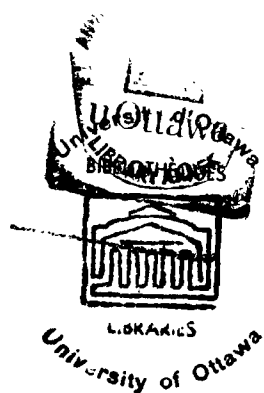


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THE INTERMEDIATE SCHOOL:
STUDENT INVOLVEMENT IN SCHOOL ACTIVITIES

by John W. Jarrett

Thesis presented to the School
of Graduate Studies of the
University of Ottawa as partial
fulfillment of the requirements
for the degree of Doctor of
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CURRICULUM STUDIORUM

John W. Jarrett was born in Ottawa, Ontario on December 8, 1929. He is a graduate of Queen's University, Kingston, Ontario (Bachelor of Arts, 1960) and the University of Toronto, Toronto, Ontario (Bachelor of Education, 1965; Master of Education, 1968).

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INTRODUCTION

The large number of intermediate schools in North America attest to their widespread acceptance. Alexander¹ notes that the three-level public school system "... is now the traditional school ladder arrangement (in the United States)". In Ontario, the three-level system is well established, and since the creation of larger school jurisdictions in 1969, a potential exists for an increase in the number of intermediate schools in the province.

Many school boards which presently have two-level systems are considering the possibility of establishing intermediate schools; a number of systems that have intermediate schools are looking at different combinations of grades for these schools. Before adopting changes in school organizational arrangements for students in the intermediate grades, the implications of these changes should be clearly understood and a discrete and specific role should be identified.

Popper² notes that at least some component of the intermediate school goal has to be unique or else there can

1 William M. Alexander et al., The Emergent Middle School, New York, Holt, Rinehart and Winston Incorporated, 1968, p. 163.

2 Samuel H. Popper, The American Middle School: An Organizational Analysis, Waltham, Massachusetts, Blaisdell Publishing Company, 1967, p. 17.

be no distinct rationale for the unit. According to him the differentiated function of the intermediate school is:

... to intervene protectively in the process of education which was begun in the elementary school, mediate between the human condition at the onset of adolescence and the pressures of culture, and continue the general education of early adolescents with a curriculum applied in the psychological environment which is functional for learning at this stage of socialization.³

Desjarlais and Rackauskas are more specific in identifying this function. They contend that the intermediate school must recognize:

... an adolescent's need for independence and his striving for emancipation. By careful planning ... (the intermediate school) ... will allow the adolescent opportunities and means to work toward an independent status, encouraging him to assume responsibilities, make decisions and plan for the future.⁴

An understanding of the purpose and significance of intermediate schools is particularly important at this time because of the continuing trend to establish such schools. Program aims and objectives should be clearly thought out and the effects that intermediate school environments have on student behavior should be taken into account.

3 Ibid., p. 48.

4 Lionel Desjarlais, John A. Rackauskas, Needs and Characteristics of Students in the Intermediate Years, Ages 12-16, Ontario Ministry of Education, University of Ottawa Press, 1975, p. 323.

The purpose of the research reported in this thesis was to study the effect that the intermediate school environment has on a particular aspect of behavior — student involvement in school activities. This focus was chosen because it is assumed that activities are an aspect of the school program which is related closely to the development of a sense of autonomy and individuality in the students — one of the important and unique objectives of intermediate education.

A general review of the aims and objectives of intermediate education and the rationale on which they are based is presented in Chapter I. Chapter II develops the theoretical basis of this study and reviews the literature and research from which the theory is derived. The second chapter concludes with a statement of the problem. The research design is presented in Chapter III and the results are discussed in Chapters IV and V.

CHAPTER I

INTERMEDIATE EDUCATION

In this chapter, the intermediate school is defined, its historical evolution is outlined, and current issues pertaining to intermediate schools are discussed. An outline of the characteristics of the students in the intermediate grades is given and the rationale for the intermediate program is developed.

The chapter ends with a statement of the problem which gives rise to the hypothesis on which this study is based. The theoretical basis for the study, and the hypotheses along with a description of the research design are presented in the two following chapters.

1. Definition of Intermediate Schools.

Different types of intermediate schools have emerged over the years. The term junior high school refers to schools with grades seven, eight and nine, and in some cases, ten. The unique characteristic of the junior high school is that it spans grades eight and nine — the traditional break between elementary and secondary school. The term middle school is used in reference to schools for grades six, seven and eight. Schools which have grades five, six, seven and eight, and schools housing grades

seven and eight only are also included in the middle school category.

In this report, the term intermediate school is used in the generic sense; it refers to all schools housing grades in the middle range of the public school continuum (that is, junior high schools, middle schools).

2. Historical Background.

The provision of special schools for students in the intermediate grades is not a new idea. The junior high school movement in the United States can be traced back to the early part of the century. Just before the turn of the century, a number of university people advocated the shift of certain college courses to the high schools; they wanted students to be at a more advanced level by the time they reached university. According to Popper¹ the aim was to maintain the high schools in their traditional role as college preparatory schools.

In 1893, largely as a result of the influence of the president of Harvard University, Charles William Eliot, a Committee of Ten was set up to study secondary education. This committee recommended that high school curricula be

¹ Samuel H. Popper, The American Middle School: An Organizational Analysis, Waltham, Massachusetts, Blaisdell Publishing Company, 1967, p. 111.

pushed back into the elementary grades in order to make possible an earlier start on secondary education. Partly as a result of this sort of thinking, the first school for grades seven and eight was established in 1896 in Richmond, Indiana. Others followed and in 1909 the first junior high schools were established in Columbus, Ohio and Berkeley, California.

During this period, societal pressures began to divert the high school from its exclusive emphasis on college preparation. Van Til² notes that the turn of the century was a watershed period in American History "... on the nineteenth century side lay a country that was predominantly rural and agricultural and on the twentieth century side, an urban, industrial nation". In this changing world, the schools had to cope with the problem of educating a large immigrant population. They also had to begin providing vocational education for the increasing number of students who were not college bound. The need for more varied and specialized programs gave impetus to the junior high school movement.

At the same time that changes in society were having an impact on the shape and direction of secondary

² William Van Til, "Junior High School or Middle School?", Contemporary Education, Vol. 41, No. 5, April 1970, p. 222.

education, work by such psychologists as Thorndike and Hall led to an increased awareness of adolescence as a distinct and important stage of human development. The growing documentation of the physical and physiological changes that occur during pre-adolescence and early adolescence added to the case for special school programs for students at this stage of development.

The number of junior high schools grew rapidly. By the mid 1960's there were almost 8,000 junior high schools in the United States.

The most recent trend in intermediate education is the growth in the number of middle schools. Pumerantz³ characterized this growth as "... approaching the dimensions of a movement". A survey made by Mellinger and Rackauskas⁴ found that there were about 1700 middle schools in the United States by the 1969-70 school year — well over three times the number reported by Cuff⁵ for the school year 1965-66.

3 Philip Pumerantz, "State Recognition of the Middle School", Bulletin of the National Association of Secondary School Principals, Vol. 53, No. 335, March 1969, p. 14.

4 Morris Mellinger and John A. Rackauskas, Quest for Identity: A National Survey of the Middle School, 1967-70, Chicago, Chicago State College, 1970, p. 3.

5 William Cuff, "Middle Schools on the March", Bulletin of the National Association of Secondary School Principals, Vol. 51, No. 316, February 1967, p. 82.

In Ontario, the establishment of schools for the intermediate grades has been slower. The first was opened in Ottawa in 1929. This was followed in 1933 with the establishment of Ontario's first junior high school in Forest Hill. Since the mid 1940's, intermediate schools of one sort or another have been adopted by a number of systems in Ontario especially in the urban areas.

3. The Intermediate School Issue.

In spite of the widespread acceptance of intermediate schools and their fairly lengthy tradition, they are still the subject of considerable debate and controversy. Vars⁶ expresses some chagrin at this fact in his comment on the question concerning the appropriate grade levels for the intermediate school: "Imagine, after almost sixty years, we are still arguing this one!".

The most vigorous aspect of the debate centres on the relative merits of middle schools compared with those of junior high schools. The proponents of middle schools claim that the apparent downward trend in the age of puberty should be matched by a downward shift in the grades

6 Gordon F. Vars, "What Do You Believe About Junior High School Education?", Bulletin of the National Association of Secondary School Principals, Vol. 50, No. 309, April 1966, p. 143.

in the intermediate school⁷. They also state that junior high schools have failed to meet the special needs of their pupils and have fallen into the trap of merely aping senior high schools⁸. They advocate a new start and suggest that a change to middle schools would wipe the slate clean and permit a purposeful move toward the goals of intermediate education⁹. On the other hand, junior high school people argue that a change in the outward form of the institution would accomplish little in itself. They maintain that the shortcomings of junior high schools — to which they admit — are best overcome by reforming from within¹⁰.

Generally, this debate is rather confused and somewhat circuitous. Relatively little hard evidence is advanced by either side. Even such an eminent authority as Alexander admits that research findings are inconclusive. He says that:

7 Philip Pumerantz, "State Recognition...", p. 14.

8 Donald H. Eichhorn, "Middle School Organization: A New Dimension", Theory into Practice, Vol. 7, No. 3, June 1968, p. 111.

9 William W. Wattenberg, "The Middle School as One Psychologist Sees It", The High School Journal, Vol. 53, No. 3, December 1969, p. 168.

10 Popper, p. 298

I wish I could tell you that research has firmly established the idea that the middle school is a better organization than any other organization. I can not do it.¹¹

Glissmeyer¹² found that, based on achievement as measured on standardized tests, overall superiority cannot be claimed by either type of organization. Howard¹³ makes much the same point when he states that there is little, if any, evidence to prove that one type of organization is superior to another. Groden comments on the lack of substance of this debate; he claims that:

Research evidence — or rather the lack of it — suggests that advocates of the middle school have made a diagnosis based upon opinion rather than fact. Further they have failed to show how the middle school will function any better than the junior high school.¹⁴

11 William M. Alexander, "Background of the Middle School Movement", The Middle School: Post Session Report, Florida State Department of Education, Tallahassee Division of Curriculum Instruction, May 1969. p. 3.

12 Carl H. Glissmeyer, "Which School for the Sixth Grade, The Elementary or The Middle School?", California Journal of Educational Research, Vol. 20, No. 4, September 1969, p. 185.

13 Alvin W. Howard, "Which Years in Junior High School?", Clearing House, Vol. 41, No. 4, December 1966, p. 229.

14 Austin F. Groden, "Who will Win?, Junior High vs Middle School vs Adolescents", Bulletin of the National Association of Secondary School Principals, Vol. 60, No. 396, January 1976, p. 109.

Whether or not there should be intermediate schools at all is a more basic question. It is a question that is seldom raised in this debate even though there is an apparent lack of evidence in support of such schools. Wattenburg¹⁵ claims that there is no evidence to indicate that pupils who go through a system with a separate intermediate school level differ in any way from those who go through a two-level system. Chellew, Baker, Baker, Dimitri and Johnson¹⁶, after making a comprehensive review of research on intermediate schools, concluded that the research failed to demonstrate that intermediate schools are superior to K to 8 schools in terms of either achievement or student self-perception. Soares, Soares and Pumerantz suggest that intermediate schools may be less desirable. They state that:

15 William W. Wattenburg, "Teachers for the Middle Schools", Teacher Competence for the Middle School Years, St. Paul, Minnesota, Report of a Conference, University of Minnesota - Duluth, Upper Midwest Regional Educational Laboratory, August 1967, p. 6.

16 L. G. Chellew, Carolyn Baker, Robert Baker, Olga Dimitri and Margaret Johnson, The Intermediate School Study, Toronto, the Ontario Institute for Studies in Education, 1973, p. 7.

... traditional schools are more likely to be neighbourhood schools, while middle schools draw from many sections of the city. Continuity and security emanating from the known and the familiar are generally more conducive to higher self-perceptions.¹⁷

Similarly, Mead¹⁸ claims that segregating pre-adolescents by placing them in intermediate schools divorces them from the reassurances and the security that are inherent in a continuing association with children like their own recent past selves.

Another fundamental question that seems to have been overlooked in the debate on middle schools and junior high schools relates to the problem of adjustment that students face when moving into an intermediate school at a time when they are coping with rather dramatic changes within themselves. Berman questions the wisdom of taking youngsters out of a familiar school setting and placing them in an intermediate school at a time when they are going through a major period of disorganization in their

17 Louise M. Soares, A. T. Soares and P. Pumerantz, "Self-Perceptions in Middle School Pupils", The Elementary School Journal, Vol. 73, No. 7, April 1973, p. 387.

18 Margaret Mead, "Early Adolescence in the United States", The Bulletin of the National Association of Secondary School Principals, Vol. 49, No. 300, April 1965, p. 7.

personal lives. He states his point thus: "... in the midst of deciding who they are, they shouldn't have to waste time finding out where they are"¹⁹.

4. The Rationale for Intermediate Education.

Educators on both sides of the middle school-junior high debate are generally agreed on the rationale for intermediate education. They see the characteristics and needs of the students themselves as the basis of this rationale. They agree that unless these characteristics and needs underpin the intermediate school program, there is probably little justification for establishing such schools. Popper states that:

... if the human condition of early adolescence ceases to be the dominant focus of middle school education, then the old pattern of an 8-4 school organization would have a more valid administrative rationale.²⁰

The stage of development of most students in the intermediate grades is described by Eichhorn as the period of transescence. This term conveys the idea of the

¹⁹ Sidney Berman, "As A Psychiatrist Sees Pressures on Middle Class Teen-Agers", National Education Association Journal, Vol. 54, No. 2, February 1965, p. 16.

²⁰ Samuel H. Popper, "The Special Case of Early Adolescents", Teacher Competence for the Middle School Years, St. Paul, Minnesota, Report of a Conference, University of Minnesota - Duluth, Upper Midwest Regional Educational Laboratory, August 1967, p. 6.

transitional nature of the period between childhood and adolescence. Eichhorn defines transescence as follows:

Transescence ... begins prior to the onset of puberty and extends through the early stages of adolescence. Since puberty does not occur precisely at the same chronological age in human development, the transescent designation is based on many physical, social, emotional and intellectual changes that appear prior to the puberty cycle to the time when the body gains a practical degree of stability over these complex changes.²¹

Physiological, psychological, and intellectual characteristics of pre-adolescents should be considered in the development of school programs. These characteristics are considered to be particularly important at the intermediate level because of the rapid changes through which the students are going. Most authorities feel that the disorientation that frequently accompanies these changes makes social and cultural pressures particularly acute. Compton describes the all pervasive nature of change as it affects the pre-adolescent and the early adolescent:

²¹ Donald H. Eichhorn, "Middle School Organization: A New Dimension", p. 111.

Difficulty in learning to cope with the changing body, a new mode of intellectual functioning, and the desire to be a person in his own right — independent of familial (and especially maternal) dominance — and to be a person accepted by his peer group, all this presents a tremendous problem of adjustment for youngsters during the transitional period ... during no other period of human growth and development are youngsters required to adjust themselves to so many changes simultaneously.²²

Eichhorn²³ divides the forces of change that affect pre-adolescents into two basic categories; 1) internal bodily changes, and 2) external forces generated by the environment. He notes that the juncture of the environmental forces and individual physical and psychological states results in social behaviors. The complex relationships which exist between these forces in the pre-adolescent and the early adolescent are suggested by Strang:

22 Mary F. Compton, "Characteristics and Desired Behaviors of the Middle School Child", The Middle School: Post Session Report, Florida State Department of Education, Tallahassee Division of Curriculum Instruction, May 1969, p. 15.

23 Donald H. Eichhorn, Nongraded Middle School: Supporting Theory and Conceptualized Functional Model, unpublished doctoral dissertation, University of Pittsburg, 1965, p. 25.

Facts about the physical growth preceding and following puberty are important for a number of reasons. Bodily changes especially if sudden, change the adolescent's body image and self-concept ... Biological changes give rise to physical sensations; these are translated into emotional states, which, in turn, may be expressed in social behavior.²⁴

Friedlander considers sexual maturation to be the central question:

The child's curiosity is at its peak in matters that are related to the child's own prospective role in adult aspects of sexual and family relationships and it is a triumph of the acculturation mechanism of repression that the adolescent can think about anything else.²⁵

Biological and social factors undoubtedly influence the pre-adolescent's behavior and personality. This stage of growth, however, is also a period of significant intellectual development. Horrocks²⁶ claims that research has confirmed that significant changes in cognitive performance occur sometime between the twelfth and fifteenth

24 Ruth Strang, The Adolescent Views Himself: A Psychology of Adolescence, New York, McGraw-Hill Company, 1957, p. 209.

25 Bernard Z. Friedlander, "A Psychologists's Second Thoughts on Concepts, Curiosity, and Discovery in Teaching and Learning", Harvard Educational Review, Vol. 35, No. 1, Winter 1965, p. 25.

26 John E. Horrocks, The Psychology of Adolescence: Behavior and Development, (3rd ed.), Boston, Houghton Mifflin Company, 1969, p. 472.

year. Desjarlais and Rackauskas²⁷ state that the emergence of new cognitive abilities coincide roughly with the onset of puberty. They describe the changes in cognitive ability as follows:

The adolescent is more proficient at abstraction and the utilization of general principles without need for concrete referents; he develops a sense of time and historical perspective, can engage in flights of fancy as well as controlled deductive thought, separates personal viewpoint from external reality, and is responsive to the challenge of that reality when it violates personal hypotheses.²⁸

It is generally agreed that this shift in cognitive functioning must be reflected in the curriculum of intermediate schools.

Most authorities on intermediate education emphasize that the mastery of appropriate organized knowledge is an important aim of education at this level. They agree that the development of skills which will enable students to continue learning on their own is important. Howard and Stoumbis²⁹ state that the intellectual elements of the

27 Lionel Desjarlais and John A. Rackauskas, Needs and Characteristics of Students in the Intermediate Years, Ages 12-16, Ontario Ministry of Education, University of Ottawa Press, 1975, p. 168.

28 Ibid., p. 40.

29 Alvin W. Howard and George E. Stoumbis, The Junior High School and Middle School: Issues and Practices, Scranton, Pennsylvania, Intext Educational Publishers, 1970, p. 251.

curriculum must receive a high priority and that there is a need to develop the tools and techniques of independent study.

In these respects, the aims of intermediate education are similar to the aims of the other levels of education. If, however, the aims of intermediate education do not include objectives that differ in some essential respect from those of other levels, the rationale for intermediate schools is open to question.

One of the important sources of specific objectives for intermediate education is the diversity of the students at this level. During the period of pubescence, growth rates accelerate markedly; following pubescence, they taper off. The chronological age at which individuals go through this transitional stage varies greatly. On the average, girls reach maturity about two years earlier than boys³⁰. Some early maturing girls enter the period of change leading up to puberty at the age of eight and a half; some late maturing boys do not reach this stage until thirteen and a half. This means that there is a wide range of maturity levels among the students in the intermediate grades.

30 Luella Cole and Irma Nelson Hall, Psychology of Adolescence, (7th ed.), New York, Holt, Rinehart and Winston Incorporated, 1970, p. 71.

Georgiady, Riegle and Romano³¹ claim that middle school students have a biological and psychological range anywhere from seven years old to nineteen. Wattenburg³² states that classes at the intermediate level are an unstable and constantly changing admixture — "a juvenile hodgepodge". This 'hodgepodge' represents a formidable challenge for educators who are responsible for intermediate education. A variety of academic, cultural and social programs aimed at many maturity and interest levels should characterize intermediate education.

Specific objectives for intermediate education are identified by a number of writers. Grooms³³ claims that the student in the intermediate school is "... a practitioner ... he wants to make or share in decision-making. He wants to be responsible for the actions he takes".

31 Nicholas P. Georgiady, Jack D. Riegle and Louise G. Romano, "What are the Characteristics of the Middle School?", Bulletin of the National Association of Secondary School Principals, Vol. 58, No. 381, April 1974, p. 73.

32 Willian Wattenburg, "The Junior High School - A Psychologist's View", Bulletin of the Association of Secondary School Principals, Vol. 49, No. 300, April 1969, p. 36.

33 M. Ann Grooms, Perspectives in the Middle School, Columbus, Ohio, Charles C. Merrill Books Incorporated, 1967, p. 5.

Havighurst³⁴ notes that one of the important developmental tasks of pre-adolescents is learning to work well in the peer group through the development of democratic social relations. Thornburg³⁵ states that the intermediate school should help students to learn their new social-sex roles. According to him, the school should provide a framework which allows, but never forces, heterosexual group activities to evolve out of student development and interests. Thornburg³⁶ also states that the students should be given a variety of suitable experiences and choices in order to help them to develop independence. Other writers identify opportunities for self-management and leadership as important components of intermediate education.

The natural desire of pre-adolescents to be involved and to exercise independence should find acceptance in the intermediate school. Schmuck³⁷ states that the most basic issue is the achievement of a sense of autonomy and

34 Robert J. Havighurst, "The Middle School Child in Contemporary Society", Theory into Practice, Vol. 7, No. 3, June 1968, p. 121.

35 Hershel Thornburg, "Learning and Maturation in Middle School Age Youth", The Clearing House, Vol. 45, No. 3, November 1970, p. 153.

36 Ibid., p. 154.

37 Richard Schmuck, "Concerns of Contemporary Adolescents", Bulletin of the Association of Secondary School Principals, Vol. 49, No. 300, April 1965, p. 26.

individuality. Desjarlais and Rackauskas emphasize that it is the responsibility of the school to recognize this.

They note that:

A good school recognizes an adolescent's need for independence and his striving for emancipation. By careful planning, it will allow the adolescent opportunities and means to work toward an independent status, encouraging him to assume responsibilities, make decisions and plan for the future.³⁸

In summary, the developmental needs of the students in the intermediate grades are considered to be fundamental to education at this level. Authorities identify the development of independence and individuality as the most important task of the pre-adolescent and early adolescent. It is felt, therefore, that providing for this development constitutes the single most important component of the rationale for intermediate education.

Aspects of the school program that give students opportunities to make choices and decisions probably have considerable potential for fostering the development of independence. School activities are one aspect of school life that provides students with these sorts of opportunities. The research presented in this thesis focused on student involvement in these school activities. The effects of two types of school environments — K to 8

38 Desjarlais and Rackauskas, p. 323.

and intermediate — on the behavior of intermediate students in relationship to these school activities was investigated.

The influence of environment on behavior is discussed in the next chapter. The theoretical framework of the study is developed and the statement of the problem that is derived from the theory is also presented.

CHAPTER II

THEORETICAL BASIS OF THE STUDY

The relationship between the environment and its inhabitants is complex. The interdependence of the elements within an environment is ecological in nature. Changes in the environment effect changes in the behavior of individuals. This effect is often profound. Willems¹ believes that the adaptive dependencies between an individual and his environment is a question of central importance to the understanding of behavior. He states that "... behavior is largely controlled by the environmental setting in which it occurs and changing environmental variables results in a modification of behavior"². Skinner³ agrees. He contends that changes in the environment can have quick and dramatic effects on behavior. He notes that, although man is controlled by his environment, the environment in which man exists is largely of his own making⁴.

1 Edwin P. Willems, "Behavioral Technology and Behavioral Ecology", Journal of Applied Behavior Analysis, Vol. 7, No. 1, Spring 1974, p. 152.

2 Ibid., p. 159.

3 B. F. Skinner, Beyond Freedom and Dignity, New York, Alfred A. Knopf, 1971, p. 19.

4 Ibid., p. 213.

The challenge, therefore, is for man to create better environments⁵.

The challenge for educators is to create school environments that effect behavior in a way that is conducive to the attainment of educational goals. The school environment created for students in the intermediate grades should generate behaviors that are related to the unique aims of intermediate education.

1. Behavior Setting Theory.

The problem of measuring student behaviors in the environment of a school is complex. A carefully defined and readily identifiable unit is needed in order to make analysis and comparison of student behaviors in different types of school environments possible. The behavior setting is such a unit. Barker describes the essential attributes of a behavior setting as follows:

A behavior setting has both structural and dynamic attributes. On the structural side, a behavior setting consists of one or more standing patterns of behavior-and-milieu ... On the dynamic side, the ... parts of a behavior setting ... have a specified degree of interdependence among themselves that is greater than their interdependence with parts of other behavior settings.⁶

5 Ibid., p. 82.

6 Roger G. Barker, Ecological Psychology, Stanford, California, Stanford University Press, 1968, p. 18.

Behavior settings are also inherently stable. Barker and Schoggen comment on the self-maintaining processes of behavior settings that contribute to the stability:

The processes ... which consist of mechanisms for countering the deviances of the behavior setting components and of eliminating inadequate components, give them stability in spite of internal and external instability.⁷

More specifically, Barker states that a behavior setting has the following characteristics:

1. It occurs at a specific, identifiable place and time.
2. It is made up of a variety of entities, including people, objects and behaviors.
3. Its components form a pattern which can be readily differentiated from the pattern of events outside the setting.
4. Its component parts are arranged in a systematic (non-random) fashion.
5. It may form part of a 'nesting structure', in that it may have component parts, and it may also be one part of a larger structure.
6. It is not a creation of the observing person, but exists independently of anyone's perception of it.
7. It is independent of specific individuals, i.e., it will continue to function in the absence of any particular person or persons.⁸

7 Roger G. Barker, Phil Schoggen, Qualities of Community Life: Measurements of Environment and Behavior in an American and an English Town, San Francisco, California, Jossey-Bass Publishers, 1973, p. 11.

8 Rober G. Barker, "On the Nature of the Environment", Journal of Social Issues, Vol. 19, No. 4, October 1963, p. 27.

Examples of behavior settings include mathematics classes, school offices, students' council meetings and basketball games. Such common-place things seem to be too familiar to warrant formal definition and classification, yet a clear understanding of behavior settings is important to the understanding of their effects on behavior.

Generally, the physical and psychological boundaries of behavior settings are obvious. The fact that behavior settings exert pressures on their inhabitants is easily observed. Barker and Gump⁹ note that few things can be clearer than the coercive power of behavior settings. They observe that "... no one dances in Mr. Johnston's chemistry class and no one carries out chemistry experiments at the 'Sock Hop'". Particular kinds of actions occur only in particular behavior settings, according to Barker and Schoggen¹⁰.

What is not too clear is the relationship between the environment and the individual. Although individuals function in accordance with their own psychological make-ups, the environment affects the inhabitants of behavior settings en masse in such a way that they can be expected to have common attributes and to exhibit certain common behaviors.

9 Roger G. Barker and Paul V. Gump, "Ecological Units", Big School, Small School: High School Size and Student Behavior, Stanford, California, Stanford University Press, 1964, p. 19.

10 Barker and Schoggen, p. 45.

The inhabitants of identical behavior settings exhibit characteristic overall extra-individual patterns of behavior¹¹. These observations are fairly easily made. However, the cause and effect link between the environment and the behavior of people in it is not as easily discerned. Lewin, in his life space theory, points out the necessity of understanding this link. He says that "... to understand and predict behavior, the person and the environment have to be considered as one constellation of interdependent factors"¹². The behavior setting theorists take matters a step further. They state that the environment is a distinct entity subject to its own laws. Barker claims that in order to study the environment/behavior relationships, the environment must be described and measured separately¹³. When its lawfulness is pieced together through careful studies, the knowledge of specific attributes of the environment thus gained will be helpful in explaining specific behaviors. According to Barker, this means that

11 Roger G. Barker, "The Ecological Environment", in Barker and Gump, p. 9.

12 Kurt Lewin, Field Theory in Social Science, New York, Harper and Row Publishers, 1951, p. 240.

13 Barker, "The Ecological Environment", p. 5.

schools as environments must be studied as carefully as the behavior of individual students within them¹⁴.

Studies conducted by Barker and Wright¹⁵, Barker¹⁶, and Barker and Barker¹⁷ have outlined some of the broad characteristics of behavior settings. According to the theory that has emerged from these studies, a setting is a homeostatic system with controls that maintain the setting intact and operating at a stable functional level under widely varying conditions¹⁸. This homeostatic system consists of multiple, independent elements. For every homeostatic level there is an optimal number of elements. When the optimal number of elements is present, the behavior setting is said to be optimally manned. When the number of elements falls below the optimal level, that is, when the setting is undermanned, important consequences follow. In this situation, because the homeostatic controls maintain the functional level of the setting, the same pattern and

14 Barker, "Ecological Units", p. 15.

15 Roger G. Barker and H. F. Wright, Midwest and its Children, Evanston, Illinois, Row, Peterson, 1955, vii-291 p.

16 Roger G. Barker, "Ecology and Motivation", Nebraska Symposium on Motivation, M. Jones (ed.), Lincoln, University of Nebraska Press, 1960, p. 1-49.

17 Roger G. Barker and Louise S. Barker, "Structural Characteristics", in Barker and Gump, p. 41.

18 Barker and Gump, "Ecological Units", p. 19.

strength of forces must be distributed among fewer inhabitants. Barker states the two main consequences of the undermanned settings as follows:

- (1) The strength of the forces acting upon the individual inhabitants ... increases; and
- (2) the range and direction of the forces acting upon individual inhabitants ... increases.¹⁹

Wicker states these postulates of Barker's in operational terms; the impact of undermanned settings on the individuals who occupy them results in:

- (1) greater effort in the form of harder work or longer hours,
- (2) more difficult and important tasks undertaken,
- (3) a wider variety of activities engaged in,
- (4) less sensitivity and less evaluation of differences between people,
- (5) lower level of maximal or 'top' performance,
- (6) greater functional importance within the setting,
- (7) more responsibility,
- (8) greater functional self-identity,
- (9) lower standards and fewer tests for admission,
- (10) greater insecurity due to increased dependence upon others, and
- (11) more frequent occurrences of success and failure.²⁰

¹⁹ Ibid., p. 21.

²⁰ A. W. Wicker, Students Experiences in Behavior Settings of Large and Small High Schools: An Examination of Behaviour Setting Theory, unpublished doctoral dissertation, University of Kansas, 1967, p. 6.

Another attribute of the behavior setting is that it is a place where opportunities for individuals to satisfy a number of personal motives can be found. The obverse of this is also true; settings impose obligations on their occupants²¹.

As pointed out previously, behavior settings are commonplace. People find themselves in numerous and varied behavior settings throughout their lives. If, however, the behavior setting is to be a useful analytical unit for empirical research, it must be rigorously defined. The theorists have developed an index of interdependence with a specific cutting point that permits behavior settings to be identified empirically²². In addition, behavior setting investigators have developed a scale of penetration that gives a measure of individual involvement in settings. The scale is based on the following zones of penetration:

21 Ibid., p. 5.

22 Barker, "Ecological Units", p. 22.

1. Onlooker — no active part in standing pattern of behavior, tolerated but not welcome.
2. Audience or Invited Guest — definite space in setting, but little power.
3. Member or Customer — potential power but little immediate power.
4. Active Functionary — power over part of setting.
5. Joint Leaders.
6. Single Leaders.²³

Persons who enter zones four, five or six are classified as performers. Others, within the setting, are nonperformers. It is assumed that the depth of penetration into a setting is one indication of the sense of commitment and responsibility felt by a person for the setting. Barker and Schoggen note the effect that the performers or operatives, have on the setting as well as the influence the setting has on them:

... the operatives are the most immediately essential inhabitants of a behavior setting; they man its program and maintenance circuits, ... This responsibility entails power over the setting, but also involves coercion by the setting ... the operatives are more strongly constrained by the homeostatic controls of the setting.²⁴

23 Barker, Ecological Psychology, p. 51.

24 Barker and Schoggen, p. 39.

Willems also comments on the behavior setting's ability to shape a sense of responsibility or obligation in its inhabitants. He states that:

... induced forces, or environmental feedback (a) define the person's social obligations for him and direct him to it and (b) inform him of possible consequences of his actions in the form of sanctions and rewards. As a result of this definition and direction and potential return, an internalized, subjective disposition, that is, sense of obligation is shaped.²⁵

In summary, behavior settings are readily identifiable in place and time; they are made up of people, objects and behaviors and exist independently of specific individuals. They also have the power to elicit in their inhabitants certain patterns of behavior including those behaviors that manifest a sense of responsibility or obligation. In the research project reported in this thesis, those school activities that are normally part of a school's extra-curricular program are the behavior settings studied.

2. Review of Behavior Setting Research.

In a review of thirty-one empirical studies of small groups in business and industry, Thomas and Fink state

²⁵ Edwin P. Willems, "Sense of Obligation to High School Activities as Related to School Size and Marginality of Students", Child Development, Vol. 38, No. 4, December 1967, p. 1249.

that the findings indicate that group size is an important variable which must be taken into account in any theory of group behavior. They conclude that:

Taken together, these studies indicate that as size increases there will be a decreasing group cohesiveness and increasing organization and division of labour in the group, along with the development of cliques and possibly factions.²⁶

Behavior setting research that has been conducted in schools has centred largely on the question of size. Barker claims that these studies have revealed what he calls the school size illusion. He states this idea thus:

We have discovered that small high schools are, in fact, not so small on the inside as they are on the outside. In terms of number of behavior settings, number of variety of behavior settings, and number of inhabitants per setting — interior characteristics not easily seen from the outside — small schools differ less from large schools than in terms of number of students and amount of space, which are perceptually salient external attributes of schools.²⁷

In an investigation that involved a comprehensive behavior setting survey of high schools ranging in enrolment from thirty-five pupils to 2,287 pupils, Barker and Barker²⁸ discovered that as the schools increased in size, the

26 Edwin J. Thomas and Clinton F. Fink, "Effects of Group Size", Psychological Bulletin, Vol. 60, No. 4, July 1963, p. 375.

27 Barker and Barker, p. 62.

28 Ibid., p. 61.

variety and richness of behavior settings in the schools increased at a much slower rate. They concluded that smaller schools managed to sustain a large proportion of the types of behavior settings provided by larger schools²⁹.

As a result of another survey that looked into student participation in interschool events and extra-curricular activities, Barker and Hall concluded that:

... there is clear evidence of greater participation in school activities by small school students than by large school students ... The differences were so great as to suggest not only that they were statistically significant differences but that they pointed to a different way of student life in small and large schools.³⁰

Gump and Friesen³¹ also studied student participation in nonclass settings. They chose to investigate the nonclass setting because the most adequate field methods available to them made use of the free decisions of students to enter or not to enter particular behavior settings. They felt that it was essential to avoid settings where student participation was determined by school officials. They state their findings as follows:

29 Ibid., p. 62.

30 Roger G. Barker and Eleanor R. Hall, "Participation in Interschool Events and Extracurricular Activities", in Barker and Gump, p. 74.

31 Paul V. Gump and Wallace V. Friesen, "Participation in Nonclass Settings", in Barker and Gump, p. 75.

This study demonstrated that a large school provides a somewhat larger number and wider variety of nonclass activities than a small school ... but the small school provides a higher proportion of settings to the number of students; this has the following consequences for the students' participation in activities:

(a) Small school students participate in the same number of settings commonly regarded as extra-curricular as do large school students.

(b) Small school students participate in a wider variety of extra-curricular activities than do students in a large school.

(c) A much larger portion of small school students hold positions of responsibility and importance.

(d) Finally, small school students hold responsible and central positions in a wider variety of activities than do students in a large school.³²

When Gump and Friesen³³ controlled for sex and I.Q. in this study they found that girls performed significantly more often than boys and that brighter students participated more frequently than less capable ones.

The question of the possible differing effects of large and small school environments on different types of students was investigated further by Willems³⁴. Using card-sort and open-ended techniques on both actual and

32 Ibid., p. 92.

33 Ibid., p. 89.

34 Edwin P. Willems, "Forces Toward Participation in Behavior Settings", in Barker and Gump, p. 115.

hypothetical settings, he measured the pressures and attractions that affected students and prompted them to become involved, and he measured the sense of responsibility and obligation felt by students for the settings. In this study, Willems chose a population made up of two types of students — regulars and marginals. He defined the regular students as those who would likely go on to complete high school and the marginal students as those who were potential drop outs. He concluded that the small school environment seemed to produce less discrimination between the two types of students than the large school environment. The major finding of this study was that marginal students in large schools were little involved in school activities and felt little or no sense of responsibility or obligation for these activities. In Willems' terms, these students formed a sizeable group of "outsiders" within the large school³⁵. As a result of a subsequent similar study, Willems³⁶ states that the "... principal impact of school size appears to be upon marginal students".

Another study relating to students' feelings and experiences in school behavior settings was conducted by

35 Ibid., p. 123.

36 Edwin P. Willems, "Sense of Obligation to High School Activities ...", p. 1256.

Gump and Friesen³⁷. Students were asked to select from a list of activities that they had entered those which they felt were satisfying and worthwhile. These students were also asked to tell what they liked about these settings. A content analysis, based on an a priori framework, was applied to these responses and revealed that the students in the small schools derived a greater range of satisfaction from their participation in nonclass activities than did students in large schools. The general conclusion that Gump and Friesen came to as a result of this research was that:

... large and small school students derived different satisfactions from their nonclass settings and that these differences were causally related to differences in the number of students who occupied more central, important positions and the number of such positions held by each student.³⁸

The evidence that they presented demonstrated that students in small schools occupied a greater proportion of central and responsible roles³⁹.

37 Paul V. Gump and Wallace V. Friesen, "Satisfactions Derived from Nonclass Settings", in Barker and Gump, p. 107.

38 Ibid., p. 114.

39 Gump and Friesen, "Participation in Nonclass Setting", p. 92.

Wicker⁴⁰ obtained similar results in two studies of positions of responsibility. In the first study, however, he found that the proportion of students occupying performance positions depended, to some extent, on the characteristics of the behavior setting itself rather than the size of the school in which it occurred. His second study revealed that small schools have the effect of channeling students into undermanned settings where the potential for assuming a position of responsibility is greater. In a general discussion of these findings, Wicker stated that:

While most large school settings are overmanned, a few are undermanned; the opposite is true of the small school. Regardless of school size, students occupying overmanned settings are more likely to be nonperformers ... occupants of undermanned settings are more likely to be performers. And since overmanned settings are more characteristic of large schools than small schools, the former will have fewer performances by the average student.⁴¹

Wicker and Mehler⁴², in a study of the congregations of two churches, found that new members were

40 Wicker, Students Experiences in Behavior Settings..., p. 103.

41 Allan W. Wicker, "Undermanning, Performance and Students' Subjective Experiences in Behavior Settings of Large and Small High Schools", Journal of Personality and Social Psychology, Vol. 10, No. 3, March 1968, p. 260.

42 Alan W. Wicker and Anne Mehler, "Assimilation of New Members in a Large and a Small Church", Journal of Applied Psychology, Vol. 55, No. 2, 1971, p. 151-156.

assimilated more readily into relatively undermanned activities, that is, into smaller organizations. They concluded that felt closeness and obligation as well as a more intimate acquaintance with the smaller organization's members and officers facilitated the assimilation. In a study of a church merger, Wicker and Kauma⁴³ found that feelings of identification with the organization were less in the larger organization.

The studies of schools reported here give strong support to behavior setting theory. These studies, however, were somewhat limited in scope; only one large school and four small schools were included in the sample. Baird⁴⁴ recognized this shortcoming and conducted an extensive study to examine the basic hypotheses of these studies. His sample of 21,371 students represented schools of all sizes in a wide variety of communities throughout the United States. He found that: 1) high school grades are affected by community setting, high school size, and the interaction between the two, 2) students of the smallest

43 Alan W. Wicker and Claudia E. Kauma, "The Effects of a Merger of a Small and a Large Organization on Members' Behavior and Experience", Journal of Applied Psychology, Vol. 50, No. 1, 1974, p. 28.

44 Leonard L. Baird, "Big School, Small School: A Critical Examination of the Hypothesis", Journal of Educational Psychology, Vol. 60, No. 4, Part 1, August 1969, p. 252.

schools tend to receive the highest grades, 3) small school size is related positively to nonacademic achievement in four of six areas — writing, leadership, music and drama, 4) leadership achievement is considerably higher among students from smaller high schools, and 5) the percentage of students who have no achievements is higher in large schools⁴⁵. As a result of these findings, Baird concluded that:

Taken together, these results suggest that students' participation and achievement are considerably influenced by their immediate situation ... The results reported here give substantial support to the work of Barker and Gump.⁴⁶

The studies of student involvement cited in this chapter were all conducted in high schools. Studies of this type have not been carried out at the intermediate level. This lack coupled with the fact that the studies found that the size of a behavior setting has a direct effect on the behavior of its inhabitants gave rise to the problem investigated in the study reported in this thesis. This problem is discussed in the next section.

45 Ibid., p. 254-255.

46 Ibid., p. 259.

3. Statement of the Problem.

There has been relatively little research on the effects of intermediate schools on student behavior. Coffland⁴⁷ claims that much of the writing on these schools is simply not backed by any form of research. According to Wiles and Thomason⁴⁸, most of the studies that have been done were comparative in nature and somewhat questionable because they were conducted largely by advocates of one form of intermediate school or the other.

The effect that the intermediate school environment has on student behavior is a question that has gone unanswered; indeed, this question has gone largely unasked. Relatively little has been done to determine whether or not intermediate schools are needed in order to provide appropriate programs for pre-adolescents and early adolescents.

Aspects of school life that allow students some measure of choice and control would appear to have the greatest potential for providing students with opportunities

47 Jack A. Coffland, "Re-examining the Middle School: A Student Survey", The Clearing House, Vol. 49, No. 4, December 1975, p. 154.

48 Jon W. Wiles and Julia Thomason, "Middle School Research 1968-1974: A Review of Substantial Studies", Educational Leadership, Vol. 32, No. 6, March 1975, p. 421.

to develop independence and individuality. School activities are one aspect of school life that give students these sorts of opportunities. The act of choosing among activities and participating in the maintenance and control of these activities provides students with some real decision-making experiences and responsibilities. In most schools, activities such as these are largely extra-curricular.

A number of writers note the importance of student involvement in school activities. Ruebel⁴⁹ stresses that extra-curricular and intramural activities with the emphasis on participation are important parts of the program for students in the intermediate grades. Overly, Kinghorn and Preston⁵⁰ claim that participation develops in the students the feeling that they are part of the community and helps to prepare them for life in a democratic society. Chellew, Baker, Baker, Dimitri and Johnson concur with this view; however, they question the assumption that intermediate schools provide a setting that is conducive to student involvement. They note that:

49 Marion M. Ruebel, "Comments on Research", Bulletin of the National Association of Secondary School Principals, Vol. 57, No. 370, February 1973, p. 102.

50 Donald E. Overly, Jon Rye Kinghorn and Richard L. Preston, The Middle School: Humanizing Education for Youth, Worthington, Ohio, Charles A. Jones Publishing Company, 1972, p. 238.

... it may be reasonable to conclude that, while in the specifically intermediate schools a greater variety of extra-curricular activities is offered, participation in the activities may be higher where fewer are offered (i.e., K to 8 schools).⁵¹

Overly, Kinghorn and Preston⁵² also express concern over the level of participation in intermediate schools. They claim that the number of students who are actually involved is small.

Because the activities program of the intermediate grades seems to have potential for providing the students with the means of achieving a degree of independence, one index of a school's success in attaining this aim is the degree of involvement of students in such activities.

The main focus of the research reported in the following chapters was on student involvement in school activities and the effect that the total school environment has on involvement. Specifically, the problem was to determine the level of involvement in school activities of students in intermediate schools. This problem was addressed by making a comparison between the involvement of pupils in K to 8 schools as opposed to intermediate schools. The hypotheses adopted for purposes of making

51 Chellew, et al., p. 101.

52 Overly et al., p. 237.

this comparison were based on the behavior setting research related to school size, which, according to Willems⁵³, found that the larger the school, the lower the rate of participation among the students and the less the sense of social obligation and responsibility felt by the students. Therefore, the purpose of this study was to investigate the relationships between student behavior and the size of the intermediate school unit in the two types of schools. Size was defined as the number of students in the unit. More specifically, the level and quality of the involvement in school activities of grade eight students in the two types of schools were compared.

The approach used in making this comparison was modelled on the investigation of high school student participation in nonclass settings conducted by Gump and Friesen⁵⁴. The data collection instrument used in this study was based on a modification of the methodology developed by Gump and Friesen to measure student participation⁵⁵. The study reported in this thesis differed from

53 Edwin P. Willems, "Behavioral Ecology and Experimental Analysis: Courtship is not Enough", in John R. Nesselroade and Hayne W. Reese (eds.), Life Span Development Psychology, New York, Academic Press, 1973, p. 205.

54 Gump and Friesen, "Participation in...", p. 75-93.

55 Barker and Gump, p. 219-230.

the Gump and Friesen study in that it was conducted at the intermediate level. In addition, the effects of busing on student involvement in school activities was investigated.

The hypotheses and the design of the study are presented in Chapter III.

4. Definitions, Assumptions and Limitations.

The key terms used in this thesis are defined as follows:

1. Intermediate School: A school containing any combination of grades from five to ten organized as a separate administrative unit. All of the schools included in this study contained grades seven and eight only with the exception of one which had a small grade six as well.

2. K to 8 School: A school containing all grades from kindergarten to grade eight which draws all of its students from the same attendance area.

3. Involvement: Student participation in school activities from a passive onlooker role to an active participant or leadership role.

4. Activities: School activities, for the most part extra-curricular, that allow students some choice as to whether or not they become involved.

The assumptions on which this study were based are as follows:

1. The intermediate grades in a K to 8 school form a functionally autonomous unit within the larger school. Principals in all six of the K to 8 schools included in Behavior Setting Survey⁵⁶ indicated that the intermediate grades were organized largely as separate units within their schools. This division of the organization of these schools reflected the division of the curriculum laid down by the Ministry of Education of Ontario.

2. Intermediate schools generally have significantly more students in grades seven and eight than K to 8 schools⁵⁷.

3. The intermediate unit in K to 8 schools is a relatively undermanned behavior setting when contrasted with the intermediate school behavior setting.

4. Involvement in school activities is conducive to the development of social skills and leadership and decision-making skills.

5. The range and number of activities available to students in both K to 8 and intermediate schools is about the same⁵⁸.

56 See p. 54 and Appendix 2, p. 119.

57 See Table I, p. 49 and Table II, p. 51.

58 See Table III, p. 56.

6. There are no significant differences between the students attending the K to 8 schools and the intermediate schools in terms of intelligence, socio-economic status, use of school buses, and the types of communities in which they live. The latter two variables were accounted for in the design of the study⁵⁹.

The major limitations inherent in this study were as follows:

1. The sample of schools used in the study was drawn from Eastern Ontario. It may not be possible to generalize the results to all intermediate schools.
2. Grade eight was the senior grade in all schools included in this study. The findings may not be applicable to schools where grade eight is not the senior grade.
3. School activities such as those investigated in this study are probably not the only aspect of the school program that give students opportunities to develop social skills and leadership and decision-making skills.

59 See p. 47 and p. 50.

CHAPTER III

DESIGN OF THE STUDY

In this chapter, the purpose of the study is set out in general terms. The general hypotheses derived from the purpose are stated along with the specific hypotheses expressed in the null form. The research population and the design of the study are described. The development of the instrument used in this study is also summarized.

1. The Hypotheses.

The purpose of this research was to study the effect of the school environment on student participation in school activities. It was postulated that the level of involvement and participation is an indicator of a school's success or lack thereof in attaining the unique goals of intermediate education — the development of a sense of autonomy and individuality in the students.

In order to determine the effects of school environment on student participation, grade eight students in K to 8 schools were compared with grade eight students in intermediate schools.

The basic assumption in this study was that school activity settings in K to 8 schools are relatively undermanned in comparison to those in intermediate schools, and,

because of this, grade eight students in K to 8 schools are more likely to be involved in such activities, and are more likely to assume responsibility for their maintenance than their counterparts in intermediate schools.

This basic assumption was made because, in general, K to 8 schools have fewer grade eight students than intermediate schools, and, according to the behavior setting theory outlined in the Theoretical Basis of the Study, size is related to the level of manning. In this study, the mean number of grade eight students in the K to 8 schools was 60.6, and in the intermediate schools 310.7.

The general hypotheses of this study are expressed as follows:

1. Grade eight students in K to 8 schools are more involved in school activities than grade eight students in intermediate schools.

2. The responsibility for the maintenance of school activities assumed by grade eight students in K to 8 schools is greater than that assumed by grade eight students in intermediate schools.

The specific hypotheses tested in this research expressed in the null form are as follows:

1. There is no significant difference in the involvement in school activities between grade eight

students in K to 8 schools and grade eight students in intermediate schools.

2. There is no significant difference in the responsibility for the maintenance of school activities as evidenced by the depth of penetration into these activities between that assumed by grade eight students in K to 8 schools and that assumed by grade eight students in intermediate schools.

The school activities investigated in this research are extra-curricular in nature and, therefore, are offered largely outside of regular school hours. As a result, involvement is dependent, at least in part, on students being able to attend outside of regular hours. The pattern of school busing was investigated because dependence on school buses could affect the level of participation. This effect could be more pronounced on intermediate schools because such schools normally draw their student population from wider attendance areas.

The hypotheses adopted to study the effects of busing on student involvement in school activities are as follows:

1. There is no significant difference in involvement in school activities between grade eight students who are not bused to school and grade eight students who are bused to school.

2. In relationship to involvement in school activities, there is no significant interaction between nonbus and bus students and the types of school they attend.

The hypotheses adopted to study the effects of busing on penetration into school activities are as follows:

1. There is no significant difference in the depth of penetration into school activities between grade eight students who are not bused to school and grade eight students who are bused to school.

2. In relationship to penetration into school activities, there is no significant interaction between nonbus and bus students and the types of school they attend.

2. The Research Population and Sample.

The research sample in this study was drawn from ten intermediate schools and ten K to 8 schools in Eastern Ontario.

At the time, the ten intermediate schools were all of the schools of this type in the region that had been in operation for two or more years (Table I). Six schools were located in the City of Ottawa and the adjacent suburban communities; the others were located in Pembroke, Cornwall and Kingston — all relatively small cities within a 120 mile radius of Ottawa. Of these schools, nine housed grades seven and eight only and the remaining one had a

Table I.-
Intermediate Schools Included in Study

School	Grade Structure	No. Grade 8 Students	Total No. Students
1	7,8	558	936
2	7,8	350	654
3	7,8	238	484
4	7,8	225	450
5	7,8	376	820
6	7,8	378	756
7	6,7,8	295	613
8	7,8	280	540
9	7,8	249	555
10	7,8	158	319
Average Number of Students		310.7	612.7

small grade six in addition. The average enrolment of these schools was 612.7; the smallest having a student population of 319 and the largest, 936. The number of students in the grade eight classes ranged from 158 to 558 with an average of 310.7.

The ten K to 8 schools included in the study were located in the same geographical region (Table II). The attendance areas of each of these schools, with one exception, was the same for all grades including kindergarten. In the one school, the intermediate grade students were drawn from a wider attendance area. The average enrolment of these schools was 482 ranging from 235 to 850. The number of grade eight students ranged from 30 to 132 with an average of 60.6.

A random sample of fifteen boys and fifteen girls was drawn from the grade eights in each of the twenty schools. The total number of subjects was 597; 297 in the intermediate schools and 300 in the K to 8 schools.

Of the 297 subjects in the intermediate schools, 147 or 49.5 percent were bused. The comparable number bused in the K to 8 schools was 118 or 39.3 percent of the subjects. In general, bus routes in Eastern Ontario were relatively short. In one large jurisdiction in the region the maximum distance from the schools to students' homes was about fifteen miles; the longest bus route was under thirty miles.

Table II.-
K to 8 Schools Included in Study

School	Grade Structure	No. Grade 8 Students	Total No. Students
11	K to 8	90	850
12		60	601
13		35	306
14		30	235
15		62	521
16		42	339
17		48	566
18		55	700
19		52	320
20		132	382
Average Number of Students		60.6	482.0

In addition, a number of the school boards provided late buses for students who wished to participate in school activities after hours.

3. The Instrument.

The instrument used to gather the data in this study was the Student Involvement Survey (SIS) (Appendix 1). This instrument, which was developed by the author, was based on the research done by Gump and Friesen¹ in their investigation of student participation in nonclass behavior settings.

The students included in this study were asked to report on their involvement in school activities under a number of categories on the SIS. These categories were based on the varieties of nonclass behavior settings identified by Gump and Friesen². When completing the SIS the students were instructed to think back over the past school year and recall the activities under each of the following twelve categories:

1 Paul V. Gump and Wallace V. Friesen, "Participation in Non Class Settings", Big School, Small School, R. G. Barker and P. V. Gump, Stanford, California, Stanford University Press, 1964, p. 75.

2 Ibid., p. 79.

Games with Other Schools
House League, Intramural Sports
Plays, Concerts, Public Performances
Music
Parties, Dances
Money Raising, Charitable Projects
Hobby Clubs, Special Interest Groups
Service Clubs, Helper Groups
Students' Council, School Elections
School Newspaper, Year Book
School Offices
Library, Resource Centre

Each student listed the activities within the categories in which he or she was involved and indicated the nature of the involvement by placing a check mark under the appropriated Performance Information heading.

The Performance Information headings were derived from the different levels of penetration or zones of centrality defined by Barker³. Three column headings giving three general levels of penetration were included on the instrument. Check marks in the first column indicated a relatively minor involvement at the audience or customer level. Check marks in the second column indicated a more

3 Roger G. Barker, Ecological Psychology, Stanford, California, Stanford University Press, 1968, p. 51.

active membership such as a worker or a helper while check marks in the third column indicated a participant who was more directly responsible for the maintenance or control of the activity such as an organizer, leader, executive officer or player.

In addition to recording performance information, each student was asked to indicate the approximate number of times he or she was involved by checking the appropriate column in the Number of Times section of the instrument. This section of the instrument had three columns with the following headings: Once only, two to five times and six or more times.

Prior to developing the SIS instrument, the author conducted a Behavior Setting Survey (BSS) (Appendix 2) in twelve schools which were subsequently used in the study. Six of these schools were K to 8 schools and six were intermediate schools. In this survey, the principals were interviewed at length in order to find out about the schools' organization and facilities in detail.

An extensive check list of nonclass behavior setting was included in the BSS. The purpose of this list was to assess the availability of the school activities to the students. As a result of this survey, it was concluded that nonclass activities were about equally available in the different types of schools. The total number of such

activities reported by the principals of the six intermediate schools was 314 while the total reported for the six K to 8 schools was 315. The average number of nonclass activities for the two types of schools was 52.3 and 52.5 respectively. These findings support Barker and Barker's⁴ contention that smaller schools manage to sustain a large proportion of the types of activities that are provided by larger schools. Table III gives the totals and averages by categories of activities. The ratios of students to nonclass activities are approximately .2:1 for the intermediate schools and 1:1 for the K to 8 schools surveyed. These ratios lend support to Wicker's⁵ observation that overmanned settings are more characteristic of large schools than small schools.

4. Pilot Studies.

In order to develop and refine the Student Involvement Survey form, a series of pilot studies was conducted. Prior to the first pilot study a preliminary SIS form was discussed at a seminar group consisting of teachers and

4 Roger G. Barker and Louise S. Barker, "Structural Characteristics", in Barker and Gump, p. 61.

5 A. W. Wicker, "Undermanning, Performance and Students' Subjective Experiences in Behavior Settings of Large and Small High Schools", Journal of Personality and Social Psychology, Vol. 10, No. 3, March 1968, p. 260.

Table III.-
Number and Types of School Activity Behavior Settings

	Intermediate Schools								K to 8 Schools							
	1	2	3	4	6	7	Total	$\bar{X}$	11	12	13	14	18	19	Total	$\bar{X}$
House League, Indoor	3*	5	5	3	6	6	28	4.67	5	4	4	5	4	4	26	4.3
House League, Outdoor	4	6	3	2	4	8	27	4.5	7	6	8	5	5	4	35	5.83
Interschool, Indoor	3	3	3	3	3	2	17	2.83	1	2	4	3	3	3	16	2.67
Interschool, Outdoor	3	6	4	2	5	5	25	4.17	3	6	5	4	4	4	26	4.3
Service Clubs	5	5	4	5	6	5	30	5.0	5	8	3	4	6	5	31	5.17
Hobby Clubs	6	2	4	4	0	4	20	3.3	6	10	5	3	6	0	30	5.0
Curriculum Clubs	6	3	2	2	2	4	19	3.17	4	2	7	0	2	3	18	3.0
Activities	13	15	10	10	11	14	73	12.17	8	14	7	13	14	10	66	11.0
Journalism	2	1	4	3	3	1	14	2.3	1	2	1	1	3	1	9	1.5
Government	3	3	3	4	3	4	20	3.3	3	3	1	3	3	4	17	2.83
Community Works	4	5	4	5	3	5	25	4.17	7	3	2	5	6	1	24	4.0
Parties, Dances	4	2	3	1	2	4	16	2.67	3	4	2	2	3	3	17	2.83
	55	56	54	43	48	62	314	52.3	53	64	49	48	59	43	315	52.5

* Numbers refer to the number of discrete activities offered by the school as identified by the school principal during the preliminary Behavior Setting Survey.

graduate students from the Faculty of Education at the University of Ottawa. As a result of the comments and suggestions from members of this group, the categories of activities on the instrument were defined more precisely and the format modified.

In Pilot Study Number One, the first draft of the SIS was used with thirty grade eight students — nineteen boys and eleven girls — in an intermediate school. The responses of these students were studied and a second draft of the instrument was drawn up. This second draft was checked for content validity at a second seminar of teachers and graduate students. As a result of this seminar presentation and subsequent discussions, the format of the SIS was changed further and additional performance information was included. The third draft of the SIS that came out of this process was administered to the thirty students who had completed the first draft. The interval between the administration of these two versions of the SIS was three weeks. On the first draft, the students indicated a total of 408 entries into nonclass behavior settings in their school; on the third draft, the same students reported a total of 486 entries.

The similarities between the responses of the students and between the total number of entries reported on the SIS indicated that measuring student involvement by

asking individuals to recall their personal involvement was reasonably reliable.

The third draft of the SIS was also used in Pilot Study Number Two. In this study, thirty-four grade eight students in another intermediate school were used. These students completed the third draft of the instrument on two different occasions eight days apart. The correlation between the total scores obtained on these two dates was .91.

In order to get a further indication of the validity of the SIS, two separate rankings of the students were derived from the scores obtained by the students on the two occasions on which they completed the instrument. These rankings were compared with a ranking of student involvement made by the homeroom teacher of these students. The homeroom teacher's ranking was compiled by using a card-sort method (Appendix 3). The correlation of the first set of rankings with the teacher's was .47 and the correlation of the second set was .53.

A fourth draft of the SIS was then prepared for use in Pilot Study Number Three. The changes incorporated in the fourth draft were minor. The onlooker column under Performance Information was eliminated from three categories and the definition of one category was reworded. This version of the SIS was administered twice to twenty-three

grade eight students — fourteen boys and nine girls — in a large composite K to 8 school. The two dates of administration were nine days apart. The correlation between the total scores obtained by the students on the two dates was .94.

The rankings derived from the two sets of scores were correlated with the homeroom teacher's rankings. The correlations were .68 and .70 respectively.

Following Pilot Study Number Three, a final version of the Student Involvement Survey form was prepared (Appendix 1). Minor changes in the wordings of certain definitions were made, the Special Events category was incorporated into other categories and a page with general instructions and a section for student data was added.

In order to score the SIS, separate weightings were assigned to each of the three levels of penetration indicated under the headings in the Performance Information section. The weightings were as follows:

Level 1	Weight 1
Level 2	Weight 2
Level 3	Weight 3

Similarly, the following weightings were given to the three columns in the Number of Times section:

Once only	Weight 1
2 to 5 Times	Weight 2
6 or more Times	Weight 3

The total of a student's weighted performance scores and weighted number of times scores was deemed to be the measure of his or her involvement in school activities. The sum of all student totals for a given school or group of schools was the raw data that constituted the basis of the index of involvement for the school or group of schools in question.

The nature or quality of student involvement was deemed to be related to the levels of penetration that are indicated under the Performance Information on the instrument. The number of times a student entered into activities at the different levels was considered to be a measure of the quality of the involvement and the degree of responsibility that the student assumed for the maintenance of the activity. The total number of entries into each of the three levels of penetration for a school or group of schools constituted the raw data for comparing the quality of student involvement between schools or groups of schools.

5. Validity and Reliability.

Gump and Friesen⁶ state that, unlike many other studies of behavior in institutions, data, such as the reports on participation in school activities gathered by the SIS, are not contaminated by likes and dislikes of individual students.

The Student Involvement Survey gives every student an equal chance to simply recall their activities over the period of the school year and record them under the various category headings on the instrument. Because these data are initiated by the subjects themselves within the general structure of the instrument, internal measures of reliability and validity are not theoretically relevant. This characteristic of the data and the method used to collect it are indicative of the content validity of the SIS.

The content validity was further verified by the teachers and graduate students in the Faculty of Education of the University of Ottawa. The instrument's construct validity was indicated by the correlations of .68 and .70 between the teacher ranking of students according to their involvement in school activities and the results of the two administrations of the SIS to these students.

⁶ Gump and Friesen, p. 81.

The correlations of .91 and .94 between the results obtained on the two different administrations of the draft instruments in Pilot Studies Numbers Two and Three were an indication of the reliability of the Student Involvement Survey.

6. Scoring the Instrument.

The data were collected by the author from all twenty schools in the study over a two-week period in the latter half of May. In each school, the subjects were assembled in a classroom and a brief verbal explanation of the nature and purpose of the survey was given. The fact that the survey was not a test of the students' ability or achievement was emphasized and the random selection of the subjects was explained. In order to standardize the actual administration of the SIS, tape recorded instructions were used (Appendix 4). No time limit was set although the completion of the survey was paced by having the subjects do one page at a time. All of the surveys were completed in fifteen minutes or less. The level of student cooperation in completing the SIS was high.

When the survey had been completed in all schools, the SIS was scored by hand. Each student's Performance Information score within each category of activity was obtained by adding the weighted scores for all entries

within the activity category. The total Number of Times score was calculated in the same way. The total number of entries into each level of penetration for all of the activity categories was calculated for each student by counting up the actual number of entries for each penetration level.

These data were punched on IBM cards. Information regarding the schools and the students was also placed on the cards.

7. Statistical Analysis Procedures.

The major independent variable in this study was the type of school — K to 8 and intermediate. The dependent variable was the participation of the grade eight students in school activities.

The main purposes of the statistical analysis was to compare the level of participation in school activities of students in the K to 8 schools and the intermediate schools included in this study and to compare the degree of responsibility for the maintenance of these activities assumed by these two groups of students.

To this end, a multivariate analysis of variance with nested factors was used. This test compared the levels of participation in the two types of schools with schools nested across the twelve school activities

selected for this study and across the three levels of penetration.

A post hoc univariate test was also used to indicate which of the activities and which of the levels of penetration accounted for the major differences between the two groups.

A Chi Square test was used to determine whether or not there was a significant difference in the number of students being bused to the different types of schools. Since this test indicated that these two variables are associated (Chi Square = 5.85, $P < .02$), a multivariate analysis of variance with a crossed design was used to determine the interaction between the types of schools and nonbus/bus students.

In all cases the MANOVA was carried out using the program of the Department of Educational Research Services Library of the University of Alberta, Canada (DERSLIB).

The level of significance was set at .05.

CHAPTER IV

PRESENTATION OF THE RESULTS

The results of the analysis of the data are reported in this chapter. The results of testing the two general hypotheses are given in the first section and the findings pertaining to the hypotheses on busing are presented in the second section. A summary of the findings is given in the final section.

1. Effect of School Type on Student Participation.

The hypotheses stated in the null form are as follows:

1. There is no significant difference in involvement in school activities between grade eight students in K to 8 schools and grade eight students in intermediate schools.

2. There is no significant difference in the responsibility for the maintenance of school activities as evidenced by the depth of penetration into these activities between that assumed by grade eight students in K to 8 schools and that assumed by grade eight students in intermediate schools.

The hypotheses were tested using a multivariate analysis of variance.

In the first hypothesis, the test contrasted the involvement of students in twelve school activities in the two types of schools; ten schools were nested under each of the two types. The dependent variable was student involvement. In the second hypothesis, the test contrasted the penetration of students into the school activities in the two types of schools; ten schools were nested under each of the two types. The dependent variable was student penetration.

The multivariate F ratios for the hypotheses are reported in Table IV. The tests of these hypotheses indicate that the differences are significant. The null hypotheses are rejected.

The means under school types for each activity and penetration level are reported in Tables V and VI. The direction is toward K to 8 schools. In general, therefore, the grade eight students in the K to 8 schools surveyed were more involved in school activities and penetrated more deeply into these activities than their counterparts in the intermediate schools.

In order to investigate student involvement further, a post hoc univariate analysis of variance was carried out in each of the twelve school activities. The univariate F ratios that are reported in Table V indicate that differences beyond the .05 level of significance in the direction

Table IV.-

Data for Multivariate Analysis of Variance for the Effects
of School Types on Student Participation in School Activities

Dependent Variables	df ₁	df ₂	F	P
Involvement	12	566	21.61	.0001
Penetration	3	575	14.30	.0001

Table V.-

F Ratios for Univariate Tests of Equality of Student
Involvement in Twelve School Activities

School Activities	Int. Mean	K-8 Mean	F	P
1. Games with Other Schools	4.44	9.73	103.33	.00
2. House League Intramural Sports	18.13	20.65	10.72	.00
3. Plays, Concerts, Public Performances	6.51	6.67	.12	.73
4. Music	2.04	3.08	16.32	.00
5. Parties, Dances	3.88	3.27	5.61	.02
6. Money Raising, Charitable Projects	6.37	6.92	1.87	.17
7. Hobby Clubs, Special Interest Groups	1.70	2.08	1.41	.24
8. Service Clubs, Helper Groups	1.62	3.48	47.71	.00
9. Students' Council, School Elections	5.11	3.03	55.09	.00
10. School Newspaper, Year Book	1.95	2.06	.19	.66
11. School Offices	9.32	8.16	6.20	.01
12. Library, Resource Centre	4.89	5.07	.79	.38

PRESENTATION OF THE RESULTS

Table VI.-

F Ratios for Univariate Tests of Equality of Student
Penetration into Three Levels of Penetration

Levels of Penetration	Int. Mean	K-8 Mean	F	P
Level 1	8.66	7.80	7.67	.0058
Level 2	4.90	5.78	10.81	.0011
Level 3	6.58	7.86	20.32	.0001

of K to 8 schools occurred in the following activities:

Games with Other Schools

House League, Intramural Sports

Music

Service Clubs, Helper Groups.

At the same time, significant differences relative to the intermediate schools were indicated in relationship to the following activities:

Parties and Dances

Students' Council, School Elections

School Offices.

Student penetration into the activities was investigated further because the depth of penetration is related conceptually to the degree of responsibility for the maintenance of the activity assumed by the students. A post hoc univariate analysis of variance was carried out in each of the three levels of penetration. The F ratios given in Table VI indicate that grade eight students in K to 8 schools were more involved at the second and third levels of penetration, while grade eight students in intermediate schools were more involved at the first level. In all cases the level of significance is beyond the .05 level.

2. Effects of Busing on Student Participation.

The hypotheses pertaining to busing as it relates to student involvement are as follows:

1. There is no significant difference in involvement in school activities between grade eight students who are not bused to school and grade eight students who are bused to school.

2. In relationship to involvement in school activities, there is no significant interaction between nonbus and bus students and the type of schools they attend.

Multivariate analysis of variance was used to test these two hypotheses. The Multivariate F ratios are given in Table VII. The test of the first hypothesis indicates that the difference in involvement between nonbus and bus students is significant. The null hypothesis is rejected. The cell means, which are presented in Table VIII, show that the significance is in the direction of the bus students. Significant differences are indicated for four activities — three of which are in the direction of bus students.

The test of the second hypothesis indicates that there is a significant interaction between the types of schools and busing. Here too, the null hypothesis is rejected.

Table VII.-

Data for Multivariate Analysis of Variance for Type of
School, Busing and Interaction on Student Involvement
in School Activities

Independent Variable	df_1	df_2	F	P
Type of School	12	582	18.46	.0001
Nonbus/Bus	12	582	2.79	.0011
Interaction	12	582	4.02	.0001

Table VIII.-

Student Involvement Means for Nonbus and Bus Students in K to 8 and Intermediate Schools and Probability Levels for Univariate Tests for Effects of Busing and for Interaction of Busing with School Type

Variable	Type of School				Nonbus/ Bus P	Busing and School Type Interaction P
	Intermediate		K-8			
	Nonbus	Bus	Nonbus	Bus		
1. Games with Other Schools	4.21	4.67	8.54	11.57	.01	.04
2. House League Intra- mural Sports	16.15	20.15	20.40	21.05	.01	.08
3. Plays, Concerts, Public Performances	5.97	7.06	6.29	7.25	.04	.91
4. Music	1.75	2.35	2.93	3.31	.08	.69
5. Parties, Dances	3.71	4.06	3.46	2.99	.88	.20
6. Money Raising, Charitable Projects	6.55	6.18	6.82	7.08	.90	.53
7. Hobby Clubs, Special Interest Groups	1.89	1.51	1.69	2.68	.38	.04
8. Service Clubs, Helper Groups	1.65	1.59	3.35	3.67	.66	.50
9. Students' Council, School Elections	4.30	5.94	3.48	2.34	.38	.00
10. School Newspaper, Year Book	1.91	1.99	1.70	2.61	.08	.14
11. School Offices	8.63	10.02	8.80	7.17	.85	.00
12. Library, Resource Centre	5.25	4.52	5.24	4.82	.01	.48

A post hoc univariate analysis of variance was applied to each of the twelve school activities in order to determine which of these activities contributed to the interaction effect. The data for these tests are presented in Table VIII. The means for Activity 1, Games with Other Schools, suggest that bus students are significantly more involved particularly in K to 8 schools. In Activity 7, Hobby Clubs, Special Interest Groups, neither school type has an effect, however, the test indicates that K to 8 bus students are more involved. For Activities 9 and 11, Students' Council, School Elections and School Offices, school type has no effect on involvement, but in both cases, intermediate school bus students are more involved.

The hypotheses pertaining to busing and the depth of student penetration into school activities are as follows:

1. There is no significant difference in the depth of penetration into school activities between grade eight students who are not bused to school and grade eight students who are bused to school.

2. In relationship to penetration into school activities, there is no significant interaction between non-bus and bus students and the type of school they attend.

Multivariate analysis of variance was also used to test these hypotheses. The multivariate F ratios for these

tests are reported in Table IX. The test of the first of these two hypotheses indicates that there is a significant difference in penetration between nonbus and bus students. The null hypothesis is rejected. The cell means, which are reported in Table X, indicate that the main source of variance was at the third level of penetration and that bus students generally, penetrated school activities more deeply than nonbus students.

The post hoc univariate analysis of variance indicates that the main source of interaction was the first level of penetration. Although there was no significant difference between nonbus and bus students at this level, the bus students in intermediate schools participate more at the Level 1 level of penetration. These data are reported in Table X.

3. Summary.

The results of testing the two general hypotheses of the study are as follows:

1. Grade eight students in K to 8 schools are more involved in school activities than grade eight students in intermediate schools.

2. The responsibility for the maintenance of school activities assumed by grade eight students in K to 8 schools

Table IX.-

Data for Multivariate Analysis of Variance for
Type of School, Busing and Interaction on
Student Penetration into School Activities

Variable	df_1	df_2	F	P
Type of School	3	591	13.40	.0001
Nonbus/Bus	3	591	4.94	.0022
Interaction	3	591	3.27	.0210

Table X.-

Student Penetration Means and Probability Levels for
Univariate Tests for Busing and Interaction of
Busing with Types of School

Variable	Type of School				Nonbus/ Bus P	Busing and School Type Interaction P
	Intermediate Nonbus	Intermediate Bus	K to 8 Nonbus	K to 8 Bus		
Level 1	8.26	9.07	8.14	7.27	.97	.02
Level 2	4.93	4.87	5.68	5.95	.71	.56
Level 3	5.89	7.28	7.55	8.32	.00	.31

is greater than that assumed by grade eight students in intermediate schools.

The findings on student involvement replicate the results of research conducted by Barker and Barker¹, Gump and Friesen², and Wicker³. The findings on penetration are in keeping with those found by Gump and Friesen⁴ in their study which indicated that small school students hold a greater number of central and responsible positions in a wider variety of school activities than large school students.

The results of testing the four hypotheses pertaining to busing indicated that, if anything, busing had a slight positive effect on student participation in school activities.

1 Roger G. Barker and Louise S. Barker, "Structural Characteristics", in Barker and Gump (Eds.), Big School, Small School, Stanford, California, Stanford University Press, 1964, p. 41.

2 Paul V. Gump and Wallace V. Friesen, "Participation in Nonclass Settings", in Barker and Gump, Big School, Small School, Stanford, California, Stanford University Press, 1964, p. 92.

3 A. W. Wicker, "Undermanning, Performance and Students' Subjective Experiences in Behavior Settings of Large and Small High Schools", Journal of Personality and Social Psychology, Vol. 10, No. 3, March 1968, p. 260.

4 Gump and Friesen, "Participation...", p. 93.

CHAPTER V

DISCUSSION OF THE RESULTS

A discussion and interpretation of the results of the study are presented in this chapter. The general purpose of the study is reviewed in section one. The results of testing the two main hypotheses are examined in sections two and three and the results of testing the hypotheses pertaining to busing are discussed in section four. A brief summary of the findings is presented in the final section of this chapter.

1. General Purpose of the Study.

The early adolescent's need for independence and his striving for emancipation should be provided for in schools for intermediate students¹. Certain aims of intermediate education, therefore, should relate to the development of a sense of autonomy and individuality in the students². If, in fact, the special needs of early adolescents are not the

1 Lionel Desjarlais and John A. Rackauskas, Needs and Characteristics of Students in the Intermediate Years, Ages 12-16, Ontario Ministry of Education, University of Ottawa Press, 1975, p. 323.

2 Richard Schmuck, "Concerns of Contemporary Adolescents", The Bulletin of the National Association of Secondary School Principals, Vol. 49, No. 300, April 1965, p. 65.

focus of the intermediate school program, there can be little justification for such schools³.

The aspect of the intermediate education program that appears to lend itself best to the development of independence and individuality is the activities program⁴. This aspect of the program, in the opinion of a number of writers, has the greatest potential for fostering leadership and social skills in the students⁵ and for developing a sense of community in preparation for life in a democratic society⁶.

The question is: Are intermediate schools best able to provide for the special needs of pre-adolescents and early adolescents? Certain writers appear to have doubts about this. The level of participation in school activities in intermediate schools is questioned and, consequently the

3 Samuel H. Popper, "The Special Case of Early Adolescents", Teacher Competence for the Middle Years, Report of a Conference, University of Minnesota, August 1967, p. 6.

4 Marion M. Ruebel, "Comments on Research", The Bulletin of the National Association of Secondary School Principals, Vol. 51, No. 370, February 1973, p. 102.

5 Robert J. Havighurst, "The Middle School Child in Contemporary Society", Theory into Practice, Vol. 7, No. 3, June 1968, p. 121.

6 Donald E. Overly, John P. Kinghorn and Richard L. Preston, The Middle School Humanizing Education for Youth, Worthington, Ohio, Charles A. Jones Publishing Company, 1972, p. 238.

efficacy of these schools is also questioned⁷. Chellew et al⁸ speculate that participation of intermediate grade students may be greater in K to 8 schools than in intermediate schools.

The basic postulate of this study is that environment and behavior are directly linked. Behavior setting theory, upon which this study was developed, states that behavior is largely controlled by the environmental setting in which it occurs⁹. The traditional means of measuring student behaviors through achievement tests, attitude surveys and the like fail to get at the effects of the total school environment on student behavior. According to behavior setting theorists, schools as environments must be studied carefully in order to understand the behavior of individual students¹⁰.

The general purpose of this study was to compare the level of participation (behavior) of grade eight students in

7 Overly et al., The Middle School, p. 237.

8 L. G. Chellew, Carolyn Baker, Robert Baker, Olga Dimitri and Margaret Johnson, The Intermediate School Study, Toronto, The Ontario Institute for Studies in Education, 1973, p. 101.

9 Edwin P. Willems, "Behavioral Technology and Behavioral Ecology", Journal of Applied Behavior Analysis, Vol. 7, No. 1, Spring 1974, p. 152.

10 Roger G. Barker and Paul V. Gump, Big School, Small School; High School Size and Student Behavior, Stanford, California, Stanford University Press, 1964, p. 15.

two types of school environments — intermediate schools and K to 8 schools — in order to investigate the effectiveness of the intermediate school environment in generating student behaviors that are in keeping with the aims of intermediate education.

The research population and sample, the data gathering instrument and the statistical procedures for the study are outlined in Chapter III.

2. Differences in Involvement in School Activities of Grade Eight Students in K to 8 Schools and Grade Eight Students in Intermediate Schools.

One of the assumptions of the study was that the level of student involvement in school activities is an indication of the school's success or lack thereof in meeting the unique aims of intermediate education. Based on the theory, it was predicted that grade eight students in K to 8 schools would be more involved in school activities than students at the same grade level in intermediate schools.

The results of the statistical analyses supported the hypothesis and indicated that the students in the K to 8 schools are generally more involved in school activities than those in intermediate schools. This finding bears out the results of previous behavior setting studies on school size

and student participation¹¹. It is in keeping with Willems'¹² claim that the rate of participation diminishes as school size increases.

In addition to greater participation on the part of small school students, behavior setting studies also indicate that small school students become involved in a wider variety of school activities¹³. An inspection of the means reported in Table V shows that the students in the K to 8 schools were involved as much or more than their intermediate school counterparts in nine of the twelve activities included in the survey. This suggests that, in addition to being more involved generally, these students probably participated in a wider variety of activities. This is corroborated by the data gathered by means of the Behavior Setting Survey from twelve of the twenty schools included in the study. These data show that the six K to 8 schools surveyed offered 315 activities while the six

11 Roger G. Barker and Eleanor R. Hall, "Participation in Interschool Events and Extracurricular Activities", in Barker and Gump, p. 74.

12 Edwin P. Willems, "Behavioral Ecology and Experimental Analysis: Courtship is not Enough", in John R. Nesselroade and Hayne W. Reese, (Eds.), Life-Span Development Psychology, New York, Academic Press, 1973, p. 205.

13 Paul V. Gump and Wallace V. Friesen, "Participation in Nonclass Settings", in Barker and Gump, p. 75.

intermediate schools offered 314¹⁴. These data bear out Barker and Barker's¹⁵ contention that "... small high schools are not so small on the inside" and lend support to the findings which indicated that the proportion of settings to the number of students is higher in small schools¹⁶.

The post hoc statistical analyses carried out in the twelve activities revealed that the grade eight students in the K to 8 schools were more involved in Games with Other Schools, House League or Intramural Sports, Music Groups and Service Clubs or Helper Groups. On the other hand, the grade eight students in intermediate schools were more involved in Parties and Dances, Students' Councils and School Elections, and School Offices.

Of the seven activities where differences occurred, the four which appear to have the greatest potential for active participation are in the direction of the K to 8 schools. Games with Other Schools and House League Sports were defined on the Student Involvement Survey (SIS) as indoor and outdoor sports including team and individual

14 See Table III.

15 Roger G. Barker and Louise S. Barker, "Structural Characteristics", in Barker and Gump, p. 62.

16 Gump and Friesen, "Participation ...", p. 75.

sports. Generally speaking, sports at the elementary level are not spectator sports to the same extent as they often are at the secondary level. Therefore, it is probably reasonable to conclude that most of the involvement in these activities is at an active or performance level. In designing the SIS, it was presupposed that participation in Music Groups and Service Clubs had to be at an active level and, therefore, the first level of involvement was not included on the instrument. Consequently, the student responses in the Music and Service Club sections of the instrument were all at the active level.

Two of the activities that showed a difference between the two types of schools in the direction of the intermediate schools probably have more potential for passive, onlooker roles. Parties and Dances are usually large group activities — especially in intermediate schools — where the majority of students participate at the attendance level. Attendance was placed in the lowest level of involvement on the SIS because it implied little or no requirement for exercising personal initiative or responsibility. The significant difference for this activity in the direction of intermediate schools may be attributable to the relatively large number of students involved at the attendance level in these schools. Similarly, the difference in involvement between

intermediate schools and K to 8 schools in Students' Councils and School Elections may be a function of the fact that the majority of participants were probably in the voter category — the lowest level of involvement. This majority was probably proportionately larger in the intermediate schools because the constituencies in these schools were considerably larger.

The finding in regard to school offices should be interpreted with some caution. Although the test for involvement in this activity showed a significant difference in the direction of intermediate schools, two qualifying observations should be noted. One, this activity probably allows for relatively little student initiative of the type that is related to the development of personal autonomy, and two, the third level of involvement may have a negative component in that matters of discipline were placed in this category.

A finding of some interest is the fact that involvement in House League or Intramural Sports is considerably greater than the involvement in any other type of activity included in the instrument. This is true for both K to 8 and intermediate schools. This finding suggests that, in spite of their smaller size and fewer teachers, K to 8 schools manage to provide an organization to support an active intramural sports program.

In summary, the study revealed that the grade eight students in the K to 8 schools in the sample were generally more involved in school activities than the comparable students in the intermediate schools in the sample. The examination of the pattern of involvement of students from the two different types of schools suggested a difference in the quality of the involvement as well. The question of quality is considered in the next section where the concept of penetration and the findings pertaining to penetration are discussed.

3. Differences in the Depth of Penetration
into School Activities of Grade Eight
Students in K to 8 Schools and Grade
Eight Students in Intermediate Schools.

Penetration into a behavior setting is related to the quality of involvement. The concept of penetration was developed by behavior setting theorists in order to measure the nature of individual involvement in settings. Barker¹⁷ categorized penetration into zones or levels running from passive onlooker at the lower end of the scale to single leader at the top. In the study reported in this thesis, three levels of penetration were used. On the SIS, Level 1 was defined operationally under the different types of

17 Roger G. Barker, Ecological Psychology, Stanford, California, Stanford University Press, 1968, p. 51.

activities by using such terms as audience, onlooker, customer and voter. The operational definitions used for Level 2 were such terms as helper, score keeper, ticket taker, usher, salesman and worker, and those used for Level 3 were terms such as player, coach, actor, organizer, executive officer and leader.

Generally, then, the three levels of penetration used in this study fall into two categories: Level 1 for the more passive participation roles and Levels 2 and 3 for the more active roles. These levels were used to measure the quality of the students' involvement.

According to the behavior setting theory, the depth of an individual's penetration into a setting is considered to be an indication of the individual's sense of obligation or responsibility for the maintenance of the setting¹⁸.

Based on behavior setting theory in general, and on the concept of penetration in particular, it was predicted that grade eight students in K to 8 schools would assume a greater responsibility for the maintenance of school activities than grade eight students in intermediate schools.

18 Roger G. Barker and Phil Schoggen, Qualities of Community Life: Measurements of Environment and Behavior in an American and an English Town, San Francisco, California, Jossey-Bass Publishers, 1973, p. 39.

The results of the statistical analysis indicated that the students in the K to 8 schools penetrated school activities more deeply than the students in the intermediate schools. This finding suggests that the students in the K to 8 schools assumed a greater degree of responsibility for the activities in which they participated and probably felt a greater sense of obligation than the intermediate school students.

The post hoc tests on the three levels of penetration revealed that the intermediate students were more involved in school activities at the first level of penetration while the K to 8 students were more involved at the second and third levels. These findings give added support to the hypothesis. They are also in keeping with the findings reported in the literature — students in small schools hold more positions of responsibility in a wider variety of activities than students in large schools¹⁹ and leadership achievement is higher among students from small schools²⁰.

The fact that small school students assume more positions of responsibility is explained, in terms of the

19 Gump and Friesen, "Participation...", p. 92.

20 Leonard L. Baird, "Big School, Small School: A Critical Examination of the Hypothesis", Journal of Educational Psychology, Vol. 60, No. 4, Part 1, August 1969, p. 25.

theory, by the concept of undermanning²¹. The Behavior Setting Survey data collected on twelve of the schools in the study lends support to the undermanning theory. The ratio of activities to students for the intermediate schools surveyed was .2:1 while the ratio for the K to 8 schools was almost 1:1. In other words, far fewer students were available to maintain the activity settings in the K to 8 schools. Consequently, many more students were involved in responsible roles in these schools.

In summary, the study showed that grade eight students in the K to 8 schools in the sample penetrated school activities more deeply than their counterparts in the intermediate schools in the sample. Furthermore, the examination of the involvement at the different levels of penetration indicated that the students in the K to 8 schools occupied more positions of responsibility in school activities which, in turn, gives support to the idea that students in smaller schools generally feel a greater sense of obligation and responsibility for these activities.

These findings have implications for intermediate education if the students at this level are to have real

21 Allan W. Wicker, "Undermanning, Performance and Students' Subjective Experiences in Behavior Settings of Large and Small High Schools", Journal of Personality and Social Psychology, Vol. 10, No. 3, March 1968, p. 260.

opportunities to assume responsibility and to make decisions -the prerequisites for developing independence and individuality²².

4. Differences in Participation in School Activities of Nonbus Students and Bus Students.

The school activities studied in this research were largely extra-curricular. Consequently, the possibility that busing could have an effect on student participation was investigated. A statistical analysis of the busing patterns of the students in the sample revealed that significantly more students were bused to the intermediate schools than to the K to 8 schools. In order to determine the possible negative effect of busing on the participation of intermediate school students, it was hypothesized that busing would have no detrimental effect on involvement or on penetration. It was also predicted that there would be no interaction effect between busing and type of school.

The results of the statistical analysis pertaining to involvement and penetration indicated that bus students participated more in school activities than nonbus students. The post hoc test of the penetration hypothesis revealed

22 Desjarlais and Rackauskas, p. 323.

that the source of this difference was at Level 3 — the most active level of involvement.

The results of the analysis of the interaction data showed an interaction effect between busing and school type. Generally, the interaction in relationship to involvement was toward the bus students. The interaction in relationship to penetration indicated that bus students were also more involved at Level 3.

These results suggest that busing did not have a detrimental effect on participation. Quite the contrary — busing appears to have had a marginal positive effect on participation. This finding is probably contrary to prevailing opinion regarding the effect of busing on student participation in school activities. The results may be explained by the fact that in schools with large bus populations activities are often planned to work around bus schedules. In addition, a number of school jurisdictions provide late buses to permit participation of those students dependent on buses.

5. Summary of the Discussion.

The two general hypotheses of the study were supported. That is:

1. Grade eight students in K to 8 schools are more involved in school activities than grade eight students in intermediate schools, and

2. The responsibility for the maintenance of the school activities assumed by grade eight students in K to 8 schools is greater than that assumed by grade eight students in intermediate schools.

A qualified answer can be given to the question posed at the outset — Are intermediate schools best able to provide for the special needs of pre-adolescents and early adolescents? Insofar as school activities are an effective vehicle for the satisfaction of these needs, it would appear that the effectiveness of intermediate schools is in question. On the other hand, it seems that K to 8 schools may be more suitable school environments for attainment of the unique aims of intermediate education.

SUMMARY AND CONCLUSIONS

The underlying proposition in the study was the effect that environment has on the behavior of its inhabitants. Behavior setting theory, which postulates that behavior is largely controlled by the environmental setting in which it occurs, was adopted as a theoretical framework for the study. This theory was used as a basis for an examination of the effect that school environment has on the participation in school activities of students in the intermediate grades.

School activities are felt to be an important component of intermediate education by a number of authorities. They provide the students with real opportunities to assume responsibility, to make decisions and to develop social skills — all of which are said to be vital for intermediate grade students who have reached a stage in their lives when the need to develop independence and individuality is uppermost.

In order to examine the effect that different types of school organizations have on student participation in school activities, the following hypotheses were adopted:

1. Grade eight students in K to 8 schools are more involved in school activities than grade eight students in intermediate schools.

2. The responsibility for the maintenance of school activities assumed by grade eight students in K to 8 schools is greater than that assumed by grade eight students in intermediate schools.

Data on student involvement was collected from twenty schools — ten intermediate and ten K to 8. The statistical treatment used was a multivariate analysis of variance. The tests of the hypotheses indicated that the participation level of students in the K to 8 schools was generally higher than that of students in the intermediate schools.

This finding supports the work of the behavior setting theorists. The effect of size and its concomitant undermanning appears to be operative in the grade eight setting of the K to 8 schools. The penetration scores of the students in this setting bear out the behavior setting postulate which holds that undermanning results in a greater sense of obligation and responsibility on the part of the inhabitants.

Because the findings of this study tend to replicate the results of previous research on behavior settings, they can be generalized with a certain degree of confidence. In addition, the study indicates that the dynamic attributes of a small setting operate when the small setting is embedded in a larger organization — the grade eight class in the

larger K to 8 school. Finally, the study shows that behavior setting theory applies at the intermediate school level as well as at the high school level where most of the previous research of this type was done.

The Student Involvement Survey (SIS) that was used in this study was based on methods developed by Gump and Friesen¹, and Wicker² to measure student involvement in nonclass activities. These methods provided for the systematic collection of student reported information on entry into nonclass activities and on performance within the activities. As a result of the experience gained by using these methods in the pilot studies which are reported in Chapter III of this thesis, the SIS was developed. The performance information section was refined by defining the categories of performance of levels of penetration in operational terms. This permitted a more precise measure of the quality of student involvement. A section was also added to the instrument to measure the number of entries into the various activities because frequency of participation is a component of

1 Paul V. Gump and Wallace V. Friesen, "Participation in Nonclass Settings", in R. G. Barker and P. V. Gump, Big School, Small School, Stanford, California, Stanford University Press, 1964, p. 219.

2 A. W. Wicker, Students' Experiences in Behavior Settings of Large and Small High Schools: An Examination of Behavior Setting Theory, unpublished doctoral dissertation, University of Kansas, 1967, p. 121.

involvement. The weighted scores for the different performance categories and number of times categories were added together to give the involvement scores.

The SIS proved to be an easy instrument to administer. The pilot studies indicated a high degree of reliability. The content validity was checked throughout the development stage, although validity is not theoretically relevant because the data gathered by the instrument is subject initiated. This later characteristic of the SIS means that the instrument can be readily adapted to different situations. By substituting appropriate activities and by redefining the categories of performance, the SIS could be used to measure involvement in a variety of behavior settings. Consequently, the SIS has considerable potential as a tool for investigating the many organizational settings where participation is indicative of commitment, attitude and a sense of responsibility.

The findings of this study have implications for intermediate education. They call into question the efficacy of intermediate schools in fostering student participation in school activities. This could be an educational issue of some import because many intermediate schools exist and more will undoubtedly be established. School planners should take into account the effect of size on behavior when new intermediate schools are being considered.

This effect should be balanced against the potential advantages of the more specialized staff and facilities that larger schools generally make possible.

There is a need for more research on student involvement. The effect of intermediate schools on the participation of boys and girls in school activities should be studied. The different rates of maturation of the sexes during the early adolescent period and the effect of this on involvement could have important implications for school organizational patterns. Another question that should be investigated is the influence that the number of years in a school has on student involvement in activities. This factor could favour K to 8 schools where students are normally resident for more years than their counterparts in intermediate schools. The greater range of grades in the K to 8 schools and the closer association of these schools with their communities may give rise to more opportunities for student involvement in helper roles and community activities. These are questions that could be looked at in conjunction with a more detailed investigation of the intermediate school environment and its effect on student behavior.

There is no question about the fact that clearly defined academic programs and well trained, sensitive teachers are of paramount importance in schools, large or

small. These factors will always be central to decision making regarding school organization. However, the matter of student participation in school activities is also important especially at the intermediate level. In analyzing the implications of the research by Spady³, Erickson puts the case for school activities thus:

The extracurriculum, having a down-to-earth, here-and-now quality, featuring activities often consequential to both student and adult communities and demanding attributes not essential to classroom functioning, may provide a superior learning environment, particularly for attitudes and skills needed in college and later occupational endeavors.⁴

In terms of the research presented in this thesis, the matter comes down to a question such as this: "Is the little fellow in the grade eight class more likely to be on the school baseball team if he is in a K to 8 school?"

The answer is: "Yes, probably".

3 William G. Spady, "Status, Achievement, and Motivation in the American High School", School Review, Vol. 79, 1971, p. 379-403.

4 Donald A. Erickson, (Ed.), Educational Organization and Administration, Berkley, California, McCutchan Publishing Company, 1977, p. 12.

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APPENDIX 1

A SURVEY OF STUDENT INVOLVEMENT IN SCHOOL ACTIVITIES

A SURVEY OF
STUDENT INVOLVEMENT IN SCHOOL ACTIVITIES

A good many people are showing more and more interest in improving education for students in the intermediate grades -- students such as yourselves. These people have many ideas and opinions about the kinds of schools that are best. However, one of the biggest problems is that these ideas and opinions are just ideas and opinions; we need facts -- research findings -- to help us to decide which good things need strengthening and which things need changing.

We want to get information from people who are in the schools now -- from students. You are, in a sense, experts in the kinds of things we want to know, and we are interested in what you have to say.

The survey you will be working on today was designed for studying schools like this school.

Please complete the information below by checking the answers that apply in your case. You will note that you are not required to give your name; you will not be identified with the information that you give on the survey.

1. Age: ☐ 13 years
☐ 14 years
☐ 15 years
☐ other_____

2. Sex: ☐ boy
☐ girl

3. Do you come to school
on a school bus?

☐ yes
☐ no

4. Distance of your home from
school:

☐ less than one mile
☐ between 1 and 2 miles
☐ between 2 and 3 miles
☐ more than 3 miles

5. Number of years you have been
at this school including this
year:

☐ less than one year
☐ 1 year
☐ 2 years
☐ 3 or more years

STUDENT INVOLVEMENT SURVEY

We want to learn about the school activities and places you have entered this school year. We would also like to know what you did in these activities and places and the number of times you were involved.

On the following pages, a number of categories of school activities and places are given. You are asked to carefully think back over the school year and recall the activities and places under each of these categories in which you were involved. You are then asked to list these being as specific as possible for each item. You are also asked to indicate the nature and amount of your involvement by checking the appropriate Performance Information and Number of Times. The following example shows how this is done:

EXAMPLE

HOUSE LEAGUE OR INTRAMURAL SPORTS

List the house league or intramural sports in which you took part this school year. These may be indoor or outdoor sports. Individual sports such as gymnastics as well as team games should be included. Do not include regular gym class games.

	PERFORMANCE INFORMATION Check the appropriate category below			NUMBER OF TIMES Check one only		
	Audience, onlooker	Helper: score keeper, equip- ment manager, etc.	Player, referee, coach	Once only	2 to 5 times	6 or more times
<i>basketball</i>			✓			✓
<i>track and field</i>			✓	✓		
<i>hockey</i>	✓	✓			✓	

Please remember that we are interested only in activities and places you have personally attended or entered. Do not list activities that you knew about but did not enter. Also, do not list activities or electives that were part of the regular school day or program.

If you have any questions about whether an activity you think of should be listed, raise your hand and I will answer your question individually.

1. SCHOOL GAMES WITH OTHER SCHOOLS

List the sports events with other schools in which you took part. These may be indoor or outdoor sports. Individual sports such as gymnastics as well as team games should be included.

	PERFORMANCE INFORMATION Check the appropriate category below			NUMBER OF TIMES Check one only		
	Audience, onlooker	Helper: score keeper, ticket taker, equip- ment manager, etc.	Player	Once only	2 to 5 times	6 or more times

2. HOUSE LEAGUE OR INTRAMURAL SPORTS

List the house league or intramural sports in which you took part this school year. These may be indoor or outdoor sports. Individual sports such as gymnastics as well as team games should be included. Do not include regular gym class games

	PERFORMANCE INFORMATION Check the appropriate category below			NUMBER OF TIMES Check one only		
	Audience, onlooker	Helper: score keeper, equip- ment manager, etc.	Player, referee, coach	Once only	2 to 5 times	6 or more times

PLEASE DO NOT TURN THE PAGE UNTIL ASKED TO DO SO

3. PLAYS, CONCERTS, PUBLIC PERFORMANCES

List plays, concerts and public performances in which you took part this school year. Public performances might include such activities as public speaking, fashion shows, school exhibitions and so on.

	PERFORMANCE INFORMATION Check the appropriate category below			NUMBER OF TIMES Check one only		
	Audience	Helper: usher, stage crew, ticket taker, assistant to teacher, etc.	Actor, dancer, singer, speaker, model, director, organizer, display own work	Once only	2 to 5 times	6 or more times

4. MUSIC

If you were involved in any of the school musical groups listed below, check the appropriate Performance Information and Number of Times. If you were involved in other school musical groups, list these as well.

	PERFORMANCE INFORMATION Check the appropriate category below		NUMBER OF TIMES Check one only		
	Helper, manager, etc.	Active member, accompanist	Once only	2 to 5 times	6 or more times
Choir _____					
Band _____					
Orchestra _____					

PLEASE DO NOT TURN THE PAGE UNTIL ASKED TO DO SO

5. PARTIES, DANCES

List the school parties, dances or other social events in which you took part this school year. Include only those school social events that took place after school or during the evening.

	PERFORMANCE INFORMATION Check the appropriate category below. If more than one category applies, then check each such category.			NUMBER OF TIMES Check one only		
	Attended	Helper: ticket taker, salesman, decorations, clean-up, etc.	Organizer, executive officer, member of music group	Once only	2 to 5 times	6 or more times

6. MONEY RAISING PROJECTS, CHARITABLE PROJECTS

List the money raising or charitable projects in which you took part this school year. Such projects might include sales or the collection of such things as toys or clothing. Also include such activities as car washes or pollution clean-ups.

	PERFORMANCE INFORMATION Check the appropriate category below. If more than one category applies, then check each such category.			NUMBER OF TIMES Check one only		
	Customer	Worker: saleman, donor or contributor	Leader, organizer executive officer	Once only	2 to 5 times	6 or more times

PLEASE DO NOT TURN THE PAGE UNTIL ASKED TO DO SO

7. HOBBY CLUBS, SPECIAL INTEREST GROUPS

List school hobby clubs of special interest groups in which you took part this school year. These might include such clubs as a chess club, a camera club, a science club, a folk dance group, a crafts group and so on. Do not include special activities or electives that were offered as part of the regular school day.

PERFORMANCE INFORMATION Check the appropriate category below		NUMBER OF TIMES Check one only		
Active member	Leader, organizer, executive officer	Once only	2 to 5 times	6 or more times

8. SERVICE CLUBS, HELPER GROUPS

List the service clubs or groups in which you took part this school year. These might include safety patrols, audio-visual worker, school milk salesman or distributor, usher or guide at parent or teacher meetings and so on. Do not include library helper in this category.

PERFORMANCE INFORMATION Check the appropriate category below		NUMBER OF TIMES Check one only		
Active worker, helper, etc.	Leader, organizer, executive officer	Once only	2 to 5 times	6 or more times

PLEASE DO NOT TURN THE PAGE UNTIL ASKED TO DO SO

9. STUDENTS' COUNCIL, SCHOOL ELECTIONS

List Students' Council meetings in which you took part this school year. Also, list school elections in which you took part as a voter, a worker or a candidate.

	PERFORMANCE INFORMATION Check the appropriate category below			NUMBER OF TIMES Check one only		
	Onlooker, voter	Active member, participant in discussion, helper in election	Chairman, secretary, etc. Candidate in election	Once only	2 to 5 times	6 or more times

10. SCHOOL NEWSPAPER, YEAR BOOK

If you were involved in any school newspaper or year book during this school year, check the appropriate Performance Information and Number of Times.

	PERFORMANCE INFORMATION Check the appropriate category below. If more than one category applies, then check each such category			NUMBER OF TIMES Check one only		
	Customer	Worker: typist, printing, assembling newspaper, etc.	Editor, writer, reporter, artist, cartoonist	Once only	2 to 5 times	6 or more times
Class newspaper _____						
House newspaper _____						
School newspaper _____						
Year Book _____						

PLEASE DO NOT TURN THE PAGE UNTIL ASKED TO DO SO

11. SCHOOL OFFICES

List the school offices that you had a specific reason for entering this school year. Principal's office, vice-principal's office, general office, or counsellor's office might be included.

	PERFORMANCE INFORMATION Check the appropriate category below			NUMBER OF TIMES Check one only		
	Checking out, late slip, picking up supplies for teacher, etc.	Helper: answering phone, running errands, assembling notices	Discussing personal or school matters, discipline	Once only	2 to 5 times	6 or more times

12. LIBRARY OR RESOURCE CENTRE

If you have used the library or resource centre before 9:00, during the noon hour, or after school this school year, check the appropriate Performance Information and Number of Times.

	PERFORMANCE INFORMATION Check the appropriate category below. If more than one category applies, then check each such category			NUMBER OF TIMES Check one only		
	Take out or return books	Research project or study. Library helper: check books in or out, etc.	Leader, organizer or officer of Library Club	Once only	2 to 5 times	6 or more times
Library or Resource Centre						

IF YOU HAVE TIME, YOU MAY LOOK BACK OVER THE PAGES YOU HAVE JUST COMPLETED.

APPENDIX 2

BEHAVIOR SETTING SURVEY OF SCHOOLS

BEHAVIOR SETTING SURVEY OF SCHOOLS

SCHOOL: _____ YEAR SCHOOL OPENED: _____

PRINCIPAL: _____

Are you willing to permit this research project to be conducted in the school: _____

Are you prepared to open pupil records to the researcher: _____

Are you willing to get teachers to rate their students as Regular or Marginal students: _____

1. TYPE OF SCHOOL

- ☐ K to 8 - all students from same attendance area
☐ K to 8 - grade 7 and 8 students from a wider attendance area
☐ Intermediate school - grades 7 and 8
☐ Intermediate school - grades 6, 7, and 8
☐ Other (specify) _____

What per cent of grade 7 and 8 students are drawn from feeder schools: _____

How many feeder schools send students to the intermediate grades: _____

2. ORGANIZATION OF INTERMEDIATE GRADES

Circle grades involved in intermediate grade organization: 5, 6, 7, 8

Timetable: (check more than one if applicable)

- ☐ self-contained
☐ rotary
☐ block, core, platoon

Class/Pupil: (check more than one if applicable)

- ☐ self-contained class
☐ cross-class grouping
☐ cross-grade grouping
☐ ungraded
☐ streamed
☐ house or sub-school

Staff:

- ☐ individual teacher
☐ single-discipline team
☐ inter-discipline team

3. STUDENT POPULATION

	No. of Pupils	No. of Classes
Special Education, Junior	_____	_____
Special Education, Senior	_____	_____
Kindergarten	_____	_____
Grades 1 to 5	_____	_____
Grade 6	_____	_____
Grade 7	_____	_____
Grade 8	_____	_____
Totals	_____	_____

SCHOOL _____

4. STAFF

Academic or Core Teachers, Intermediate Grades:

		math	sc	Eng	hist	geog	other	% with int. grades
Teacher	1							
"	2							
"	3							
"	4							
"	5							
"	6							
"	7							
"	8							
"	9							
"	10							

Number of K to 5 (or 6) teachers: _____

Special Teachers, Intermediate Grades

	Number	% with int. grades
Special Ed.	_____	_____
French	_____	_____
Music	_____	_____
Inst. Music	_____	_____
Art	_____	_____
Shops	_____	_____
Home Ec.	_____	_____
P. E.	_____	_____
Librarian	_____	_____
Counsellor	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Administration: (part time - indicate by per cent)

Principal _____
 Vice Princ. _____

Total Professional Staff (including administration)

Full time _____
 Part time _____

Ancillary Staff: (part time - indicate by per cent)

Secretary _____
 Teacher's aide _____
 Lunchroom super. _____
 Library Ass't. _____
 Nurse _____

SCHOOL _____

5. TEACHING AREAS

Special Areas:

	Number	% used by int. grades
Library	_____	_____
Resource Centre	_____	_____
Art	_____	_____
Music	_____	_____
Instrumental Music	_____	_____
Gym	_____	_____
Woodwork	_____	_____
Metalwork	_____	_____
Cooking	_____	_____
Sewing	_____	_____
Science	_____	_____
French	_____	_____
_____	_____	_____
_____	_____	_____

Number of intermediate classrooms (standard): _____

6. OTHER AREAS IN SCHOOL

☐ General office	☐ Gym office
☐ Principal's office	☐ Gym storage
☐ Vice Principal's office	☐ Stage
☐ Counsellor's office	☐ A/V room or area
☐ Counselling room	☐ Seminar or planning room
☐ Caretaker's room or area	☐ Dressing room
☐ Librarian's office	☐ Showers
☐ Library work room	☐ Lunchroom
☐ Reference room	☐ _____
☐ Duplicating room	☐ _____
☐ Health/Nurse's room	☐ _____
☐ Kitchen	☐ _____

7. OTHER AREAS OUTSIDE SCHOOL

☐ Playground	☐ Rink
☐ Baseball diamond	☐ Science area
☐ Football/Soccer field	☐ _____
☐ Track	☐ _____
☐ Jumping pits	☐ _____

8. EQUIPMENT

Does the intermediate division have its own complement of A/V equipment: _____

Does the intermediate division have its own complement of sports equipment: _____

Is there a special section in the library or resource centre for intermediate books and reference materials: _____

9. BEHAVIOR SETTINGS - NON-CLASS, INTERMEDIATE DIVISION

How much time is devoted to the in-school activities program: _____

Inter-school athletics organization:

- | | |
|--------------------------|--|
| ☐ | organized separately |
| ☐ | house league championship team represents school |
| ☐ | house league all-star team |
| ☐ | no inter-school athletics |

	In-school Activities	Extra- Curricular	Boys	Girls	Comments
Athletics:					
House League, indoor					

House League, outdoor					

Inter-school, indoor					

Inter-school, outdoor					

Service Clubs:					
Safety Patrol.....					
Library Helpers.....					
A/V Workers.....					
Referees.....					
Monitors or Prefects.....					
Cheer Leaders.....					
Food Sales, Distribution.....					
Junior Red Cross.....					

SCHOOL _____

Choir.....
Band/Orchestra.....
Instrumental Group.....
Plays, in school.....
Plays, public.....
Concerts, in school.....
Concerts, public.....
Public Speaking, in school.....
Public Speaking, public.....
Fashion Show, in school.....
Fashion Show, public.....
Fairs.....
Exhibitions.....
Open House.....
Assemblies, regular.....
Assemblies, special.....
.....
.....
.....

[illegible]

SCHOOL _____

	In-school Activity	Extra- Curricular	Boys	Girls	Comments
Journalism:					
School Newspaper.....					
School Newsletter.....					
Class Newspaper.....					
Year book.....					
.....					
.....					
Government:					
Students' Council.....					
Meetings of Student Body.....					
Class Meetings.....					
Elections.....					
.....					
.....					
Community Works:					
Fund Raising Sales, charitable.....					
Fund Raising Sales, school.....					
Fund Raising Activities, charitable.....					
Fund Raising Activities, school.....					
Community Projects.....					
Book Exchange.....					
Tea for Parents.....					
.....					
.....					
Parties, Dances:					
School Party, after school.....					
School Party, evening.....					
Class Party, after school.....					
Class Party, evening.....					
Movies, entertainment.....					
.....					
.....					
Outings:					
Cultural, arts.....					
Cultural, science.....					
Cultural, social sciences.....					
Vocational.....					
Local Tours.....					
Out-of-town Trips.....					
Class Tours.....					
School Tours.....					
Individual, Small Group Tours.....					
Pupil Initiated.....					
.....					
.....					

APPENDIX 3

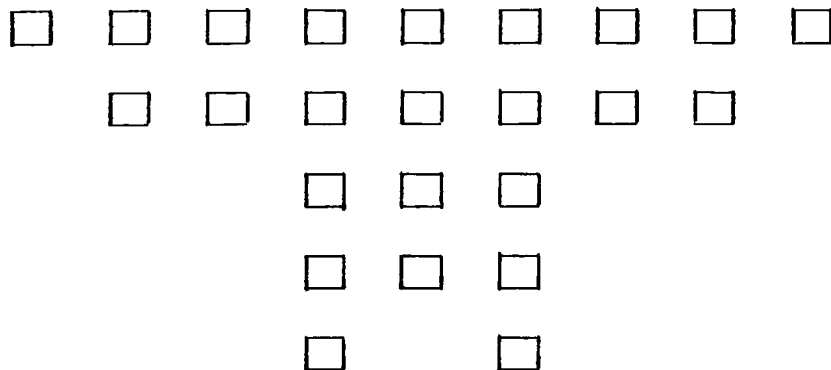
STUDENT INVOLVEMENT CARD SORT

STUDENT INVOLVEMENT CARD SORT

STUDENT INVOLVEMENT IN SCHOOL ACTIVITIES

First, sort the names of your students into three piles on the desk before you. On the left place the five or six who you regard as being most involved in school activities. On the right, place the five or six who are least involved. Place the remainder in a pile in the middle.

Now sort them further into nine piles -- the one student most involved in school activities in the first pile, the two next involved in the second pile, the two next involved in the third pile, five in the fourth, four in the fifth, five in the sixth, two in the seventh, two in the eighth, and the one least involved in the ninth. When you have finished, your sort will look like this:



When you are satisfied with your sort, place the cards in the slots as you sorted them -- one in slot 1, two in slot 2 and so on. (Cards with the students' names and a special envelope with nine slots were provided for the teacher)

APPENDIX 4

TAPE RECORDED INSTRUCTIONS FOR THE SIS

TAPE RECORDED INSTRUCTIONS FOR THE SIS

A SURVEY OF
STUDENT INVOLVEMENT IN SCHOOL ACTIVITIES

A good many people are showing more and more interest in improving education for students in the intermediate grades -- students such as yourselves. These people have many ideas and opinions about the kinds of schools that are best. However, one of the biggest problems is that these ideas and opinions are just ideas and opinions; we need facts -- research findings -- to help us to decide which good things need strengthening and which things need changing.

We want to get information from people who are in the schools now -- from students. You are, in a sense, experts in the kinds of things we want to know, and we are interested in what you have to say.

The survey you will be working on today was designed for studying schools like this school.

Please complete the information below by checking the answers that apply in your case. You will note that you are not required to give your name; you will not be identified with the information that you give on the survey.

Make sure you have completed all five sections carefully and accurately. In section 1, if your age is not listed, check 'other' and write your age in years in the space provided. In section 5, count this school year as one full year. If you started at this school in the middle of this school year, place your check-mark in the first box.

1. Age: ☐ 13 years
☐ 14 years
☐ 15 years
☐ other _____
2. Sex: ☐ boy
☐ girl
3. Do you come to school on a school bus?

☐ yes
☐ no
4. Distance of your home from school:

☐ less than one mile
☐ between 1 and 2 miles
☐ between 2 and 3 miles
☐ more than 3 miles
5. Number of years you have been at this school including this year:

☐ less than one year
☐ 1 year
☐ 2 years
☐ 3 or more years

We want to learn about the school activities and places you have entered this school year. We would also like to know what you did in these activities and places and the number of times you were involved.

On the following pages, a number of categories of school activities and places are given. You are asked to carefully think back over the school year and recall the activities and places under each of these categories in which you were involved. You are then asked to list these being as specific as possible for each item. You are also asked to indicate the nature and amount of your involvement by checking the appropriate Performance Information and Number of Times. The following example shows how this is done:

Let's look at this example. It is the school activities category under which House League or Intramural Sports are listed. Let's read the brief description of the sorts of activities that this means....

EXAMPLE

HOUSE LEAGUE OR INTRAMURAL SPORTS

List the house league or intramural sports in which you took part this school year. These may be indoor or outdoor sports. Individual sports such as gymnastics as well as team games should be included. Do not include regular gym class games.

	PERFORMANCE INFORMATION			NUMBER OF TIMES		
	Check the appropriate category below			Check one only		
	Audience, onlooker	Helper: score keeper, equipment manager, etc.	Player, referee, coach	Once only	2 to 5 times	6 or more times
<i>basketball</i>			✓			✓
<i>track and field</i>			✓	✓		
<i>hockey</i>	✓	✓			✓	

The student who filled in this category was involved in basketball, track and field, and hockey. You will note that these activities were written in by the student in the spaces provided. Also, note that opposite basketball, this student indicated how he or she was involved by placing a check-mark under the heading Player, referee or coach; this student also indicated the number of times he or she was involved in house league basketball by checking under the heading 6 or more times. This same student was also a player or participant in track and field and was involved only once in this activity. Finally, the check-marks opposite hockey indicate that this student watched house league hockey as a member of the

audience and helped at other hockey games as a score-keeper, equipment manager, or in some other helping capacity. This student's total number of times of involvement in hockey is indicated by the check-mark under 2 to 5 times.

Your own involvement in House League or Intramural Sports will, in all likelihood, be quite different from that indicated on this example. On the following survey, please be as accurate as possible -- be specific when writing in your activities; write clearly; and be sure to check the appropriate Performance Information and Number of times opposite each activity you write in. It is very important that the correct check-marks be marked in opposite every activity that you write in.

Now let's read the two paragraphs at the bottom of the page...

Please remember that we are interested only in activities and places you have personally attended or entered. Do not list activities that you knew about but did not enter. Also, do not list activities or electives that were part of the regular school day or program.

If you have any questions about whether an activity you think of should be listed, raise your hand and I will answer your question individually.

On the following pages, there are 12 categories of school activities and places. We will work through the survey one page at a time.

Now, please turn the page. Before starting, we will read together the descriptions of the categories of activities on this page. When you have completed this page, please wait until you are asked to turn the page. If you have a moment, check back over the work you have just done.

APPENDIX 5

STUDENT INVOLVEMENT SCORES

STUDENT INVOLVEMENT SCORES

10101223	83610 0 4 0 0 0 6 011 8	Legend
10102122	721 7 0 0 3 0 0 2 0 3 4	Col.1 Type of
10103223	529 5 0 0 1 0 0 2 0 5 6	School
10104213	352214 0 010 0 0 4 113 6	1-Intermediate
10105223	025 7 0 0 6 0 0 4 2 0 8	2-K to 8
10106233	843 2 6 0 2 4 0 3 0 7 0	Col.2 School I.D.
10107233	02111 0 4 0 0 0 3 0 0 8	Col.3 Sex
10108113	023 5 0 0 0 0 0 3 516 4	1-Boy
10109113	53517 0 515 5 0 6 8 8 8	2-Girl
10110233	113611 0 713 0 0 3 515 4	Col.4) Student I.D.
10111223	94314 0 2 0 4 0 8 3 0 9	Col.5)
10112243	03612 0 2 6 0 0 6 2 0 6	Col.6 Bus
10113223	55313 0 4 0 0 0 3 2 5 6	1-Nonbus
10114243	429 4 0 4 9 0 5 3 314 6	2-Bus
10115243	330 9 0 2 5 0 0 3 0 4 5	Col.7 Distance from
10216123	81810 0 3 3 0 0 3 5 8 5	School
10217213	1 1 4 0 0 2 0 0 2 0 8 2	1-less than 1 mile
10218243	121 2 6 0 3 0 0 3 0 3 5	2-1 to 2 miles
10219243	03114 5 0 2 4 0 8 5 3 6	3-2 to 3 miles
10220242	019 4 6 0 3 0 0 5 5 3 6	4-over 3 miles
10221233	03514 6 8 8 3 812 7 5 5	Col.8 Years in school
10222233	6312011 31614 4 31119 6	Col.13 to 30
10223233	02010 5 0 2 0 0 3 2 0 3	Involvement
10224243	030 9 0 6 0 4 010 6 5 5	scores for 12
10225233	027 512 4 2 0 0 9 0 4 6	activities
10226113	131513 3 8 4 0 0 6 31511	
10227243	2302712 2 6 0 5 8 515 9	
10228233	62113 8 410 6 0 9 822 6	
10229213	01715 016 0 0 3 5 2 3 9	
10230221	729 8 4 020 0 0 6 6 8 5	
11101123	333519 6 2 9 0 0 2 0 6 0	
11102113	0 9 8 0 2 2 0 0 2 0 5 6	

11103113	0 5 5 0 0 0 0 0 2 110 3
11104113	013 0 4 0 4 0 0 2 0 2 3
11105233	22412012 0 7 0 5 2 0 8 6
11106113	1030 3 0 0 9 0 5 2 4 8 6
11107123	0 7 0 0 0 0 0 0 2 0 9 0
11108113	91711 0 2 0 0 5 3 015 6
11109223	311 916 4 8 6 0 9 2 6 0
11110113	21111 0 2 2 0 0 710 8 6
11111113	101714 6 3 3 0 0 4 0 6 5
11112113	520 9 0 2 0 5 3 2 4 5 6
11113113	0 0 0 0 0 0 0 0 0 0 3 7
11114243	131521 8 525 9 5 8 916 6
11115113	023 1 0 0 0 0 0 0 816 6
11216113	0 932 0 9 7 5 0 5 011 6
11217123	7 011 0 5 0 0 0 2 0 7 5
11218113	0 2 0 5 3 0 0 3 3 012 6
11219113	814 5 6 2 6 3 4 2 0 8 6
11220223	0 041 0 0 6 0 0 4 9 5 6
11221113	141913 4 0 5 0 0 3 018 6
11222113	820 0 0 0 0 0 0 0 0 0 6
11223113	020 7 6 210 8 0 2 012 6
11224113	011 0 6 2 3 0 0 0 0 3 6
11225113	023 4 6 2 3 0 0 0 0 3 6
11226123	4 7 6 0 0 0 0 0 3 3 5 0
11227113	012 8 0 2 0 0 0 2 014 5
11228113	1931 5 0 0 0 0 0 0 0 9 6
11229233	012 0 6 0 7 0 3 2 0 7 6
11230113	0 3 2 0 2 6 0 0 3 312 6
12101113	015 0 0 0 0 0 0 0 0 0 4
12102123	51415 0 625 6 011 8 8 6
12103123	011 0 0 2 6 0 0 5 213 6
12104123	4 5 3 0 2 0 3 4 2 312 6
12105113	0 7 0 0 016 5 0 2 0 3 3
12106123	010 5 0 2 7 5 0 3 0 0 4

12107112	0 6 0 0 0 2 0 0 0 0 5 0
12108113	1239 5 0 3 1 0 0 2 0 0 0
12109113	913 4 6 0 3 0 0 4 4 3 6
12110113	422 0 0 3 8 0 0 3 0 8 6
12111113	022 0 0 3 3 0 0 3 0 8 6
12112113	528 3 0 511 4 0 0 2 5 6
12113113	017 0 0 3 6 4 0 5 2 5 0
12114123	012 0 0 4 5 5 0 2 0 6 5
12115113	018 2 0 3 6 0 3 9 5 3 4
12217113	1435 0 0 811 0 0 8 411 6
12218123	013 7 5 518 0 011 415 6
12219123	0 4 9 5 310 9 011 413 5
12220113	0 0 4 4 0 4 8 0 6 0 3 6
12221113	017 2 0 018 0 0 2 6 0 7
12222113	521 0 0 326 4 0 3 5 3 4
12223113	1335 4 0 3 3 0 0 0 013 6
12224123	0 6 0 0 3 6 0 0 0 013 4
12225123	033 4 8 3 8 8 0 411 0 6
12226123	015 511 61610 0 4 211 6
12227123	02310 5 618 4 0 7 9 0 6
12228123	026 4 0 4 2 4 0 3 0 4 3
12229123	018 5 0 4 6 5 0 5 010 6
12230113	025 0 0 5 6 0 5 0 010 6
13101113	033 4 0 0 2 0 4 2 0 4 5
13102113	018 2 0 0 5 0 4 2 0 0 4
13103123	012 3 0 5 2 0 2 9 0 0 4
13104123	016 1 0 0 0 0 0 0 0 6 6
13105123	0 6 2 0 0 0 0 4 2 0 710
13106113	012 2 0 0 0 0 0 2 0 8 6
13107133	023 3 0 0 0 0 8 1 213 6
13108123	9 3 7 612 6 7 8 4 211 6
13109123	020 9 0 3 3 0 5 5 0 9 9
13110113	612 2 0 0 0 0 5 2 0 5 6
13111113	741 2 0 2 2 0 4 5 61411

13112113	011 4 0 8 6 0 4 6 0 5 5
13113133	023 4 0 3 0 7 5 3 0 9 6
13114123	43314 0 2 6 7 9 6 026 6
13115113	016 0 0 0 2 0 4 2 0 9 4
13216113	015 5 0 3 2 0 3 2 013 5
13217113	011 2 5 0 7 0 0 2 0 7 6
13218113	011 2 0 3 6 0 5 3 0 6 6
13219123	02315 6 3 0 0 0 3 0 0 5
13220233	014 5 9 3 2 0 0 2 0 4 6
13221113	01012 6 8 4 0 4 2 0 3 5
13222123	010 8 0 3 8 0 0 9 0 9 6
13223113	0 3 1 0 3 2 0 0 3 0 4 6
13224113	7 4 0 0 3 0 0 0 2 0 5 3
13225123	017 5 0 0 3 0 0 2 0 7 9
13226113	214 2 0 9 8 0 0 1 0 5 6
13227123	4 4 0 4 3 4 0 0 2 0 5 5
13228113	011 2 6 3 8 0 0 1 0 3 5
13229113	014 9 613 5 0 6 5 0 7 4
13230132	410 5 5 3 311 0 2 0 0 4
14101233	020 2 6 3 6 0 0 8 0 7 3
14102123	020 0 4 0 6 0 0 2 0 4 6
14103113	6 9 6 0 3 6 0 0 6 2 412
14104243	224 4 0 310 0 4 3 0 3 6
14105123	019 7 0 3 6 0 0 2 0 3 4
14106243	012 0 0 0 7 0 0 2 0 0 6
14107213	1224 5 0 6 3 5 0 6 0 9 6
14108242	0 0 0 0 0 1 5 0 0 0 5 6
14109113	012 0 0 5 3 0 0 2 017 0
14110123	025 011 9 0 0 0 5 3 0 0
14111223	013 4 0 2 6 0 0 2 0 3 4
14112243	019 6 5 5 5 0 6 6 011 0
14113223	2 510 0 6 4 0 0 2 0 4 4
14114243	2128 0 015 5 0 0 6 026 0
14115223	224 7 8 3 8 0 7 7 016 4

14216213	014 4 9 3 3 0 0 6 0 0 6
14217243	030 4 9 3 9 0 0 21110 2
14218113	627 5 4 3 9 0 0 3 0 7 4
14219223	0 9 4 0 3 6 0 011 0 5 4
14220233	016 3 0 3 6 0 0 4 0 8 3
14221243	01511 0 413 8 0 6 5 9 4
14222243	030 6 6 5 9 0 0 2 0 9 6
14223223	030 7 0 3 9 0 0 110 6 5
14224223	020 4 0 9 6 0 5 0 012 5
14225243	415 0 0 3 6 0 0 1 0 7 5
14226243	920 4 0 2 5 0 0 1 0 1 3
14227223	524 4 5 6 9 0 0 2 0 4 6
14228223	321 7 6 3 6 0 3 2 2 3 4
14229113	027 2 0 8 3 3 0 2 0 3 3
14230223	410 0 0 0 4 0 0 0 0 7 2
15101113	62711 81013 0 8 6 627 6
15102243	111516 8 810 0 622 537 6
15103113	520 0 0 3 4 0 3 2 012 3
15104243	122412 0 3 3 01418 727 5
15105243	820 0 0 3 3 0 0 4 018 4
15106223	024 0 6 3 4 0 0 0 317 0
15107214	31211 0 3 6 0 5 5 411 6
15108233	8 5 6 0 3 6 0 5 2 318 7
15109124	141011 0 5 8 5 5 7 617 6
15110113	111019 0 3 9 0 8 21014 6
15111223	10 5 2 3 2 3 0 0 0 0 5 0
15112114	141522 8 811 0 617 727 6
15113221	102621 0 2 0 0 618 026 9
15216243	018 6 0 4 8 0 4 4 0 4 3
15217233	220 6 0 4 8 0 5 9 5 6 6
15218223	618 4 0 2 8 0 3 2 0 4 6
15219213	03711 0 5 7 0 510 0 9 6
15220223	0 5 4 0 5 7 0 0 6 6 5 4
15221223	015 4 0 5 8 0 0 6 3 5 4

15222223	316 9 0 511 0 0 61021 6
15223114	62710 0 411 7 0 412 7 8
15224233	225 2 0 012 0 3121010 6
15225243	02712 0 6 5 0 5 3 625 6
15226223	638 4 0 6 5 5 0 2 315 6
15227223	636 7 0 6 4 5 0 2 5 9 5
15228114	639 4 0 6 4 5 0 2 313 5
15229223	025 1 0 010 0 0 4 212 6
15230223	013 3 0 013 0 0 2 911 0
16101223	0 3 1 0 0 3 0 0 4 0 4 0
16102113	151119 0 9 7 3 0 9 0 8 6
16103233	027 4 0 5 4 0 0 4 0 3 0
16104222	1130 5 0 4 3 0 0 6 0 7 4
16105223	1943 5 0 3 4 3 0 9 0 9 6
16106123	030 8 0 0 7 0 0 9 0 5 0
16107213	113510 0 3 6 3 0 7 011 5
16108113	535 0 0 5 0 0 0 0 0 3 6
16109233	433 4 6 0 0 0 0 2 0 4 5
16110223	032 8 0 6 6 4 0 2 010 0
16111223	526 8 0 4 810 013 019 6
16112223	1527 9 0 5 3 4 010 019 6
16113113	229 4 0 6 9 9 712 01918
16114243	043 6 0 0 4 0 3 3 014 0
16115233	037 5 0 3 3 4 3 6 0 8 0
16216213	93727 11111 4 4 8 0 9 6
16217243	273810 0 6 9 0 0 8 021 6
16218223	113918 6 6 6 4 814 0 6 4
16219223	43313 011 3 0 0 4 013 0
16220243	33613 010 3 0 0 8 016 3
16221223	18 6 0 0 0 0 0 0 9 0 5 4
16222223	223010 51220 5 315 018 9
16223233	026 0 0 3 5 0 0 8 0 5 3
16224223	012 8 01324 0 0 6 411 2
16225223	322 6 0 7 0 5 0 5 0 7 0

16226223	231 9 1 5 4 0 0 7 012 2
16227243	103313 0 0 6 0 4 9 0 9 6
16228223	035 6 0 7 6 4 0 2 017 3
16229113	113410 014 3 4 7 2 013 3
16230243	640 8 0 2 6 0 0 6 2 8 0
17101243	716 1 8 310 8 0 2 011 4
17102223	0 1 0 0 0 2 0 0 3 0 0 0
17103243	823 2 6 3 6 6 0 7 7 8 5
17104223	2 2 3 0 3 0 0 0 6 0 6 0
17105113	213 5 0 4 4 0 317 017 0
17106243	632 0 0 3 5 0 0 8 2 4 5
17107233	0 2 0 0 3 0 0 0 2 2 0 0
17108113	2 7 0 0 3 0 0 0 3 012 6
17109233	112 0 0 2 3 0 0 3 010 6
17110243	510 0 0 5 2 0 0 3 2 6 5
17111233	1740 0 0 61421 4 8 834 6
17112124	1219 0 6 8 4 0 4 7 013 6
17113243	814 010 4 3 0 4 2 0 8 6
17114243	3 0 0 0 3 4 0 0 4 013 7
17115233	43611 6 6 8 8 023 037 5
17216243	1316 4 0 5 7 0 3 31516 5
17217113	1117 0 0 3 4 0 0 7 6 3 6
17218233	2 5 8 6 3 1 0 3 3 0 0 6
17219223	1224 4 0 5 0 0 0 6 5 8 0
17220213	510 4 6 3 410 4 5 0 6 6
17221113	1114 0 012 4 0 0 9 0 0 6
17222243	5141212 2 9 0 0 2 9 7 9
17223243	013 816 3 8 8 4 9 311 6
17224223	712 0 0 5 0 0 310 2 4 4
17225113	2 7 4 6 3 5 0 0 6 2 0 4
17226242	726 610 211 0 4 5 014 5
17227243	4 8 0 0 3 4 0 0 3 0 5 3
17228243	014 0 4 3 8 0 0 6 2 3 5
17229222	2 4 0 0 2 0 0 0 2 0 2 0

17230113	510 0 5 3 9 8 0 6 0 9 6
17101233	4 8 6 0 215 0 4 4 5 9 6
18102222	514 4 4 4 4 3 811 019 6
18103113	5 4 9 5 4 5 0 41313 9 9
18104123	0 8 5 0 6 0 6 0 0 014 6
18105243	4 4 5 0 914 6 0 0 3 7 5
18106113	183310 010 3 013 4 4 5 8
18107123	4 2 6 0 812 5 3 3 0 8 3
18108223	02822 0 71713 314 521 6
18109213	0 6 0 0 7 8 0 812 013 5
18110223	4 611 6 218 0 5 9 0 4 4
18111222	0 2 5 0 2 4 0 0 2 0 5 5
18112222	5 710 3 9 0 0 014 017 3
18113223	8 011 018 4 0 021 017 5
18114223	0 3 6 01018 0 0 9 012 5
18115233	62414 013 4 0 312 016 6
18216233	0 2 6 0 6 7 0 0 8 215 1
18217223	0 2 5 5 9 3 0 0 8 016 5
18218233	0 2 6 0 9 4 0 0 9 013 6
18219113	9 4 8 0 621 3 0 5 0 6 6
18220213	011 810 6 6 7 410 0 3 5
18221113	016 0 0 216 0 0 4 013 0
18222123	017 5 0 525 6 0 5 2 9 5
18223123	61711 0 22112 0 6 018 5
18224113	0 610 6 217 0 5 7 8 5 6
18225233	0 615 6 221 0 4 4 8 7 5
18226233	0 6 8 0 3 6 0 0 4 0 9 3
18227113	42310 5 515 0 0 9 4 8 5
18228113	012 7 5 315 3 3 8 011 2
18229113	012 8 5 213 0 8 4 018 6
18230113	51710 01412 0 020 815 5
19101113	040 0 0 3 6 0 0 8 016 6
19102223	2119 2 4 2 4 0 0 8 015 6
19103233	10 7 2 0 8 4 0 014 032 6

19104123	1010 7 015 7 0 511 019 4
19105113	0 8 6 011 6 0 0 5 016 5
19106233	520 8 0 0 8 0 515 014 9
19107113	61610 0 510 0 511 018 6
19108113	73010 0 510 0 5 6 012 6
19109113	216 9 4 3 4 0 5 2 0 4 9
19110113	820 5 0 3 4 0 0 3 0 2 5
19111223	318 1 0 0 4 0 6 2 020 0
19112123	1313 9 0 310 2 6 1 015 4
19113113	4 4 3 0 9 0 0 3 2 0 6 3
19114223	4 410 112 0 0 3 2 0 7 3
19115113	213 0 5 2 4 0 3 2 2 9 5
19216133	1411 8 5 7 4 0 3 4 0 7 5
19217113	030 7 8 515 0 0 3 2 8 8
19218223	0 5 6 0 0 8 0 3 2 212 6
19219113	512 8 4 7 4 0 3 4 0 4 3
19220113	212 9 312 5 0 0 9 027 6
19221113	2515 0 0 213 0 0 4 0 8 2
19222113	18 311 6 320 0 311 2 7 8
19223113	91119 0 321 0 011 010 7
19224113	101414 4 317 0 013 013 9
19225113	61317 0 12560 0 240 6 4
19226113	111116 0 317 0 011 117 5
19227233	1015 8 0 5 4 0 0 4 014 6
19228113	01012 0 0 4 0 0 3 412 3
19229113	0 3 8 0 0 4 0 0 4 4 8 3
19230113	0 818 5 3 9 0 4 0 013 5
20101114	029 8 013 5 0 6 3 015 9
20102113	728 4 0 2 3 0 0 6 0 8 0
20103113	420 5 0 3 3 5 0 3 0 2 3
20104114	1011 5 0 9 0 5 9 4 010 6
20105114	132617 01112 5 5 0 9 9 6
20106114	216 0 0 4 9 0 3 2 5 4 7
20107114	1122 5 0 926 721 614 6 6

20108243	025 4 0 6 8 8 3 4 012 0
20109113	5 0 5 0 4 6 4 0 2 4 7 0
20110234	383032 4 9242323101112 6
20111114	1932 0 0 7 0 0 5 3 0 5 6
20112114	182919 0 91810 8 8 4 9 4
20113214	8 8 5 0 3 4 7 3 2 0 3 5
20114114	1022 6 0 7 41116 7 816 9
20115114	1 1 2 0 5 4 013 2 012 6
20216114	91817 0 6 713 4 0 3 412
20217114	1716 7 0 6 111 0 0 0 6 9
20218114	1715 2 0 4 1 6 0 2 0 6 9
20219114	82227 026 316 5 8 618 9
20220244	6 0 6 010 7 5 3 3 2 9 9
20221113	2019 6 0 7 0 0 010 0 5 3
20222114	133113 011 7 5 0 2 2 4 6
20223114	1428 4 010 9 5 5 8 0 6 6
20224114	141314 0 813 6 5 5 510 9
20225113	51212 0 7 3 0 0 2 4 6 6
20226114	620 2 0 4 5 5 0 2 0 8 6
20227113	121815 0 3 0 5 4 3 0 5 9
20228244	720 6 0 3 9 4 5 3 8 6 6
20229113	510 5 0 3 3 3 0 0 0 5 3
20230114	101418 0 7 0 3 3 5 010 9
21101223	2345 0 0 0 6 0 7 4 015 0
21102244	1135 0 0 0 3 0 0 2 0 9 5
21103224	924 0 0 0 3 310 2 0 0 6
21104234	1650 0 0 0 3 0 3 2 024 3
21105214	1233 2 0 0 4 0 5 2 016 6
21106114	1231 2 0 0 3 0 4 3 017 5
21107123	1529 0 0 0 8 0 0 2 016 5
21108114	183411 6 3 6 0 0 4 018 4
21109114	1036 0 0 0 3 0 0 3 015 3
21110114	823 8 0 010 0 4 4 0 8 6
21111114	1134 0 0 2 0 0 8 2 0 5 6

21112224	1218 4 0 0 9 015 2 0 8 6
21113114	1433 0 0 0 3 0 3 2 0 6 3
21114244	1542 1 0 1 3 0 4 2 018 6
21115114	3966 7 0 0 5 0 3 2 0 6 6
21216244	1229 4 0 0 3 0 3 5 0 3 6
21217224	335320 0 414 9 3 7 018 6
21218244	1121 0 0 010 0 3 4 0 5 8
21219114	1848 8 0 013 0 7 7 0 6 6
21220224	311 0 5 2 2 5 0 2 0 6 3
21221114	1026 0 5 0 4 5 0 2 0 0 9
21222224	1828 4 0 0 8 0 6 4 0 8 8
21223243	1515 2 0 312 0 5 4 010 6
21224223	325012 0 017 0 8 9 012 5
21225244	1937 0 0 0 4 0 0 2 0 5 6
21226244	2534 6 0 5 5 0 013 016 6
21227244	1837 0 0 0 3 0 3 4 0 6 6
21228222	193811 4 010 0 3 2 0 3 6
21229114	344511 0 0 6 0 3 5 0 6 6
21230234	2538 8 0 012 0 3 5 0 6 6
22101114	1524 017 010 0 315 018 6
22102112	1056 6 6 012 0 0 4 011 9
22103122	844 8 0 018 0 010 3 4 6
22104114	2353 7 6 019 01013 81515
22105113	1022 0 0 010 0 0 7 3 9 6
22106112	028 8 6 017 0 010 3 9 6
22107124	2433 4 7 0 9 0 0 0 218 0
22108114	2634 4 4 0 9 0 3 5 317 6
22109124	1322 2 4 010 0 0 1 815 4
22110113	036 6 0 027 0 0 3 81711
22111124	1041 1 5 033 0 0 51119 8
22112124	024 6 5 023 0 0 4 3 7 9
22113114	2237 7 6 415 0 0 2 6 9 6
22114124	1648 0 4 0 8 0 8 2 6 7 6
22115114	736 2 4 013 0 0 8 2 3 7

22216112	913 0 6 0 1 0 0 0 0 8 3
22171120	17352 0 012 0 5 2 5 715
22218112	432 412 020 0 8 2 618 6
22219112	1331 3 0 0 8 0 0 6 0 8 5
22220112	2239 6 0 013 0 0 3 0 7 3
22221114	2234 3 0 013 0 0 6 0 8 0
22222114	052 6 5 023 0 4 2 318 6
22223114	7211416 012 7 8 2 618 9
22224114	1126 3 0 010 0 0 5 0 3 3
22225114	1736 8 6 021 0 4 3 311 6
22226114	1321 6 0 017 0 0 7 3 5 5
22227114	041 3 9 027 0 9 4 810 6
22228114	141 8 0 029 0 5 4 8 4 6
22229114	1352 6 6 028 0 0 1 2 4 6
22230114	024 6 0 0 9 0 4 3 211 6
23101124	01015 4 0 3 3 0 0 0 9 5
23102124	523 0 0 0 0 0 0 4 0 9 2
23103114	519 2 0 0 2 0 0 0 0 8 0
23104114	426 2 5 0 2 0 0 0 010 2
23105114	529 2 5 0 2 0 0 0 010 2
23106123	515 4 0 0 0 5 0 0 010 0
23107114	010 2 6 0 4 0 0 0 3 3 0
23108124	538 6 6 0 2 2 0 0 0 6 4
23109114	012 6 6 0 0 4 5 0 0 4 2
23110114	022 7 6 0 5 8 5 0 0 8 6
23111114	021 0 0 0 0 4 5 0 0 0 0
23112124	1116 5 4 0 0 0 0 0 0 7 6
23113124	527 2 5 0 0 5 0 0 6 7 0
23114114	021 6 6 0 610 0 5 5 9 4
23115114	1020 0 0 0 0 0 0 0 0 7 2
23216114	0 8 4 0 0 9 0 4 0 0 2 4
23217114	010 0 0 0 0 0 0 2 017 5
23218124	510 911 0 8 316 2 0 3 6
23219123	015 0 5 0 6 0 0 0 0 6 5

23220124	821 6 0 010 0 0 0 413 0
23221114	415 8 6 010 4 9 0 410 6
23222124	014 2 5 0 8 0 4 0 0 3 3
23223124	1322 0 6 0 6 0 8 0 0 4 3
23224124	015 0 6 0 0 0 5 4 0 3 6
23225114	1212 2 5 012 8 8 0 4 7 8
23226114	0 0 0 0 0 5 0 0 0 0 0 5
23227124	915 2 6 010 9 7 0 8 9 3
23228244	4 9 2 0 0 4 0 6 0 0 3 0
23229124	91612 6 0111317 0 817 9
23230124	1010 5 0 01411 815 6 9 6
24101244	93511 8 414 7 515 717 6
24102244	935 8 8 3 9 7 5 5 010 6
24103234	627 9 6 012 0 5 6 4 7 6
24104244	627 4 7 012 0 5 4 411 5
24105244	01514 4 2 9 0 4 3 0 8 0
24106214	62014 4 4 7 0 4 3 010 7
24107244	628 9 6 0 7 0 6 6 0 4 6
24108244	62811 6 0 8 0 0 2 0 4 6
24109244	624 8 6 0 5 0 0 0 0 7 0
24110234	0 9 0 0 2 4 0 0 4 3 6 4
24111244	010 8 0 0 8 0 0 4 0 3 0
24112244	53311 0 0 5 0 0 0 9 4 5
24113234	029 6 0 0 5 0 0 0 9 3 6
24114244	410 3 5 0 4 0 0 0 5 7 0
24115244	51912 4 0 0 0 714 4 6 5
24216241	53610 6 3 2 5 0 1 5 3 6
24217234	1018 4 6 013 0 0 5 2 0 6
24218234	24242514 8 81710 4 4 7 4
24219244	1116 5 6 3 4 0 3 4 4 8 4
24220244	21 0 6 6 3 4 0 3 4 4 3 4
24221244	51916 6 7 7 015 3 2 8 6
24222244	51811 4 012 0 0 0 4 8 5
24223244	224 5 4 010 0 0 2 2 4 4

24224242	1011 7 6 011 0 0 2 2 6 4
24225244	221 4 6 0 6 0 0 2 2 4 6
24226244	523 9 6 4 4 4 0 8 5 4 6
24227244	1 610 6 6 4 5 0 0 4 3 6
24228234	8 010 6 0 9 0 0 5 0 3 4
24229244	7 0 6 4 5 9 0 013 4 0 6
24230244	4 01411 0 9 0 0 6 4 5 4
25101242	172110 0 614 0 0 0 823 0
25102242	2210 5 0 5 4 0 5 0 0 0 6
25103244	161115 5 5 3 7 8 0 9 7 6
25104244	1726 912 4121011 0 814 6
25105243	21 4 8 0 5 7 4 0 0 5 3 6
25106234	1520 612 5 8 0 8 0 5 8 6
25107244	2422 6 0 3 3 5 3 0 716 6
25108244	2912 6 0 5 5 5 5 0 8 0 0
25109244	1315 6 0 3 8 0 0 0 4 0 0
25110244	181513 0 510 5 5 0 6 8 4
25111244	2821 5 0 5 3 510 0 813 5
25112244	2114 6 0 5 8 5 3 0 8 3 4
25113224	212214 6 510 5 9 0 8 9 4
25114224	221710 0 5 6 5 0 0 8 4 3
25115244	4428 9 0 211 012 0 315 2
25216234	71311 5 3 3 4 3 0 0 3 6
25217244	1616 6 0 5 4 0 0 0 8 9 6
25218224	2831 610 6 5 0 0 0 7 4 5
25219244	1014 6 4 3 4 4 5 0 4 4 3
25220224	352516 6 410 4 0 0 9 9 6
25221243	1319 6 5 4 010 0 0 411 6
25222244	52418 6 2 5 9 0 0 011 4
25223244	182415 0 4 6 4 9 0 713 6
25224244	161717 6 81410 4 0 610 6
25225214	1517 6 5 7 5 8 4 0 8 9 5
25226244	1627 8 4 3 5 0 4 0 8 8 0
25227244	15 8 5 0 511 5 3 61510 6

25228244	2818 7 5 2 7 0 3 0 2 5 2
25229244	7 2 4 5 3 3 4 0 2 0 0 4
25230114	2718 6 6 3 4 0 3 0 2 3 0
26101124	01816 513 4 0 4 8 227 9
26102112	01415 515 5 0 3 5 21812
26103114	0 6 0 0 5 0 0 3 3 0 0 6
26104113	015 4 3 6 0 0 3 0 0 324
26105114	61119 5 4 0 0 511 410 6
26106114	61716 518 3 0 3 3 223 8
26107113	01212 513 0 0 3 4 5 8 5
26108112	01212 6 5 2 0 4 7 8 7 6
26109114	61112 610 0 0 5 5 2 6 4
26110111	014 0 0 3 2 0 2 2 2 1 6
26111112	015 4 6 5 0 0 3 2 0 3 6
26112114	61214 0 8 3 0 515 011 6
26113114	61120 0 8 3 01211 020 6
26114112	0 6 8 4 5 0 0 3 3 010 6
26115112	416 5 8 5 3 0 3 3 2 4 6
26216114	0 617 0 5 2 0 5 4 2 4 6
26217112	011 0 5 5 0 0 3 3 0 4 6
26218114	6 6 9 617 4 5 3 4 017 5
26219114	6 611 010 2 0 3 8 213 6
26220111	0 0 0 0 0 0 0 3 2 0 1 6
26221114	6 614 611 3 0 5 6 220 6
26222114	0 9111222 2 0 3 0 210 6
26223114	6 6 2 511 4 0 91310 5 8
26224112	010 51118 0 0 3 2 2 4 6
26225112	3 3 2 115 0 4 8 5 0 4 4
26226113	0 613 5 2 010 3 0 0 8 6
26227114	6 9171229 6 0 3 5 216 6
26228114	0 5 9 0 5 2 0 3 6 0 0 6
26229113	0 6 9 612 0 4 3 0 811 3
26230112	0 6 0 0 6 0 0 3 0 0 2 3
27101124	424 0 0 113 0 0 2 013 5

27102224	1728 0 0 214 0 6 6 018 6
27103214	1524 0 0 212 6 3 5 017 6
27104114	1324 0 0 211 0 0 2 010 6
27105114	1624 0 0 311 0 0 2 014 6
27106213	820 0 4 213 3 8 2 0 0 9
27107112	0 411 0 216 0 3 2 0 0 5
27108112	221 6 5 4 8 3 0 2 0 9 6
27109224	512 0 6 211 513 4 0 6 6
27110114	524 0 0 220 011 8 010 6
27111222	023 0 0 2 8 0 3 4 0 0 6
27112224	028 0 0 2 7 0 5 2 0 4 4
27113114	0 0 0 0 212 0 0 2 0 3 5
27114114	1411 0 0 213 010 2 0 0 5
27115112	1411 0 0 213 0 4 2 0 3 4
27216222	021 0 0 211 0 0 0 0 8 7
27217114	023 5 0 419 612 2 0 9 6
27218113	322 0 5 216 3 6 2 0 7 6
27219214	524 0 5 3 6 0 8 2 0 7 6
27220223	019 0 4 214 0 3 2 013 6
27221224	1212 7 0 0 0 5 8 2 0 2 4
27222223	1220 0 5 2 8 0 7 0 0 3 5
27223222	0 0 0 0 4 9 0 7 2 0 4 6
27224114	023 0 0 217 314 4 0 4 6
27225112	820 5 0 221 010 2 0 7 6
27226124	2421 5 0 413 3 3 0 018 6
27227114	2 5 0 5 218 0 5 4 0 9 5
27228224	926 0 0 2 8 010 2 0 7 6
27229114	230 0 5 415 0 0 2 013 6
27230114	022 0 6 211 0 3 0 0 0 9
28101114	303717 0 2 6 3 3 2 318 0
28102114	243312 0 2 9 0 3 7 014 9
28103114	1611 4 0 4 0 0 0 4 013 6
28104114	018 3 0 0 0 0 6 6 0 6 0
28105114	3420 8 0 2 4 0 4 2 010 0

28106114	2220 2 0 2 3 3 3 2 218 0
28107114	1918 2 0 2 0 3 0 2 0 6 0
28108114	8 717 6 0 3 0 0 4 012 4
28109114	1510 3 0 2 3 0 0 2 0 4 3
28110214	3031 5 0 2 5 0 2 2 013 8
28111114	2925 6 9 2 0 0 0 4 0 4 6
28112114	3018 6 0 0 3 0 312 1 8 5
28113114	20 6 6 0 0 3 0 0 8 0 5 4
28114114	1123 2 0 2 4 0 0 3 011 4
28115114	1110 8 4 0 3 0 6 9 012 6
28216114	1722 2 9 0 4 014 2 02112
28217113	2024 2 5 0 2 0 0 5 0 9 9
28218114	9 711 5 2 3 4 4 2 0 9 0
28219114	1113 3 4 2 3 0 0 6 0 8 8
28220114	171811 5 7 2 0 410 017 7
28221114	611 8 4 7 0 0 012 019 0
28222114	1012 4 0 2 3 0 3 3 013 4
28223114	1515 7 0 4 4 0 8 8 011 5
28224114	515 5 5 4 0 0 0 6 013 6
28225114	13 6 6 0 2 0 0 4 2 0 9 0
28226114	111815 0 4 5 010 9 011 6
28227114	512 6 5 2 0 4 0 2 0 6 4
28228114	81615 4 2 7 0 0 9 0 3 7
28229114	1825 5 5 5 0 5 5 5 012 6
28230114	4 5 0 4 2 0 0 0 2 0 8 2
29101243	017 5 4 2 0 0 0 0 0 2 2
29102123	0 0 0 4 0 0 0 0 0 4 5 3
29103243	015 0 5 2 0 0 0 0 2 5 4
29104243	02114 4 0 0 0 3 0 0 8 4
29105123	01011 6 2 3 0 5 0 010 5
29106123	625 8 0 8 2 5 0 0 310 0
29107233	0 4 0 5 3 0 5 0 0 0 7 4
29108113	022 8 6 3 6 5 4 0 4 7 5
29109243	038 9 5 2 2 0 0 2 010 4

29110123	636 3 6 5 0 0 0 4 0 5 0
29111123	0 6 9 0 2 6 0 0 0 7 8 0
29112223	1242 8 0 411 5 0 0 0 0 7 5
29113113	024 6 6 4 8 0 0 0 0 0 10 0
29114223	02111 5 4 6 0 0 0 0 0 7 4
29115233	02719 6 2 5 0 0 0 0 0 9 3
29216113	1830 9 6 421 5 0 0 0 0 3 5
29217243	02611 61226 015 0 0 8 4
29218223	152217 5 51112 0 0 0 4 6
29219223	143010 6 4 6 0 8 0 0 212
29220223	142617 6 7 410 0 0 810 5
29221123	01710 6 4 5 4 0 0 0 5 2
29222223	011 1 5 2 3 4 0 0 0 6 0
29223223	141912 612 4 5 0 0 0 0 6
29224233	14 6 7 6 4 2 3 3 0 0 4 5
29225223	01517 4 5 3 9 4 2 2 8 6
29226123	512 7 6 2 2 0 0 0 0 0 2
29227243	162212 5 3 4 0 0 0 0 0 6
29228213	415 4 4 3 5 4 0 0 0 0 6
29229223	7 0 6 91810 9 7 5 9 9 8
29230223	611 6 0 3 5 4 0 0 0 3 0

APPENDIX 6

ABSTRACT of

The Intermediate School: Student
Involvement in School Activities

ABSTRACT of

The Intermediate School: Student
Involvement in School Activities¹

The study investigated the involvement in school activities of grade eight students in intermediate schools and in K to 8 schools. Behavior setting theory was used as a framework for the study. Involvement in twelve school activities was the dependent variable and the type of school was the independent variable.

The hypotheses for the research were as follows:

1. Grade eight students in K to 8 schools are more involved in school activities than grade eight students in intermediate schools.

2. The responsibility for the maintenance of school activities assumed by grade eight students in K to 8 schools is greater than that assumed by grade eight students in intermediate schools.

Data on student involvement were obtained from randomly selected grade eight students in ten intermediate schools and ten K to 8 schools.

The findings of the study indicated that the levels of involvement in school activities of grade eight students

¹ John W. Jarrett, doctoral thesis presented to the School of Graduate Studies of the University of Ottawa, Ottawa, Ontario, 1978, ix, 153 p.

in K to 8 schools was generally greater than that of grade eight students in intermediate schools.

In general, the results support behavior setting theory. They also suggest that, insofar as school activities provide grade eight students with opportunities to make decisions and to develop independence and autonomy, K to 8 schools are more effective than intermediate schools.

The effect of busing on student involvement was also investigated. It was found that busing had a slight positive effect on involvement. The conclusion drawn from this finding was that busing has no detrimental effect on student involvement in the intermediate schools.