An Investigation of the Relationship between In-School System Student Transiency and Student Reading Achievement

W. Craig Misner
Western Michigan University

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AN INVESTIGATION OF THE RELATIONSHIP BETWEEN
IN-SCHOOL SYSTEM STUDENT TRANSIENCY AND
STUDENT READING ACHIEVEMENT

by

W. Craig Misner

A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Degree of Doctor of Education
Department of Educational Leadership

Western Michigan University
Kalamazoo, Michigan
December 1984
AN INVESTIGATION OF THE RELATIONSHIP BETWEEN IN-SCHOOL SYSTEM STUDENT TRANSIENCY AND STUDENT READING ACHIEVEMENT

W. Craig Misner, Ed.D.
Western Michigan University, 1984

A study was conducted to ascertain what influence transiency had on students' reading achievement in school. Transiency was defined as students moving from one school within the Kalamazoo, Michigan, Public Schools to another at a frequency double to that which school system policy required. Reading achievement was measured by a national norm-referenced test (Metropolitan Achievement Test) and progress in the school system reading program. A total population of 317 students was selected at the second, fourth, and sixth grade levels for the investigation. At each grade level, students were divided into transient groups or nontransient groups dependent on school stability. Students selected were matched closely in regard to possibly contaminating extraneous variables, i.e., race, sex, socioeconomic status, and number of parents in the household.

A central hypothesis of the study was that students from nontransient groups would show greater reading achievement progress than transient students. A _t_ test was used to examine relationships in reading achievement between transient and nontransient students. Results obtained from scores on the Metropolitan Achievement Test and student progress in the school system reading program indicated that nontransient students gained in reading achievement at a
significantly higher rate when compared to transient students. At
all three grade levels tested, nontransient students were near or
above grade level in reading achievement. Transient students were
below grade level at all three grades in regard to reading achieve­
ment.

The investigation revealed a high percentage of students coming
from single-parent households in both the transient and nontransient
groups. Results were computed for single-parent groups of both
transient and nontransient students with similar findings as the full
sample. The study concluded that when variables of socioeconomic
status, race, sex, and number of parents in the household were held
constant, transiency was a factor in student reading achievement.
The study was limited to Kalamazoo, Michigan, Public School students
and the results were particular to that school system and student
population. The study gives conclusions and recommendations in re­
gard to transiency and school reading achievement.
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Western Michigan University

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I need to thank my family for its continuing support, especially my wife, Diane, for her encouragement, positive attitude, and guidance.

To my parents for giving this individual such a rich and inspiring background from which to develop. Those that have known them realize the profound influence they have had on so many.

To the Warrens, Andersens, MacDougals, Smiths, and Atkins, thank you for the love and support you have provided as family.

To several good friends that have been there for so many years through thick and thin; Val and Jan Ragainis, Dr. Vic Schug, Lou Straubel, Fran Reidy, and Jim Smith, thanks!

This project would not have been accomplished without the assistance, support, and encouragement of an empathic committee. Jim, Jack, and Don, thank you for sharing with me the philosophy that education is a process by which individuals reach goals.

W. Craig Misner
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CHAPTER I

INTRODUCTION

The question as to why some students achieve in school to a far greater extent than other students has been a frequently discussed and researched issue. Variables related to a lack of school achievement have been extensively explored in the literature. Race, sex, student self-concept, and socioeconomic levels are some of the more popular variables generally linked to a lack of school achievement. The variable of transience, a student's movement between buildings in a district, is a variable which could help to explain reduced levels of student achievement, in particular, reading. Many variables which affect school achievement leave little chance of control by the school, yet the variable of transience is unique and could be controlled in some cases. It should also be noted that the variable of transience has generally not been covered in the literature.

As an elementary principal, the high mobility of students has been seen first hand. Academic and social progress for new students generally take time, yet often students move again when progress is being made. The core of students showing high transience move back and forth from one school to another within the district, apparently losing valuable learning experience with each move. For the potential well-being of children, transience and policies related to transience could be investigated.
It would seem that students who frequently change schools and teachers may be at a disadvantage. Students are normally expected to show at least 9 months of academic progress during the course of a school year. If students must go through several adjustments in a 9-month period, how can they be expected to keep up? Research recently reported in the *Phi Delta Kappan* (Chandler, 1981) called for teachers to keep students for periods of longer than a year to avoid the lost time inherent with "adjustment periods" for students new to the school.

A few studies have concluded that student mobility does not make a difference in reading achievement. Black and Bargar (1975) concluded in their study that reading achievement of mobile pupils is not significantly different from that of stationary pupils. In "Are Movers Losers?" Cramer and Dorsey (1970) found that out of 366 sixth grade children of enlisted Air Force personnel, no adverse effect was found in their reading achievement based on extent of mobility. Kaplan (1978) investigated the influence of student transfer on reading achievement in Grades 1-5 in 10 selected Title I disadvantaged schools over a 5-year period. The author hypothesized that the longer students stayed in one school, the greater the increase in reading achievement and that students staying in one school would test out higher in reading than those transferring. The results indicated transfer students showed no statistically significant differences from the stable group.

Abramson (1974), in *The Effect of Continuity of School Environment in Reading Achievement of Fifth Grade Pupils*, found that
immobile students achieved at grade level or above at a greater percentage than mobile students. These findings were true at both Title I schools and non-Title I schools and were statistically significant.

The student has no choice in his ability to stay in one school over an extended period of time. If the family is stable and remains in one housing location, the student will continue in the normal school assignment given by the district. It is possible that families who continually move about within a district, hence changing schools, are contributing to the student's inability to achieve in a school system and may, therefore, be jeopardizing his academic progress in school. The quality of environment a student comes from is a variable the school has little hope of changing or improving. However, a school district, with many transient students, could possibly make provisions in attendance policy to ensure a stable school experience for most students.

The purpose of this study was to investigate the variable of transience as related to school achievement or lack thereof. For the purposes of this study, a student considered to be transient was one who had been involved in a greater number of building changes than the school system within the district would require. The Kalamazoo Public Schools generally require students to change schools between early elementary (K-3) and later elementary (4-6) due to district organization. In addition, many students attend a neighborhood school for kindergarten and then a different school building for early elementary grades due to boundary policies. A student
considered transient would be involved in frequent moves not due to district organization. The study could reveal data which show students that frequently change school environments are adversely affected in terms of school achievement, in particular, reading level.

The research design included the selection of a sample population of 50 students who have been frequently transient. These 50 transient students were selected and matched with an equal number of nontransient students from the second, fourth, and sixth grades out of the total Kalamazoo Public Schools' population. The second, fourth, and sixth grade student population served as a comparison group.

Data on the following variables were collected on each subject to serve as rival factors to the effect on reading by the variable of transience:

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variables</th>
</tr>
</thead>
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<tr>
<td>Socioeconomic status</td>
<td>Metropolitan Achievement Test</td>
</tr>
<tr>
<td>Number of parents</td>
<td>Grade level</td>
</tr>
<tr>
<td>Race</td>
<td>Sex</td>
</tr>
<tr>
<td>Native language</td>
<td>Reading level</td>
</tr>
</tbody>
</table>

The t-test on group means of transient and nontransient students' reading level and MAT scores were calculated. Comparisons of the group means were expected to determine if transiency had a positive or negative effect on school success.

The present study describes the variables related to transient students and how transience influences a student's achievement in
school. Current literature does not describe a transient student or how family mobility affects a child's progress in school. The aspect of student mobility is an environmental variable that needs to be explored in greater detail in order to help educators better understand a student's learning rate in school. The conclusions from the study could be useful to public school administrators and curriculum personnel in helping to identify factors which may affect the learning progress of students in elementary grades. The study might also provide useful knowledge to parents, or those who counsel parents, in terms of why a stable environment for children is important.

It would be anticipated that the more frequently a student has moved from school to school, the less likely that the student will be a high achiever in school as measured by reading, etc. The assumption is that one will show substantially higher achievement in a familiar environment. Continual disruption of old environments and adjustment to new ones could influence learning. In addition, the new environment, in particular the teacher, has a period of adjustment to the student.

The eight variables used as rival variables to transience would no doubt show some relationship to learning and transience, as the literature has dealt with them in detail. However, transience would appear to stand on its own as a block in the learning process of some students.
CHAPTER II

REVIEW OF RELATED LITERATURE

It is the purpose of Chapter II to address the potential problems related to student transience and student reading achievement. The chapter also provides a background for the development of hypotheses regarding transience and student reading achievement. A discussion of the literature and research related to the area of student transience is presented.

The objectives of the chapter are threefold:
1. To determine if transience is a factor in a school system.
2. To discuss the notion that student transience may influence school reading achievement.
3. To investigate the literature for research and studies related to the area of transience.

In the first part of this chapter, some of the problems of transience in our immediate past and present society are explored and outlined. The investigation included coverage of transience in the family unit, local population, and society as a whole. Also highlighted in this section is the increase in the number of single-parent family units related to transience.

In the second part of Chapter II, the influence that environmental change may have on families and individuals included within the family unit is discussed. The influence that home environment may have on students' reading achievement and possible influence that
Transience may have on home environment is presented in this chapter.

In the last part of the chapter, an analysis of the literature related to recent studies done in the area of student transience is provided. Studies are also reviewed that present mobility and how student reading achievement could be influenced by such a phenomenon.

Transience in Our Society

Public education has traditionally been viewed as a mirror image of society in our country. Society influences the ability of educational agents to function as a report known as the Coleman Report pointed out in 1966 (Coleman et al., 1966). In this part of Chapter II, investigations were made to determine just how transient society and communities have become. Educators could be aware of transience as a variable influencing achievement in schools.

American society has become an increasingly more mobile population in recent decades, as depicted by Galbraith (1965) in his book *Industrial State*. Both Toffler (1970) and Packard (1972) popularized the belief that our society has become restless and alienated due to the large degree of family mobility in past years. Automation and a changing economy are the most frequently cited reasons for the increase in population mobility. The three authors cited above were apprehensive of the psychological impact that increased mobility was having on the population of this country. On the one hand, a healthy economy seemed to increase mobility due to job opportunity, while on the other hand, our recession apparently increased mobility due to a need for job and career opportunities.
McAllister, Kaiser, and Butler (1971) conducted a national longitudinal survey that highlighted the mobility of black and white Americans. Their study concluded that mobility crossed all sections of our society. Mobility of blacks were of a more horizontal nature and within the same region or community. White mobility included a wider geographic area and was of a more job advancement, career opportunity nature.

McAllister et al. (1971), in the Journal of Marriage and the Family, reported that residential involuntary mobility among males and females had a negative impact on the family structure.

The United States Census of 1978 showed a leveling of the migration from the South to the North. This represented a change from the 1950s and 1960s. The Bureau of Census in 1978 predicted a leveling off of migration of people from the South to the North and Northeast. Indeed, by 1978 as many people were leaving the Northeast, North, and middle states as were arriving. The South had already started to feel the trend reversing and were receiving as many people as were leaving (Bureau of Census, 1978). The 1980 census illustrated that the trend had continued and the "sun belt" of the South and Southwest had greatly expanded their population.

Geographic mobility trends have changed during the past decade in regard to the different regions of the country. The fact remains that more than ever population shifts have been increasing in recent years. As a result, more and more families are moving causing students to change schools with increasing frequencies.
The mobility in our population has been most pronounced in our cities. In addition to mobility from one region of our country to another, there has been an increase of mobility within the cities. The influence mobility and changing of environments might have on a child's ability to learn in school is a variable that might be of interest to educators. Within cities student mobility from school to school within a school system is a real issue.

The 1980-81 Kalamazoo Public Mobility Study points out that there is a large percentage of students that do move with frequency, between school buildings in the system. The study is illustrated in Tables 1 and 2.

The study was compiled in January of 1982 and showed some elementary schools with a mobility percentage as high as 63.9%. Mobility percentage, as used here, means the percentage of students in a given school that moved in or out of that school during the course of the school year. In the above example, 63.9% of the students were not enrolled in that particular school for the entire school year; 36.1% of the students attended only that one school, while the other 63.9% attended at least one other school during the 1980-81 school year. During the 1980-81 school year, 34.9% of the elementary school population changed schools at least once. This would seem to be a significant number of students that could have been influenced by changing school environment during the course of a year.

For the purpose of this study, students were drawn exclusively from the Kalamazoo Public School System in order to insure some
<table>
<thead>
<tr>
<th>School</th>
<th>Fourth Friday enrollment</th>
<th>Total gains</th>
<th>Total losses</th>
<th>Net change</th>
<th>Final enrollment</th>
<th>High enrollment</th>
<th>Low enrollment</th>
<th>Mobility percentage</th>
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Kalamazoo Public Schools Gains and Losses, 1980-81

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<td>Nonpublic schools within this district</td>
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<td>Other nonpublic schools in Michigan</td>
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<td>Nonpublic schools within this district</td>
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<td>206</td>
<td>692 4 322 9 31 1,264</td>
<td>685 8 427 8 231 25 1,384</td>
<td>7,588</td>
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control over academic and curriculum variables. In the investigation it was found that a large majority of students moved from school to school within the Kalamazoo system. Table 2 illustrates the mobility within the system. The mobility study of 1980-81, though a first, does indicate some interest about students changing schools during their formal education and possible influence on school success.

An additional factor in the mobility question is the increase in single-parent households. The 1980 census figures for Kalamazoo County illustrated that the number of unmarried women raising children had risen 400% since 1970 in Kalamazoo County. This seemed to reflect a national tendency which has seemed to influence the increase of mobility in our society. The number of households headed by females in the city of Kalamazoo rose from 2,278 in 1970 to 10,383 in 1980. In Kalamazoo County the number of households headed by females rose from 4,034 in 1970 to 20,446 in 1980, a dramatic increase.

Crosset (1972) pointed out that the pressures placed on single-parent household heads can have a negative influence on family stability. Many of the concerns are due to economic problems caused by a single parent providing income and raising the family.

One question the increase in single-parent family heads might raise deals with the possible influence mobility has on the children's progress in school. Are children from highly transient and single-parent households hindered in their progress in school reading achievement? The data presented illustrate that a number of families move frequently; and as a result, children must adapt to different
schools and classrooms. The data would suggest a need to further investigate the variable of transience as it may relate to student reading achievement.

Environmental Change and Children

This section of Chapter II examines the influence environmental change may have on children, families, and possible implications for further study. While schools are similar in many ways, each has a set of unique variables to which the new student must adapt. Schools have different curriculums, differing expectations, separate standards of discipline, and teachers with different teaching styles. Students adjust to new adult expectations and new peer relations wherever starting a new school experience.

Skinner (1953) and other behavioral scientists studied the concept of stimulus generalization using laboratory animals as subjects. Stimulus generalizations being described as the ability to transfer learned behavior from one environment to another environment. The ability of students to transfer learned behavior from one classroom to another is an interesting point. Do, in fact, students transfer behavior from one educational setting to another well enough to avoid a modification in student achievement? Often behavior in one class may be considered appropriate, while in another be considered inappropriate. Students in an "open" classroom situation may well have behavior which when transferred to a highly rigid teacher-directed situation be considered inappropriate. Often teachers spend a good deal of time modifying student behavior to meet the expectations of
that particular classroom. When a student moves frequently is there a loss of student achievement?

Wallach, Ulrich, and Grunebauns (1960) demonstrated, via case studies, how relationships of family disturbances create cognitive difficulties in a child's learning process. Moves at critical ages also appear to be disruptive factors to a child, as generalizing to a new environment has its difficulties. This developmental principal has been documented for physical and psychological aspects of development such as stimulation (Rice, 1975), sensorimotor development (White & Held, 1966), cognitive (Wachs, Uzgiris, & Hunt, 1971), vocalization (Weisberg, 1963), competence (White & Watts, 1972), attachment (Schaffer & Callender, 1959), basic trust (Baevlby, 1969; Erikson, 1963), and learning (McGraw, 1970). The above documentations point to a stable and enriching environment for the proper and healthy development of young children. The family that moves frequently would be presumed to have a number of unstable home variables and the change of school environment would seem to compound the difficulties of the developmental process.

The Coleman Report (Coleman et al., 1966) raised the question as to the impact schools can have on academic achievement.

The general findings indicate that levels of academic achievement are best predicted by the home background of the students and less well predicted with the characteristics of schools that provide the setting for instruction. The major committants of variation in student achievements are typically measures of the home background from which the student emerges and not the unique characteristics of the school that is attended. (p. 127)
Kifer (1977), in a paper presented to the American Educational Research Association, seemed to typify what educators and sociologists had found for a number of years, that being that home environment is a strong predictor of success in school.

Brookover, Lepere, Hamachek, Thomas, and Erickson (1965) also pointed to the need for working with the home to insure student achievement.

It is concluded that the self-concept of ability of low achieving students can be enhanced by working with parents and that this improvement in self-concept will be reflected in improved academic performance. The positive academic performance, on the other hand, does not maintain itself when such treatment is discontinued. Possibly continued treatment over longer periods will have a more lasting impact. (p. 36)

The authors provided a need for further research when they suggested:

The success of working with parents to induce changes in children's concept of academic achievement and thereby this academic achievement suggests that some caution should be exercised in accepting the currently popular view that the adolescent in American society is predominantly influenced by his peers. (p. 42)

The authors looked at experiments and findings that suggested parents were perceived as the significant influence among students in Grades 7 through 9. The authors called for further research in the area of parent-child relationships and family interaction.

Brookover (1981) wrote of how school changes and characteristics can influence student achievement. According to Brookover, new treatments and approaches in classroom and school environments were credited with having a positive academic achievement impact.

Research of Perrin (1976), Shea and Hanes (1977), and Venturini (1974) made it clear that environmental variables have had a
significant impact on school achievement. The research suggested that schools need to work closely with a student's home and that the school-home relationship takes time to establish and must be ongoing. A student who moves frequently from one school to another (transient) would seem to be at a distinct disadvantage due to a gap which may exist between home-school communications and relationships.

Recent research studies in effective schools and school improvement point out the need for change within schools. Brookover, and Lazote (1979) argued that schools can have an impact on school achievement regardless of home environment. The preceding research was contingent on students being actively involved in school and being continuous participants in one particular school.

Any program or school needs to have students on tasks and in the appropriate programs for a continuous period in order to influence positive academic performance. The concern of this study are the students that do not stay in a school or program long enough to have an opportunity for positive academic achievement in reading achievement.

Mobility Studies

The function of this section of Chapter II illustrates the possibility that disruption in school environment might cause a negative influence on student achievement. This section of Chapter II will review studies in the area of student mobility and the resulting effect on student reading achievement.
Gilliland (1958) studied the relationship between pupil mobility and achievement in elementary schools and found students moving more frequently showed less achievement in school than fellow students with stable school attendance. Green and Daugherty (1961) indicated a neutral to positive relationship between mobile students and their lack of success in school. Levine, Wesolowski, and Corbett (1966) found that for inner-city children, low grades were associated with high mobility. None of these earlier studies controlled variables which might have contaminating factors on reading achievement.

Morris (1967) speculated that long-term adjustment may be adversely influenced by high mobility and that poor school adjustment, in turn, could have an adverse effect on achievement and school progress. While Morris did not study the adjustment and school achievement relationship, it is an interesting notion that adjustment is another variable important to achievement and that high mobility students could be adversely affected in terms of school achievement.

Chandler (1981), writing in Phi Delta Kappan, indicated the difficulty teachers have adjusting to new students coming and going during the course of a school year. Students also have the need for a familiar environment in order to provide some source of security. Chandler indicated a consistent school environment helps children cope with stress.

Cramer and Dorsey (1970) studied 366 sixth grade children of enlisted Air Force personnel. The study showed that mobility had no adverse effect on the reading achievement levels of sixth graders. In conclusion, Cramer added that the children's reading proficiency
may have been positively affected by varying experiences introduced to the children. Blaine (1974) did extensive study of military personnel and the effects mobility had on their children's school achievement. His research used military officers' children as a population and used general student populations as comparison groups. The findings were inconclusive. The studies in the area of military personnel did not attempt to control for possibly contaminating variables.

Whalen and Fried (1973) determined that there were no significant difference between high and low mobility students in a general vocabulary test for proficiency. While not testing for vocabulary proficiency, Shaller (1974) found that children moving two or more times reported increased difficulties in relating to peers as compared to those not having a mobile tendency.

Abramson (1974) listed the following three objectives in his study of continuity of school environment in reading achievements of fifth grade pupils:

1. To determine differences in reading achievement between fifth grade pupils who have been in the same school since the third grade (nonmobile) and those fifth grade pupils who entered the school anytime after the third grade (mobile).

2. To determine differences in the percentage of nonmobile and mobile pupils achieving at or above grade norms.

3. To determine if the differences are present regardless of ethnic and socioeconomic background.
According to the Reading Metropolitan Achievement Tests (MAT) nonmobile pupils showed higher reading achievement as compared to mobile students. A higher percentage of nonmobile pupils were reading at or above grade norm than the mobile pupils. Both findings apply to both Title I and non-Title I districts, but the magnitude of the mean difference in favor of the nonmobile group is greater for the non-Title I districts. All mean and percentage differences were statistically significant.

The Abramson (1974) study used solely the MAT and one has to be careful when reading on a national norm referenced test is the sole criteria for achievement. The study did use students that had been in other school districts which leaves some variance due to differences in curriculum, program, and district expectations. The study did attempt to control for ethnic and socioeconomic background.

Black and Bargar (1975) found no significant differences between low and high mobile students in reading achievement via his study of Ohio sixth graders. The relationship between pupil mobility and reading achievement of sixth graders with their socioeconomic status (SES) and IQ held constant. Reading achievement and IQ data were obtained from the results of a city-wide testing program.

Guthrie (1976) wrote regarding the impacts of instructional time on reading and found that time spent in formal reading instruction was a particular variable that is likely to increase reading achievement. Specifically, the impact of time on achievement was greater for second graders than for sixth graders, for low socioeconomic status children than for middle or high socioeconomic status
children, and in compensatory rather than regular reading programs. The time loss during mobility can be substantial, the breaking in period for any new teaching approach can cause continued loss of reading instructional time for highly mobile students, according to Guthrie.

The influence of student transfer in reading achievement was presented in a research report by Kaplan (1978). Kaplan looked at what influence transferring from one school to another had on students from four ethnic groups and on the overall reading achievement scores in the selected Title I disadvantaged schools over a 5-year period. The approximately 750 sixth grade students involved in the study represented Hispanic, Caucasian, Asian, and Black ethnic groups.

The author hypothesized that students with little mobility would show greater reading achievement progress than would transfer students. In addition, the level of reading achievement would increase with the number of years of residence stability, and that students from the four ethnic groups with no record of transfer would show greater reading achievement than would transfer students from the same groups.

The results indicated that reading achievement scores of transfer students, in all four ethnic groups as well as the overall group, showed no statistically significant differences from the stable group; therefore, the transfer students did not influence the total reading scores to a significant degree.
Benson (1979) studied mobility in sixth graders as related to achievement, adjustment, and socioeconomic status. The study defined mobility as the number of schools a child attended among a sample of 1,007 sixth graders. Pearson product-moment correlations and Spearman work order correlations were employed to determine the relationship among the variables of mobility, achievement, adjustment, and SES. Results indicated mobility to be inversely related to achievement (p<.001), adjustment (p<.001), and SES (p<.05). The study grouped students from various school districts and varying backgrounds.

Benson (1979) stated some reasons for their findings.

Some possible reasons behind these findings are that the child has to adjust to different teaching methodologies in the different schools. Such adjustments require that they deal with new teacher expectations, new text books, and a new physical environment. Conceivable, the longer a child was in a particular school, the more likely the child would be comfortable and well adjusted. Furthermore, the mobile child often faces problems with the loss of members of his extended family and the need to create new friendships in the new school environment. Additionally, pupils are faced with the problems of possible inconsistencies between schools in curriculum. (p. 30)

This also creates problems for the teacher, in placing the student properly in terms of academic assessment and social interaction within the new environment.

The study to be conducted in future chapters is different from the above mentioned studies in several areas:

1. Matching sample groups were drawn helping to account for external variance. Students in both transient and nontransient groups had similar SES backgrounds, came from largely single-parent
families, racial backgrounds were consistent, and students were

grouped into three grade levels.

2. All students would have been exposed to similar curriculum,
as the study takes with only students from one school district.

The question of what makes for an effective school has been
researched by Brookover, Schweitzer, Schneider, Beady, Flood, and
Wisenbaker (1981) to a great extent during the past 10 years. The
authors looked at schools which were "effective" and those which were
determined to be "noneffective" in terms of academic achievement.
These educational researchers have concluded that the school is the
major determinant of achievement. This "school effect" interpreta-
tion of the origin of achievement has substantially altered the
professional discourse on the nature of the most appropriate programs
of instruction for lower income children.

Hunter (1980), Cummings (1982), and others stressed the need for
time on task, high expectations, monitoring, and the need to incorpo-
rate key instructional principles in the classroom for effective
learning to take place.

The increase of researched based instructional studies has given
educators many tangible variables to investigate in an attempt to
improve instruction and increase student achievement.

Summary

In review of this chapter, the following were illustrated:

1. Mobility in our society is a fact of life and not likely to
disappear.
2. A stable environment is conducive to school achievement for students.

3. Studies to date on student transience are dissimilar and vary in conclusions.

4. A case has been documented that the Kalamazoo Public School System has a highly mobile student population. The Kalamazoo Public School System also has a consistent curriculum from building to building and ample data from which a study on student transience could be formulated.
CHAPTER III

DESIGN AND METHODOLOGY

The purpose of this study was to examine the degree to which the variable of student transience influenced the prediction of student reading achievement. Student reading achievement was measured by school system reading level and scores on the Metropolitan Achievement Test (MAT).

This chapter is comprised of descriptions of the design of the study, the sample procedure, the sample population, and the method of data collection. In addition, a description of the analysis of data is presented along with the conclusion of the chapter and research hypotheses formulated.

In this chapter it was necessary to design research which controlled variance due to extraneous variables that might influence student reading achievement. In order to eliminate the effect of possible influential independent variables on dependent variables, subjects were chosen as homogeneously as possible on key variables presented in the chapter. Subjects were selected in grade level groups, either transient or nontransient, with similar independent variables of sex, SES, race, grade level, and number of parents in the home. The groups were so called "matched samples." The sample was collected and separated into groups with either transient or nontransient characteristics and reading levels gathered as a guide.
to see if a difference in school reading achievement was present between groups.

Design of the Study

The lack of data on the subject of student transience and related school success dictated the kind of study to be done. Previous studies had generally not controlled variance due to possibly contaminating variables when looking at mobile students. Most of the studies dealing with student mobility were ex post facto with little attention given to design.

For the present study random samples of both transient and nontransient students were drawn from the Kalamazoo Public Schools. Close attention was given to ensure that the two groups of students were matched as closely as possible in an attempt to eliminate contaminating variables. The samples were drawn from the second, fourth, and sixth grades. The data were analyzed in terms of comparing grade level groups of transient and nontransient students to determine if mobility had an influence on school reading achievement.

Sample Procedure

The study includes a sample population drawn from a middle sized Michigan school district of 13,000 students. Students were selected from health cards and registration forms provided by individual buildings within the Kalamazoo Public School System. The cards and forms provided the following information for each student: (a) grade level, (b) sex, (c) race, (d) employment status of parents (SES),
(e) number of parents in the home, and (f) number of schools the child had attended.

An objective of the sampling procedure was to have a matching sample of transient and nontransient students at the second, fourth, and sixth grades. A goal of 50 students was set for each group, or 100 per grade level and 300 for the entire study. This resulted in 150 transient students (50 per grade level) and 150 nontransient students (50 per grade level). In selecting the sample close attention was given to having a similar background of students in terms of the Variables 1-5 for both the transient and nontransient groups:

1. Grade level: Students were chosen from second, fourth, or sixth grade with a goal of 50 transient and 50 nontransient in each grade.

2. Sex: A similar ratio of boys and girls in each group was an objective.

3. Race: A similar ratio was also an objective in terms of the race of subjects from both the transient and nontransient groups.

4. Employment status of parents (SES): A similar ratio of parents on ADC, unemployed, or low-income homes was the objective in this variable for subjects in all groups. The registrations provided information on employment status and place of work, if any. In addition, information was available for SES from free lunch applications of each student. The transient and nontransient groups were to be representative of low-income households.

5. Number of parents in home: This variable described the number of parents in each subject's household. Subjects were
classified as having mother, father, both, or parent and stepparent.
Again, the objective was to have a similar ratio of students having
similar number of parents in the household.

6. Number of schools attended: This was a key variable in the
study. Students considered transient had attended at least twice the
number of schools that system attendance policy required. Non-
 transient students attended only those schools normally required.

In the Kalamazoo system, student attendance patterns vary for
the purpose of desegregation. Kindergarten students attend local or
neighborhood schools and then attend an "early elementary" building
for Grades 1-3. Students attend a "later elementary" building for
Grades 4-6. At the most, second grade subjects would be required to
attend two different schools and one in some cases. At Grades 4 and
6, students would be required to attend three schools at the most.
Students considered transient would have had to have been enrolled in
at least four schools at Grade 2 and six schools at Grades 4 and 6.
Transient students would have attended twice the number of schools
required by system attendance policy.

In conclusion, the procedure was to find a sample which had two
similar groups of subjects at three grade levels. The grades being
2, 4, and 6. The subject groupings would have a similar percentage
of males and females, have a similar percentage of racial back-
grounds, come from similar socioeconomic backgrounds, and have a
similar number of parents present in the home. Given these matching
groups, the number of schools attended would determine which group
subjects were placed. The objective then was to have a matched
sample of transient and nontransient students at Grades 2, 4, and 6.

The sampling procedure was based on an assumption that in order to determine if student transience had an influence on success in school as many variables had to be controlled as possible. It was assumed that finding similar subjects for each group would help eliminate contamination of variables such as SES, race, sex, and number of parents.

In selecting the Kalamazoo Public Schools, a standard curriculum is present at all schools. Students in each school would be exposed to similar curricula and environmental stimulus. All subjects had attended only the Kalamazoo Public Schools.

Finding subjects having attended only Kalamazoo schools and having a high frequency of moves was a first priority. Once these subjects were identified in each school, a search was made for students having similar backgrounds (i.e., variables discussed) and had attended only the minimal schools required by the system.

The Sample Population

A total of 317 subjects were drawn for the study sample. Table 3 shows the frequencies for variables parents, race, SES, grade, and sex.

Almost 60% of the subjects had a single-parent household, 57% were black, and 60% were unemployed. Each grade level had a sample of over 100. The subjects had attended only the aforementioned school district and were second, fourth, or sixth graders. The population was selected with the use of student registration, health
Table 3
Analysis of Sample in Terms of Key Variables Regarding Characteristics of Each Subject (Frequency and Percentages)

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<tr>
<td>Single</td>
<td>190</td>
<td>60.0</td>
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<td>Mother-stepfather</td>
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<td>20.0</td>
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<td><strong>Race</strong></td>
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<td>American Indian</td>
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<td>.6</td>
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<td>Black</td>
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<td>.9</td>
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<td>41.6</td>
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<tr>
<td>Unemployed</td>
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<td>60.0</td>
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<td>26.0</td>
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<tr>
<td>2</td>
<td>104</td>
<td>32.8</td>
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<tr>
<td>4</td>
<td>110</td>
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<tr>
<td>Female</td>
<td>162</td>
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cards, and central district files. Health cards and central district files indicated how many schools the children had attended, while registrations gave information concerning key variables.

Data Collection

The subjects were drawn during June and July of 1982 and data collected referred to the 1981-82 school year. Data were collected regarding MAT results and reading levels, this information was from spring 1982 MAT's and the end of the 1982 reading records.

The sample population section covered the description and data collection used to find subjects for this study. Key variables were identified for each subject in terms of possible contamination in regard to reading achievement. The variables used to describe reading achievement were system reading level and MAT test scores. Reading levels represented at what point in the system reading program, Houghton Mifflin, students had progressed by the end of the 1982 school year. Also, data were included in each student's MAT test score for reading in the 1982 spring test period. The Metropolitan Achievement Test (MAT) is a nationally normed referenced test given to all Kalamazoo Public School students each spring.

Data for each student on reading level and MAT's were drawn from individual building reading records and system-wide testing information. Each student in the sample then had variables mentioned 1-6 and reading variables of system progress and MAT results assigned.

After the 317 subjects had been collected and placed in matched groups, the variables of reading level and MAT scores were drawn for
each subject. This was done in late July and August of 1982. A breakdown by cross tabs of variable frequency can be seen in Tables 4 and 5.

Table 4

Cross Tabulation for Whole Sample for Number of Parents

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<th></th>
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<tr>
<td>Row %</td>
<td>27.0</td>
<td>54.0</td>
<td>19.1</td>
<td>44.5</td>
</tr>
<tr>
<td>Col. %</td>
<td>59.0</td>
<td>40.0</td>
<td>43.0</td>
<td></td>
</tr>
<tr>
<td>Total %</td>
<td>12.0</td>
<td>24.0</td>
<td>8.5</td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>26</td>
<td>114</td>
<td>36</td>
<td>176</td>
</tr>
<tr>
<td>Highly transient</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Row %</td>
<td>15.0</td>
<td>65.0</td>
<td>20.0</td>
<td>55.5</td>
</tr>
<tr>
<td>Col. %</td>
<td>41.0</td>
<td>60.0</td>
<td>57.0</td>
<td></td>
</tr>
<tr>
<td>Total %</td>
<td>8.0</td>
<td>36.0</td>
<td>11.0</td>
<td></td>
</tr>
<tr>
<td>Column total</td>
<td>64</td>
<td>190</td>
<td>63</td>
<td>317</td>
</tr>
</tbody>
</table>

Note. Chi square = 7.36 with 2 degrees of freedom, significance = .0252.

These tables represent a cross tabulation for the entire sample and present all variables previously mentioned.

Table 6 gives a cross tabulation for the variable, single parent, for all variables mentioned.
Table 5
Cross Tabulation for Whole Sample for Socioeconomic Status

<table>
<thead>
<tr>
<th></th>
<th>ADC</th>
<th>Unemployed</th>
<th>Low income</th>
<th>Row total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Count</strong></td>
<td>17</td>
<td>78</td>
<td>46</td>
<td>141</td>
</tr>
<tr>
<td><strong>Not transient</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Row %</td>
<td>12.0</td>
<td>55.0</td>
<td>33.0</td>
<td>44.5</td>
</tr>
<tr>
<td>Col. %</td>
<td>38.0</td>
<td>41.0</td>
<td>56.0</td>
<td></td>
</tr>
<tr>
<td>Total %</td>
<td>5.0</td>
<td>25.0</td>
<td>15.0</td>
<td></td>
</tr>
<tr>
<td><strong>Count</strong></td>
<td>28</td>
<td>112</td>
<td>36</td>
<td>176</td>
</tr>
<tr>
<td><strong>Highly transient</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Row %</td>
<td>16.0</td>
<td>64.0</td>
<td>20.0</td>
<td>55.5</td>
</tr>
<tr>
<td>Col. %</td>
<td>62.0</td>
<td>59.0</td>
<td>44.0</td>
<td></td>
</tr>
<tr>
<td>Total %</td>
<td>9.0</td>
<td>35.0</td>
<td>11.0</td>
<td></td>
</tr>
<tr>
<td><strong>Column total</strong></td>
<td>45</td>
<td>190</td>
<td>82</td>
<td>317</td>
</tr>
<tr>
<td></td>
<td>14.2</td>
<td>59.9</td>
<td>25.9</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note. Chi square = 6.20389 with 2 degrees of freedom, significance = .0450.

Analysis of Data

Students were grouped by Grades 2, 4, and 6 and divided into either a transient or nontransient group at each grade. Each student had his or her reading level and MAT assigned. The t tests were computed between the group means for each grade for reading level and MATs. The purpose of the analysis of data was to determine if there was a difference in regard to reading achievement between transient and nontransient students. Additional t tests were conducted at each
Table 6
Cross Tabulation for the Variable, Single Parent, for All Variables Mentioned

<table>
<thead>
<tr>
<th></th>
<th>ADC</th>
<th>Unemployed</th>
<th>Low income</th>
<th>Row total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Count</strong></td>
<td>11</td>
<td>41</td>
<td>24</td>
<td>76</td>
</tr>
<tr>
<td><strong>Row %</strong></td>
<td>14.0</td>
<td>54.0</td>
<td>32.0</td>
<td>40.0</td>
</tr>
<tr>
<td><strong>Col. %</strong></td>
<td>37.0</td>
<td>36.0</td>
<td>52.0</td>
<td></td>
</tr>
<tr>
<td><strong>Total %</strong></td>
<td>6.0</td>
<td>22.0</td>
<td>13.0</td>
<td></td>
</tr>
<tr>
<td><strong>Count</strong></td>
<td>19</td>
<td>73</td>
<td>22</td>
<td>114</td>
</tr>
<tr>
<td><strong>Row %</strong></td>
<td>17.0</td>
<td>64.0</td>
<td>19.0</td>
<td>60.0</td>
</tr>
<tr>
<td><strong>Col. %</strong></td>
<td>63.0</td>
<td>64.0</td>
<td>19.0</td>
<td></td>
</tr>
<tr>
<td><strong>Total %</strong></td>
<td>10.0</td>
<td>38.0</td>
<td>12.0</td>
<td></td>
</tr>
</tbody>
</table>

| Column total   | 30  | 114        | 46         | 190       |
|                | 15.8| 60.0       | 24.2       | 100.0     |

Single parents  | Row total

<table>
<thead>
<tr>
<th></th>
<th>Single parents</th>
<th>Row total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Count</strong></td>
<td>76</td>
<td>76</td>
</tr>
<tr>
<td><strong>Row %</strong></td>
<td>100.0%</td>
<td>40.0%</td>
</tr>
<tr>
<td><strong>Col. %</strong></td>
<td>40.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Total %</strong></td>
<td>40.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Count</strong></td>
<td>114</td>
<td>114</td>
</tr>
<tr>
<td><strong>Row %</strong></td>
<td>100.0%</td>
<td>60.0%</td>
</tr>
<tr>
<td><strong>Col. %</strong></td>
<td>60.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Total %</strong></td>
<td>60.0%</td>
<td></td>
</tr>
</tbody>
</table>

| Column total   | 190            |
|                | 100.0%         |
grade level for both reading level and MATs. The level of signifi-
cance for the analysis of these data was established at the .05 level. This procedure was conducted for the total sample.

In addition to the analysis of the full sample, t tests were also given on a subpopulation made up of students having only a single parent in the household. Single-parent households were the most prevalent and an analysis of the population of single-parent households was believed to be useful in determining the influence of yet another possibly contaminating variable. Further t tests were developed between transient and nontransient groups at the second, fourth, and sixth grades for reading level and MAT scores. The intent was to see if students achieved more successfully in the transient or nontransient groups.

Hypotheses

When looking for a relationship between school reading achievement and the extent of transiency in a student's life, several hypotheses were raised:

1. Students will tend to show higher reading achievement if they have a stable and continuous educational experience.

2. School disruption will have a negative effect on students' reading achievement in school.

3. The longer a student becomes accustomed to an environment, home or school, the more his or her reading achievement will improve.
Summary

In Chapter III, the research population, sample, sample procedures, method of data collection, design, and the treatment of the data have been described.

Matched samples of second, fourth, and sixth grade students in the Kalamazoo Public Schools were drawn according to the variable of school transiency. The t tests were used to analyze the data to determine if school reading achievement, as measured by reading level and MAT reading scores, was influenced by student transiency.

In Chapter IV, the research findings are presented.
CHAPTER IV

ANALYSIS OF THE FINDINGS

Introduction

Chapter IV provides an analysis of the results of this study regarding transient and nontransient students. The objective of Chapter IV was to determine if, in fact, transient students were less successful in school reading achievement than nontransient students.

The first part of the chapter focuses on a further breakdown of the sample in terms of single parent, both parents, and mother-stepparent households. In addition, socioeconomic status is reviewed in terms of the whole sample and single-parent households.

The next part of the chapter presents results from the full sample comparing the groups of transient and nontransient students at Grades 2, 4, and 6.

The last part of Chapter IV examines the population of single-parent groups in full and at Grades 2, 4, and 6.

Characteristics of Sample

In order to eliminate the effect of possible influential independent variables on dependent variables, close attention was given to matching groups as homogeneously as possible. Subjects were selected in either transient or nontransient grade level (2, 4, and 6) groups. Close attention was given to subjects having similar
independent variables, such as: socioeconomic status, sex, race, and number of parents in the home.

Number of parents in the home appeared to be a key variable as a large number of subjects came from single-parent homes. The variable of single-parent households has been linked to possible school success as a possible negative influence.

Table 7 presents data regarding number of parents.

<table>
<thead>
<tr>
<th></th>
<th>Both parents</th>
<th>Single</th>
<th>Mother-stepparent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nontransient</td>
<td>27%</td>
<td>54%</td>
<td>19%</td>
</tr>
<tr>
<td>Transient</td>
<td>15%</td>
<td>65%</td>
<td>20%</td>
</tr>
</tbody>
</table>

As can be seen in Table 7, 54% of the nontransient population and 65% of the transient population came from single-parent households.

The nontransient population came from homes with both parents present 27% of the time and 19% with a natural parent and a stepparent present. The transient population represented 15% households with both parents present and 20% with a natural parent and a stepparent present.

The chi square for the variable of number of parents was 7.36 with 2 degrees of freedom at a significance level of .0252. The ratio of single-parent households is within a consistent range.
between transient and nontransient groups. Further investigation was deemed needed to ensure that neither the transient nor nontransient groups were overly represented by single-parent households. There was enough representation, from both transient and nontransient groups, of single-parent households to isolate the variable in the investigation of school achievement. Subjects from single-parent households will be investigated for school achievement later in this results chapter.

Socioeconomic Status

Socioeconomic status was another potentially influential independent variable often linked to school achievement. In Chapter IV further investigation seemed warranted to ensure an appropriate balance between the transient and nontransient groups on the variable of socioeconomic status. An over-representation on this variable in one group or the other may affect the validity of the results.

Table 8 breaks down the percentage of households coming from each socioeconomic status group.

Table 8
Socioeconomic Status

<table>
<thead>
<tr>
<th></th>
<th>ADC</th>
<th>Unemployed</th>
<th>Low income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nontransient</td>
<td>12%</td>
<td>55%</td>
<td>33%</td>
</tr>
<tr>
<td>Transient</td>
<td>16%</td>
<td>64%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Unemployed parents were found in 55% of the nontransient group and 64% of the transient homes. Table 8 shows the breakout for SES, and with 2 degrees of freedom, the level of significance was .0450.

The ratio of parents on ADC, unemployed, and from low-income households holds consistent between the transient and nontransient groups.

The thrust of matching the variable of socioeconomic status between the transient and nontransient groups was to identify students from low-income households. Information from school registration cards and free lunch applications provided information about parents who were on ADC, unemployed, or had a low income. Low income levels were those that qualified for free lunch. Appendix A provides the guidelines for free lunch. The breakout for SES would indicate that both transient and nontransient groups came from predominately economically depressed households.

In order to further ensure the variable of socioeconomic status was being properly controlled, a breakout of subjects coming only from single-parent homes was drawn from the total population.

Since there was a high degree of single-parent households represented in both the transient and nontransient groups, socioeconomic status was investigated in Table 9. This investigation was conducted to see if a disproportionate number of single-parent households fell into one of the three (ADC, unemployed, or low income) SES categories. The transient and nontransient group of subjects coming from single-parent households should match in socioeconomic status.
Table 9
Single-Parent Households—SES

<table>
<thead>
<tr>
<th>ADC</th>
<th>Unemployed</th>
<th>Low income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nontransient</td>
<td>14%</td>
<td>54%</td>
</tr>
<tr>
<td>Transient</td>
<td>17%</td>
<td>64%</td>
</tr>
</tbody>
</table>

The results of SES among both transient and nontransient were almost identical whether subjects were from single-parent homes or not. The above mentioned data satisfied the question that SES would differ significantly among single-parent households in the study population. The sample satisfied the need for two closely matched groups of subjects, one transient and one nontransient. The variable of single parents was extracted in analyzing the sample data and will also be discussed later in this chapter.

Results

The two criteria to measure school achievement were results on the Metropolitan Achievement Test and system reading level. The MATs are nationally norm-referenced achievement tests given to each student, annually, in the Kalamazoo Public Schools in the spring. The scores represent student performance on the reading portion of the test and are scored in grade equivalencies. It should be remembered that the MATs are given at the end of each school year. Hence, for example, second graders would be expected to score near the third grade level to be considered in the average range.
Reading level scores were assigned from the pacing program of the Houghton Mifflin Reading Test. Students start at Level 1 in the program and can progress through Level 13. Each level has from two to five magazines one must master before proceeding to the next level. The Houghton Mifflin Pacing Chart is included in Appendix B. The school system allows for individual pacing so students' scores indicate at what level success has been mastered. For example, fourth graders should be in Level 10 of the program to be considered at grade level. The purpose of this criteria is to measure school success in terms of reading progress in the system basal reading text.

In order to test the hypothesis that school transiency did not influence school achievement, $t$ tests were used. The .05 confidence level, or level significance, allows that our test results fall in an area on a normal distribution which allows for error. The purpose of the $t$ tests were to reject or accept the hypotheses with a high degree of certainty (that an error has not been made). Rejecting the null hypothesis and accepting the alternative is the procedure used for hypothesis testing.

The overriding null hypothesis for our study is that student transiency does not make a difference in student achievement. We have selected (a) MAT scores and (b) school system reading levels as the two criteria to determine if students achieved successfully in school. The alternative hypothesis would be that excessive transiency has a negative influence on school reading achievement.
Matched groups were selected and group means calculated for MATs and reading level. These means were calculated for both transient and nontransient groups at the second, fourth, and sixth grade levels. The $t$ tests were calculated between group means to determine if the calculated value exceeded the critical value and the null hypothesis could be rejected. Rejecting the null hypothesis would allow us to accept the alternative hypothesis that transience does influence school reading achievement.

First, $t$ tests were computed on the full sample of subjects using reading level and MAT scores as the criteria to measure school achievement. Group 1, representing nontransient students at all three grade levels (second, fourth, and sixth), had a mean value of 8.8 on the reading level. On MATs, Group 1 had a mean of 5.6. As Table 10 breaks out, Group 2, transient students, had mean scores of 7.5 and 3.5, respectively, on the reading level and MAT scores. Table 10 also points out that this constitutes a significant difference with $t$ values of 4.44 and 5.62.

Graph 4, in Appendix C, also illustrates the difference between transient and nontransient subjects in terms of school reading achievement using designated criteria already described.

The use of combining the full sample does have limitations as second graders', fourth graders', and sixth graders' scores are being combined. Reading achievement is broken down by grade level individually comparing transient and nontransient subjects.
Table 10
Combined Grades 2, 4, and 6 t-Test Results, Full Sample

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>t value</th>
<th>Prob. 2-tail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reading level:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1</td>
<td>141</td>
<td>8.8</td>
<td>4.44</td>
<td>.000</td>
</tr>
<tr>
<td>Group 2</td>
<td>176</td>
<td>7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MAT scores</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1</td>
<td>141</td>
<td>5.6</td>
<td>5.62</td>
<td>.000</td>
</tr>
<tr>
<td>Group 2</td>
<td>176</td>
<td>3.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Group 1 = nontransient; Group 2 = transient.

Table 11 outlines the possible influence transiency had on the group of 49 nontransient and 55 transient students at the second grade level.

The system-wide reading levels indicate the Group 1 students of being near grade level, while Group 2 students were below grade level in reading achievement. The data on the subjects were collected at the end of the school year placing second graders in the range below, as outlined in the Houghton Mifflin guide (see Figure 1).

On the MATs, Group 1 students were within the average range with a mean score of 2.9. The MATs were given towards the end of the school year (May) and 2.9 would represent 2nd grade, 9 months, which is about where second graders should score. Group 2 students scored at 2nd grade, 2 months, which is well below grade level.
Table 11
Grade 2 \( t \)-Test Results, Full Sample

<table>
<thead>
<tr>
<th></th>
<th>( n )</th>
<th>Mean</th>
<th>( t ) value</th>
<th>Prob. 2-tail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reading level:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1</td>
<td>49</td>
<td>5.8</td>
<td>3.56</td>
<td>.001</td>
</tr>
<tr>
<td>Group 2</td>
<td>55</td>
<td>4.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MAT test score:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1</td>
<td>49</td>
<td>2.9</td>
<td>3.96</td>
<td>.000</td>
</tr>
<tr>
<td>Group 2</td>
<td>55</td>
<td>2.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Group 1 = nontransient; Group 2 = transient.

Note. + = transient; • = nontransient.

Figure 1. Houghton Mifflin reading levels: 2nd grade.

It can be safely stated that 2nd graders from the nontransient group (Group 1) were significantly more successful in school reading achievement than their counterparts in the transient group (Group 2).

A look at Table 12 shows a similar trend among 4th graders.
Table 12
Grade 4 t-Test Results, Full Sample

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>t value</th>
<th>Prob. 2-tail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reading level:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1</td>
<td>42</td>
<td>9.5</td>
<td>5.42</td>
<td>.000</td>
</tr>
<tr>
<td>Group 2</td>
<td>68</td>
<td>7.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MAT test score:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1</td>
<td>42</td>
<td>5.3</td>
<td>3.38</td>
<td>.001</td>
</tr>
<tr>
<td>Group 2</td>
<td>68</td>
<td>3.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Group 1 = nontransient; Group 2 = transient.

The illustration in the Houghton Mifflin reading guide demonstrates the gap widens between transient and nontransient students in terms of advancement in the reading program at the fourth grade level (see Figure 2).

The results from the MATs illustrate that nontransient students are slightly above the average for their age and grade level. The group scored at the 5th grade, 3rd month level when they took the test at the end of the fourth grade. The transient group was 1 year below grade level, as they scored at the 3rd grade, 8th month level.

At the sixth grade level, Group 1 students, nontransient, were in the low-average range for reading level and Group 2 students, transient, were below average (see Figure 3).
Note. + = transient; • = nontransient.

Figure 2. Houghton Mifflin reading levels: 4th grade.

Note. + = transient; • = nontransient.

Figure 3. Houghton Mifflin reading levels: 6th grade.
These data show that the difference in MAT test scores continue to widen between the transient and nontransient groups from Grade 2 to the sixth grade. Nontransient sixth grade students scored at the 8th grade, 4 month level; the transient sixth graders scored at the 5th grade, 6th month level, a year below grade level. These results are presented in Table 13.

Table 13
Grade 6 t-Test Results, Full Sample

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>t value</th>
<th>Prob. 2-tail</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading level:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1</td>
<td>50</td>
<td>11.3</td>
<td>3.67</td>
</tr>
<tr>
<td>Group 2</td>
<td>53</td>
<td>10.0</td>
<td></td>
</tr>
<tr>
<td>MAT test score:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1</td>
<td>50</td>
<td>8.4</td>
<td>5.64</td>
</tr>
<tr>
<td>Group 2</td>
<td>53</td>
<td>5.6</td>
<td></td>
</tr>
</tbody>
</table>

Note. Group 1 = nontransient; Group 2 = transient.

Graph 3, in Appendix C, further illustrates the decided difference in school achievement between Group 1 and Group 2 students. Each grade level shows a more pronounced gap in achievement levels between transient and nontransient students. This could be expected as the longer one is in a race, and unable to keep up, the larger the gap will most likely become.
As explained earlier in the chapter, both the transient and nontransient groups had a high percentage of single-parent households. The transient group was comprised of students coming from 65% single-parent households. Fifty-four percent of the nontransient students came from single-parent households. Considering the high number of single-parent households involved in the population, a series of \( t \) tests were calculated to measure school reading achievement for students from single-parent households. The investigation of single-parent household students was conducted exactly as the whole sample procedure. The only difference being that the variable of students from single-parent households was isolated from the full sample.

Table 14 clearly shows there is no significant difference in achievement in either reading or MATs when the variable of single parent was isolated. The mean scores of each group (transient and nontransient) in the single-parent sample is almost identical to those groups in the full sample of transient and nontransient students.

Table 15 outlines reading level and MAT scores for each grade from our single-parent population. In the column to the right of the mean scores are corresponding results from the full sample as discussed earlier. Also, full sample \( t \) values are given to the right of the single-parent population \( t \) values.
Table 14
Combined Grades 2, 4, and 6 t-Test Results, Single Parent

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>t value</th>
<th>Prob. 2-tail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reading level:</strong></td>
<td></td>
<td></td>
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<td>2.98</td>
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<td>4.19</td>
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<tr>
<td>Group 2</td>
<td>114</td>
<td>3.9</td>
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</table>

**Note.** Group 1 = nontransient; Group 2 = transient.

The results of t tests computed on the single-parent population at Grade 2 for transient and nontransient students are identical to those in the full sample.

Grade 4 tests are almost identical with those in the full sample for single-parent fourth graders. It should be noted that at the fourth grade level there were only 19 from single-parent, nontransient households. This is the only grade level where the sample number was below 20.

The sixth grade single-parent students closely match those from the full sample. The Group 1, nontransient, students achieved at a slightly higher rate when in the single-parent household, but not of any significance.
<table>
<thead>
<tr>
<th>Grade</th>
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<th>MAT test scores:</th>
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<td></td>
</tr>
</tbody>
</table>
| Note. Group 1 = nontransient; Group 2 = transient.
Summary

The results of this chapter would indicate that students from nontransient households achieved in reading at average or above levels, while transient students were consistently below grade level in terms of school reading achievement. The variable of single-parent households was isolated and similar results were discovered in regard to reading achievement. A nationally norm referenced test, Metropolitan Achievement Test, and school system reading placement were the criteria used to determine reading achievement. Student groups were matched closely in regard to key influential variables.

Chapter V will discuss this study, give a summary, set limitations, suggest conclusions, and give recommendations in regard to the issues raised by the study.
CHAPTER V

DISCUSSION

The study was conducted to ascertain what influence transiency had on student reading achievement in school. This chapter includes a summary of the study, a discussion of the major conclusions, and recommendations for further research.

Summary

Transiency was defined as a student involved in a greater number of building changes than the district would require. It was acknowledged that there may be many variables that influence school achievement (Edmonds & Associates, 1977). The variable of transience, however, was unique and could be controlled in some circumstances. Students that were considered transient had attended at least twice as many schools as district policy required.

The review of literature in the area of transiency, or mobility, as often referred, was inconclusive. Black and Bargar (1975) did not find a significant difference between mobile and stationary pupils in regard to reading achievement. The same inconclusive results were found by Cramer and Dorsey (1970) in their study of Air Force personnel's children. Blaine (1974) likewise found no significant difference between military personnel children's school achievement and that of the general school population. Abramson (1974) found mobile students achieving at grade level with less frequency than their
nonmobile counterparts at the fifth grade level. Shaller (1974) found children moving frequently had increased difficulties in school relations. Benson (1979) found mobility to be inversely related to achievement. The studies investigated did not attempt to control possibly key contaminating extraneous variables.

In order to control key variables of race, sex, SES, and number of parents in the household, the sample population was closely matched. A total sample population of 317 students was selected at the second, fourth, and sixth grade levels for the study. Students at each grade level were divided into either transient or non-transient groups with all students matched closely in regard to race, sex, SES, and number of parents in the household. Students were selected who had attended only the Kalamazoo Public Schools, allowing for a common curriculum, common district expectations, and testing measures that were held similar for all students in the study.

Reading results on the Metropolitan Achievement Test and student placement in the system reading program were used as indicators of school reading achievement. The t test was used to examine relationships between transient and nontransient students in regard to reading achievement. Results were clear that nontransient students were more successful in reading achievement than transient students. At each grade level, nontransient students scored at or above grade level on the MATs and were at grade level in the reading program. Transient students, at each grade level, were below grade level on MAT tests and placement in the school system reading program.
The variable of single-parent households was isolated for students in both transient and nontransient groups. The t tests were computed to determine relationships between transiency and reading achievement. The results were identical for this group as compared to the full sample. Students coming from single-parent, nontransient households were more successful in school reading achievement than students coming from single-parent transient households.

The study held constant the variables of sex, SES, race, and number of parents in the household, selected students from one middle-sized city school district and had a central hypothesis that transiency would influence school reading achievement. The results confirmed that transiency, with key variables held constant, did influence school reading achievement in the Kalamazoo Public Schools.

Conclusions

The central hypothesis of the study that increased student transiency would influence reading achievement was established. The conclusions of this study remained very simple, as intended. From the start of the study, a main concern was to narrow the scope of investigation to a relationship between student transience and school reading achievement. Possibly contaminating extraneous variables were controlled through the selection of matched samples of transient and nontransient students. The study confined investigation to one middle-sized school district to help eliminate variances that might exist between school districts.
A large percentage of students coming from single-parent households became apparent. An identical investigation was conducted for this subgroup. The variable of single-parent households was isolated as a variable influencing student reading achievement.

The study did produce the following major findings, which are summarized:

1. Transient students at all three grade levels scored and were placed below grade level on MATs and the system reading placement.

2. Nontransient students at all three grade levels scored and were placed at or above grade level on the MATs and the system reading placement.

3. The gap between transient and nontransient students, in regard to reading achievement, widened between the second and sixth grades.

4. Transient students progressively fell further behind grade level expectations, in reading achievement, as they progressed from Grade 2 to Grade 6.

5. Nontransient students were well above grade level (8.4) on reading MATs by the sixth grade.

6. The variable of single-parent households did not seem to influence reading achievement for either the transient or non-transient group.

7. Metropolitan Achievement Tests and system reading placement were consistent to each other in terms of reflecting student reading achievement.
8. Students that are disrupted from classroom stability, due to transiency, are at a disadvantage in relationship to school reading achievement.

Recommendations

The scope of this study was narrow; and hence, the recommendations are specific to the Kalamazoo, Michigan, Public Schools and other schools with similar student populations.

1. School systems need to look at the influence transiency might have on school success. School district attendance policy can be adapted to take into consideration the highly transient student. This recommendation is more appropriate for certain districts that have a highly mobile student body. Policy could be developed that would allow students to remain in a particular school even if they move during the school year.

2. In larger districts, transient students could be placed in alternative rooms, if appropriate, and could continue in that room and building even if they move during the year.

3. Curriculum and teaching strategies should be developed, evaluated, and monitored which are effective for a population of transient students. The district should ensure that these students remain in the program to ensure stability. Transportation of students would be a variable needing attention, but one which a larger system could control.

4. Parents and others working with children need to take into consideration the variable of transiency and the influence of such
transiency upon the child's environment.

5. This study was specific to within-system transiency; however, the issue of transiency between school systems and geographic regions needs to be addressed.

Need for Further Study

Questions and suggestions for further research include:

1. A longitudinal study of transient students would be useful. The study could investigate such areas as dropout rate, percentage of high school graduations, further reading success, or lack of, at the secondary level.

2. A more detailed investigation could study the influence key variables, such as sex, race, and number of parents in the family, might have in regard to reading achievement.

3. A complete study could be conducted in regard to socioeconomic variables and reading achievement. This study basically looked at low income transients and nontransients with a limited population. A study examining a cross-section of socioeconomic transients and nontransients might well be fruitful. It is possible that some differences between transients and nontransients would apply in a larger socioeconomic scale.

4. Establishing IQ levels for students in an investigation similar to this present study would be valuable. It would be interesting to see if IQ levels would differ between transient and non-transient students.
5. It would be interesting to isolate all students that were below grade level in a school system and find out how many were transient. The variable of transiency may well have a greater impact on total school system achievement scores than has been realized.

6. Teacher attitudes and perceptions regarding transient students would be interesting. Recent research (Hunter, 1982) indicates teachers do make profound impact on achievement. It might be hypothesized that teachers have different expectations for transient students; and also, that expectations are rarely met for transient students due to their instability in terms of classroom attendance.

7. Further investigation might include where transient students most often attend school. Is there a difference in the schools? Do transient students more often attend inner-city and larger metropolitan schools?

Finally, much attention is given to traditional variables that might influence school success for some students. Results of the present study would appear to indicate that student transiency influences school reading achievement. The variable of transiency is a potentially strong influence on school reading achievement and should be treated accordingly.
Appendix A

Free and Reduced-Price Eligibility Table
This scale is for your use in determining the eligibility of students for free and reduced-price meals. The entire scale is for office use only and not to be generally distributed.

<table>
<thead>
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<th>TOTAL FAMILY SIZE</th>
<th>FREE MEALS</th>
<th>REDUCED-PRICE MEALS</th>
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</thead>
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<tr>
<td>1</td>
<td>up to $568</td>
<td>$569 - to - $750</td>
</tr>
<tr>
<td>2</td>
<td>up to $708</td>
<td>$709 - to - $1,009</td>
</tr>
<tr>
<td>3</td>
<td>up to $890</td>
<td>$891 - to - $1,268</td>
</tr>
<tr>
<td>4</td>
<td>up to $1,072</td>
<td>$1,073 - to - $1,527</td>
</tr>
<tr>
<td>5</td>
<td>up to $1,254</td>
<td>$1,255 - to - $1,786</td>
</tr>
<tr>
<td>6</td>
<td>up to $1,436</td>
<td>$1,437 - to - $2,045</td>
</tr>
<tr>
<td>7</td>
<td>up to $1,620</td>
<td>$1,621 - to - $2,304</td>
</tr>
<tr>
<td>8</td>
<td>up to $1,800</td>
<td>$1,801 - to - $2,564</td>
</tr>
</tbody>
</table>

Each additional family member: $182 $259
Appendix B

Key for Subject Areas in Reading
KALAMAZOO PUBLIC SCHOOLS  
Division of Instructional Services  
Department of Elementary Instructional Services  

October 20, 1982 Revised  
Date: October 19, 1977  

Title: Guidelines for Use of "Key for Subject Areas" in Reading.  

**KEY FOR SUBJECT AREAS**  
1. Above Grade Level 5. Below Grade Level, Fast Pace  
2. Grade Level, Fast Pace 6. Below Grade Level, Average Pace  
3. Grade Level, Average Pace 7. Below Grade Level, Slow Pace  
4. Grade Level, Slow Pace (Items not marked do not apply)  

---  

<table>
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<tr>
<th>GRADE</th>
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<td>and lower</td>
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</tr>
<tr>
<td></td>
<td>and above</td>
<td>and above</td>
<td>and above</td>
<td>and above</td>
</tr>
</tbody>
</table>

- **Haughton Million Reading Level:**
  - Key: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16
  - First Period: 1-4
  - Second Period: 1-6
  - Third Period: 1-8
  - Fourth Period: 1-10

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Appendix C

Graphed Results of Study
Graph 1

Number of Schools Attended

Frequency

0 10 20 30 40 50 60 70

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

nontransient

transient

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Graph 3
Single Parent

Reading Level

Mat Scores

Grade 2  Grade 4  Grade 6

Non-Transient Group
Transient Group
Graph 4
Combined 2, 4, 6 Full Sample and Single Parent Sample

Non-Transient Group
Transient Group

Reading Level

Mat Scores

N=141 N=178
Full Sample N=317

N=78 N=114
Combined Single Parent Sample N=130

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BIBLIOGRAPHY


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