

1989

## The relationship between family structure and academic achievement

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The Relationship Between Family  
Structure and Academic Achievement

MASTER'S PROJECT

Submitted to the School of Education  
University of Dayton, in Partial Fulfillment  
of the Requirements for the Degree  
Master of Science in Education

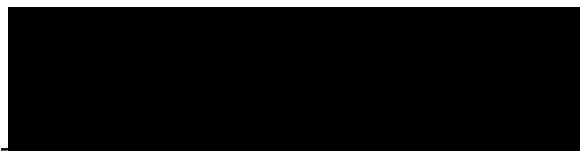
by

Sharon K. Partezana

The School of Education  
UNIVERSITY OF DAYTON

June 15, 1989

Approved by:



*o* Official Advisor

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## CHAPTER I

## INTRODUCTION

Statement of the problem

There appears to be a relationship between the family structure in which a child lives and academic achievement.

Purpose of the project

Through the use of basic research, I will attempt to trace the academic histories to establish a relationship between academic achievement and the structure of the family in which a child lives.

Scope of the Project

I will use the academic accumulative records of students whom I am currently teaching and whose parents/guardians have granted permission. This information includes grades earned by the students in grade levels one through six. The children involved are those who have completed grade six in June, 1989 (ages 11 - 13) at the East Liverpool Middle School, East Liverpool, Ohio.

## Structure - Achievement

Definitions of Important Terms

Academic Achievement - measured by previous school record grades received in levels one through six

Grade Point Average (GPA) - the mean earned average of a child

Parents - those having children who have been naturally born to them or adopted by them at birth

Family Structure - the number of parents within the child's home

Home - the place where the child spends most of his time and which contains most of his possessions

Intact Family - see Nuclear Family

Nuclear Family - both parents residing in the same home with the child

GENERAL HYPOTHESIS

I expect to see a relationship which shows a lowered academic achievement among those children who do not live in a nuclear family.

## CHAPTER II

## REVIEW OF THE LITERATURE

Family Structure

In the year 1979, it was estimated that fourteen percent of all children lived in a single-parent home (Black, 1979). By the year 1990, nearly half of the children in the United States will, at one time or another, live in a home run by a single parent (Cashion, 1982). According to Norton, (1987), by the year 2000, there will be seven million families in which the household will be run by a single parent. There will be more children who will live in a home in which the parent has never been married. Currently, this rate estimation is fourteen percent (Jilek, 1988).

Divorce is also a leading cause of one-parent families. The divorce rate has not changed significantly since 1980 (Norton, 1987).

All expect to see future family structures to remain as we see them today. I agree with this with two exceptions. With the growth of the homosexual community, we might see an increase in families which consist of two parents being the same sex. Also, due to an increased longevity of our society, the divorce rate may in turn increase; people may not be able to live together for

## Structure - Achievement

these extended periods of time. Along with these different family structures and their changes come problems. The problem that I intend to investigate is how children's academics are affected by the family structure in which they live.

Home Environment and Academic Achievement

I believe that the home environment has a great impact on the way children perform in their schools; however, others see differently.

In an investigation performed by Hattie and Song (1984), using structural equation modeling, they discovered that among Korean adolescents, the relationship between academic achievement and home environment was little if any. They discovered a variance for this to be between .04 and .07 and considered parental influence to be a moderating variable.

I tend to agree more with VanDevender (1988) who believes that parents greatly influence children. The more the parents are involved, the more a child is apt to succeed. I feel that children are influenced greatly, both positively and negatively, by their parents. Parents are the children's first role models. A child will attempt to live up to a parent's expectations. The parents set the



## Structure - Achievement

precedence in a child's early years as to how that child is expected to act and respond all through his life.

Black's research (1979) showed a contradiction among the experts. Some found no significant difference in academic achievement among children of one parent homes compared with those from families with two parents.

In a matching study, Hammond (1979) found no significant difference in reading and math achievement. Black found no documentation of divorce negatively affecting intellectual processes.

Some discovered differences, especially in boys (Roy & Fuqua, 1983). Others found that after a change in the family structure the drop in achievement was only temporary (Drake, 1981). Mann (1983) found that during the two to three year period after a divorce, children's grades and attendance dropped. Brown (1980) found that in two-parent families, there was a higher achievement percentage in both elementary and high school levels (see appendix A for Brown's data).

I disagree with Hammond and Black. Mann and Brown more closely follow my concept of family structure and academic achievement; however, I believe that the effects of changes are not temporary but are longer lasting.

## Structure - Achievement

In a family where there is only one parent, there is less time for the children. The parent may need to be more involved in the work force and may spend more time on finances. Due to this lack of time, the parent appears to show less involvement in the children's school work. Shilling and Lynch (1985) discovered that the higher the parental interest, the higher is the achievement.

With two parents sharing the family's problems, there is more time to spend with the children and their academics. Haberman and McNergney (1988) believe that when parents become more involved in a child's school, a mutual influence is achieved.

Other problems also arise in one-parent homes. The parent may rely on the child as an adult pro tempore. The parent may place undue stress on the child by discussing financial worries, difficulties at work, or personal problems which would normally be discussed with a spouse. The child may also be expected to perform more adult duties such as grocery shopping, cooking dinner, or taking care of siblings. This implements more responsibilities on the child who may not be prepared to, or wish to, deal with these. Stress, when introduced into a child's life, affects all aspects of what that child does, just as it

## Structure - Achievement

does in an adult's life. Because these difficulties are of more significance to this new family, (Shilling & Lynch, 1985), all other interests, including academics, are of less importance.

Frank Brown (1980), in using matching of socioeconomic status, found that children of two-parent families have a higher achievement rate than those from other family structures (see Brown's data, Appendix A). Roy and Fuqua go along with this, but they believe that by using the social support systems which are available to them contributes positively to the coping abilities of the family. This, in turn, leads to a high relationship between family psychological characteristics and academic achievement (Hattie & Song).

I agree with this. The more resources and family/social support systems that a family takes advantage of during any difficult period, the better able to cope. The family can unburden their problems and obtain assistance in dealing with new difficulties. They can more quickly resume their normal life patterns.

There are others who disregard the theory of family structure as having any affect on academic achievement. In studying the United Kingdom, educational achievement in

## Structure - Achievement

children the age of seven, Blatchford, Burke, Farquhar, Lewis, & Tizard (1985), using multiple regression analysis resulting in a standard deviation of 28, found that there was a strong association with a child's achievement and that of their parent's educational qualifications. They found that the family structure showed no significant influence on a child's achievement.

I believe that the family structure directly influences a child's success in school and in life.

## CHAPTER III

DESIGNType of Design

For this project, I will use basic research. This will be using convenient sampling through documented analysis.

Participants

I began my project by requesting the parents of seventy-eight students at East Liverpool Middle School to return papers granting my permission to use their child's school records. I received a 69% response rate which gave me fifty-four student records with which to work.

Of these fifty-four, thirty-three lived in homes having two natural parents, twenty resided in a one-parent family, and one lived with none of his natural parents.

PROCEDURE

My first step was to receive permission from my school principal to use the students' academic accumulative records (see Appendix B). Upon having this granted, I then received parental permission to use this information about their child.

Of the fifty-four who granted permission, seven of the records were considered invalid due to incompleteness:

## Structure - Achievement

two of the thirty-three in nuclear families, four of the twenty with one parent, and the one not living with either of his parents.

Of the remaining sixteen who lived with one parent, seven of these had experienced a change in the family structure during their schooling from grades one through six.

I then divided these forty-seven into two categories: those having one parent in the home; those having two parents in the home. The numbers will differ from grade level to grade level due to a change in the structure of a child's family (see appendix C).

I computed grade point averages for each individual student for grades one through six. I also determined the mean grade point average for each grade level in each division. I then compared the grade point averages for each group on an individual basis and then as a group.

Some sources of error which I did not consider were the cause of a one-parent family (divorce, death, never been married), teacher absence, a child's maturation, family mobility rate, socio-economic status, or the fact that these children had different teachers teaching the same material.

Operationally Defined Hypothesis

I predict that there will be a lower achievement rate from those children living in a one-parent family as compared with children from a nuclear family.

## CHAPTER IV

FINDINGS

Upon studying the grade point averages for each group, it appeared that overall, those residing in a nuclear family rated a higher grade point average than those in a one-parent family. These children ranked an overall higher grade point average at all levels except grade four where those in a single-parent family exceeded the mean grade point average of the two-parent group by 0.14.

The greatest difference appeared at grade level six. The following were the overall GPA differences:

grade 1 - 0.37; grade 2 - 0.12; grade 3 - 0.36;  
grade 4 - 0.14; grade 5 - 0.24; grade 6 - 0.51.

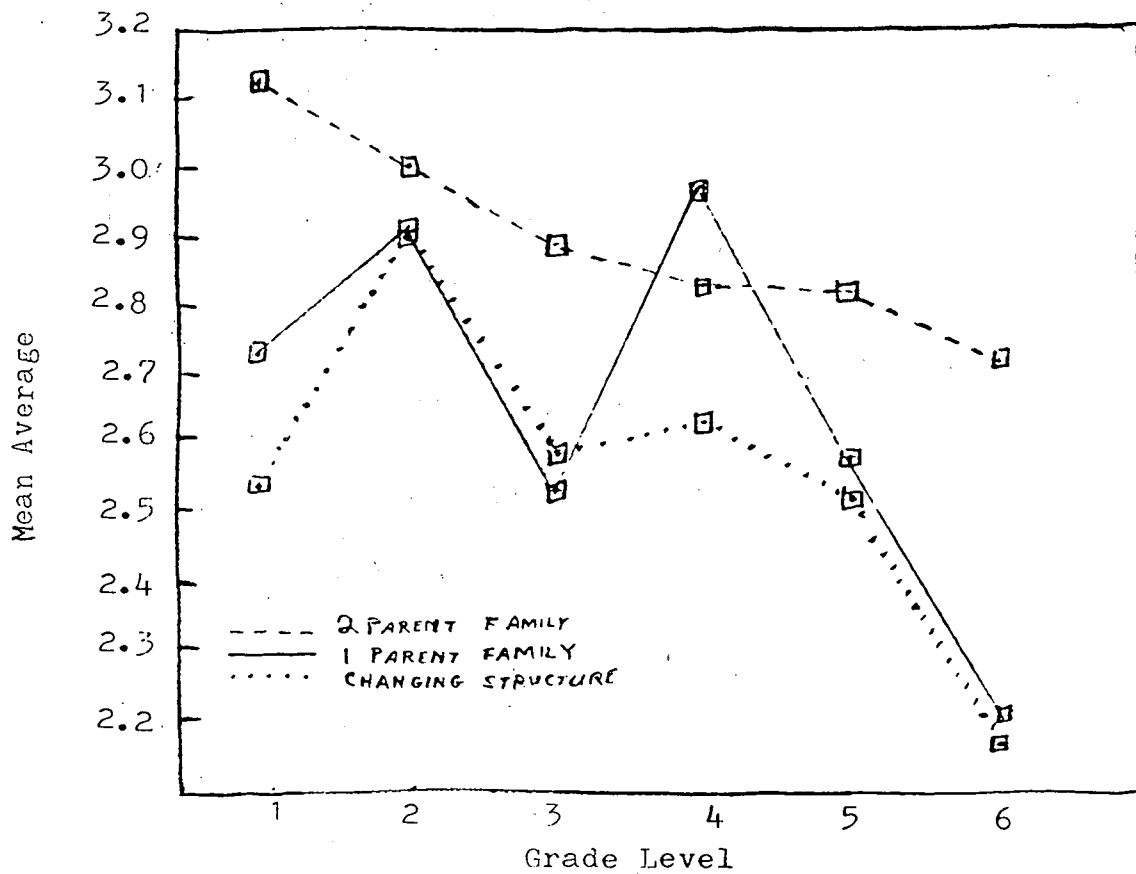
There appeared to be a consistency with both groups in grade point averages from grade one through grade six. By looking at the graph (Table 1), a pattern is established. There is a decline of both groups in mean grade point averages from grade one to grade six. The only grade level which deviates from this is grade four.

The decline in GPAs of those in an intact family was gradual, beginning in grade one with a group GPA of 3.12, and ending in grade six with a group GPA of 2.72; the difference being 0.40.



## Structure - Achievement

Table 1

Mean Performance Scores of Children Grades One Through Six

## Structure - Achievement

The decline in GPAs of those in a one-parent family was greater. They ended first grade with a group GPA of 2.75. The sixth grade group GPA was 2.21. This is a difference of 0.54. Those from families in turmoil closely replicate that of the children in one-parent families. They had a grade one group GPA of 2.54 and a grade six group GPA of 2.17. This was less of a difference than the other two groups (0.37), but they also scored significantly lower at all grade levels. (These students were included in the above two groups in the family category in which they fit at each grade level.)

As seen in Table 1, in grade one, those from a nuclear family performed higher than the other two groups. This is true for all grade levels except four. Here, those in single parent families surpassed the others. However, after grade four, there was a dramatic decline in achievement in this group, whereas there is a gradual decrease shown in those living in intact families.

The mean population standard deviations for the children of two-parent families is 0.78, while that of one-parent families is 0.67. In Table 2, a distribution of standard deviations is shown.

## Structure - Achievement

Table 2

Population Standard Deviations of Children Grades 1 through 6

	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
two parents	.67	.65	.82	.78	.85	.90
one parent	.57	.63	.88	.69	.63	.63

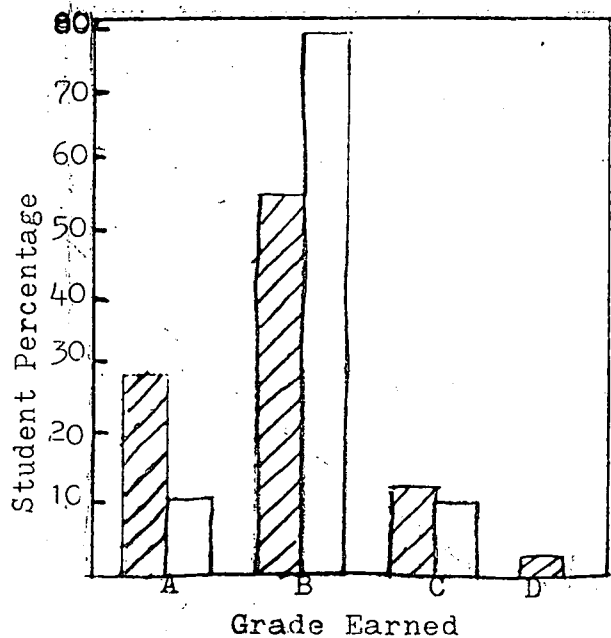
Another comparison was that of student percentages of achievement according to GPA categories: A = 3.5 - 4.0; B = 2.5 - 3.49; C = 1.5 - 2.49; D = .5 - 1.49; F = 0 - .49

As seen in Tables 3 through 8, the percentage of students performing at the "A" level in nuclear families exceeded those in one-parent families at all grade levels except grade four. The greatest percentage of students from single parent families generally fall in the "B-C" category, while those in two-parent families performed mainly in the "A-B" section. There was a fairly equal distribution at grade level four.

Structure - Achievement

Table 3

Grade 1 GPAs



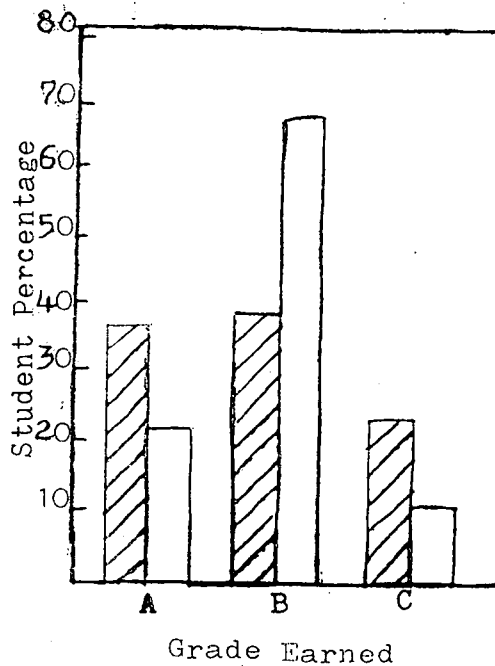
□ 1 parent  
 ▨ 2 parents

Grade 2 shows basically the same as grade one. There is a slight increase in children residing in both structures in the "A" level of achievement.

In grade one, a larger percentage of children in two-parent families fall in the "A-B" category. Those in the one-parent household are mainly in the "B" category.

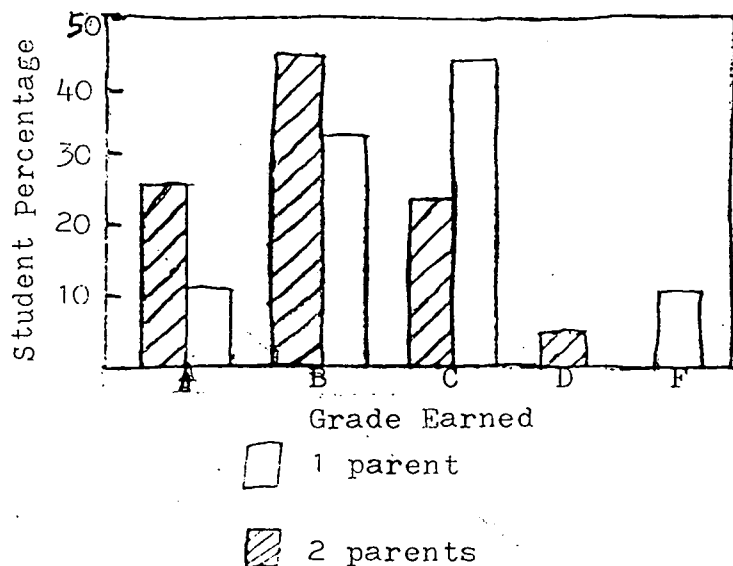
Table 4

Grade 2 GPAs



## Structure - Achievement

Table 5

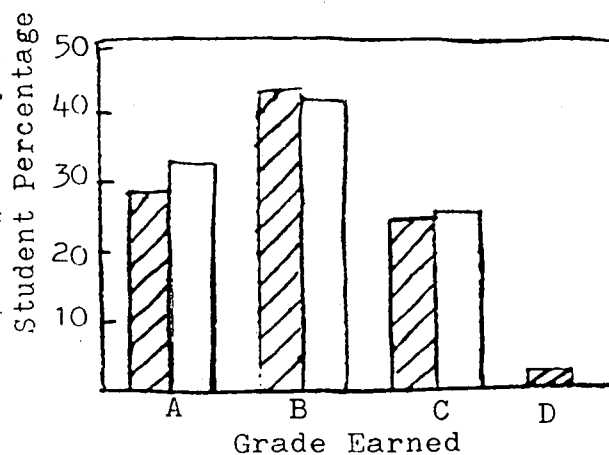
Grade 3 GPAs

Children in one-parent

families surpass those in intact households at the "A" level and are nearly equal at the "B" and "C" levels of achievement.

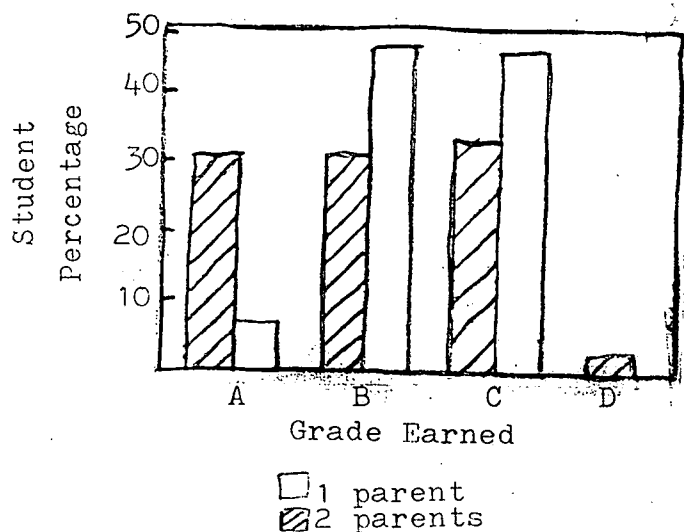
GPAs of students in non-nuclear families show a much lower percentage at the "A" level and a greater increase in the "C" level. The majority of GPAs of children in nuclear families mainly fall in the "B" category.

Table 6

Grade 4 GPAs

## Structure - Achievement

Table 7

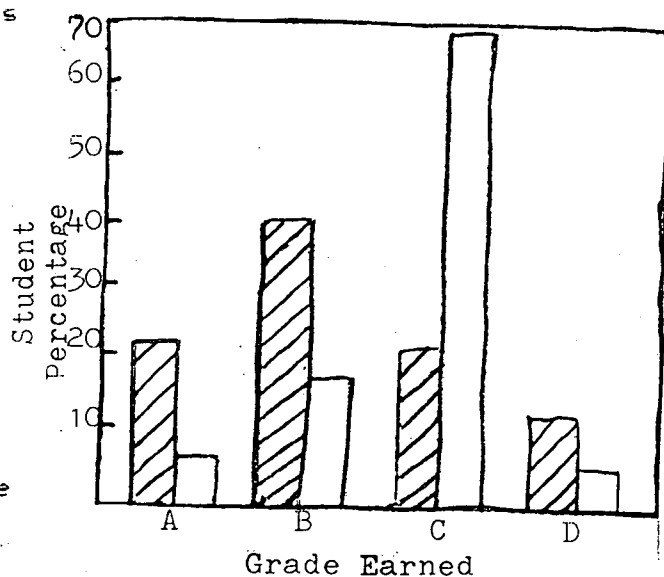
Grade 5 GPAs

At this level there is nearly an equal percentage distribution of achievement among levels "A", "B", and "C". However, in one-parent families, the achievement levels lean toward the "B-C" levels.

Table 8

Grade 6 GPAs

In grade 6, those in two-parent families surpass achievement levels of children in one-parent households. The highest percentage of children in non-nuclear families lie within the "C" level, whereas those in intact families fall mainly in the "B" achievement level.



CONCLUSION

I attempted to establish a relationship between academic achievement and family structure. There was a general projection of lesser school achievement by children residing in homes in which only one parent was present as compared to those in nuclear families.

My study concentrated on students of East Liverpool who had just completed grade six.

This hypothesis proved true in grades one, two, three, five, and six. The only grade level in which this did not prove true was in the fourth grade.

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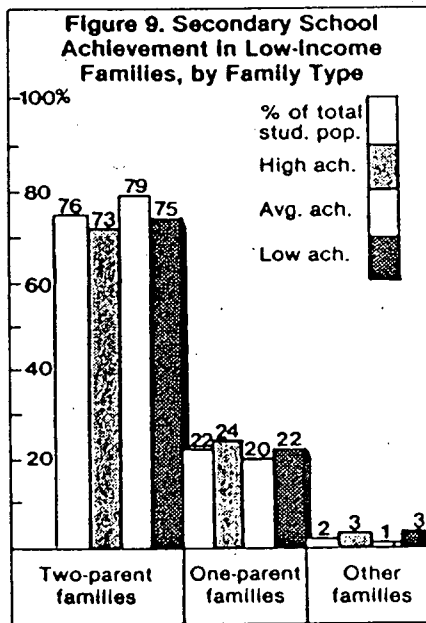
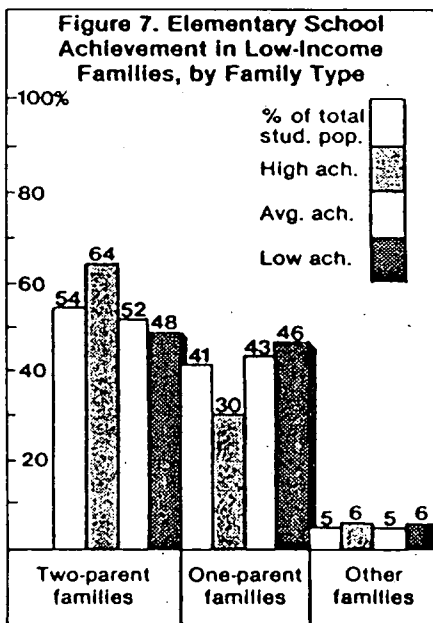
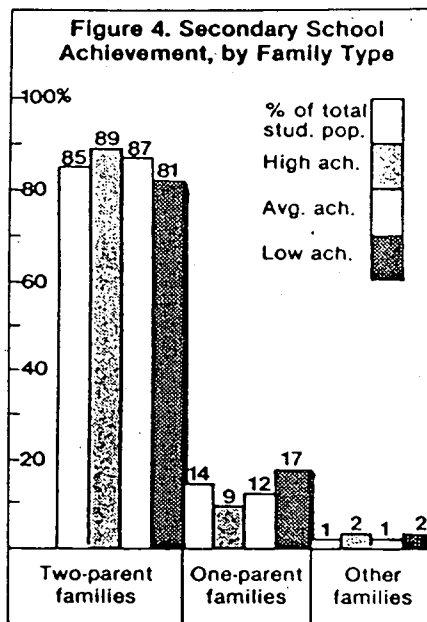
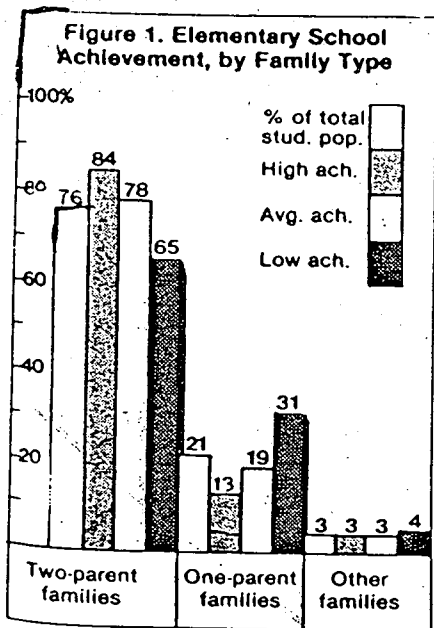
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Appendix A

B.F. Brown's (1980) Graphs of Relationships



Appendix B

# EAST LIVERPOOL MIDDLE SCHOOL

WEST EIGHTH STREET, EAST LIVERPOOL, OHIO 43920

PHONE (216) 385-2230

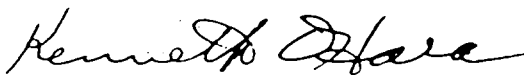
KENNETH G. O'HARA  
PRINCIPALFRANK A. ROSE, JR.  
ASSISTANT PRINCIPAL

November 15, 1988

Dear Mrs. Partezana:

As discussed, permission is granted for you to use select cumulative folders for your college research project.

Very truly yours,



Kenneth O'Hara

Appendix CGPA for Students Grades One Through Three

<u>Grade 1</u>		<u>Grade 2</u>		<u>Grade 3</u>	
<u>2 parents</u>	<u>1 parent</u>	<u>2 parents</u>	<u>1 parent</u>	<u>2 parents</u>	<u>1 parent</u>
2.3	2.7	2.25	2.7	2.0	2.2
3.67	2.6	3.67	2.5	2.4	2.4
3.67	3.33	4.0	3.33	3.8	3.0
3.0	1.5	3.0	1.75	3.4	0.4
2.67	2.57	2.0	4.0	0.83	3.5
3.3	2.67	2.5	2.67	2.8	2.2
2.67	3.0	2.0	2.5	2.6	2.6
2.0	2.67	1.8	3.25	1.14	3.2
2.33	3.67	2.25	3.5	2.0	3.25
3.33		3.5		3.8	
2.67		2.25		2.75	
4.0		3.5		4.0	
4.0		4.0		4.0	
3.0		3.0		2.4	
3.3		3.25		3.0	
3.67		3.5		3.2	
3.3		2.5		3.2	
2.75		2.75		2.8	
3.0		3.0		2.4	
3.33		3.5		4.0	
1.3		2.25		2.2	
3.16		3.0		2.5	
3.0		3.0		3.0	
4.0		3.8		3.8	
3.33		3.33		3.6	
3.0		2.4		2.86	
3.0		3.5		3.2	
4.0		4.0		4.0	
4.0		3.75		3.4	
4.0		3.5		3.75	
4.0		4.0		3.0	
3.3		3.0		3.0	
3.0		3.33		3.0	
3.0		2.5		3.0	
2.0		2.5		2.0	
4.0		4.0		4.0	
2.0		2.75		1.5	
2.5		2.25		1.6	

## Appendix C

## GPA For Students Grades Four through Six

<u>Grade 4</u>		<u>Grade 5</u>		<u>Grade 6</u>	
<u>2parents</u>	<u>1 parent</u>	<u>2parents</u>	<u>1parent</u>	<u>2parents</u>	<u>1parent</u>
1.83	3.3	2.0	3.2	2.0	2.0
2.0	2.17	1.83	2.33	2.6	2.4
4.0	2.67	4.0	1.67	3.8	1.6
2.5	2.4	3.5	2.8	3.2	2.0
1.83	3.6	2.33	3.2	1.4	2.6
2.8	2.67	3.2	1.67	3.4	1.8
1.17	3.3	1.83	3.0	0.8	2.8
1.29	3.6	1.0	2.3	0.8	2.0
2.17	3.8	2.17	3.0	2.8	3.0
3.8	3.8	3.8	4.0	3.0	3.8
2.6	1.5	1.67	1.83	1.2	1.8
4.0	2.83	4.0	2.17	3.4	1.0
4.0		4.0	2.67	3.8	2.2
2.0		2.0	2.8	2.0	2.4
3.0		2.5	2.0	2.4	1.6
2.8		3.0		2.8	2.4
2.3		3.0		2.8	
2.83		3.0		3.2	
3.0		2.67		2.2	
4.0		4.0		4.0	
2.17		1.83		1.6	
2.67		3.2		2.8	
3.0		2.5		2.2	
3.8		3.8		3.8	
3.5		2.83		2.6	
2.71		1.83		2.2	
2.67		2.17		2.8	
4.0		4.0		4.0	
3.0		3.0		3.2	
3.67		3.83		3.8	
3.63		3.63		3.6	
2.3		2.2			
2.5					
3.0					
2.5					

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Appendix CGPA For Those Having a Change in Family Structure

	St 1	St 2	St 3	St 4	St 5	St 6	St 7
Grd 1	4.0	2.0	2.5	3.0	3.0	2.0	3.3
Grd 2	4.0	2.75	2.25	3.33	2.5	2.5	3.0
Grd 3	4.0	1.5	1.6	3.0	3.0	2.0	3.0
Grd 4	3.8 *	1.5 *	2.83	2.5	3.0	2.5	2.3
Grd 5	4.0	1.83	2.17 *	2.67*	2.8*	2.0 *	2.2
Grd 6	3.8	1.8	1.0	2.2	2.4	1.6	2.4*

St = Student

Grd = Grade

\* Grade in which a change in family structure occurred