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ABSTRACT

DEMOGRAPHIC, PERSONNEL, AND PHILOSOPHICAL FACTORS RELATED TO THE SELECTION OF PROVISIONS FOR GIFTED PUBLIC ELEMENTARY STUDENTS IN THE INGHAM INTERMEDIATE SCHOOL DISTRICT

By

Susan Scott Horan

The dual purpose of this study was to investigate educational provisions made for gifted elementary children in the Ingham Intermediate School District, and to examine selected demographic, personnel, and philosophical characteristics which may predispose elementary schools to provide for gifted students in a given manner.

Fourteen demographic and personnel variables were analyzed in order to ascertain their relationship to thirteen formal and informal provisions. Philosophical positions of schools making and not making formal provisions were contrasted.

Demographic and personnel variables included: State Equalized Valuation, State Equalized Valuation per pupil, number of elementary pupils and schools in a district, individual elementary school size, availability of funding for gifted programs, 1969-70 school district expenditure per pupil, average class size of a school both including and excluding special education students, grade-level composition of individual schools, percentage of teachers involved in team-teaching, presence of a school counselor, presence of an assistant principal,

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Formal provisions were defined as partial or total segregation, and a special teacher or consultant for the gifted. Informal provisions included: acceleration, early school admission, ungraded primary or combined-grade room, enrichment by the regular classroom teacher, enrichment by ancillary personnel, grouping within the regular classroom, advanced placement, extra-curricular activities, and "others."

The sample-population consisted of all eighty-seven public elementary schools in the Ingham Intermediate School District. Though the grade-level composition of the schools varied, all were "elementary." Intermediate and middle schools were excluded, even though several contained fifth and/or sixth grades.

Information not readily available to most principals was collected from the business office of the Ingham Intermediate School District. Questions concerning funding for gifted programs were directed to the business managers or superintendents of the twelve constituent school districts.

Data relative to individual school programs were gathered via a (pretested) survey administered by mail to the principal of each of the eighty-seven schools. Follow-up letters and telephone calls secured response from 100% of the population.

The majority of principals reported making at least one provision for gifted students. Those provisions cited most frequently were enrichment by the regular classroom teacher, and grouping within the regular classroom. Most principals also

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reported using at least one method to identify the gifted. Teacher judgment was the most frequently used identification technique.

In order to determine the relationships between the demographicpersonnel variables and the kinds of educational provisions employed, 182 separate chi square analyses were conducted. Twenty-eight relationships emerged as significant beyond an alpha level of .05. However, not all these relationships were readily explained; hence, seven were designated as spurious.

Only two of the demographic-personnel variables, namely, State Equalized Valuation and number of pupils in an elementary school, were not related to any formal or informal provision. Causality, however, has not been established; each joint occurrence may have been due to the presence of another underlying factor.

Most principals who made use of one or more formal provision for the gifted gave a relatively consistent rationale in support of such measures. Those principals who did not make any formal provision stated reasons that lacked uniformity and consistency. Causality, though, was not established in these instances either; existing provisions (or lack thereof) could have determined the stated philosophy.

Apparently, certain demographic, personnel, and philosophical variables are related to the kind of provision made for gifted students. Further research is needed, though, to clarify the nature of these relationships.

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DEMOGRAPHIC, PERSONNEL, AND PHILOSOPHICAL FACTORS RELATED TO THE SELECTION OF PROVISIONS FOR GIFTED PUBLIC ELEMENTARY STUDENTS IN THE INGHAM INTERMEDIATE SCHOOL DISTRICT

By

Susan Scott Horan

A THESIS

Submitted to Michigan State University in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Department of Secondary Education and Curriculum



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ACKNOWLEDGEMENTS

A number of people helped make this study possible. I would particularly like to thank my chairman, Dr. Dale V. Alam, and Drs. Frank B. Bruno, William E. Sweetland, and James B. McKee for their ready support and perceptive guidance.

I am also grateful to Dr. William K. Durr for suggestions given during the primary stages of this project, and to Dr. Howard S. Teitelbaum for statistical consultation.

Certain Ingham Intermediate School District personnel provided invaluable services. Dr. David L. Haarer, Assistant Superintendent of Special Education, officially endorsed this project and sponsored the survey administration. Mr. Richard Vincent, Administrative Services Consultant, assisted in the compilation of data from the District business office.

My appreciation is also extended to (Mrs.) Dawn Scarborough for her efficient coordination of survey returns, and to (Mrs.) Mary Anderson for her prompt and careful typing of the manuscript.

My husband John has been extremely patient and supportive; to him go my deepest gratitude and love.

iii

LIST OF TABLE.

LIST OF FLOURE

Thapier

I. RATIO

I. Mak

TABLE OF CONTENTS

	P	age
LIST OF	TABLES	vii
LIST OF	FIGURES	x
Chapter		
Ŧ	DATTONAT E	1
1.	RATIONALE	T
	Introduction	1
	Purpose	1
	Previous Survey Research	2
	Ouestions for Study	4
	Overview	6
тт	TOUADD AN INDEDCTANDING OF CIFTEDNESS	7
11.	IOWARD AN UNDERSTANDING OF GIFTEDNESS	/
	The Concept of Intellect	7
	Guilford's Structure of Intellect	8
	The Concept of Giftedness	10
	Definitions of Giftedness	10
	Totolloctuol Ability	11
		10
		13
	Scientific Ability	15
	Social Leadership	15
	Talent in the Fine Arts	15
	Conclusion	16
	Characteristics of Gifted Children	16
	Intellectual Traits	16
	Achievement	18
	Creativity	19
	Social Adjustment	20
	Emotional Traits	20
	Ethnicity	21
	Dunitely,	22
	rnysical frances	~~
	Male and remale incldence of	^ 2
	Gittedness	23

Capter

III. EDXA

IV. METH

V. RE

Page

Chapter

	Techniques of Identification	•	•	•	•	24
	Standardized Tests	•	•	•	•	25
	Teacher Judgment	•			•	27
	School Grades	•	•	•	•	28
III.	EDUCATIONAL PROVISIONS FOR GIFTED CHILDREN	•	•	•	•	29
	Tatuation					
		٠	•	•	•	29
	Enrichment in the Regular Classroom .	•	•	٠	•	29
	Acceleration	•	•	•	•	30
	Early School Admission	_		_		31
	Condensation	•	•	•	•	32
	Deuble Desertion	•	•	•	•	32
		•	•	•	•	33
	Grouping	•	•	•	•	34
	Partial Segregation of Gifted					
	Children					37
	Total Segregation of Gifted	•	•	•	•	•••
	Children					20
		•	•	•	٠	29
	leachers of Gifted Children	•	•	٠	•	39
IV.	METHODOLOGY	•	•	•	•	41
	Population	_	_	_		41
	Measures and Materials	•	•	•	•	41
		•	•	٠	•	41
		•	•	•	•	42
	General Preliminaries		•			42
	Data Collection from the Business					
	Office of the Ingham Inter-					
	mediate School District					42
	Destant of Currow and Cubacrust	•	•	•	•	72
	Alternations					10
	Alterations	•	٠	٠	•	43
	Survey Administration	•	•	•	•	44
	Statistical Analysis	•	•	•	•	45
v.	RESULTS	•	•	•	•	48
	Intermediate District-Wide Occurrence					
	of Provisions Made for Gifted					
	Elementary Students		-	_		48
	Intermediate District-Wide Occurrence	•	•	•	2	10
	A Colookod Demographic and					
	of Selected Demographic and					
	Personnel Variables	•	•	•	•	48

VI. DISCU

Chapiter

LIST OF REFERE

APPENDICES

Appendix

A. Jata

B. Pre:

C. Pre-

D. Fin

E. Let

F. Foj

Chapter

	Relationships Between Selected School
	Characteristics and Provisions
	Made for Gifted Elementary Students 54
	Stated Rationales for Presence or
	Absence of Formal Provisions
	for Gifted Elementary Students /2
VI.	DISCUSSION
	Summary of Results
	Limitations
	Conclusions 81
	Present and Past Research
	New Information
	Bhilosophical Determinants
	Implications
	Summary
LIST OF	REFERENCES
APPENDIC	ES
Appendix	
A.	Data Sheet for Individual Schools 101
В.	Pretest Form of Survey: Part I 102
С.	Pretest Form of Survey: Part II 106
D.	Final, Revised Form of Survey 108
E.	Letter of Transmittal
F.	Follow-up Letter

....e I. A Class In St Ш. Аррток. Р 1 III. Number G IV. Analys. A V. Provis T. Method E I J TI. Tax Es C Till. Intern S IX. Elezer I. Averag

LIST OF TABLES

Table		Page
I.	A Classification Of Intelligence Quotients Derived From The 1937 Revision Of The Stanford-Binet Scales	12
11.	Approximate Proportions Of School Populations At Various Intellectual Levels	12
111.	Number Of Responses To Pretest Questions Six And Seven	44
IV.	Analysis Breakdown Of Demographic And Personnel Variables	46
v.	Provisions Made For Gifted Students (Reported By Individual Public Elementary Principals In The Ingham Intermediate School District) Compared On The Basis Of Frequency Of Occurrence	49
VI.	Methods Of Identification Of Gifted Students (Reported By Individual Public Elementary Principals In The Ingham Intermediate School District) Compared On The Basis Of Frequency Of Occurrence	50
VII.	Tax Base And Allocation Of Funds In The Constituent Districts Of The Ingham Intermediate School District	51
VIII.	Intermediate District-Wide Occurrence Of Selected Elementary School Personnel	52
IX.	Elementary Student And Faculty Sizes In The Constituent Districts Of The Ingham Intermediate School District	53
Х.	Average Class Sizes Of Elementary Schools In The Constituent Districts Of The Ingham Intermediate School District	54

Table		
II.	Re:	at.
X::.	le'	.a:
I	Re:	.at
117.	le	.a:
Σ;.	K e	la:
IV <u>.</u>	Re	i.a.
¥	Re	ia:
F	, R	elat
ĽI.	• ₹	ela:
Ŋ	• R	lela;
Π.	• P.	(ela:

Table

XI.	Relationship Between State Equalized Valuation And Provisions Made For Gifted Elementary Students	•	•	•	•	•	55
XII.	Relationship Between State Equalized Valuation Per Pupil And Provisions Made For Gifted Elementary Students	•	•	•	•	•	57
XIII.	Relationship Between Number Of Elementary Pupils In A School District And Provisions Made For Gifted Elementary Students	•	•	•	•	•	58
XIV.	Relationship Between Number Of Elementary Schools In A District And Provisions Made For Gifted Elementary Students	•	•	•	•	•	59
xv.	Relationship Between Number Of Pupils In An Elementary School And Provisions Made For Its Gifted Students	•	•	•	•	•	61
XVI.	Relationship Between Availability Of Funding For Gifted Programs And Provisions Made For Gifted Elementary Students	•	•	•	•	•	62
XVII.	Relationship Between 1969-70 School District Expenditure Per Pupil And Provisions Made For Gifted Elementary Students	•	•	•	•	•	63
XVIII.	Relationship Between Average Class Size Of A School (Including Special Education Pupils) And Provisions Made For Gifted Elementary Students	•	•	•	•	•	65
XIX.	Relationship Between Average Class Size Of A School (Excluding Special Education Pupils) And Provisions Made For Gifted Elementary Students	•	•	•	•	•	66
XX.	Relationship Between Grade Composition Of A School And Provisions Made For Gifted Elementary Students	•	•	•	•	•	67
XXI.	Relationship Between Percentage Of Teacher Involved In Team Teaching And Provisi Made For Gifted Elementary Students	°S .01	15	•	•	•	69

a:le III. Relat III. Rela: DIV. Relat IIV. Reason DT. Reason III. Factor E.I. Factor III. Sporio 14 03 03

Table	
-------	--

XXII.	Relationship Between Presence Of A School Counselor And Provisions Made For Gifted Elementary Students	70
XXIII.	Relationship Between Presence Of An Assistant Principal In A School And Provisions Made For Gifted Elementary Students	71
XXIV.	Relationship Between Presence Of A Director Of Special Education In A School District And Provisions Made For Gifted Elementary Students	73
XXV.	Reasons Stated By Elementary Principals In The Ingham Intermediate School District For The Presence Of Formal Provisions For The Gifted	74
XXVI.	Reasons Stated By Elementary Principals In The Ingham Intermediate School District For The Absence Of Formal Provisions For The Gifted	75
XXVII.	Factors Related To Formal Provisions Made For Gifted Elementary Students In The Ingham Intermediate School District	78
XXVIII.	Factors Related To Informal Provisions Made For Gifted Elementary Students In The Ingham Intermediate School District	79
XXIX.	Spurious Relationships Between Selected Demographic-Personnel Variables And Provisions Made For Gifted Elementary Students In The Ingham Intermediate School District	87

Figure

1. A c

2. C=

LIST OF FIGURES

Figure		Page
1.	A cubical model representing the structure of intellect	8
2.	Cumulative percentage of survey returns at each contact point	45

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children in a

for example, i

Wagner, 1957;

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CHAPTER I: RATIONALE

Introduction

Many studies have described the provisions made for gifted children in a given school or district at a specified time (see, for example, Wilson, 1949; Havighurst, Stivers, & DeHaan, 1955; Wagner, 1957; State of North Carolina, 1962; Oakland Schools' Board of Designates, 1965a). Few, however, have gone beyond program description to relate various demographic factors, personnel variables, and philosophical points of view to the type of provision employed. Exceptions to this trend are studies by Havighurst (1955) and Durr (1962), which respectively, relate the kind of provisions made for the gifted to various community factors, and to school size and system size at the elementary level.

Purpose

The purpose of this study, then, was not only to investigate provisions made for gifted children in a given locale, but also to examine selected demographic, personnel, and philosophical characteristics which may predispose elementary schools to provide for gifted students in a given manner.

Specifically, this study examined those programs and provisions designed for gifted students in the eighty-seven public elementary schools of the Ingham Intermediate School District (Ingham County,

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Previous Survey Research

Most previous surveys of provisions for gifted elementary students can be classified according to their purpose. One group of surveys is comprised of studies that describe specific programs in various locales, but do not go beyond mere program description. Havighurst, Stivers, & DeHaan (1955), Wagner (1957), and Oakland Schools' Board of Designates (1965a), for example, summarized the provisions made for gifted students in a number of elementary schools across the nation, while Durr (1959) and the State of North Carolina (1962) surveyed provisions made for the gifted in Michigan and North Carolina, respectively.

A second group consists of studies that survey topics related to provisions for the gifted. Hildreth (1955), for instance, examined the requisites of school-wide planning for the gifted, while Passow (1957) and Flanagan & Dailey (1960) explored research pertaining to provisions for the gifted then in progress. Alpren & Hohenstein (1960) summarized services and personnel available to the gifted at the state level.

The final group of surveys is composed of studies that relate provisions for the gifted to selected demographic and philosophical

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Durr's (1962) study relating provisions for the gifted to school size and system size at the elementary level indicated that elementary schools in large systems are more likely to have planned programs for mentally superior students than elementary schools in small systems; elementary schools with large student enrollments are more likely to have planned programs for the gifted than elementary schools with small student enrollments. Although most schools use enrichment with gifted students regardless of the size of the student body, small schools use partial segregation more often than large schools, while large schools use extra-curricular activities more often than small schools.

While Havighurst (1955) did not elaborate upon his contention

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that philosophical characteristics may influence the kind of provisions made for gifted elementary students, two other studies indicate that there are three predictable relationships between the type of provision made and the rationale stated for so doing. Durr (1962) found that while the reasons reported by elementary schools for not having planned provisions for the gifted lack uniformity, schools in small systems are more likely than schools in large systems to cite inadequate finances as the reason; schools in large systems are more likely than schools in small systems to state that no planned programs are needed, or lack of gifted students as the reason. Oakland Schools' Board of Designates (1965b) found that the majority of elementary schools which do make provisions for gifted children supply the rationale that <u>all</u> children are entitled to educational programs which are most appropriate to their individual needs.

Questions for Study

The studies by Havighurst (1959) and Durr (1962) do indicate, then, that provisions for gifted elementary children are related to community factors, and to school and system size at the elementary level. Because these surveys were somewhat limited in the scope of provisions considered, though, the following hypotheses will be examined to verify and/or expand upon the previously noted relationships:

- 1. Is there a relationship between the State Equalized Valuation of a school district and the kind of provisions made for gifted elementary students?
- 2. Is there a relationship between the State Equalized Valuation per student of a school district and the kind of provisions made for gifted elementary students?

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- 3. Is there a relationship between the number of elementary pupils in a school district and the kind of provisions made for gifted elementary students?
- 4. Is there a relationship between the number of elementary schools in a district and the kind of provisions made for gifted elementary students?
- 5. Is there a relationship between the number of pupils in an elementary school and the kind of provisions made for its gifted students?

A number of other demographic variables not examined in pre-

vious research were selected for exploratory study. Such give rise

to the following non-directional hypotheses:

- 6. Is there a relationship between the availability of funding for gifted programs and the kind of provisions made for gifted elementary students?
- 7. Is there a relationship between the 1969-1970 school district expenditure per pupil and the kind of provisions made for gifted elementary students?
- 8. Is there a relationship between the average class size of a school (<u>including</u> special education pupils) and the kind of provisions made for gifted elementary students?
- 9. Is there a relationship between the average class size of a school (<u>excluding</u> special education pupils) and the kind of provisions made for gifted elementary students?
- 10. Is there a relationship between the grade composition of a given school (e.g. K-4, K-5, K-6) and the kind of provisions made for gifted elementary students?
- 11. Is there a relationship between the percentage of teachers involved in team teaching in a school and the kind of provisions made for gifted elementary students?

Several personnel variables were also thought germain. Hence,

three additional exploratory hypotheses:

- 12. Is there a relationship between the presence of a school counselor and the kind of provisions made for gifted elementary students?
- 13. Is there a relationship between the presence of an assistant principal in a school and the kind of provisions made for gifted elementary students?

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14. Is there a relationship between the presence of a director of special education in a district and the kind of provisions made for gifted elementary students?

In order to corroborate and/or expand upon the relationships between the type of provision made for gifted elementary students and the stated rationale for so doing, as indicated by Durr (1962) and Oakland Schools' Board of Designates (1965b), the following hypotheses will be examined:

- 15. Do the majority of elementary schools that partially or totally segregate gifted students, or provide a special teacher or consultant for the gifted, have a consistent rationale for doing do?
- 16. Do the majority of elementary schools that do not partially or totally segregate gifted students, or provide a special teacher or consultant for the gifted, have a consistent rationale for not doing so?

<u>Overview</u>

Chapter Two of this study, "Toward an Understanding of Giftedness," focuses on the concepts of intellect and giftedness. Definitions of giftedness and characteristics of the gifted are also explored in detail. Finally, techniques of identifying gifted students are presented and evaluated.

Chapter Three deals with the various educational provisions that can be made for gifted elementary children; the advantages, disadvantages, and effectiveness of each are discussed.

The methodology employed in this study is explained in Chapter Four. This includes a definition of the population, a description of the measures and materials, and an outline of the procedures.

The results of this study are presented in Chapter Five, and discussed in Chapter Six. The limitations and implications of the study also appear in Chapter Six, along with a summary of the work.

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CHAPTER II: TOWARD AN UNDERSTANDING OF GIFTEDNESS

The Concept of Intellect

Before giftedness can be discussed, it is necessary to describe what is meant by the more basic concept of intellect. At one time, intelligence was viewed as a single-component factor. Though the unitary trait "general intelligence" was not clearly defined, validation of its existence was attempted. Lewis Terman, for example, defined intelligence as the ability to do abstract thinking, and measured this with achievement tests (Gowan & Demos, 1964, p. 16).

Spearman (1904) proposed a two-factor theory of intelligence, dividing intellect into general mental energy, labeled "g," and special task-oriented factors, labeled "s."

Other psychologists, including Kelley (1928) and Thurstone (1947), hypothesized that intellect is comprised of a group of factors, not just one or two. Broad "intellectual" categories were formulated, but there was no agreement as to which specific abilities composed each of the categories. Nor was there consensus as to which factors were "intellectual" and which were not.

In the 1950's, it became increasingly apparent that this "intellectual-nonintellectual" dichotomy was artificial, and that all facets of personality have some intellectual component. Thus, by the early 1960's, intellect and personality were considered synonymous (Gowan & Demos, 1964).

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Guilford's Structure of Intellect

In addition to isolating over seventy intellectual factors, Guilford (1956, 1959) classified the sundry components into an ordered, integrated model called the structure of intellect. His theoretical model, portrayed in Figure 1, has three major divisions of abilities: operations, contents, and products.



Figure 1. A cubical model representing the structure of intellect.

Operations refer to the major kinds of intellectual activities, to what an individual does with information. The five processes

involved in an 1. <u>Cor</u> or c 2. 1 3. <u>Comu</u> tice pria 4. <u>2194</u> nit. 5. <u>Enal</u> deci Tese 🗄 atilities, c stabilie, set action is any 1. <u>1-1-</u> a s. 2. <u>Clar</u> res. 3. <u>Rei</u> and 4. <u>State</u> 5. <u>. . .</u> 0: . 6. Guilford States a wide t has been c tion of chemi involved in operations are:

- 1. <u>Cognition</u>, which is awareness, simple knowledge, discovery, or comprehension.
- 2. Memory, or storage of information for later recall.
- 3. <u>Convergent Production</u>, based on producing from the cognition process, it involves generating the one "most appropriate" solution in view of given criteria.
- 4. <u>Divergent Production</u>, also based on producing from the cognition process, emphasizes variety and quantity of responses.
- 5. <u>Evaluation</u>, or appraising and judging the suitability of decisions made in terms of goal satisfaction.

These five operations act upon the second major division of abilities, contents, which is information received through <u>figural</u>, <u>symbolic</u>, <u>semantic</u>, and <u>behavioral</u> modes. The result of this interaction is any one of the six components of products:

- 1. <u>Units</u>, which refer to a relatively simple response, such as **a single word**.
- 2. <u>Classes</u>, which refer to a set of units, or several simple responses.
- 3. <u>Relationships</u>, or the abstract correlation between units and classes as described above.
- Systems, defined as the organization of classes or relationships.
- 5. <u>Transformations</u>, which are the alteration or redefinition of any of the four previous products.
- 6. <u>Implications</u>, or recognition of consequences and applications.

Guilford's structure of intellect, then, recognizes and integrates a wider array of mental abilities than did previous theories. It has been compared to Mendeleev's periodic table for the organization of chemistry (Gowan & Demos, 1964; Torrance, 1965). ì ::: ĝe . ii.e lat :a) spe 870 :.: :.: the \$.:p i. T le s \$;; · - į :4

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The Concept of Giftedness

The concept of giftedness is based on the theory of trait variability, which states that human traits (such as measured intelligence) occur in the general population in a predictable manner. When intelligence scores from a representative sample of the population are graphed, the result is the familiar bell-shaped curve called the normal distribution (Anastasi, 1968). Comparatively speaking, most people are of average intelligence, and hence cluster around the mean. Those of less than or greater than average intelligence are the exceptions, and account for the tapering off of the curve at either extreme. Depending on the direction of the deviation, these exceptional individuals, in comparison to the rest of the population, will approach either mental deficiency or mental superiority (giftedness).

The normal distribution of intelligence was first made evident by Galton (1869, 1875). These, and later studies (Yoder, 1894; Cattell, 1903; Ellis, 1904), gave rise to the conception of giftedness as a gradually increasing deviation from the mean in a positive direction, which disproved the notion that great intellectual gaps separate the gifted from the bulk of the population.

Definitions of Giftedness

No single, universally-accepted definition of giftedness exists. One survey of the literature, for example, produced 113 different definitions (Abraham, 1958). To confound the matter further, other terms, such as bright, superior, genius, talented, able, and rapid learner, are used interchangeably with gifted. Each of these

synonyms, in turn, has idiosyncratic connotations that vary with individual researchers and writers. The resulting confusion has led some to contend that further research is needed simply to help clarify the use of the terms (Newland, 1953, 1959, 1963; Birch & Reynolds, 1963).

As a result of Guilford's work, educators of the 1950's began to recognize a wider variety of abilities when defining giftedness. Creativity became a crucial part of most of these definitions once it was established as an integral component of giftedness. The concept, and hence the definitions, continued to expand, encompassing an even increasing span of abilities (Passow, Beasley & Brooks, 1957; Fliegler & Bish, 1959; Gallagher & Rogge, 1966).

DeHaan & Havighurst (1961) have offered the following classification scheme under which the major intellectual facets and ensuing definitions may be ordered: intellectual ability, creative thinking, scientific ability, social leadership, and talent in the fine arts. Each category and its member definitions will be discussed below.

Intellectual Ability

The most prominent and accepted manifestation of giftedness is intellectual ability, measured by an intelligence test and reported as an I.Q. score. The normal distribution of I.Q. scores is presented in Table I. Table II depicts the distribution of intelligence levels in school populations.

Researchers and educators do not agree upon the point, be it an I.Q. score or percentile ranking, from which giftedness begins. Kough (1960), for example, advocates demarcation of the top fifteen

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TABLE I

A Classification Of Intelligence Quotients Derived From The 1937 Revision Of The Stanford-Binet Scales (Davis, 1940, p. 603)

Classification	IQ Range	Percent of American Population
Brilliant	139 and above	.9
Very superior	128-138	3.7
Superior	117-127	11.0
Bright	106-116	21.3
Average	95-1 05	26.2
Du11	84 - 94	21.3
Inferior	73- 83	11.0
Mental deficiency, including border- line cases	72 and below	4.6

TABLE II

Approximate Proportions Of School Populations At Various Intellectual Levels (Gallagher, 1959, p.5)

Stanford-Binet	Percent	Percent of School Population		
Intellectual Levels	Average Community	Superior Socioeconomic Community		
IQ above 140	.5 to 1%	2 to 3%		
IQ above 130	2 to 4	6 to 12		
IQ above 125	5 to 7	15 to 20		
IQ above 120	10 to 12	30 to 40		
IQ above 115	16 to 20	45 to 60		

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Gallagher (1960) assumes an intermediate position, labeling as gifted the top two to four percent of "average" communities, and the highest six to twelve percent of those locales that are "superior." However, his "highly gifted" intellectual category is more exclusive, with the eligibility rate of only one to three individuals per thousand. Likewise, DeHaan & Havighurst (1961) specify two levels of giftedness, children in the upper one-tenth of one percent (of measured intelligence) being of the "first order," children in the top ten percent being of the "second order" of giftedness.

And on and on! Against this backdrop of disagreement, two clear trends seem to be emerging. Schools in smaller American cities tend to use the minimum I.Q. score of 110 when defining giftedness, while schools in larger cities use the higher beginning point of 125 or 130 (Hildreth, 1966).

Creative Thinking

Although creative thinking was not recognized as an integral component of intelligence until recently (Guilford, 1950, 1956, 1959), much current research has been devoted to its nature and nurture (Frierson, 1969). However, since operational definitions of creativity are as diverse and disparate as the studies themselves, most accounts of giftedness, when contrasted with one another, appear to be laden with confused and conflicting conjectures. Yamamoto (1965) has compared the status quo to reports of blind men on the



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I have suggested in this paper that the blind men of the present day have been experiencing some difficulties in mutual communication and understanding not so much because of their restricted exploratory abilities and spheres of scrutiny as because of their radically different philosophical positions or expectations with which they set out in their exploration. Thus. I have tried to point out the fact that the present "confused abundance" in the study of creativity is a result of (1) the different points of departure in the definition of creativity. (2) the differences in assumptions and presuppositions and (3) the differences in research strategies among and within groups of workers of different orientations (p. 432).

Guilford (1959) refers to his structure of intellect (see Figure 1) when defining creativity as the result of the divergent thinking operation. Of particular importance is the column formed when semantic contents and divergent thinking intersect, for this chimney of factors contains those we usually stereotype as "verbal creativity," including ideational fluency, spontaneous flexibility, associational fluency, and originality. Under this theory, creative gifted children are those with high endowments in these factors, while non-creative gifted children excel elsewhere (Gowan, 1965; Kneller, 1966).

DeHaan & Havighurst (1961) define creativity more simply as a complex talent made up of many abilities, including the capacity to recognize problems, to be flexible in thinking, to invent and originate ideas or products, and to find new uses for common objects and materials.

While definitions of creative giftedness could continue ad infinitum, further presentation would not enhance the clarity of this concept.

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Scientific Ability

Scientific ability is not a primary mental factor in itself, but is comprised of many skills and attitudes, including the ability to reason mathematically, the capacity to use numbers and symbols, and the mastery of a particular kind of thinking called the "scientific method" (DeHaan & Havighurst, 1961).

Because of its reliance on direct intellectual components, scientific ability is not the most frequent source of giftedness. Those who are superior in this area, though, are often termed gifted.

Social Leadership

Though social leadership is a combination of other abilities rather than a direct intellectual component, researchers recognize its potential for manifesting giftedness. Jarecky (1959), for example, states that not only can social giftedness be ascertained and described, but that instruments and techniques are available for its measurement.

Witty, Conant, & Strang (1959) describe as gifted in social leadership those individuals who are identified by behavior and sociometric measures to be effective leaders of different groups. While they find only a low positive relationship between an individual's measured intelligence and his potential for leadership, Hollingworth (1926) and Scheifele (1953) have established that an effective leader is likely to be slightly more intelligent than the average of the group led.

Talent in the Fine Arts

Scheifele (1953) and Hildreth (1966) feel that talent in the fine arts refers strictly to performance, not potential. Giftedness

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is manifested by exceptional performance in such nonacademic areas as sports, dramatics, dancing, music, art, and writing.

Conclusion

The preceding definitions of giftedness, each accenting a particular area, are only a sample of the hundreds now in use. Abraham (1958) has tersely described the state of the literature:

The moral should be clear, however: Define the gifted child almost as you wish and you will find some authority to support your point of view (p. 21).

Characteristics of Gifted Children

Gifted children as a group tend to exhibit a number of traits in a variety of areas (intellectual, social, emotional, and physical, to name a few). However, the vast array of individual differences precludes any formulation of a "typical" gifted child. Furthermore, since correlation, not compensation, is the law of nature, the gifted child tends to excel in all endeavors (Gallagher, 1959).

Intellectual Traits

Many researchers, including Strang (1954), Barbe (1955), Gallagher & Lucito (1961), and Hauck (1967), have investigated the mental characteristics of the gifted. In an inclusive summary of the collective findings, Scheifele (1953) reports that intellectually, the gifted child, in relation to other children, tends to:

- Possess superior ability in reasoning, generalizing, dealing with abstractions, comprehending meanings, thinking logically, and recognizing relationships.
- Perform highly difficult mental tasks, an ability described as "power."

- 3. Learn more rapidly and easily.
- 4. Show intellectual curiosity.
- 5. Possess superior insight into problems.
- 6. Have a wider range of interests.
- 7. Show greatest superiority in reading ability, both in speed and comprehension; language usage; arithmetical reasoning; science; literature; and the arts.
- 8. Do effective work independently.
- 9. Apply originality and initiative in intellectual tasks.
- 10. Show less patience with routine procedures and drill.
- 11. Exhibit alertness, keen observational ability, and quick response.
- 12. Show as much unevenness in abilities in the subject-matter areas as other children.
- 13. Have a longer interest span; show more interest in abstract than practical subjects; exhibit greater superiority in attainment in abstract subjects and less in manual activities.
- 14. Have an interest in the future, a concern with origin, destiny, and death though unable emotionally to accept realities of the latter (p. 6).

The stability of intelligence. While Terman (1930) found that the measured intelligence of his gifted subjects tended to decrease over time, Cattell (1931) reported that her subjects gained on retests. To determine whether constancy or instability of intelligence characterizes the gifted, Lincoln (1935) conducted further research. He concluded that over a period of five or more years, the intelligence scores of superior pupils (selected on the basis of a single Stanford-Binet), tend to drop substantially, with girls <u>;</u>... 25 :-:he ez: :a: ÷ 57 :: . . ÷ 2 5 , losing more than boys. Lincoln further noted that losses for the gifted, as a group, were not offset by gains, for more tended to lose than to gain in measured intelligence.

Thorndike (1948), Clarke, A. D. B., Clarke, A. M., & Brown (1960), and Hughes & Converse (1962) found that groups selected on the basis of extreme intelligence test scores tended to regress toward the mean of the general population, thus confirming and explaining Lincoln's (1935) conclusions. When evaluating the mental status of gifted children, then, Hildreth's (1943) advice to obtain successive intelligence ratings several years apart is still sound.

Achievement

Gifted children tend to perform better (score higher) on intelligence and achievement tests, and to receive higher grades in school than other students (Gallagher, 1959). Exceptions are the "gifted underachievers," who perform less well in school than their intellectual potential would predict.

Terman & Oden (1959) found that the educational attainments of gifted adults are far above the contemporary norm. The majority of their gifted subjects graduated from college; 70.0% of the men, and 66.7% of the women obtained a Bachelor's degree. Of these, 10.5% of the men and 16.3% of the women also received a Master's degree. Doctorates were earned by 13.8% of the men, and 4.0% of the women.

Barbe (1956) studied graduates of the Major Work Program (Cleveland, Ohio) to ascertain their level of occupational achievement. There were far more of these gifted subjects in the professions

than was typical of the general population.

Creativity

Though the correlation between operationally defined measures of intelligence and creativity is high, it is not absolute. Children with low or average intelligence generally possess the same level of creativity; however, the presence of a high I.Q. does not guarantee high creativity. On the other hand, there are few people who are highly creative who are not also highly intelligent. Witty and his associates (1959) have summarized the components of creativity in gifted children:

- 1. Sensitive perception of details in the world of nature and the world of man.
- Awareness of and concern about unsolved problems - the attitude of inquiry.
- Fluency of thought. The creative person's ideas come readily often suddenly.
- 4. Concentration ability to enter wholeheartedly and personally into an experience.
- 5. Integration ability to find unity in the diversity of nature, to perceive structure or a new design in a scene or situation, to discover unexpected likenesses, and to relate or connect things that were not previously related or connected.
- 6. Flexibility and spontaneity guided by a goal or purpose.
- 7. Originality and individuality. The creative person has the moral courage and inner directedness to resist conformity.
- 8. Ability to analyze and abstract, and also to synthesize.
- 9. Ability to go beyond the facts and discern new implications, to imagine more than the evidence obviously shows, to speculate on

relations that may not at present be verifiable.

- 10. Keen satisfaction in creative activities.
- 11. Superior abstract and verbal intelligence (pp. 21-22).

Creativity has received much current attention. While some researchers have been primarily concerned with assessment (Wilson, Guilford, & Christensen, 1953; Getzels & Jackson, 1962; Marsh, 1964), others have emphasized a general understanding of creativity (Parnes & Harding, 1962; Gowan, Demos, & Torrance, 1967). However, there has also been a trend toward exploring various educational provisions to foster creativity (Torrance & Witt, 1966; Hutchinson, 1967; Parnes, 1967; Taylor, 1967).

Social Adjustment

Investigations into the social adjustment of the gifted have challenged the old stereotype of gifted children being rejected or ostracized by other children. The vast majority of researchers, including Durr (1960) and Gallagher (1960), indicate that the gifted tend to achieve superior social adjustment. Gallagher (1959), in fact, maintains that the degree of social adjustment is positively related to the level of intellectual ability.

While the gifted tend to be well accepted by most children, they often prefer other gifted children as friends. In the upper elementary grades, the gifted may also gravitate toward non-gifted children who though chronologically older, have a similar mental age.

Emotional Traits

As a group, gifted children are more emotionally stable, less tense, and more able to handle personal problems than children with average intelligence (Mensh, 1950; Scheifele, 1953; Barbe, 1955; Birch & Reynolds, 1963; Hildreth, 1966).

Hollingworth (1926) found that the gifted are above average in nervous stability, and that there are disproportionately fewer neurotics among gifted children. Terman & Oden (1959) state that the gifted do not differ from the generality in the frequency of mental disease, as evidenced by admission to a mental hospital. (They emphasize, though, that the rate of hospitalization among the gifted may be related to their generally superior status, not only intellectual which may give them insight into their needs, but also socioeconomic which makes seeking aid possible.)

Most researchers agree that the gifted tend to possess "desirable" characteristics to a greater degree than children with average intelligence. Barbe (1955), for instance, found that the gifted are less inclined than other children to boast, to exaggerate accomplishments, or to cheat when provided with the opportunity. Scheifele (1953) reports that gifted children tend to be more courteous, cooperative, and willing to take suggestions than other children.

Ethnicity

A well documented observation is that Jewish children contribute disproportionately large numbers to those recognized as gifted. For instance, Terman & Oden (1947) noted that 10.36% of their gifted subjects were of Jewish descent. (In this classification, Terman & Oden excluded from the group defined as "Jewish descent" all subjects who had a non-Jewish parent or grandparent.) Though they had no statistical data from which to calculate the precise proportion of Jews in

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the population from which their sample was drawn, Terman & Oden concluded that the number of (gifted) Jewish subjects was considerably greater than would be expected from the number of Jews estimated to live in that particular area.

Adler (1963, 1964) reports that Jewish representation in the gifted of this country is three times the expectancy, based on a national ratio.

One ethnic group has been cited for its proportionately low incidence of giftedness. Reviewing research to that date, Hollingworth (1926) reports that surveys unexceptionally show a low level of intellect among children having Negro blood, and that very few are gifted. This perception has been affirmed by later studies (Adler, 1963; Jensen, 1969).

Other researchers admit to the relatively low incidence of Negro giftedness, but soundly refute the notion that this circumstance is caused by inherent intellectual deficiency or inferiority (Bereiter, 1969; Cronbach, 1969). Hunt (1969), for example, attributes the low incidence of Negro giftedness to differences between the childrearing practices of the middle and lower socioeconomic classes, and to the bondage black people have experienced in slavery and sustained cultural deprivation. Crow (1969) concludes that quantitative and qualitative environmental factors account for the differences in the mean intelligence levels of the white and black populations.

Physical Traits

The notion that gifted children are physically weak, undersized, and unattractive has proved to be thoroughly erroneous. Hollingworth

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(1926) reports that the gifted tend to be taller and heavier for their height than other children. (The gifted do tend to have the stereotypically larger-than-average head, but it is not out of proportion to body size.) Furthermore, the gifted generally become physically mature, and begin reproductive life at an earlier age than other children (Hildreth, 1966).

As a group, gifted children are also healthier, and suffer from fewer common childhood diseases than other children (Hollingworth, 1926; Barbe, 1956; Terman & Oden, 1959).

Though the gifted tend to exceed the mean in terms of physique, health, and attractiveness, there is a great deal of overlap in the physical traits of the gifted and non-gifted (Durr, 1960). Thus, Durr (1964) cautions that while a positive correlation between intelligence and physical characteristics does exist, the use of physical maturity as a predictor of intellectual excellence is unjustified.

Male and Female Incidence of Giftedness

The assumption that women are intellectually inferior to men stood unproven, but not scientifically disproved, until the advent of standardized mental tests made objective measurement possible. Even when it was ascertained that no significant difference existed between the mean intelligence scores of men and women, some researchers hypothesized that greater male variation away from the mean toward either extreme produced more incidence of both feeblemindedness and giftedness in men than women.

The larger ratio of males to females (20 to 1) among historical geniuses (Terman & Oden, 1947) does indicate increased male manifestation of giftedness, but this does not appear to be caused by greater male variation. Clark (1954) and DeHaan & Havighurst (1961) attribute the high male frequency of exhibited talent and performance to societal expectations and child-rearing practices, stating that American women as a group do not develop inherent abilities to as high a degree as men simply because society does not expect them to do so. The feminine role in this country stresses tenderness, tranquility, and submissiveness, while the male role emphasizes aggressiveness, ambition, and productivity.

Techniques of Identification

Procedures for identifying the gifted should evolve from a given definition of giftedness. For example, if giftedness is defined solely in terms of demonstrated achievement, identification techniques should include achievement tests, and possibly school grades. If giftedness is defined in terms of mental potential alone, then intelligence tests would be in order. The more expansive a definition of giftedness becomes, the more techniques the identification procedure should include.

Besides being consistent with a given definition, techniques of identification ought to be guided by other principles espoused by such researchers as Terman & Oden (1954), Sanders (1959), and Martinson (1966). For example, it has been suggested that identification procedures begin as early as possible in school and be systematically applied at all grade levels, that they be as varied and diversified as possible, that they require a minimum of time and money to administer, and finally, that they have no adverse social or emotional effects on children.
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Standardized Tests

Standardized tests of intelligence, achievement, and aptitude are objective measures of giftedness. Free from teacher bias, they also provide for a comparison of children on a national basis.

Individually administered (standardized) tests have the added advantage of bringing the examiner in direct contact with the student, thus allowing for the development of rapport, the detailed observation of the child, and the reduction of difficulties resulting from poor reading skills. Although such tests are probably the best single indication of giftedness (Barbe, 1959), the time and expense involved in individual administration precludes their use in many locales.

Standardized group tests require less time and money per student, but have the disadvantage of predicting less accurately than individual tests. Furthermore, their results may be distorted because of low reading ability, lack of motivation, and/or the pressures of time and emotional stress.

Some researchers, such as Witty (1951) and Gallagher (1960), feel that many individual and group standardized tests measure only a few mental abilities, and fear that many gifted children may pass undetected if total reliance for identification is placed on their use. However, most authorities recognize that standardized intelligence, achievement, and aptitude tests are reliable techniques for the identification of gifted children.

<u>Standardized intelligence tests</u>. While the most frequently used (objective) indicators of giftedness are standardized intelligence tests (Hill, Lauff, & Young, 1957; Durr, 1964), many schools fail to note that similar I.Q. scores do not necessarily mean the same thing.

For example, students often score higher on individual than on group intelligence tests (Martinson & Lessinger, 1960). This factor can confound individual student and program comparisons, plus precipitate unwarranted teacher expectations, if not taken into consideration.

Many writers and educators, including Levinson (1956) and Boyer & Walsh (1968), claim that intelligence tests discriminate against minority groups, the "culturally different," and the lower socioeconomic strata of the nation. These critics insist that intelligence tests measure abilities primarily determined by the environment, and thus do not indicate inherent intellectual potential. Consequently, they contend, a low I.Q. score does not denote low innate intelligence, but merely reflects that such a student has experienced a relatively deprived, unstimulating environment.

Stanley (1959) sought to determine the test biases of prospective teachers for identifying gifted children. He found that those prospective teachers who scored low among their peers on a verbal intelligence test, and knew it, tended to rationalize their inferior position by denying the value of the test, and preferring non-test procedures for identifying gifted children. Those who scored high, and knew it, tended to believe the test measured something important, and preferred using such tests for identifying the gifted. Therefore, teachers may vary in their acceptance and use of intelligence test results for personal as well as professional reasons.

<u>Standardized achievement tests</u>. Designed to measure learning in specific content areas, standardized achievement tests have limitations when used as a technique to identify gifted students. One drawback is that these tests indicate only what a child has actually

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Use of either standardized achievement or intelligence tests alone as a technique for identifying gifted students is thus not fully effective. However, the combined results of both types of tests have proven to be an accurate, effective means of locating the gifted (Pegnato & Birch, 1959).

<u>Standardized aptitude tests</u>. While not the most frequently used method of identifying giftedness, standardized aptitude tests are sometimes employed. These tests are designated to measure either one specific aptitude such as music or art, or a general range of skills and aptitudes.

Teacher Judgment

Researchers have shown that the effectiveness of teacher judgment as a method for identifying gifted children is limited. Witty (1951), for instance, found that only 15.7% of those students rated as gifted by teachers actually proved to be so according to standardized test results. Pegnato & Birch (1959) report a somewhat higher success level, with 45.1% of those students identified by teachers as gifted actually testing out as such. (These particular teachers not only overlooked more than half the gifted students among those studied, but also included 31.4% who fell in the average Stanford-Binet range.) The ineffectiveness of teacher judgment may be attributed to many factors, including the tendency for teachers to equate achievement with potential, the lack of objective standards against which teachers may judge giftedness, and the refusal of those teachers threatened by giftedness to acknowledge it.

Despite the low reliability of teacher judgment, it is one of the most popular techniques for identifying gifted children. In larger school systems, this method is often used in conjunction with standardized testing (Durr, 1959, 1962).

School Grades

The student's present grade-point-average is generally a good predictor of future academic performance. Hence, school grades are often used in the identification of gifted students. When such measures are combined with standardized intelligence tests, bright high achievers can be distinguished from hard working children of average intelligence (Hildreth, 1966). However, since school grades are manifestations of teacher judgment, they are subject to the same criticism, and consequently are considered to be ineffective indicators of giftedness.

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CHAPTER III: EDUCATIONAL PROVISIONS FOR GIFTED CHILDREN

Introduction

This chapter will deal with the various educational provisions that can be made for gifted children. Although the distinct programs are numerous, each is based on one of three major administrative arrangements. The first is enrichment in the regular classroom. The second basic plan, acceleration, includes early admission to school, rapid progress through the normal educational sequence, and double promotion. The final major provision is ability grouping, including that which is done within the regular classroom, partial segregation of the gifted (separation for some classes), and complete segregation of the gifted (separation for all classes). Each of these provisions will be discussed in greater detail below.

Enrichment in the Regular Classroom

The majority of elementary schools in this country place gifted students in "regular" classrooms -- homogeneous as to age, heterogeneous as to mental potential and achievement (Durr, 1962, 1964). Enrichment done in this setting by the regular classroom teacher (and on occasion, by ancillary personnel), refers to the modification of methods and materials so the gifted receive curricula more commensurate with their ability. Two ways to facilitate this process are to allow gifted children to work on the most complex

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elements of the regular curriculum, and to design special lessons especially for the gifted (Lewis, 1960; Martinson, 1968).

One advantage of enrichment in the regular classroom is that it requires little or no extra funding or administrative alteration. Besides allowing bright children who are not equally advanced physically and socially to remain with their chronological peers, enrichment also provides stimulation for the total class. However, it is not always possible for a teacher to adequately meet all the diverse academic and social needs of individuals in a heterogeneously grouped class. Another inherent disadvantage of enrichment is that it often becomes all that is done for gifted children, its nature and philosophy precluding many other arrangements.

Although enrichment in the regular classroom (by the regular teacher) has been the major provision made for the gifted since the middle of this century (Durr, 1959, 1962), its effectiveness has been soundly disputed. Gallagher, Greenman, Karnes, & King (1960), for instance, found that a program of concentrated enrichment was of little or no benefit to gifted students in the areas of academic achievement, self-concept, and social status, in spite of parents' and teachers' (subjective) feelings to the contrary. It has also been found that enrichment in the regular classroom is often ineffective due to lack of planning and low teacher incentive (Hildreth, 1952, 1966).

Acceleration

Any procedure which allows a student to complete a given school program at an earlier age, or in less time than is standard, may be termed acceleration. The most common forms in the elementary school are early admission, more rapid progress through the normal educational program, and double promotion.

One major benefit of acceleration in any form is that it allows a student to progress at a rate more related to scholastic ability and intellectual maturity than to chronological age. Economic advantages accrue when the gifted are allowed to complete their education as soon as possible, for they are able to begin their careers early, and parents are relieved of supporting them financially.

Acceleration is often opposed on the grounds that too much emphasis may be put on academic achievement, and not enough on the nurture of creativity and leadership. There is also concern for the gifted child's social and emotional welfare when grouped with older children.

Early School Admission

Allowing carefully selected children to begin kindergarten or first grade at a chronological age below that of normal entry, early school admission combines the general benefits of acceleration, and minimizes the disadvantages. For instance, this practice permits a gifted student to complete the full six or seven years of elementary school in the regularly ordered grade sequence, but with older children as classmates, and curricula a year advanced. Early school admission also helps ensure early identification of the gifted (Kirk, 1966; Berkowitz, 1967).

Two of the most frequently voiced disadvantages of early admission are the potential maladjustment of those children thus accelerated,

and the possibility of errors in identification.

The effectiveness of early school admission is well documented. For instance, Hobson (1948), Birch (1954), and McCandless (1957) found that gifted children entering school within a year below that of standard entry tended to be academically superior and better adjusted as a result of their acceleration. Weiss (1962) reported, though, that while early-age children of above average intelligence may be expected to achieve and adjust approximately at the level of the class average, they would have achieved at a higher level had they entered school a year later. (However, Weiss does not specify intelligence scores for these children of "above average" intellect, which makes comparison of research results difficult.) Notwithstanding this slight discord, it may be concluded that the early admission to school of mentally advanced, generally mature children, who are within a year of the ordinary entrance age, is to their advantage (Reynolds, 1962).

Condensation

Any program which allows a child to complete the regular educational sequence more rapidly than is usual may be labeled condensation. One implementation of this provision at the elementary school level is the ungraded primary, where grade distinctions are abolished for the first two or three years of school, and pupils are grouped within the class according to ability. Thus, a scholastically adept student may complete all elements of the prescribed two or three year curriculum at his own pace, possibly in one or two years. The second form of condensation is a combined-grade room, where certain children

may complete two or three grades in a lesser number of years.

Combining enrichment with rapid progress, both forms of condensation allow for a broad range of growth rates within given groups, and alleviate the potential social, academic, and intellectual "gaps" sometimes resulting from double promotion. The main disadvantage of ungraded primaries and combined-grade rooms is that such programs are lengthy, and many circumstances may prevent a gifted student from completing them.

Most researchers have found condensation to be effective. Chapman (1961), for instance, reported no decrease in the academic achievement of gifted students who participated in condensed programs, and that these students did not later regret being thus accelerated. Rusch & Clark (1963) likewise found that children with a minimum I.Q. of 110, who were rated high on social and emotional maturity, physical development, intellectual ability, and academic achievement, were able to complete four grades in three years with no detrimental effects on adjustment or achievement.

Double Promotion

The simplest and most common form of acceleration used in elementary school, double promotion (grade-skipping) requires less administrative planning, expense, and time than either early school admission or condensation.

One advantage of double promotion is that it allows children to work with their mental, rather than their chronological peers. Besides being the easiest way to provide for the gifted, double promotion decreases the amount of time and money spent on their elementary

education.

Though popular opinion has criticized double promotion as being detrimental to the personal, social, and academic welfare of gifted children, research results tend to support its effectiveness. Morgan (1957), for example, states that the double promotion of children with a Stanford-Binet I.Q. \geq 135, will be successful if three criteria are met:

- 1. <u>Academic Achievement</u>: Reading comprehension and vocabulary must be above the present grade level. Arithmetic reasoning must be at least at grade level. Spelling or computation or both must be at or above grade. Neither spelling nor computation can be as much as a year below grade level.
- 2. <u>Physical Development</u>: Height or weight, or both, must be at or above the mean for the modal age of the present grade level. Neither height nor weight can be more than one standard deviation below this mean.
- 3. <u>Attitude of Parents</u>: There must be no objection to the child's acceleration on the part of the parents (p. 76).

Shannon (1957), Klausmeier & Ripple (1962), and Klausmeier (1963) found no unfavorable academic, social, emotional, or physical correlates of grade-skipping for gifted students who attended a summer school session before being double promoted. (During that session, essential content of the grade to be skipped was presented.)

Grouping

Dividing students into homogeneous groups, usually of the basis of some measure of intelligence or achievement, is the third major provision that can be made for the gifted. Educators such as Reynolds (1963) and Snow (1970) feel that gifted students achieve to a higher degree in homogeneous rather than in heterogeneous ability groups; Howell (1965) states that the more intelligent the student, the better the reason to ability group.

Other educators maintain that homogeneous grouping establishes an intellectual elite, and deprives other children of the stimulation the gifted can provide (Faust, 1957). Critics also insist that homogeneous grouping causes social maladjustment in gifted children. This last point, amenable to objective study, has been proved to be false, for Terman & Oden (1947) report that while some maladjustment may occur in homogeneously grouped gifted children, it is temporary, and greatly exaggerated in most accounts. Mann (1957) states that homogeneous grouping is instrumental in developing and reinforcing friendship among gifted children, and that heterogeneous grouping often does not produce relationships between gifted and typical children significant enough to be termed friendships. Finally, Goldworth (1959), West & Sievers (1960), and Mirman (1962) found no evidence of social maladjustment in homogeneously grouped gifted children.

One final criticism of homogeneous grouping, that its benefits do not persist over time, cannot be fully substantiated or refuted. However, several studies, including Terman & Oden (1947, 1959) and Dunlap (1955) have suggested that gains made by gifted children as a result of this provision do persist over time.

Though homogeneous grouping has been and probably will continue to be subject to widespread debate, individual educators rarely cast the deciding vote (Miller, 1957; Barbe, 1958; Hamilton, 1960); instead, prevailing community factors and attitudes generally determine whether or not such a provision is adopted. Havighurst (1955),

for example, showed that homogeneous grouping is more likely to be employed in large communities with an "average" socioeconomic status than in small cities, especially those which are economically "favored."

Research reports neither confirm nor refute the effectiveness of homogeneous grouping. Ekstrom (1961) attributes this lack of consensus to the nature of most of the experiments themselves:

> These studies on the effectiveness of homogeneous grouping fail to show any great consistency in the findings. The experimental results differ greatly because of the wide variety of experimental conditions, methods, and purposes. Few studies have much in common in content, method, or type of subjects used (p. 222).

Ekstrom also cites other factors as further confounding the collective research results, including the lack of control over teaching methods, the use of volunteers for experimental groups, and the short duration of most studies.

In her concluding statement, though, Ekstrom presents one trend: results tend to favor homogeneous grouping in those experiments that specifically provide for differentiated teaching methods and materials for groups at each ability level, and that make an effort to accelerate the content and pace of the bright homogeneous classes. For example, Hart (1959) found that the reading achievement of elementary students at every ability level increased as a result of homogeneous grouping. McCracken's (1960) study showed that when gifted, upper-grade elementary children received reading instruction in homogeneous classes, reading ability grew rapidly and consistently.

Provus' (1960) study reported significantly greater achievement in math for children grouped homogeneously (according to measured intelligence level) than for children grouped heterogeneously. Analysis by level, though, showed that the more competent pupils profited most from the homogeneous grouping, while average students profited slightly; below average pupils gained no more from homogeneous, than from heterogeneous grouping. West & Sievers' (1960) study of superior students reported a mean achievement gain of two to five months for those homogeneously grouped over those placed in heterogeneous ability classes.

These and other studies (e.g. Bowman & Pierce, 1957; Borg, 1964) are summarized in Borg's (1966) report:

> Thus, we may conclude that neither ability grouping with acceleration nor random grouping with enrichment is more effective for all ability levels of elementary-school pupils. When data for the different ability levels were considered separately, achievement advantages of the two grouping systems, though small, tend to favor ability grouping for superior pupils and random grouping for slow pupils. As was hypothesized, the achievement results for average pupils did not consistently favor either grouping treatment (p. 85).

Partial Segregation of Gifted Children

Partial segregation is a broad term covering any program which places the gifted in homogeneous ability groups for some activities, and in heterogeneous ability groups for others. The Colfax Plan (Pittsburgh, Pennsylvania) is one example of part-time grouping. While students with a Stanford-Binet I.Q. of 130 or more receive academic instruction in homogeneous ability groups, they participate in heterogeneous classes for music, art, and physical education. Pregler (1954) feels that this arrangement provides the gifted with three essential experiences: group activities with both their mental and their social peers, individual activities through projects, and drill in mental skills.

Other partial segregation programs, such as the Major Work Classes (Cleveland, Ohio), emphasize program enrichment (Barbe & Norris, 1954). As in the Colfax Plan, the gifted receive basic academic instruction in homogeneous ability groups, but the regular curriculum is followed, augmented with additional lessons and activities.

The Dual Progress Plan (Stoddard, 1961) groups children heterogeneously for reading, language arts, and social studies. Students also participate in ability-grouped "clubs" for mathematics, science, foreign languages, art and music. This arrangement is presumed to produce optimum achievement, especially for gifted students in the upper grades.

Some partial segregation programs place the gifted in heterogeneous classes for all content areas, but provide an enrichment teacher to work with them in a homogeneous group several times a week. Dunlap (1955) states that the prime focus of this arrangement is on the attitudes, study habits, and ways of getting along with people that can be nurtured through such enrichment.

Partial grouping often occurs on a smaller scale (Holcomb, 1955; Cline & Smith, 1958). The Joplin Plan, for instance, uses crossgrade ability grouping to raise reading achievement. Ramsey (1962) reports that this arrangement does produce expected gains, especially for those children in the upper third of the classes in measured intelligence.

Finally, some schools cluster a small group of gifted children in a classroom with pupils of average intelligence. Besides providing

and their social peers, individual activities through projects, and drill in mental skills.

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Finally, some schools cluster a small group of gifted children in a classroom with pupils of average intelligence. Besides providing

the gifted with mental peers, clustering grouping allows for the advantages of a heterogeneous class (Kincaid & Epley, 1960).

Total Segregation of Gifted Children

Complete segregation of the gifted into groups homogeneous as to measured intelligence and/or achievement is not as common as parttime grouping, but special classrooms and schools have been established. One of the first special classes was organized by Race (1918) for superior students in Louisville, Kentucky.

The Terman Classes of Speyer School are among the most wellknown examples of total segregation of the gifted (Hollingworth, 1936, 1938, 1939; Bruner, 1941). Designed for children with a minimum Stanford-Binet of 130, these classes were part of an experimental program established to study and improve upon the education of exceptional children.

Many other classes and schools for the gifted have been established (see, for example, Havighurst, Stivers, & DeHaan, 1955; Wirick & Chambers, 1964; Oakland Schools' Board of Designates, 1965). These provisions, plus such new school arrangements as supplementary learning centers and mobile teaching laboratories, have provided opportunities to employ new instructional approaches with the gifted. However, little curriculum innovation has been based on knowledge of giftedness, and educational provisions designed for gifted children continue to be influenced by traditional grading practices and standardized testing (Hausdorff & Farr, 1965; Frierson, 1969).

Teachers of Gifted Children

The most important element of any educational provision for gifted children is the teacher (Renzulli, 1968). Although many

studies have sought to clarify the traits of an effective teacher of the gifted, complete consensus does not exist (Selvi, 1953; Wilson, 1953, 1957; Gowan, 1960). In an inclusive study comparing teachers identified by gifted students as being effective to teachers not so identified, Bishop (1968) presents certain characteristics as being most important. While effective teachers did not differ from unselected teachers in sex, marital status, type of undergraduate institution attended, highest degree held, or course work preparation, they did tend to be more intelligent, more active in the cultural aspects of their communities, and more achievement-oriented. The successful teachers also exhibited more favorable attitudes toward students in general, and toward the gifted in particular. They supported special educational provisions for the gifted, and preferred to teach a class of exceptionally bright students more than did the unselected teachers. Finally, in comparison to their fellow teachers, the effective teachers of the gifted were more systematic, orderly, and businesslike in their approach, and more enthusiastic about teaching.

CHAPTER IV: METHODOLOGY

Population

The population consisted of all eighty-seven public elementary schools in the Ingham Intermediate School District (State of Michigan), not just a sample thereof. Data were gathered from the business office of the Intermediate District, and from a survey given to each elementary principal. (Three schools that service elementaryage students were excluded from the study, one because it is a center for the trainable mentally retarded, and two others because they are special schools for emotionally disturbed children.)

Though the grade-level composition of the schools in the study varied, all the schools were "elementary." Intermediate and middle schools were excluded, even though several contained fifth and/or sixth grades.

Measures and Materials

Information was gathered on each of the eighty-seven elementary schools from the business office of the Ingham Intermediate School District, and recorded on dittoed pages hereafter referred to as data sheets for individual schools. (See Appendix A.)

The survey was pretested in two consecutive sessions. In the first, the answers to questions six and seven were "open," with no prestructured options. (See Appendix B.) Only questions six and

seven were replicated in the second session, but a list of possible responses was provided. (See Appendix C.)

The final, revised form of the survey (see Appendix D) was mailed to each of the eighty-seven elementary principals in a 10 inch by 13 inch brown envelope. Included was a letter of transmittal with an individualized inside address and salutation; each letter was signed by hand. (See Appendix E.)

Individualized, hand-signed follow-up letters were sent to all principals not returning the survey by the stipulated date. (See Appendix F.)

Procedures

General Preliminaries

The rationale and purpose of this study were explained at its onset to the Assistant Superintendent of Special Education (Ingham Intermediate School District) in order to enlist his support and cooperation. Specifically, he arranged access to the Intermediate District business office files in order that necessary information on schools involved in this study could be gathered; he also agreed to co-sign the letter of transmittal that accompanied each survey. (His signature and position in the Intermediate District would help ensure response to the survey from the eighty-seven principals.)

Data Collection from the Business Office of the Ingham Intermediate School District

Information not readily available to most principals was collected from the business office of the Intermediate District with the assistance of the Administrative Services Consultant of the District, and recorded on data sheets for individual schools. With the exception of funding for gifted programs data, the sheets were completed with information from the Intermediate District files; funding questions were later directed to the business managers or superintendents of the various school districts.

Pretest of Survey and Subsequent Alterations

The survey was pretested on all eight elementary school principals in Grand Ledge, Michigan. Examination of the completed forms indicated that certain revisions were necessary.

When provided with a list of answer options for questions six and seven, the pretest principals made a significantly higher number of responses ($p_{<}$.05) than they did when these questions were left open-ended (see Table III). Apparently, supplying possible answers had the effect of insuring their inclusion. Thus, in spite of accompanying problems in quantification, an open-ended format for questions six and seven was selected for the final survey form because such an approach seemed to be more valid.

Furthermore, the directions to questions six and seven were not fully understood by several principals. In order to both clarify directions and to obtain responses free of external influence, these questions were combined and modified as shown in question six of the final, revised form of the survey.

Two additional alterations of the pretest survey were necessary. First, the percentage categories of (pretest) question four needed to be separated more precisely; it was also noted that option M of (pretest) question eight was redundant. Accordingly, these questions

TABLE	Ι	Ι	Ι
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rincipal	For	mat
	Open-Ended	Options Provided
A	3	6
В	2	5
С	1	4
D	1	11
E	1	2
F	2	3
G	1	2
н	1	4
	$\Sigma = 12$	Σ = 37
	$\bar{x}_{1} = 1.50$	$\bar{x}_{2} = 4.65$

Number Of Responses To Pretest Questions Six And Seven

were revised as shown in questions four and seven, respectively, of the final survey form.

Survey Administration

The survey was administered by mail to the principal of each of the eighty-seven schools studied. An accompanying letter of transmittal explained the purpose of the study, and requested that the survey be completed and returned by a specific date; a stamped envelope, addressed to the Intermediate District, was included for this purpose.

The majority of principals (75.86%) responded to this initial contact. A follow-up letter, and another survey, were mailed to those principals who did not comply within the allotted time (two weeks). Of these, two-thirds returned their completed questionnaires within an additional two week period. The seven remaining delinquent respondents were contacted by telephone, and each agreed to answer the survey questions orally.

The cumulative percentage of survey returns at each contact point is depicted in Figure 2. Responses from 100% of the population were finally secured.



Contact Point

Figure 2. Cumulative percentage of survey returns at each contact point.

Statistical Analysis

Data gleaned from the files of the Ingham Intermediate School District and responses to survey questions one through four were classified into a number of categories. The complete component breakdown of each of these demographic and personnel variables is depicted in Table IV. Responses to survey question five were classified into nine categories, i.e. each educational provision variable was tallied in terms of its being: first through below sixth in frequency of use (including ties), used alone, or not used at all. In order to determine the relationship between the fourteen demographic-personnel variables and the thirteen educational provision variables, 182 separate chi square analyses were conducted. Relationships existing above an alpha level of .05 were not considered significant.

Relationships between the philosophical and provision variables are presented in a descriptive manner in Chapter V.

TABLE IV

Variable	Component Breakdown				
State Equalized Valuation					
State Equalized Valuation per Pupil	€ \$10,600	\$10,601-	12,500	≥\$13,000	
Number of Elementary Pupils in District	€ 1,500	1,501-2,000	2,001-3,00	00 Other	
Number of Elementary Schools in District	1-3	4-6	7-9	Other	
Number of Pupils in School	≤ 249 21 450	50-299 300-34 -499 500-549	9 350-399 550-599 ⋛	40 0- 449 >600	
Av aila bility of Funding for Gifted Programs		Yes	No		
1969-70 Expenditure per Pupil	€ \$599	\$6 00-	799	≥\$800	
Average Class Size Including Special Education Students	€ ^{25.0}	25.1-	29.9	≥30.0	

Analysis Breakdown Of Demographic And Personnel Variables

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TABLE IV (c	cont'	d.)
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Variable	Component Breakdown				
Average Class Size Excluding Special Education Students	خ 2 5.	. 0	25.1-2	29.9	≥30.0
Grade Composition of School	K-2	К-4	K-5	K-6	0th er
Percentage of Teachers Team Teaching	None	ع ^{25%}	26-50%	s 5 1- 75%	≥76%
Counselor Availability	Full	Time	Part	: Time	None
Availability of An Assistant Principal			Yes	No	
Availability of Director of Special Education			Yes	No	

CHAPTER V: RESULTS

Intermediate District-Wide Occurrence of Provisions Made for Gifted Elementary Students

The majority of public elementary principals in the Ingham Intermediate School District (94.25%) reported making some kind of provision for gifted students (see Table V). While 6.9% of the principals reported using only one kind of provision, 68.96% stated that a main provision was used in conjunction with less frequently used methods. The remaining 19.39% of the principals reported using two or more provisions with equal frequency. Enrichment by the classroom teacher and grouping within the regular classroom were the most frequently used provisions.

Most of the public elementary school principals (88.51%) reported using some technique to identify gifted students. While 10.34% reported using only one method (teacher judgment) for such identification, the remaining 78.17% stated that two or more techniques were employed. As shown in Table VI, the method used most frequently to identify gifted elementary students was teacher judgment.

Intermediate District-Wide Occurrence of Selected Demographic and Personnel Variables

The State Equalized Valuation and the State Equalized Valuation per student in the constituent districts of the Ingham Intermediate

TABLE V

Provisions Made For Gifted Students (Reported By Individual Public Elementary Principals In The Ingham Intermediate School District) Compared On The Basis Of Frequency Of Occurrence

		dents			
Provision	Selecting as Only Choice	Selecting as First, but not Only Choice	Employing Equally with Other Provi- sions as First Choice	Employing Less Frequently than Main Provision(s)	Not Using at All
No Provision	5.75	-	-	-	94.25
Acceleration (Double Promotion)	0	0	2.30	18.39	79.31
Early Admissio	n 0	0	2.30	2.30	95 .40
Ungraded Prima	ry O	11.49	8.05	10.34	70.11
Enrichment by Regular Teache	5.75 r	24.14	12.64	44.83	12.64
Enrichment by Ancillary Personnel	0	2.30	3.45	19.54	74.71
Grouping in Regular Classr	0 oom	14.94	13.79	47.13	24.14
Advanced Placement	0	1.15	6.90	29.89	62.07
Extra Curricul Activities	ar O	0	1.15	11.49	87.36
Partial Segregation	0	1.15	5.75	21.84	71.26
Complete Segregation	0	0	0	1.15	98.85
Special Teache or Consultant	r 1.15	11.49	1.15	16.09	70.11
Other	0	2.30	0	2.30	95.40

TABLE VI

Methods Of Identification Of Gifted Students (Reported By Individual Public Elementary Principals In The Ingham Intermediate School District) Compared On The Basis Of Frequency Of Occurrence

	Percentage of Respondents					
Method	Selecting as Only Choice	Employing with Other Provisions	Not Using at All			
No Planned Identification	11.49	-	88.51			
Teacher Judgment	10.34	70.11	19.54			
Counselor Judgment	0	13.79	86.21			
Principal Judgment	0	43.68	56.32			
I ndivi du al Intelli gence Tests	0	22.99	77.01			
Group Intelligence Tests	0	40.23	59.77			
Individual Achievement Tests	0	13.79	86.21			
Group Achievement Tests	0	51.72	48.28			
R eading Readiness Tests	0	14.94	85.06			
Reading Achievement Tests	0	20.69	79.31			
Aptitude Tests	0	8.05	91.95			
School Grades	0	2.30	97.70			
Other	0	2.30	97.70			

School District are presented in Table VII. As might be expected, the distribution of tax base is directly related to individual district expenditure per student. (In all but two constituent school districts, those which were above the Intermediate District mean in State Equalized Valuation per student were above the same mean in expenditure per student; those districts below one mean were also below the other.)

Intermediate District-wide occurrence of elementary school personnel thought to be germain to the kinds of provisions made for gifted students is depicted in Table VIII. Relationships between these two factors will be reported later in this chapter.

TABLE VII

Tax Base And Allocation Of Funds In The Constituent Districts Of The Ingham Intermediate School District

Constituent School Districts		State Equalized Valuation	State Equ aliz ed Valuation Per Pupil*	1969-1970 Expenditure Per Pupil*
East Lansing Holt Okemos Waverly Dansville Haslett Leslie Mason Stockbridge Webberville Williemston	\$	126,296,081 44,578,118 64,990,438 145,288,879 11,893,163 21,977,561 16,030,138 43,338,696 22,916,069 9,235,872 24,217,580	<pre>\$ 24,471.24 10,307.08 19,646.44 30,174.22 11,580.49 10,632.59 9,882.95 12,187.48 11,277.59 11,588.30 13,736,57</pre>	\$1,025.07 606.38 958.91 830.40 541.57 700.11 623.14 598.38 579.87 616.14 674.18
Total for Non-Lansing Districts		530,762,595	165,484.95	7,754.15
Average for Non- Lansing Districts		48,251,145	15,044.09	704.92
Lansing		677,494,032	20,285.47	893.57
Total Including Lansing	1	,208,256,627	185,770.42	8,647.72
Average Including Lansing		100,688,052	15,480.87	720.64

* Average figures based on total elementary and secondary student enrollment

TABLE VIII

Intermediate District-Wide Occurrence Of Selected Elementary School Personnel

Positions	Percentage of Schools Having Such Personnel
Assistant Principal	8.05%
Counselor (Total) Part Time Full Time	29.89 21.84 8.05
Director of Special Education	64.37
Team Teachers (Total) 1/4 of staff or less (but more than none)	56.33 34.48
<pre>1/2 of staff or less (but more than 1/4)</pre>	9.20
3/4 of staff or less (but more than 1/2)	4.60
all of staff or less (but more than 3/4)	8.05

The distribution of elementary school students and faculties in the Ingham Intermediate School District is presented in Table IX by constituent districts. The most conspicuous factor is that elementary schools in the Lansing district had, on the average, more students and fewer teachers per building than non-Lansing districts. Table X depicts the resulting larger average class size in the Lansing elementary schools.

TABLE IX

Elementary Student And Faculty Sizes In The Constituent Districts Of The Ingham Intermediate School District

Constituent District	Number of Elementary Schools	Number of Elementary Students		Students Per Elementary School		Faculty P er Elementary School	
		Σ1	2 ۲	M ₁	^M 2	^M 1	^M 2
East Lansing	9	2,477	2,464	275	274	11.5	11.5
Holt	5	2,413	2,378	483	476	17.5	17.0
Okemos	4	1,490	1,486	373	372	15.0	15.0
Waverly	6	2,149	2,114	358	352	14.0	13.5
Dansville	1	578	569	578	569	20. 0	19.0
Haslett	3	1,050	1,038	350	346	13.5	13.0
Leslie	1	651	636	651	636	27.0	25.0
Mason	5	1,954	1,932	391	386	15.0	15.0
Stockbridge	3	1,136	1,117	379	372	13.5	12.5
Webberville	1	316	316	316	316	13.0	13.0
Williamston	2	837	824	419	412	18.0	17.0
Total for Non-Lansing Districts	40	15,051	14,874				
Average for Non- Lansing Districts	4	1,368	1,352	376	372	14.5	14.0
Lansing	47	18,989	18,455	404	393	13.5	12.5
Total Including Lansing	87	34,040	33,329				
Average Including Lansing	7	2,836	2,777	391	383	14.0	13.5

 Σ_1 = Sum including special education students Σ_2 = Sum excluding special education students

M₁ = Mean including special education students/faculty

 M_2 = Mean excluding special education students/faculty

TABLE X

Average Class Sizes Of Elementary Schools In The Constituent Districts Of The Ingham Intermediate School District

	Average Class Size			
Constituent District	Including	Excluding		
	Special	Special		
	Education	Education		
	Students	Students		
East Lansing	23.5	24.0		
Holt	27.5	28.0		
Okemos	25.0	25.0		
Waverly	26.0	26.5		
Dansville	29.0	30.0		
Haslett	26.5	26.5		
Leslie	24.0	25.5		
Mason	25.5	26.0		
Stockbridge	28.5	29.5		
Webberville	24.5	24.5		
Williamston	23.5	24.0		
Total for Non-Lansing Districts				
Average for Non- Lansing Districts	25.5	26.0		
Lansing	29.5	31.5		
Total Including Lansing				
Average Including Lansing	27.5	29.0		

Relationships Between Selected School Characteristics and Provisions Made for Gifted Elementary Students

<u>Question One</u> of this study asked, "Is there a relationship between the State Equalized Valuation of a school district and the kind of provisions made for gifted elementary students?" From Table XI, it can be observed that the State Equalized Valuation of
TABLE XI

Relationship Between State Equalized Valuation And Provisions Made For Gifted Elementary Students

Provision	χ ²	df	Significance Level
No Provision	5.615	4	NS
Acceleration	17.956	24	NS
Early Admission	15.006	12	NS
Ungraded Primary	16.569	16	NS
Enrichment (by regular classroom teacher)	18.729	24	NS
Enrichment (by ancillary personnel)	34.887	24	NS
Grouping (in regular classroom)	20.550	16	NS
Advanced Placement	19.885	24	NS
Extra-Curricular Activities	30.350	24	NS
P artial Segregation	35.252	28	NS
Total Segregation	8.767	4	NS
S pecial Teac her or Consultant	32.179	32	NS
Other	17.418	12	NS
NS = Not Significant			

a school district is not related to any provision beyond the .05 level of significance.

Question Two of this study asked, "Is there a relationship between the State Equalized Valuation per student of a school district and the kind of provisions made for gifted elementary students?" From Table XII, it can be observed that the State Equalized Valuation per student of a school district is related to making "other" provisions. Further chi square cell analysis suggested that this relationship is specifically between the presence of low (\leq \$10,600) State Equalized Valuation per student and the use of such unspecified provisions.

Question Three of this study asked, "Is there a relationship between the number of elementary pupils in a school district and the kind of provisions made for gifted elementary students?" Table XIII shows that the number of elementary pupils in a school district is related to the following provisions: no provision, special teacher or consultant for the gifted, and provisions other than those listed. Specifically there is a relationship between districts having 1,501-2,000 elementary pupils and the use of no or "other" provisions. There is also a relationship between school districts having large elementary enrollments (>18,000 pupils) and the employment of special teachers or consultants for the gifted.

Question Four of this study asked, "Is there a relationship between the number of elementary schools in a district and the kind of provisions made for gifted elementary students?" From Table XIV, it can be observed that the number of elementary schools in a district is related to the following provisions: early admission,

TABLE XII

Relationship Between State Equalized Valuation Per Pupil And Provisions Made For Gifted Elementary Students

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Provision	x ²	df	Significance Level
No Provision	2.819	2	NS
Acceleration	11.977	12	NS
Early Admission	1.172	6	NS
Ungraded Primary	8.437	8	NS
Enrichment (by regular classroom teacher)	6.614	12	NS
Enrichment (by ancillary personnel)	5.182	12	NS
Grouping (in regular classroom)	2.318	8	NS
Advanced Placement	12.357	12	NS
Extra-Curricular Activities	12.167	12	NS
Partial Segregation	17.012	14	NS
Total Segregation	5.758	2	NS
Special Teacher or Consultant	10.828	16	NS
Other	19.875	6	.01
NS = Not Significant			

TABLE XIII

Relationship Between Number Of Elementary Pupils In A School District And Provisions Made For Gifted Elementary Students

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Provision	x ²	df	Significance Level
No Provision	12.999	3	.01
Acceleration	13.425	18	NS
Early Admission	14.046	9	NS
Ungraded Primary	10.096	12	NS
Enrichment (by regular classroom teacher)	20.336	18	NS
En richment (by ancillary personnel)	20.778	18	NS
Grouping (in regul a r classroom)	12.675	12	NS
Advanced Placement	7.923	18	NS
Extra-Curricular Activities	24.593	18	NS
Partial Segregation	28.946	21	NS
Tot al Segregation	4.856	3	NS
Special Teacher or Consultant	36.803	24	.05
Other	21.611	9	. 02
NS = Not Significant			

TABLE XIV

Relationship Between Number Of Elementary Schools In A District And Provisions Made For Gifted Elementary Students

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Provision	x ²	df	Significance Level
No Provision	1.922	3	NS
Acceleration	20.111	18	NS
Early Admission	36.337	9	.001
Ungraded Primary	10.334	12	NS
Enrichment (by regular classroom teacher)	19.704	18	NS
Enrichment (by ancillary personnel)	39.221	18	.01
Grouping (in regular classroom)	21.957	12	. 05
Advanced Placement	13.919	18	NS
Extra-Curricular Activities	29.348	18	.05
Partial Segregation	29.211	21	NS
Total Segregation	6.989	3	NS
Special Teacher or Consultant	31.153	24	NS
Other	8.508	9	NS
NS = Not Significant			

enrichment by ancillary personnel, grouping in the regular classroom, and extra-curricular activities. Further investigation showed that strong relationships exist between there being seven to nine elementary schools in a district, and the use of both early admission and enrichment by ancillary personnel. Significant relationships also occur between the presence of seven to nine elementary schools in a district, and the use of both grouping in the regular classroom and extra-curricular activities.

<u>Question Five</u> of this study asked, "Is there a relationship between the number of pupils in an elementary school and the kind of provisions made for its gifted students?" Table XV shows that the number of pupils in an elementary school is not related to any provision beyond the .05 level of significance.

Question Six of this study asked, "Is there a relationship between the availability of funding for gifted programs and the kind of provisions made for gifted elementary students?" From Table XVI, it can be seen that the availability of funding is related to acceleration, enrichment by the regular classroom teacher, and grouping in the regular classroom. It is strongly related to partial segregation and use of a special teacher or consultant for the gifted.

Question Seven of this study asked, "Is there a relationship between the 1969-70 school district expenditure per pupil and the kind of provisions made for gifted elementary students?" Table XVII shows that the 1969-70 school district expenditure per pupil is related to total segregation and provisions other than those listed. Specifically, there is a relationship between average

TABLE XV

Relationship Between Number Of Pupils In An Elementary School And Provisions Made For Its Gifted Students

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Provision	x ²	df	Significance Level
No Provision	2.702	8	NS
Acceleration	45.652	48	NS
Early Admission	23.018	24	NS
Ungraded Primary	26.708	32	NS
Enrichment (by regular classroom teacher)	46.503	48	NS
Enrichment (by ancillary personnel)	45.378	48	NS
Grouping (in regular classroom)	27.952	32	NS
Advanced Placement	40.215	48	NS
Extra-Curricular Activities	48.202	48	NS
Partial Segregation	67.159	56	NS
Total Segregation	6.989	8	NS
Special Teacher or Consultant	58.201	64	NS
Other	36.271	24	NS
NS = Not Significant		······································	

TABLE XVI

Relationship Between Availability Of Funding For Gifted Programs And Provisions Made For Gifted Elementary Students

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Provision	χ	df	Significance Level
No Provision	2.021	1	NS
Acceleration	13.521	6	.05
Early Admission	1.597	3	NS
Ungraded Primary	4.320	4	NS
Enrichment (by regular classroom teacher)	14.115	6	.05
Enrichment (by ancillary personnel)	5.386	6	NS
Grouping (in regular classroom)	12.774	4	.02
Advanced Placement	3.128	6	NS
Extra-Curricular Activities	2.909	6	NS
Partial Segregation	23.322	7	.01
Total Segregation	0.385	1	NS
Special Teacher or Consultant	78.322	8	. 001
Other	1.597	3	NS
NS = Not Significant			

TABLE XVII

Relationship Between 1969-70 School District Expenditure Per Pupil And Provisions Made For Gifted Elementary Students

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Provision	x ²	df	Significance Level
No Provision	5.417	2	NS
Acceleration	15.503	12	NS
Early Admission	1.334	6	NS
Ungraded Primary	9.893	8	NS
Enrichment (by regular classroom teacher)	9.240	12	NS
Enrichment (by ancillary personnel)	15.520	12	NS
Grouping (in regular classroom)	3.794	8	NS
Advanced Placement	9.818	12	NS
Extra-Curricular Activities	11.582	12	NS
Partial Segregation	17.403	14	NS
Total Segregation	6.323	2	.05
Special Teacher or Consultant	12.463	16	NS
Other	15.628	6	.02
NS = Not Significant			

(\$600-799) district expenditure per student and the use of total segregation. A strong relationship occurs between low (< 599) district expenditure per pupil and the use of "other" provisions.

Question Eight of this study asked, "Is there a relationship between the average class size of a school (including special education pupils) and the kind of provisions made for gifted elementary students?" From Table XVIII, it can be observed that the average class size of a school including special education pupils is strongly related to enrichment by ancillary personnel. Further analysis showed that this relationship is specifically between schools with low (< 25.0 students) average class size (including special education pupils) and the use of such enrichment.

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Question Nine of this study asked, "Is there a relationship between the average class size of a school (excluding special education pupils) and the kind of provisions made for gifted elementary students?" Table XIX shows that the average class size of a school excluding special education pupils is related to early admission and enrichment by ancillary personnel. These relationships exist specifically when low (< 25.0 students) average class size (excluding special education pupils) is evident.

Question <u>Ten</u> of this study asked, "Is there a relationship between the grade composition of a given school (e.g. K-4, K-5, K-6) and the kind of provisions made for gifted elementary students?" From Table XX, it can be observed that the grade composition of a school is strongly related to enrichment by ancillary personnel and provisions other than those listed. Further investigation showed

TABLE XVIII

Relationship Between Average Class Size Of A School (Including Special Education Pupils) And Provisions Made For Gifted Elementary Students

Provision	χ 2	df	Significance Level
No Provision	3.108	2	NS
Acceleration	8.779	12	NS
Early Admission	10.357	6	NS
Ungraded Primary	6.216	8	NS
Enrichment (by regular classroom teacher)	15.793	12	NS
Enrichment (by ancillary personnel)	30.056	12	.01
Grouping (in regular classroom)	9.457	8	NS
Advanced Placement	8.616	12	NS
Extra-Curricular Activities	16.847	12	NS
Partial Segregation	14.969	14	NS
Total Segregation	1.245	2	NS
S pecial Teacher or Consultant	17.729	16	NS
Other	6.132	6	NS
NS = Not Significant			******

TABLE XIX

Relationship Between Average Class Size Of A School (Excluding Special Education Pupils) And Provisions Made For Gifted Elementary Students

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Provision	χ ²	df	Significance Level
No Provision	1.235	2	NS
Acceleration	9.547	12	NS
Early Admission	15.299	6	. 02
Ungraded Primary	5.224	8	NS
Enrichment (by regular classroom teacher)	6.750	12	NS
Enrichment (by ancillary personnel)	22.760	12	.05
Grouping (in regular classroom)	12.353	8	NS
Advanced Placement	8.272	12	NS
Extra-Curricular Activities	11.071	12	NS
Partial Segregation	19.233	14	NS
Total Segregation	1.577	2	NS
Special Teacher or Consultant	24.501	16	NS
Other	3.409	6	NS
NS = Not Significant			

TABLE XX

Relationship Between Grade Composition Of A School And Provisions Made For Gifted Elementary Students

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Provision	x ²	df	Significance Level
No Provision	6.057	4	NS
Acceleration	13.578	24	NS
Early Admission	10.398	12	NS
Ungraded Primary	8.739	16	NS
Enrichment (by regular classroom teacher)	32.660	24	NS
Enrichment (by ancillary personnel)	130.859	24	.001
Grouping (in regular classroom)	15.747	16	NS
Advanced Placement	15.146	24	NS
Extra-Curricular Activities	13.165	24	NS
Partial Segregation	16.904	28	NS
Total Segregation	2.509	4	NS
Special Teacher or Consultant	25.003	32	NS
Other	45.539	12	. 001
NS = Not Significant			

that the relationships exist between schools with a K-2 composition and enrichment by ancillary personnel and also between "other" grade compositions and "other" provisions.

Question Eleven of this study asked, "Is there a relationship between the percentage of teachers involved in team teaching in a school and the kind of provisions made for gifted elementary students?" From Table XXI, it can be observed that the percentage of teachers involved with team teaching in a school is related to presence of an ungraded primary, enrichment by ancillary personnel, and advanced placement. Further analysis showed that the specific relationships are between 1) most (\geq 76%) of the teachers in a school team teaching and the presence of an ungraded primary, and 2) the majority (51-76%) of the teachers in a school team teaching and both enrichment by ancillary personnel and advanced placement.

<u>Question Twelve</u> of this study asked, "Is there a relationship between the presence of a school counselor and the kind of provisions made for gifted elementary students?" Table XXII shows that the presence of a school counselor is related to making provisions other than those listed (when the counselor is part time).

Question Thirteen of this study asked, "Is there a relationship between the presence of an assistant principal in a school and the kind of provisions made for gifted elementary students?" From Table XXIII, it can be observed that the presence of an assistant principal in a school is related to the following provisions: ungraded primary, partial segregation, and use of a special teacher or consultant for the gifted.

TABLE XXI

Relationship Between Percentage Of Teachers Involved In Team Teaching And Provisions Made For Gifted Elementary Students

Provision	x ²	df	Significance Level
No Provision	1.407	4	NS
Acceleration	15.762	24	NS
Early Admission	18.061	12	NS
Ungraded Primary	39.637	16	. 001
Enrichment (by regular classroom teacher)	31.861	24	NS
Enrichment (by ancillary personnel)	47.576	24	.01
Grouping (in regular classroom)	18.388	16	NS
Advanced Placement	40.122	24	.05
Extr a- Curricular Activities	33.062	24	NS
Partial Segregation	22.706	28	NS
Total Segregation	1.922	4	NS
Special Teacher or Consultant	33.033	32	NS
Other	5.859	12	NS
NS = Not Significant			

TABLE XXII

Relationship Between Presence Of A School Counselor And Provisions Made For Gifted Elementary Students

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Provision	x ²	df	Significance Level
No Provision	2.261	2	NS
Acceleration	7.082	12	NS
Early Admission	1.787	6	NS
Ungraded Primary	5.603	8	NS
Enrichment (by regular classroom teacher)	12.714	12	NS
Enrichment (by ancillary personnel)	13.102	12	NS
Grouping (in regular classroom)	8.365	8	NS
Advanced Placement	17.764	12	NS
Extra-Curricular Activities	8.940	12	NS
Partial Segregation	6.020	14	NS
Total Segregation	0.431	2	NS
Special Teacher or Consultant	16.017	16	NS
Other	15.006	6	.05
NS = Not Significant			

TABLE XXIII

Relationship Between Presence Of An Assistant Principal In A School And Provisions Made For Gifted Elementary Students

Provision	x ²	df	Significance Level
No Provision	0.464	1	NS
Acceleration	4.493	6	NS
Early Admission	0.367	3	NS
Ungraded Primary	13.150	4	.02
Enrichment (by regular classroom teacher)	3.775	6	NS
Enrichment (by ancillary personnel)	8.399	6	NS
Grouping (in regular classroom)	7.754	4	NS
Advanced Placement	6.107	6	NS
E xtra- Curricular Activities	1.102	6	NS
Partial Segregation	20.204	7	.01
Total Segregation	0.089	1	NS
Special Teacher or Consultant	22.643	8	.01
Other	0.367	3	NS
NS = Not Significant			

TABLE XXIII

Relationship Between Presence Of An Assistant Principal In A School And Provisions Made For Gifted Elementary Students

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Provision	x ²	df	Significance Level
No Provision	0.464	1	NS
Acceleration	4.493	6	NS
Early Admission	0.367	3	NS
Ungraded Primary	13.150	4	.02
Enrichment (by regular classroom teacher)	3.775	6	NS
Enrichment (by ancillary personnel)	8.399	6	NS
Grouping (in regular classroom)	7.754	4	NS
Advanced Placement	6.107	6	NS
Extr a- Curricular Activities	1.102	6	NS
Partial Segregation	20.204	7	.01
Total Segregation	0.089	1	NS
Special Teacher or Consultant	22.643	8	.01
Other	0.367	3	NS
NS = Not Significant			

<u>Question Fourteen</u> of this study asked, "Is there a relationship between the presence of a director of special education in a district and the kind of provisions made for gifted elementary students?" Table XXIV shows that the presence of a director of special education is related to the presence of a special teacher or consultant for the gifted.

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Stated Rationales for Presence or Absence of Formal Provisions for Gifted Elementary Students

Schools in this study were classified on the basis of whether or not the building or district administration made formal provisions for gifted elementary students. Such provisions include partial or total segregation of gifted students, and employment of a special teacher or consultant for the gifted (see Appendix D, question six). Rationales were not pre-structured for the principals (see Chapter IV, p. 43); individual responses were classified upon receipt according to content.

<u>Question Fifteen</u> of this study asked, "Do the majority of elementary schools that partially or totally segregate gifted students, or provide a special teacher or consultant for the gifted, have a consistent rationale for doing so?" Table XXV shows that a fairly consistent rationale did exist.¹ Collectively, all 34 principals (39.08% of the sample-population) who employed one or more of these provisions stated a total of only five reasons for using such

¹ The judgment of consistency here is relative and perhaps arbitrary. As a group, principals who made formal provisions were more consistent in their rationale than those who did not.

TABLE XXIV

Relationship Between Presence Of A Director Of Special Education In A School District And Provisions Made For Gifted Elementary Students

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Provision	x ²	df	Significance Level
No Provision	0.044	1	NS
Acceleration	9.597	6	NS
Early Admission	2.321	3	NS
Ungraded Primary	4.103	4	NS
Enrichment (by regular classroom teacher)	6.790	6	NS
Enrichment (by ancillary personnel)	8.826	6	NS
Grouping (in regul a r classroom)	2.215	4	NS
Advanced Placement	3.065	6	NS
Extra-Curricular Activities	8.194	6	NS
Partial Segregation	10.294	7	NS
Total Segregation	1.827	1	NS
Special Teacher or Consultant	20.670	8	.01
Other	4.737	3	NS
NS = Not Significant			

measures. (One reason was given by 79.41% of these principals; the remaining 20.59% cited two reasons.) The two reasons for the use of formal provisions stated most frequently were that such were necessary to meet the academic needs of gifted students, and to provide enrichment for them.

TABLE XXV

Reasons Stated By Elementary Principals In The Ingham Intermediate School District For The Presence Of Formal Provisions For The Gifted

Reason	Number of Times Cited
To meet individual (academic) needs of gifted students	15
To provide enrichment	10
It is the policy of the school district	6
To make the classroom teacher's job easier	4
Have no rationale	6

Question Sixteen of this study asked, "Do the majority of elementary schools that do not partially or totally segregate gifted students, or provide a special teacher or consultant for the gifted, have a consistent rationale for not doing so?" From Table XXVI, it can be observed that a relatively inconsistent rationale existed. Collectively, all 53 of the principals (60.92% of the sample-population) who did not employ any of these provisions stated a total of eleven reasons for not doing so. (One reason was given by 60.37% of these principals; two reasons were stated by 30.19%; three reasons were cited by 9.44%.) The three reasons stated most frequently for the absence of formal provisions were lack of funds, pedagogical opposition to such measures, and lack of need due to complete curricular individualization.

TABLE XXVI

Reasons Stated By Elementary Principals In The Ingham Intermediate School District For The Absence Of Formal Provisions For The Gifted

Reason	Number of Times Cited
Lack of funds	18
Pedagogically opposed	17
No need—complete individual- ization exists in our school	11
Not enough gifted students	9
Lack of teacher support	6
Lack of (trained) staff	5
Emphasis should be on remediation	4
Lack of community support	3
"All children are gifted"	2
Lack of facilities	1
No response	3

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CHAPTER VI: DISCUSSION

Summary of Results

The majority (94.25%) of public elementary principals in the Ingham Intermediate School District reported making some educational provision for the gifted; 88.35% of the principals reported using two or more methods. Enrichment by the regular classroom teacher and grouping within the regular classroom were the most frequently used provisions. Most (88.51%) of the principals also reported using some technique to identify the gifted; 78.17% stated that two or more methods were used. Teacher judgment was the most frequently used identification technique.

District tax bases and 1969-70 district expenditures per pupil were directly related to each other. These economic factors varied widely throughout the Intermediate District.

While only 8.05% of the elementary schools in the Intermediate District had an assistant principal, 29.89% of the schools had a part-time or full-time counselor; 64.37% of the schools (i.e. those in Lansing and East Lansing) belonged to districts employing a director of special education. Varying degrees of team teaching occurred in 56.33% of all the schools surveyed.

Average class sizes (both including and excluding special education pupils) were larger in the Lansing district than in the

eleven other districts.

Although 182 separate chi square analyses were conducted to ascertain what relationships exist between (fourteen) selected demographic-personnel variables and (thirteen) provisions for the gifted, only twenty-eight proved to be significant beyond an alpha level of .05. Table XXVII depicts the seven variables related to formal provisions for gifted elementary students. Table XXVIII delineates the twenty-one factors related to informal provisions for the gifted. Certain variables, namely State Equalized Valuation and number of pupils in an elementary school, were not related to any formal or informal provision.

Thirty-four elementary principals (39.08% of the sample-population) reported making formal provisions for the gifted. (Such provisions include partial or total segregation of gifted students, or employment of a special teacher or consultant for the gifted.) Of these principals. 79.41% gave one reason for using one or more formal provisions; the remaining 20.59% cited two reasons. The reasons stated most frequently for the use of formal provisions were that such were needed to meet the academic needs of gifted students, and to provide enrichment for them. Fifty-three elementary principals (60.92% of the sample-population) did not make formal provisions for the gifted. Of these principals, 60.37% stated one reason, 30.19% cited two reasons, and 9.44% reported three reasons for the absence of such measures. The reasons stated most frequently for not using formal provisions were lack of funds, pedagogical opposition to such measures, and lack of need due to complete curricular individualization.

TABLE XXVII

Factors Related To Formal Provisions Made For Gifted Elementary Students In The Ingham Intermediate School District

Provision		Factor
Partial Segregation		Availability of funding for gifted programs ***
		Presence of assistant principal ***
Total Segregation		District expenditure per pupil (\$600-799) *
Special Teacher or Consultant for the Gifted		Availability of funding for gifted programs ****
		Presence of assistant principal ***
		Presence of director of special education ***
		Number of elementary pupils in district (≥18,000) *
 p levels: * ≤ .05	** < .02	*** < .01 **** < .001

Limitations

Perhaps the most obvious limitation of this study is its partial reliance on verbal report. While most principals responded to the questionnaire in an honest and forthright manner, a few instances of inaccurate reporting did take place. Whether such errors were intentional or inadvertent remains unknown.

Inherent in the statistical analysis are several other limitations.

TABLE XXVIII

Factors Related To Informal Provisions Made For Gifted Elementary Students In The Ingham Intermediate School District

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Provision	Factor
No Provision	Number of elementary pupils in district (1,501-2,000) ***
Acceleration	Availability of funding for gifted programs *
Early Admission	Number of elementary schools in district (7-9) ****
	Average class size excluding special education pupils (< 25.0) **
Ungraded Primary	Percentage of teachers team- teaching (ゝ76%) ****
	Presence of assistant principal **
Enrichment (by regular classroom teacher)	Availability of funding for gifted programs *
Enrichment (by ancillary personnel)	Grade composition of school (K-2) ****
	Number of elementary schools in district (7-9) ***
	Percentage of teachers team- teaching (51-75%) ***

TABLE XXVIII (cont'd.)

Provision		Factor
		Average class size including special education pupils (<25.0) ***
		Average class size excluding special education pupils (<25.0) *
Grouping (in regular classroom)		Availability of funding for gifted programs **
		Number of elementary schools in district (7-9) *
Advanced Placement		Percentage of teachers team- teaching (51-75%) *
Extra-Curricular Activities		Number of elementary schools in district (7-9) *
"Other"		Grade composition ("other") ****
		State Equalized Valuation per pupil (≤10,600) ***
		Number of elementary pupils in district (1,501-2,000) **
		Expenditure per pupil (< \$599) **
		Presence of school counselor (part time) *
p levels: * < .05	** < .02	*** < .01 **** < .001

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In the first place, chi square as used here, does not establish causality; it merely describes the joint occurrence of events. The relationship between each factor might really be due to the presence of another underlying variable. Chi square, a nonparametric test, is also a relatively non-powerful technique. However, since this was an exploratory study subject to the possibility of questionnaire invalidity, a more powerful (and complicated) analysis would have added little more than the error of misplaced precision.

Any exploratory study making use of numerous independent analyses involves still another limitation. An experiment-wide alpha level of .05 means that out of one hundred tests, five "significant" relationships or differences would occur by chance alone. In this study, 182 separate chi square analyses were computed. Of the twenty-eight significant relationships which emerged, then, 5% (or a total of nine) were not significant at all. Which nineteen of the twenty-eight relationships are real is unfortunately a matter of speculation.

Conclusions

Most elementary schools in the Ingham Intermediate School District make some sort of provision for gifted students. However, the purpose of this study was not only to describe what is being done in the Intermediate District, but also to ascertain whether selected demographic, personnel, and philosophic variables bear any relationship to the type of provision employed. Twenty-eight significant relationships were found. Several of these are supported by previous research; others are a result of the exploratory nature of this

project. On the other hand, a few relationships seem to require contrived explanations; these may well have emerged as significant owing to chance (low alpha) and multiple analyses.

Present and Past Research

Previous research has already examined several of the relationships in this study. Durr (1962), for example, noted that the absence of provisions for the gifted is more probable in smaller than in larger systems. The joint occurrence of "no provisions" with low (1,501-2,000) elementary district enrollment (p <.01) confirms Durr's finding.

The relationship between employment of a special teacher or consultant for the gifted and large ($\geq 18,000$) elementary district enrollment (p <.05) is generally in line with the results of Havighurst's (1955) study. However, Havighurst also maintained that an "average" socioeconomic status in a school district (computed here on the basis of expenditure per pupil) is related to providing total segregation of the gifted. Such was found to be the case in the present study (p <.05), but another factor must be considered: only one principal in the entire sample-population reported using total segregation. His, in fact, spurious response was sufficient to make the relationship statistically significant.

Not all relationships established by previous research were confirmed by the present study. Durr (1962), for example, stated that elementary schools with large student enrollments are more likely to make planned provisions for the gifted than elementary schools with small student enrollments, that small schools use partial segregation

more than large schools, and that large schools use extra-curricular activities more than small schools. This study, though, did not find that the variable of school size (number of pupils enrolled in an elementary school) is significantly related to any educational provision for the gifted.

New Information

Formal provisions for the gifted include special teacher or consultant and partial or total segregation. The remaining ten provisions are designated as informal. Though this dichotomous classification scheme is admittedly arbitrary, it does suggest at least a degree of commitment to the education of gifted students.

<u>Regarding Formal Provisions</u>: Five significant relationships between demographic variables and formal provisions for the gifted emerged from the exploratory portion of this study. Each of these relationships can be readily explained.

The joint occurrence of availability of funding with 1) partial segregation (p < .01) and 2) employment of a special teacher or consultant for the gifted (p < .001) is as might be expected. Because of an otherwise prohibitive expense, both provisions would have to be contingent upon financial approval of the local school district.

The presence of a director of special education in a school district would seem to imply administrative recognition that "exceptional" children exist, and often require special services. This notion seems to be supported in the present study, for there is a strong relationship (p <.01) between presence of a director of special education and employment of a teacher or consultant for the

more than large schools, and that large schools use extra-curricular activities more than small schools. This study, though, did not find that the variable of school size (number of pupils enrolled in an elementary school) is significantly related to any educational provision for the gifted.

New Information

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The presence of a director of special education in a school district would seem to imply administrative recognition that "exceptional" children exist, and often require special services. This notion seems to be supported in the present study, for there is a strong relationship (p <.01) between presence of a director of special education and employment of a teacher or consultant for the

gifted.

The presence of an assistant principal in an elementary school is also related to employment of a special teacher or consultant for the gifted (p < .01), and additionally, to both partial segregation (p < .01) and the (informal) provision of an ungraded primary (p < .02). Apparently, an assistant principal is in the unique position of being able to provide the time, leadership, and authorization necessary to organize and supervise these special programs.

<u>Regarding Informal Provisions</u>: Twelve significant relationships between demographic-personnel variables and informal provisions for the gifted emerged from the exploratory part of this study. Each of these relationships is readily explained.

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It seems likely that administrators would be more amenable to admit gifted children to school at an early age when not feeling the pressure of rapidly expanding student ranks. Such appears to be the case in this study. Early admission occurred jointly with low (≤ 25.0 pupils) average class size (p < .02). This explanation would also seem to account for the joint occurrence of seven to nine elementary schools in a district and early admission (p < .001), since East Lansing, with its low (≤ 25.0 pupils) average class size, is the only district comprising this survey category.

The close proximity of Michigan State University student volunteers and observers to East Lansing schools would appear to explain the relationship between seven to nine elementary schools in a district and enrichment by ancillary personnel (p < .01).

The relationship between \geq 76% of the teachers of an elementary

school team teaching and an ungraded primary (p < .001) might have been expected. Team teaching is conducive to such cooperative projects as an ungraded primary; and an ungraded primary is fairly dependent upon some degree of team teaching. Likewise, the joint occurrence of 51-75% of the teachers of an elementary school team teaching with 1) enrichment by ancillary personnel (p < .01) and 2) advanced placement (p < .05) might also have been predicted. All of these provisions seem to evolve from the cooperative nature of team teaching.

When a district administration makes funds available for the education of gifted students, apparently school building personnel, i.e. teachers and principals, perceive this as a high priority item. This notion would seem to explain the relationships between the availability of funding for gifted programs with 1) grouping in the regular classroom (p < .02), 2) enrichment by the regular classroom teacher (p < .05), and 3) acceleration (p < .05). Even though these provisions do not require a special budget, the mere availability of funding for gifted programs symbolizes the philosophic position of district administrators, and probably fosters the use of both formal and informal (expensive and inexpensive) provisions for the gifted.

On the other hand, gifted programs may be a low priority item when revenue for even the basic curriculum is sparce; inexpensive or substandard provisions for gifted children could then result. Furthermore, atypical academic and physical arrangements could necessitate atypical provisions for the gifted. Both points of

view seem to be supported by the present study. Use of "other" provisions occurred jointly with 1) low (\leq \$10,600) State Equalized Valuation per pupil (p <.01), 2) low (\leq \$599) district expenditure per pupil (p <.02), and 3) "other" grade composition (p <.001).

Spurious Findings

Seven significant relationships emerged from this study possibly from chance due to multiple analyses. Any explanations of the spurious findings depicted in Table XXIX would have to be contrived.

Philosophical Determinants

Most principals who employed one or more formal provision for the gifted gave a relatively consistent rationale in favor of such measures (see Table XXV). The two most frequently cited reasons for use of formal provisions were that such were necessary to meet the academic needs of gifted students, and to provide enrichment for them.

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The collective rationale of those principals who did not make formal provisions lacked consistency (see Table XXVI). Their reasons were quite diverse and disparate, implying both favorable and unfavorable attitudes toward such special treatment of the gifted.

In each instance, however, expressed attitudes may have really been determined by already existing provisions (or lack thereof).

Implications

This study investigated a local population rather than a state or national sample. Therefore, attempts to generalize beyond the Ingham Intermediate School District may not be warranted.

TABLE XXIX

Spurious Relationships Between Selected Demographic-Personnel Variables And Provisions Made For Gifted Elementary Students In The Ingham Intermediate School District

Provision		Factor
Grouping (in regular classroom)		Number of elementary schools in district (7-9) *
Extra-Curricular Activities		Number of elementary schools in district (7-9) *
"Other"		Number of elementary pupils in district (1,501-2,000) **
		Presence of school counselor (part time) *
Enrichment (by ancillary personnel)		Average class size including special education pupils (≤25.0) ***
		Average class size excluding special education pupils (≤25.0) *
		Grade composition (K-2) ****
p levels: * < .05	** < .02	*** <.01 **** <.001

Schools or districts within the Ingham Intermediate School District that want to foster formal provisions for gifted elementary students might consider such elective factors as employment of a director of special education, placement of assistant principals in elementary schools, or acquisition of funding for gifted programs. Educators within the Ingham Intermediate School District who prefer use of informal provisions might opt to promote small class size (<25.0 pupils), encourage team teaching, or employ assistant principals for elementary schools.

It should be noted, however, that causality has not been established in this study. Only the joint occurrence of certain events has been determined. Further research is needed to clarify the precise nature of these relationships.

Summary

The dual purpose of this study was to investigate educational provisions made for gifted elementary children in the Ingham Intermediate School District, and to examine selected demographic, personnel, and philosophical characteristics which may predispose elementary schools to provide for gifted students in a given manner.

Fourteen demographic and personnel variables were analyzed in order to ascertain their relationship to thirteen formal and informal provisions. Philosophical positions of schools making and not making formal provisions were contrasted.

Demographic and personnel variables included: State Equalized Valuation, State Equalized Valuation per pupil, number of elementary pupils and schools in a district, individual elementary school size, availability of funding for gifted programs, 1969-70 school district expenditure per pupil, average class size of a school both including and excluding special education students, grade-level composition of individual schools, percentage of teachers involved in team-teaching, presence of a school counselor, presence of an assistant principal,
and presence of a district director of special education.

Formal provisions were defined as partial or total segregation, and a special teacher or consultant for the gifted. Informal provisions included: acceleration, early school admission, ungraded primary or combined-grade room, enrichment by the regular classroom teacher, enrichment by ancillary personnel, grouping within the regular classroom, advanced placement, extra-curricular activities, and "others."

The sample-population consisted of all eighty-seven public elementary schools in the Ingham Intermediate School District. Though the grade-level composition of the schools varied, all were "elementary." Intermediate and middle schools were excluded, even though several contained fifth and/or sixth grades.

Information not readily available to most principals was collected from the business office of the Ingham Intermediate School District. Questions concerning funding for gifted programs were directed to the business managers or superintendents of the twelve constituent school districts.

Data relative to individual school programs were gathered via a (pretested) survey administered by mail to the principal of each of the eighty-seven schools. Follow-up letters and telephone calls secured response from 100% of the population.

The majority of principals reported making at least one provision for gifted students. Those provisions cited most frequently were enrichment by the regular classroom teacher, and grouping within the regular classroom. Most principals also

reported using at least one method to identify the gifted. Teacher judgment was the most frequently used identification technique.

In order to determine the relationships between the demographicpersonnel variables and the kinds of educational provisions employed, 182 separate chi square analyses were conducted. Twenty-eight relationships emerged as significant beyond an alpha level of .05. However, not all these relationships were readily explained; hence, seven were designated as spurious.

Only two of the demographic-personnel variables, namely, State Equalized Valuation and number of pupils in an elementary school, were not related to any formal or informal provision. Causality, however, has not been established; each joint occurrence may have been due to the presence of another underlying factor.

Most principals who made use of one or more formal provision for the gifted gave a relatively consistent rationale in support of such measures. Those principals who did not make any formal provision stated reasons that lacked uniformity and consistency. Causality, though, was not established in these instances either; existing provisions (or lack thereof) could have determined the stated philosophy.

Apparently, certain demographic, personnel, and philosophical variables are related to the kind of provision made for gifted students. Further research is needed, though, to clarify the nature of these relationships.

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APPENDICES

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APPENDIX A

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DATA SHEET FOR INDIVIDUAL SCHOOLS

DATA SHEET FOR INDIVIDUAL SCHOOLS

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S CHOOL				
DISTRICT		CLASS		
Total number	of elementary	pupils in school _		
Number o	of special educ	ation pupils	Categor	у
Number of ele	ementary school	s in district		
Number of ele	ementary pupils	in district		
Grade composi	tion of school			
Total number	of teachers in	n school	-	
Number o	of special educ	ation teachers in	school	
Average class	size in build	ling (including spe	cial educati	on classes)
	; (excludir	n <mark>g special educati</mark> o	n classes) _	<u></u>
S ta te Equaliz	ed Valuation _			
State Equaliz	zed Valuation p	er child		
Funding for g	gifted progr a ms	3:		
	Local	Intermediate	State	<u>Federal</u>
Amount:				
Source o	of information	Po	sition	
Total 1969-19	970 millage rat	.e		
1969-1970 exp	oenditure per p	oupil		

APPENDIX B

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PRETEST FORM OF SURVEY: PART I

PRETEST FORM OF SURVEY: PART I

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SCH	OOL DISTRICT		
NAM	E OF RESPONDENT		
POS	ITION DATE		
1.	Do you have an assistant principal? Yes No		
2.	Does your school have a counselor? Yes No		
	If yes, is he/she: Full time Part time		
3.	Please write "yes" in front of any of the following positions that exist in your school district. Write "no" in front of those which your school district does not have.		
	Director of Elementary Education		
	Director of Special Education		
	Curriculum Director (K-12)		
	Assistant Superintendent for Instruction		

4. Please indicate what percentage of your teachers team-teach (two or more teachers sharing responsibility for a group of students):

_____a. None _____b. 25% or less _____c. 26-50% _____d. 51-75% _____e. 76% or more

- 5. Rank the provisions your school makes for gifted students in order of frequency, with #1 being the most frequently used, #2 the next most frequently used provision, and so forth. If two or more are used with equal frequency, assign the same numeral to each. Please rank only those provisions that actually apply to your school. Leave the provisions that do not apply blank.
 - _____ a. No provisions are made
 - b. Acceleration (grade skipping)
 - c. Early admission to kindergarten
 - d. Ungraded primary (where child can condense three year's work into two, or two year's work into one, and so forth). Please describe:
 - _____e. Enrichment in the regular classroom by the regular teacher

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- f. Enrichment in the regular classroom by a person other than the regular teacher. Please specify:
- g. Grouping within the regular classroom
- h. Advanced placement for some academic areas (child remains in regular classroom for most subjects, but goes to higher-grade rooms for some subjects). Please describe:
- i. Extra-curricular activities (which occur before or after the regular school day). Please specify:
- _____ j. Partial segregation (gifted grouped together for some classes)
- k. Complete segregation (gifted grouped together for all classes)
- _____1. Special teacher or consultant for the gifted. Please describe:

m. Other. Please specify:

6. If your school <u>does not</u> partially or totally segregate gifted students, or have a special teacher or consultant for the gifted, please indicate the reason(s) for this. If more than one reason exists, please number them in order of importance, with #1 being the most important, #2 the next most important, and so forth. If two or more reasons are equally important, assign the same numeral to each.

7. If your school <u>does</u> partially or totally segregate gifted students, and/or have a special teacher or consultant for the gifted, please indicate the reason(s) for this. If more than one reason exists, please number them in order of importance, with #1 being the most important, #2 the next most important, and so forth. If two or more reasons are equally important, assign the same numeral to each.

- 8. Which of the following do you use to identify your gifted students? Please state the scores or other criteria as the minimal beginning point for giftedness.
 - _____ a. No planned identification
 - _____b. Teacher judgment
 - _____c. Counselor judgment
 - _____d. Principal judgment
 - _____e. Individual intelligence tests (I.Q. for giftedness = ____)

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- _____ f. Group intelligence tests (I.Q. for giftedness = ____)
- _____ g. Individual achievement test (giftedness = _____ grades above the norm)
- _____h. Group achievement tests (giftedness = _____ grades above the norm)
- _____ i. Reading readiness tests (giftedness = _____ grades above the norm)
- _____ j. Reading achievement tests (giftedness = _____ grades above the norm)
- _____k. Aptitude tests
- _____1. School grades (giftedness = _____ grade point average)
- m. Combination of above. Please specify by letters.
- n. Other. Please explain:

- 8. Which of the following do you use to identify your gifted students? Please state the scores or other criteria as the minimal beginning point for giftedness.
 - _____ a. No planned identification
 - _____b. Teacher judgment
 - _____c. Counselor judgment
 - _____ d. Principal judgment
 - _____e. Individual intelligence tests (I.Q. for giftedness = ____)

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- _____ f. Group intelligence tests (I.Q. for giftedness = ____)
- _____g. Individual achievement test (giftedness = _____grades above the norm)
- h. Group achievement tests (giftedness = _____ grades above the norm)
- _____ i. Reading readiness tests (giftedness = _____ grades above the norm)
- _____ j. Reading achievement tests (giftedness = _____ grades above the norm)
- _____k. Aptitude tests
- _____ 1. School grades (giftedness = _____ grade point average)
- m. Combination of above. Please specify by letters.
- n. Other. Please explain:

APPENDIX C

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PRETEST FORM OF SURVEY: PART II

PRETEST FORM OF SURVEY: PART II

- 6. If your school <u>does not</u> partially or totally segregate your gifted students, or have a special teacher or consultant for the gifted, please indicate the reason(s) for this. If more than one reason exists, please number them in order of importance, with #1 being the most important, #2 the next most important, and so forth. If two or more reasons are equally important, assign the same numeral to each. Please rank only the reason(s) that actually apply to your school. Leave the reasons that do not apply blank.
 - a. Gifted students excel without such provisions.
 - b. Gifted students should be integrated, not segregated, from other students.
 - _____ c. Not enough gifted students
 - _____d. Lack of community interest
 - _____e. Lack of teacher interest
 - _____ f. Lack of administrative support
 - _____ g. Lack of funds
 - h. Lack of qualified teachers
 - _____ i. Lack of physical facilities
 - j. Other. Please specify:
- 7. If your school <u>does</u> partially or totally segregate gifted students, and/or have a special teacher or consultant for the gifted, please indicate the reason(s) for this. If more than one reason exists, please number them in order of importance, with #1 being the most important, #2 the next most important, and so forth. If two or more reasons are equally important, assign the same numeral to each. Please rank only the reason(s) that actually apply to your school. Leave the reasons that do not apply blank.

- a. Gifted students need such provisions if they are to maximize their abilities.
- b. Gifted students learn more from each other than from other students.
- c. Gifted students deserve just as much time, money, and effort as do mentally retarded and emotionally disturbed students.
- _____d. Equal education for all students deprive the gifted of a good education.

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- e. The community accepts and is willing to pay for such provisions for the gifted.
- _____ f. The community demands such provisions for the gifted.
- g. Teachers are interested in such provisions.
 - h. I (the principal) am interested in such provisions.
- i. The administration is interested in such provisions.
- j. Such provisions for the gifted have high financial priority in this community dis-trict.
- k. Other. Please specify:

APPENDIX D

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FINAL, REVISED FORM OF SURVEY

- 5. Rank the provisions your school makes for gifted students in order of frequency, with #1 being the most frequently used, #2 the next most frequently used provision, and so forth. If two or more are used with equal frequency, assign the same numeral to each. Please rank only those provisions that actually apply to your school. Leave the provisions that do not apply blank.
 - a. No provisions are made
 - b. Acceleration (grade skipping)
 - c. Early admission to kindergarten
 - d. Ungraded primary (where child can condense three year's work into two, or two year's work into one, and so forth). Please describe:
 - e. Enrichment in the regular classroom by the regular teacher

- f. Enrichment in the regular classroom by a person other than the regular teacher. Please specify:
- g. Grouping within the regular classroom
- h. Advanced placement for some academic areas (child remains in regular classroom for most subjects, but goes to higher-grade rooms for some subjects). Please describe:
- i. Extra-curricular activities (which occur before or after the regular school day). Please specify:
- j. Partial segregation (gifted grouped together for some classes)
- k. Complete segregation (gifted grouped together for all classes)
- 1. Special teacher or consultant for the gifted. Please describe:

m. Other. Please specify:

6. If your school <u>does not</u> partially or totally segregate gifted students, or have a special teacher or consultant for the gifted, please indicate the reason(s) for this. If more than one reason exists, please number them in order of importance, with #1 being the most important, #2 the next most important, and so forth. If two or more reasons are equally important, assign the same numeral to each.

7. If your school <u>does</u> partially or totally segregate gifted students, and/or have a special teacher or consultant for the gifted, please indicate the reason(s) for this. If more than one reason exists, please number them in order of importance, with #1 being the most important, #2 the next most important, and so forth. If two or more reasons are equally important, assign the same numeral to each.

- 8. Which of the following do you use to identify your gifted students? Please state the scores or other criteria as the minimal beginning point for giftedness.
 - _____ a. No planned identification
 - _____b. Teacher judgment
 - _____c. Counselor judgment
 - _____d. Principal judgment
 - _____e. Individual intelligence tests (I.Q. for giftedness = ____)

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- _____ f. Group intelligence tests (I.Q. for giftedness = ____)
- _____g. Individual achievement test (giftedness = grades above the norm)
- h. Group achievement tests (giftedness = _____ grades above the norm)
- _____ i. Reading readiness tests (giftedness = _____ grades above the norm)
- _____ j. Reading achievement tests (giftedness = _____ grades above the norm)
- _____ k. Aptitude tests
- 1. School grades (giftedness = _____ grade point average)
- m. Combination of above. Please specify by letters.
- _____ n. Other. Please explain:

APPENDIX C

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PRETEST FORM OF SURVEY: PART II

PRETEST FORM OF SURVEY: PART II

- 6. If your school <u>does</u> not partially or totally segregate your gifted students, or have a special teacher or consultant for the gifted, please indicate the reason(s) for this. If more than one reason exists, please number them in order of importance, with #1 being the most important, #2 the next most important, and so forth. If two or more reasons are equally important, assign the same numeral to each. Please rank only the reason(s) that actually apply to your school. Leave the reasons that do not apply blank.
 - a. Gifted students excel without such provisions.
 - _____b. Gifted students should be integrated, not segregated, from other students.

- _____ c. Not enough gifted students
- d. Lack of community interest
- _____e. Lack of teacher interest
- _____ f. Lack of administrative support
- _____ g. Lack of funds
- _____h. Lack of qualified teachers
- _____ i. Lack of physical facilities
- _____ j. Other. Please specify:
- 7. If your school does partially or totally segregate gifted students, and/or have a special teacher or consultant for the gifted, please indicate the reason(s) for this. If more than one reason exists, please number them in order of importance, with #1 being the most important, #2 the next most important, and so forth. If two or more reasons are equally important, assign the same numeral to each. Please rank only the reason(s) that actually apply to your school. Leave the reasons that do not apply blank.

a.	Gifted students need such provisions if they are to maximize their abilities.
b.	. Gifted students learn more from each other than from other students.
C.	. Gifted students deserve just as much time, money, and effort as do mentally retarded and emotionally disturbed students.
d.	. Equal education for all students deprive the gifted of a good education.
e.	. The community accepts and is willing to pay for such provisions for the gifted.
f.	. The community demands such provisions for the gifted.
g	. Teachers are interested in such provisions.
h.	. I (the principal) am interested in such pro- visions.
i.	. The administration is interested in such pro- visions.
j	. Such provisions for the gifted have high financial priority in this community dis-trict.
k	. Other. Please specify:

APPENDIX D

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FINAL, REVISED FORM OF SURVEY

APPENDIX D

FINAL, REVISED FORM OF SURVEY

FINAL, REVISED FORM OF SURVEY

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SCHO	DOL DISTRICT		
NAM	E OF RESPONDENT		
POST	DATE		
1.	Do you have an assistant principal? Yes No		
2.	Does your school have a counselor? Yes No		
	If yes, is he/she: Full time Part time		
3.	lease write "yes" in front of any of the following positions hat exist in your school district. Write "no" in front of hose which your school district does not have.		
	Director of Elementary Education		
	Director of Special Education		
	Curriculum Director (K-12)		
	Assistant Superintendent for Instruction		

4. Please indicate what percentage of your teachers team-teach (two or more teachers sharing responsibility for a group of students):

a.	None
b.	25% or less
c.	26 - 50%
d.	51 - 75%
e.	76% or more
- 5. Rank the provisions that your school makes for gifted students in order of frequency, with #1 being the most frequently used provision, #2 the next most frequently used provision, and so forth. Please rank only those provisions that are actually used in your school. Leave blank the provisions that are not used.
 - _____ a. No provisions are made
 - _____b. Acceleration (grade skipping)
 - _____ c. Early admission to kindergarten
 - d. Ungraded primary or combined-grade room (where child can condense three year's work into two, or two year's work into one, and so forth)
 - e. Enrichment in the regular classroom by the regular teacher
 - f. Enrichment in the regular classroom by a person other than the regular teacher. Please specify who this person is:
 - g. Grouping within the regular classroom
 - h. Advanced placement for some academic areas (child remains in regular classroom for most subjects, but goes to higher-grade rooms for some subjects)
 - i. Extra-curricular activities (which occur before or after the regular school day). Please identify these activities:
 - j. Partial segregation (gifted grouped together for some classes)
 - _____k. Complete segregation (gifted grouped together for all classes)
 - 1. Special teacher or consultant for the gifted
 - _____ m. Other. Please describe:

6. <u>Directions</u>: Question 6 consists of two parts. Respond to Part A only if you <u>excluded</u> options j, k, and l in your answer to question 5. Respond to Part B only if you <u>included</u> options j, k, or l in your answer to question 5. Do not respond to both parts of question 6.

Part A:

If your school <u>does not</u> partially or totally segregate gifted students, or have a special teacher or consultant for the gifted, please indicate the reason(s) for this. If more than one reason exists, please number them in order of importance, with #1 being the most important, #2 the next most important, and so forth.

Part B:

If your school <u>does</u> partially or totally segregate gifted students, and/or have a special teacher or consultant for the gifted, please indicate the reason(s) for this. If more than one reason exists, please number them in order of importance, with #1 being the most important, #2 the next most important, and so forth. 7. Which of the following do you use to identify your gifted students? Please state the scores or other criteria as the minimal beginning point for giftedness.

 a.	No planned identification
 b.	Teacher judgment
 c.	Counselor judgment
 d.	Principal judgment
 e.	Individual intelligence tests (I.Q. for giftedness =)
 f.	Group intelligence tests (I.Q. for gifted- ness =)
 g.	Individual achievement test (giftedness = grades above the norm)
 h.	Group achievement tests (giftedness = grades above the norm)
 i.	Reading readiness tests (giftedness = grades above the norm)
 j.	Reading achievement tests (giftedness = grades above the norm)
 k.	Aptitude tests
 1.	School grades (giftedness = grade point average)
 m.	Other. Please explain:

PLEASE RETURN TO: Ingham Intermediate School District Division of Special Education 2630 Howell Road Mason, Michigan 48854 APPENDIX E

LETTER OF TRANSMITTAL

BOARD OF EDUCATION

INGHAM INTERMEDIATE SCHOOL DISTRICT

DIVISION OF SPECIAL EDUCATION

2630 W. HOWELL ROAD MASON, MICHIGAN 48854

AREA CODE 517 676-2481

March 9, 1971

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Principal's Name Principal's School Principal's Address City, State, Zip Code

Individualized Salutation:

There appears to be increasing interest in special educational programming for gifted children. Periodically we get calls from parents with gifted children and inquiries from teachers and administrators to see what is being done or what might be done. One of the superintendents on the Special Education Advisory Committee has expressed an especially strong interest in special education provisions for gifted children. Our last State Legislature had introduced legislation for special provisions for gifted students. Although this legislation has not passed we have noted considerable interest at many levels.

We are most interested in what is being done within the constituent school districts of the Ingham Intermediate School District and are conducting a survey to gain some picture of the curricular provisions presently made for gifted students in our elementary programs. As principal, you are the person most knowledgeable about programs and services designed for gifted pupils in your building. Would you help us by completing the enclosed questionnaire? It will take between five and ten minutes of your time. Your reply is essential if the study is to be accurate and complete.

We would be grateful if you would fill out the enclosed form and return it by March 19 in the enclosed envelope.

Please do not hesitate to contact us if you have any questions about the project.

Thank you for your cooperation. We appreciate the time and effort you will invest in this survey.

Sincerely yours,

David L. Haarer, Ph.D. Assistant Superintendent Special Education

Susan Scott Horan Teacher/Consultant (Chief Researcher for Project)

112

APPENDIX F

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FOLLOW-UP LETTER

BOARD OF EDUCATION

INGHAM INTERMEDIATE SCHOOL DISTRICT

DIVISION OF SPECIAL EDUCATION

2630 W. HOWELL ROAD MASON, MICHIGAN 48854

AREA CODE 517 676-2481

March 31, 1971

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Principal's Name Principal's School Principal's Address City, State, Zip Code

Individualized Salutation:

We still need your help.

As we indicated in our letter of March 9, we are most interested in what is being done for gifted children within the constituent school districts of the Ingham Intermediate School District and are conducting a survey to gain some picture of the curricular provisions presently made for gifted students in our elementary programs.

In order to have a complete picture of present provisions for gifted students, we need a report from each elementary school in the Intermediate District.

Enclosed is another copy of the questionnaire just in case you did not receive or perchance mislaid the copy sent earlier. We would appreciate having it returned at an early date.

Thank you for your time and cooperation.

Sincerely yours,

David L. Haarer, Ph.D. Assistant Superintendent Special Education

(Mrs.) Susan Horan Project Director

DLH/SH:1f Enclosure

