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IN MICHIGAN.

Michigan State University, Ph.D., 1974
Education, special

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A STUDY OF THE EFFECTS OF PERFORMANCE
CONTRACTING IN MICHIGAN

By

Donald O. Martz

A DISSERTATION

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

DOCTOR OF PHILOSOPHY

Department of Elementary and Special Education

1974

ABSTRACT

A STUDY OF THE EFFECTS OF PERFORMANCE CONTRACTING IN MICHIGAN

By

Donald O. Martz

The Problem

The original experiment by the United States Office of Education was designed to measure the viability of using pupil incentives for increasing instructional efficiency. Although early evaluation was not encouraging, resources and support from the Michigan Department of Education assured a continuation of performance contracting in Michigan. This study was conceived to attempt to identify the impact of this performance contracting upon Michigan education.

Purpose of the Study

The central purpose of this study was to identify possible effects from school performance contracting projects upon children in the schools involved in the experiment.

Population Sample

Included in the study were school districts in the State of Michigan that were funded for two or more years, and with an operational

project for the 1972-73 year. Within the six school districts qualifying eight elementary and two junior high schools were selected for analysis.

Procedure and Design

Through interviews with private contracting consultants and public educators, practices and procedures common to contract projects were identified. These practices and procedures were used to prepare a structured interview instrument. To refine the questionnaire the initial instrument was submitted to a jury of four educators associated with contracting. Pilot interviews were conducted with the revised instrument for the purpose of further refinement.

To collect essential data, forty minute structured interviews were conducted with some fifty educators representing six school districts ranging in size from 2,000 to 50,000 pupils. Responses were tape recorded and transcribed within a twenty-four hour period following each interview.

To complete the analysis of data consistent with the design of the study, data were classified and computer programmed for accessibility. The results presented in table and narrative form were correlated with the eleven objectives of this study.

Conclusions

1. Eighteen percent of those interviewed reported students gained one or more grades in reading for a year's effort, and another forty percent recorded "some successes."

2. The programs were effective in overcoming the detrimental effects of labeling and the stigma of remediation since students

previously labeled failures or mentally handicapped made gains in reading from one to four grade levels in one year.

3. A directional change occurred in teachers as revealed by their commitment to positively reinforce pupil behavior.

4. Through use of incentives teachers concluded that children, regardless of their past academic record, gained "control" as evidenced by improved social behavior and initiative to achieve.

5. With local school educators receiving most of the significant assignments in their projects, teachers and principals increasingly became the innovators with potential for structuring curriculum at the building level.

6. Computers and teaching machines were not especially useful for teaching reading due to mechanical failures. Materials and ideas superseded hardware in popularity for organizing curriculum into new instructional and management systems.

Implications

The findings of this study reflect implications which are presented for further deliberation.

1. Results of this study gave consistent low ratings to the use of remedial reading programs and the remedial specialist in contract teaching. This focuses upon the need for quality classroom instruction rather than greater emphasis upon remedial programs and training of reading specialists.

2. Since for many students contracting was their first "touch of success," this form of compensatory education clearly was of significant help for many disadvantaged pupils. Until more efficient models of

instruction are discovered, compensatory education or re-evaluating educational priorities to benefit this target population seems more than defensible.

3. Several modifications which improved contracting practices were initiated by principals and teachers. Therefore educational agencies should give the initiative for curriculum improvement to individual building personnel.

4. Since programmed materials, did make a difference for "target" children there is an implication for adopting more structured programs for students who have serious difficulty with reading.

As a result of changing contracting from "results" to "services" the performance incentives concept quickly diminished in popularity, but the reading programs and reinforcement concepts used should be evaluated for their worthiness in this type of program.

ACKNOWLEDGMENTS

It is with deep gratitude that I express appreciation to my adviser and friend, Dr. William J. Walsh, for guidance, patience, and encouragement during the writing of this dissertation. My committee members, Dr. Robert C. Hatfield, Dr. Ruth Hill Useem, and Dr. William W. Joyce, were most gracious, showed genuine concern, and gave excellent direction.

Ruth, my wife, gave much faithful encouragement and hours of assistance for which I am exceedingly grateful. And to my children Vicki, Don, and Jill, thank you for giving-up for a time, your swimming, hiking, and camping fun.

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CHAPTER I

THE PROBLEM

Beginning in 1969 and continuing through a period of three years the United States Office of Education encouraged the development of a group of projects commonly known as performance contracting. The general design of these programs focused upon techniques to improve the math and reading achievement of disadvantaged students through private profit-oriented firms who had been contracted by schools to set-up the curriculum and to administer the instructional program. Although schools regularly contract for service in some vocational areas, this experiment was different since it involved direct in-school management by industrial firms. This direct involvement by private firms brought about both support and criticism of performance contracting as a vehicle for improving instruction.

Federal government enthusiasm for the concept of contracting encouraged private firms and motivated public schools to participate in the program. As a result private firms and many public educators became ardent supporters of performance contracting as a method for improving instruction. Then on February 6, 1972, the Office of Economic Opportunity announced that its objective to improve the achievement of disadvantaged students through performance contracting had failed and that support was being diminished. This announcement pleased the

critics of the experiment but was a disappointment for supporters of contracting.¹

Several firms participating in the experiment voiced disappointment with the Office of Economic Opportunity's announcement "... wondering how so final a judgment could be pronounced so soon after only one school year of actual experimentation."² The Rand Corporation reported a significant improvement in reading in the Gary, Indiana project as a result of its performance contracting program.³ Roger Sullivan, President of Behavioral Research Laboratories, which operated a variety of programs outside of the Office of Economic Opportunity experiments, said that, "... the achievement results attained by the Office of Economic Opportunity contractors in no way reflected the achievement results attained by other performance contractors."⁴ Joan Webster, Grand Rapids project director, expressed disappointment in the fact that positive achievement was not effected as anticipated, but remarked, "... the program still merited further study, since it got educators off dead center and made them enthusiastic." Webster further stated, "The students did better, and they were more enthused and disciplinary problems fell off drastically."⁵

¹Fred Hechinger, "Contracts: Negative Verdict on a Teaching Program," The New York Times (February 6, 1972), Sec. 4, p. 9.

²Ibid., Sec. 4, p. 9.

³Croft Educational Services, Inc., "Education Summary," New London (October, 1972), p. 3.

⁴Hechinger, p. 9.

⁵Robert Lewis, "Contract Classrooms, No Gain for Pupils," The Grand Rapids Press (February 1, 1972), p. 1-A.

John Porter, Superintendent of the Michigan Department of Education, promoted performance contracting and, ". . . termed Michigan's experience with performance contracting over the past two years as impressive in contrast to some national reports which have been negative."⁶ Porter explained, ". . . on a very large scale, the Michigan State Board of Education committed itself to a 'performance contract' to bring about a statewide plan to effect educational improvement."⁷ This firm position by the Michigan State Board of Education favoring performance contracting as a vehicle for producing certain forms of acceptable standards, assured continued contracting activity in Michigan and underlies the need for researching this activity.

Thus although the Office of Economic Opportunity report indicated that the experiment failed to produce the effects anticipated, many private firms and public school administrators remained enthusiastic toward the concept of performance contracting. Although the time span for the experiment was brief the impact to improve instruction through contracting is a major one and its implications are still before professional educators. Of greater importance is the fundamental basis for the funding, the striking publicity and the results obtained from it, as well as the justification for termination of the program.

Statement of the Problem

This study therefore is an endeavor to examine (a) the impact of performance contracting upon the pupils, teachers, administrators,

⁶ John Porter, "The Educational Report," State Board of Education, Vol. VI, No. 30 (April 3, 1972), p. 60.

⁷ Ibid., p. 60.

and instructional programs in participating schools, (b) the type of relationships that have been established between the district and the learning systems contractor, (c) the effectiveness and quality features of contractors' learning systems, (d) the reason for the Federal government's original intervention and termination of the experiment, and (e) the implications that contracting may have for teacher education. The central purpose of this study is to identify effects from school performance contracting projects upon pupils in the schools involved in the experiment.

Need for the Study

It would seem obvious that the original funding and termination of contracting in such a short time have implications for future operations. Although little research in support of contracting has been reported, the concept continued to flourish for a time as evidenced by the zealous participation of private companies and public school administrators. This persistent acceptance of contracting as a vehicle for effecting educational change from outside the school without strong research support is the motivation for this study.

Another need for this study is to identify various features which are common to funded programs and which illustrate problems that contracting has presented. As an illustration, when contracting schools share authority to develop instructional changes with outside agencies, they tacitly recognize their inability to adequately deal with the instructional needs of children. Performance contract operational patterns are replete with such examples which illustrate how schools may be jeopardizing their own decision-making power as well as questioning

the capacity of classroom teachers and other educators to resolve educational needs.

A further need for this study is to look at such features as individualized instructional management systems and teacher training programs that should be given further consideration.

To support the need for this study some identifiable features of the processes of contracting are discussed in the following section.

Description of Funded Programs

Following are contract features common to funded programs which illustrate several positive innovations as well as conflicting philosophies that have developed through federal and state encouragement.

Management support system. This is an arrangement through which a private firm, acting as the Government's agent, engineers the writing and implementation of performance contracts in cooperation with local schools. Education Turnkey Systems was contracted by the Office of Economic Opportunity to provide management support to the Office of Economic Opportunity and participating schools in the "Performance Incentives in Education Projects." The purposes for the contract were (a) to provide support and assistance necessary to establish the experimental program, (b) to develop the system for monitoring on-site progress reporting and operating procedures, and (c) to provide assistance to the school districts in implementing the program.⁸

⁸Charles Blaschke, "Performance Incentive Remedial Education Experiment, Final Report to the Office of Economic Opportunity" (Washington, D.C.: Education Turnkey Systems, Inc., 1971), p. 187.

The goal of the Office of Economic Opportunity for establishing and purchasing support was:

. . . to demonstrate a high level of "efficiency" by bringing about close-cooperation between the Office of Economic Opportunity, school administrators and subcontractors. A purpose of the Office of Economic Opportunity was to demonstrate that the achievement of disadvantaged students could be guaranteed through a contract arrangement and at an "efficient" cost for resources. As to the goal of measuring costs. . . . How may the greatest return (effectiveness) be realized for a given amount of resources (cost). The measure of cost-effectiveness is the cost per unit of achievement . . . in the form of dollars per grade level increase (or any other cardinal unit, such as number of behavioral objectives mastered).⁹

The Office of Economic Opportunity anticipated achieving significant efficiency and flexibility through this management support system.

Procurement of instructional materials and school management services through subcontracting was a relatively new operation, a function with which schools and private educational firms had limited experience. Thus a major purpose for a school to purchase management support was to enjoy a system of quality control through a private firm with the expertise necessary to successfully coordinate the multiple elements so essential to the experiment's success. This unusual arrangement was designed to achieve "efficiency" but by its very nature provided an avenue for the Federal government to influence local educational operations and policies. As an illustration of this, Educational Turnkey Systems was accused of meddling when they ". . . sent a telegram to a participating school whose teachers were on strike suggesting that the district might not be able to participate because

⁹Ibid., p. 105.

of "lost time" stipulations in the contract unless the school, and hence the project, became operational in the near future."¹⁰

The Federal government involvement in local operations increases the need for examining the implications of non-community centralized control of activity as related to teachers, teacher education, administrators and local determination of school policies. Since the activities of each of these groups are affecting local school programs, there is need to more explicitly define the extent to which each is to be involved in local school development.

Decision Making. In practice a private firm may enjoy full or partial authority for making decisions regarding both the curriculum and the administration of the instructional program. It is apparent that the Federal government, the State Department of Education and local boards of education have given a degree of decision-making authority for classroom instruction to private firms. Interestingly, the Federal government and the Michigan Department of Education did not involve teachers in the general or specific developments of performance incentive contracting.¹¹ Charles Blaschke does acknowledge that teachers should be more involved in future project planning.¹² As a result of such governmental procedures, the pattern of excluding teachers from the decision-making process has caused concern among teacher groups.

¹⁰Ibid., p. 198.

¹¹Ibid., p. 198; also Patrick Dolan, Professional Development Consultant, Michigan Education Association (in an interview, December 13, 1971).

¹²Blaschke, p. 199.

The Michigan Education Association, although cautiously supporting contract experimentation, was disappointed with the non-involvement of teachers in setting up performance contract programs in Michigan schools.¹³ Further the National Education Association ". . . warned of pitfalls in contracting and urged teacher groups to take the initiative to develop learning objectives through community and professional involvement which would then be the basis to request for contract bids."¹⁴

Target population, disadvantaged students. Most programs had as their target population disadvantaged students who were two or more years below the national average norms in reading and math. This is the population for which "compensatory education" was designed to overcome learning deficiencies. Lansing and Grand Rapids schools were well aware of the ineffectiveness of results obtained from the traditional "compensatory education" programs in terms of equipment, materials, para-professionals, and facilities. Yet, although Grand Rapids and Lansing school officials point out that these outcomes are generally predictable and disappointing--that what they have done with "compensatory education" has not made a significant difference in achievement.¹⁵

These findings are in agreement with the report of Coleman in which he found that the input side of education, that is, additional expenditures of money for improved pupil-teacher ratios, buildings, and

¹³Dolan.

¹⁴Blaschke, p. 209.

¹⁵Richard Halik, Director of Federal Programs (from an interview, December 14, 1971), Lansing Public Schools; also Elmer Vrugink, "A Study of the Contribution of Compensatory Programs in a Large Urban School System" (1970), from the Abstract.

equipment may not make any substantial difference in the actual amount of learning that takes place in school.¹⁶

In support of Coleman's position, research financed by the Federal government and by local schools clearly indicates that resources do not in themselves account for the difference in achievement.¹⁷ Yet in commercial performance incentive projects, priority was given to purchasing materials and equipment, to employing additional para-professionals, and to improving facilities. Since the Federal government and local schools supported performance contracting, there was the possibility that these agencies may have anticipated an effect from the performance incentive experiment not previously operating or identified in past compensatory programs. An analysis of this possibility will be pursued in this study.

Monetary incentives. Incentives for achievement gains were given to private firms, students, and to teachers. The design of this experiment placed a heavy burden upon the concept of incentives for producing efficiency and quality control. As an illustration:

. . . concern was expressed during the initial program development stages of the project regarding the willingness of the local school districts to administer the subcontract with the performance contracting firm in the most efficient manner. While incentives for efficiency were built into the subcontract, none were provided in the contract between the Office of Economic Opportunity and the school district.¹⁸

¹⁶James Coleman, "Equality of Educational Opportunity" (Washington, D.C.: U.S. Government Printing Office, 1966), p. 312.

¹⁷James Coleman; Grand Rapids Schools; Lansing Schools; see also Edward McDill, Edmund Meyers, Jr., and Leo Rigsby, "Source of Educational Climates in High School, Final Report, Project No. 1999," U.S. Office of Education, Baltimore Department of Human Relations, John Hopkins University (1966).

¹⁸Blaschke, p. 196.

Operationally the role of incentives as applied to private firms is illustrated by Norman Weinheimer:

. . . performance contracting companies, whether they are outside companies, or a consortium of a local school district staff for an "in house" contracting company, have a perfect stage on which to step forward with a plan which guarantees a certain amount of learning for a set amount of money. The contract is based on the principle that if performance or productivity does not reach a predetermined goal, the company doesn't receive any compensation. If the child does reach the goal, the company receives the pay, and if the child passes his goal the company gets a bonus. It is as simple as that.¹⁹

A contract system known as contingency management featured schools using tokens, "skins," green stamps, reward rooms and other items as extrinsic rewards for whatever was accepted by the adults as constituting a positive behavior response from students. In some projects, rewards ranged from free time to money with which kids could buy refreshments, instructional aides or other merchandise.²⁰

Teacher organizations questioned the incentive feature of contracting. The American Federation of Teachers voiced their strong opposition by stating, ". . . Performance contracting incorporates such dubious educational practices as merit pay incentives to teachers and such doubtful incentives as green stamps and transistor radios to children."²¹

Use of extrinsic rewards is not new. However the high emphasis upon rewards as a sound method of motivation raises philosophical, if

¹⁹Norman P. Weinheimer, "Performance Contracting," paper presented to American Association for the Advancement of Science, Conrad Hilton Hotel, Chicago (December 28, 1970), pp. 3-5.

²⁰Blaschke, pp. 219-231.

²¹Ibid., p. 211.

not, psychological questions. This study will attempt to solicit teachers' reactions to this particular type of motivation. Of particular interest will be a proposed analysis of the impact of incentives upon efficiency and achievement as defined by the Office of Economic Opportunity.

Individualized instruction and differentiated staffing. A variety of materials, most of which were available on the open market, and teaching machines ranging from a simple feedback system to electronic devices synchronized with a pacing system, provided the basic material and hardware elements for operationalizing individualized instruction. The goal to be achieved was instructional efficiency with greater reliance upon materials and instructional devices than dependence upon teachers as the main source of productivity.

Firms relying heavily upon automated instructional systems were particularly anxious to replace teachers with para-professionals in an effort to escape the expense of employing certified teachers. ". . . one firm would have preferred to use para-professionals to the total exclusion of the professionals."²² This desire was generally restrained by provisions of the common teacher contract.

Private firms had anticipated that differentiated staffing would provide opportunities for the private firms and school staffs to develop innovative ways for utilizing staffs and individualized instructional techniques.²³ That this was not entirely achieved in the experiment does not preclude the need to study areas which may have possibilities for increasing the effectiveness of staffing.

²²Ibid., p. 215.

²³Ibid., p. 214.

Individualized instruction has held the curiosity of educators for sometime. It is especially important to determine those features of performance contracting which worked well and the application that could be made for disadvantaged students, students within normal ranges, and for migrant student populations.

Private firms staked their hopes for making an impact with a mix of managers, teachers, aides, materials, and hardware organized so as to increase achievement through the technique of individualized instruction. Available results would indicate that this combination has had little effect upon achievement. Nevertheless, these management techniques invite further analysis to delineate those management features that have improved individualized instruction.

Humanizing the classroom. Designers of the contract experiment looked upon contracting as a way ". . . to humanize the classroom for both the teachers and the students."²⁴ Although no significant data have been produced through the experiment to define what was meant by "humanizing," some changes were reported which made it possible for teachers to decorate their rooms free from restraints of school administration.²⁵ There was consistent effort by teachers and schools to remove the stigma of remediation, yet it was common practice to place pupils into groups, frequently by ability. Thus children were segregated by their ability or lack of ability. In the court case of *Hobson versus Hanson and School Board of District of Columbia*, Judge Wright ruled that all forms of ability grouping were unconstitutional,

²⁴Ibid., p. 202.

²⁵Ibid., p. 202.

and that such practices were another form of segregation.²⁶ As a result of this ruling and similar judicial opinions, Federal guidelines have encouraged heterogeneous groupings. Understandably school officials and parents did complain about what they understood to be resegregation through grouping practices.²⁷ On the basis of present findings it is doubtful that performance contracting activity has made significant contributions to humanizing and removing the stigma of remediation. Nevertheless a search should be made for humanizing effects that may have been operating in experimental classrooms.

Inservice training. Inservice training offered by ALPHA Learning Systems has met with a favorable response from the Michigan Education Association, the Lansing Public Schools, and the Grand Rapids Public Schools. ALPHA, itself, gives evidence of being quite pleased with their inservice training.²⁸ In working for teachers ALPHA emphasizes the following:

We try to get to the roots of each teacher's assumption about himself as well as about learning, children, and culture.

For training, we look at the logistics, the materials, the record-keeping and the instructional strategies prescribed, all in a classroom situation. Materials are organized for the teacher in the same way they are organized for the student. Each teacher is provided a flow chart for tasks and progress checks.²⁹

²⁶J. Skelly Wright, Federal District Court Judge, "Hobson versus Hansen and School Board of District of Columbia," Congressional Record, Washington, D.C. (June 21, 1967), pp. 16763-16764.

²⁷Blaschke, p. 200.

²⁸Patrick Dolan, Michigan Education Association; Martha Gloden, Manager, ALPHA Learning Systems; Richard Halik, Lansing Public Schools; and Joan Webster, Grand Rapids Public Schools.

²⁹ALPHA Learning Systems, "What it is and How it Operates With Special Emphasis on Performance Contracting" (Albuquerque: ALPHA Learning Systems, 1971), pp. 19-20.

Educators reporting satisfaction with these inservice training programs are generally those somewhat removed from direct classroom teaching. It is not clear whether classroom teachers feel that the kind of inservice training presented by private firms adequately meets their needs. This study proposes to provide teachers with the opportunity to express preferences for the specific kinds of inservice teacher education they prefer.

Objectives

The objectives of this study are:

- A. To identify effects of the performance incentive experiment upon participating students.
- B. To analyze the impact of incentives upon "efficiency" and "achievement."
- C. To identify humanizing effects operating in experimental classrooms.
- D. To identify features unique only to contracting practices.
- E. To seek the cause for the OEO's sudden diminishment of support for contracting.
- F. To solicit teachers' reactions to the extrinsic reward system used in contracting for motivating students.
- G. To identify management techniques that have had an effect upon individualized instruction.
- H. To determine applicability of individualized instruction to mobile student populations.
- I. To provide teachers with the opportunity to express preferences for specified sources of inservice education.

- J. To examine the implications of Federal Government involvement in local school operations as related to decision-making roles of teachers, administrators and local determination of school policy.
- K. To identify changes effected by contracting in participating schools.

Definition of Terms

Definition of terms have been structured to assist in the understanding and interpretation of this study.

1. Performance contracts are agreements between schools and private profit-oriented firms under which payment by the school is based on procurement of resources or on some measure of the agent's performance. Stucker and Hall have outlined the various kinds of contracts:

Four basic contracts can be used to procure goods and services: fixed and performance contracts for resources, and fixed and performance contracts for results. The basic distinction between contracting for resources and contracting for results is whether the school or the contractor will have authority over the day-to-day operation of the project. The basic distinction between a fixed contract and a performance contract is whether a single outcome and payment are specified, or whether a range of acceptable outcomes or corresponding payments are allowed.

There are two fundamental restrictions on a school's ability to contract for results. A fixed contract for results requires that the desired results can be defined explicitly and objectively. A performance contract for results has the additional requirement that the school must be able to measure objectively the results it is after; that is, "more" or "less" must be meaningful and measurable concepts.

Two generalizations concerning contract preference are possible. . . the greater the technological and managerial advantage of the perspective contractor over the school, the greater the advantage of a contract for results over the school; the greater the advantage of the risk in a project, the greater the advantage of a performance contract over a fixed contract.

These generalizations are directly applicable to contracting for student achievement. A performance contract for results is most appropriate when (a) the desired results can be quantitatively measured and scaled, (b) the school believes the contractor has some technological, managerial or institutional advantage in achieving the desired results, and (c) the risk inherent in the operation is too great to allow the use of a fixed contract for results.³⁰

2. Efficiency is described in two ways. The first is the reduction of lost time or motion. Learning would be speeded, especially that of those children who can be described as below the norm. Children would be allowed to progress at their own rates. This would free the more able child from the restraints of staying with his peers. The slow child would progress faster because he would learn each sequential step rather than feel the frustration of attending classes whose subject matter is beyond his comprehension. The second phase of efficient operation is the saving of money through profit-oriented firms by competitively bidding for instructional programs. Efficiency is the effectiveness that can be produced for a given amount of resources (costs). The measure of cost-effectiveness is the cost per unit of achievement, in the form of dollars per grade level increase (or any cardinal unit, such as number of behavioral objectives mastered).³¹

3. Achievement is the difference between the results of two tests, a norm-referenced or criterion-referenced test administered at the start of the program and another form of the same test at its completion.

³⁰J. P. Stucker and G. R. Hall, "The Performance Contracting Concept in Education, a Report Prepared for the Department of Health, Education and Welfare" (Santa Monica: Rand Corporation, 1971), p. 12.

³¹Blaschke, p. 105.

4. Contingency management refers to the motivational reward system, which rewarded students for achieving a specified level of performance. The level of performance was determined by test specification, or by the teacher or aide, and also by contracting between the teacher or aide and student for the level of desired competency. Rewards were given for daily lesson performance, for test performance, and for positive verbal responses. Rewards commonly used were reward rooms, skins (two cents) and tokens (one-half cent). A skin is made of paper and resembles paper play money. A token is round similar to a bus token or subway token. These were given to students upon reaching the desired competency, or upon responding positively or correctly to a teacher initiated question. Skins and tokens were used by the student in the reward room, or if he preferred he could turn them in for cash. Reward rooms were stocked with pool, games, books and refreshments. Sometimes contracts between a student and teacher resulted in the student choosing to have free time in the reward room rather than accepting skins or tokens.

5. Differentiated staffing refers to a staff of certified teachers, a math or reading consultant, teacher aides, learning manager or consultant, secretaries, and building principal.

6. Incentive in contracting provides for private firm profit motive, monetary reward to students for motivational purposes, and bonuses to teachers.

7. Individualized prescribed instruction was operationalized by pre-testing students to determine their level of skill development

in reading and math (depending upon project provisions), and then matching materials and a feedback system with skill needs.

8. Individualized materials are sequenced to produce logical development and measurement of desired skills. Theoretically this methodology brings into reality a one-to-one teaching-learning relationship through matching the student on one end, with materials and a feedback system that provides answers on the other.³²

Limitations of the Study

This study was limited to contract projects in Michigan, although information from experiments throughout the United States will be drawn upon for background information. Thus the results of this study will be primarily applicable to Michigan.

Although numerous articles about contracting are available, little background research concerning the impact of contracting has been reported.

While the study will endeavor to outline the status of contracting and to delineate its implications for educators, it will be primarily limited to those areas most familiar to project participants.

Data were gathered through structured interviews. The method of gathering data through interview has the advantage of being a flexible and accurate tool in the hands of a skillful interviewer. However the interview also increases the potential for subjectivity

³²Alexander Frazer, "Individualized Instruction," Educational Leadership (April, 1968), pp. 616-619.

and innocent modification of facts.³³ The design of this study was structured to control for this limitation.

Assumptions of the Study

This study assumed that contracting had substantial impacts upon participating schools. Further it was assumed that participants in each project can clearly identify the nature of these impacts.

It is assumed that data necessary to identify the impacts that performance contracting has made can be retrieved through structured interviews.

Also this study assumed that the operational features common to performance contracting projects have unresearched implications for public school educators, for teacher preparation, and for the concept of individualized instruction.

Procedures

Through unstructured interviews with private contracting firms and public educators, practices and procedures common to contract projects were identified and used to prepare a primary focused interview instrument. To refine the questionnaire the primary instrument was submitted to a jury consisting of a private contracting firm, a member of the Michigan Department of Education, and a university representative familiar with contracting. Further, pilot interviews were conducted with this revised instrument for the purpose of further improving the questionnaire and the interviewer's technique.

³³Pauline Young, Scientific Social Surveys and Research (Englewood Cliffs, N.J.: Prentice Hall, 1966), pp. 222-223.

Structured interviews were conducted with project managers, school directors of projects, administrators, and school teachers that participated in projects. All schools in the state of Michigan that were funded for the 1971-72 school year were included in the study.

Data from participating schools were analyzed and compared for effects common to contracting projects in Michigan.

Details of the design of the focused interview instrument and treatment of data are outlined in Chapter III. Chapter II is a review of the literature and research related to contracting. Chapter IV includes the data and analysis of results obtained through focused interviews. Chapter V includes the implications and results of the study, and recommendations for further research.

CHAPTER II

REVIEW OF THE LITERATURE

The following is a summary of the historical development of performance contracting and a review of literature which forms a background for this research. To establish a framework for this study the following areas and reports are summarized: (a) the history of contracting, which also includes the role of the Office of Economic Opportunity's "Management Support System" in developing contracting, and news releases highlighting successes and failures of contracting, (b) Texarkana's Prevention Drop-out Program, a Case Study by Rand, (c) Bannaker School Experiment, a Case Study by Rand, (d) A Cost-Effective Analysis of Selected Reading Programs in the Grand Rapids Schools, a doctoral thesis by J. Webster, (e) Office of Economic Opportunity Report, "An Experiment in Performance Contracting," and (f) Office of Economic Opportunity Report, "A Demonstration of Incentives in Education."

Historical Development of Performance Contracting

Performance contracting was new to the United States, but not so new to England. From 1863 to 1897, a system known as, "payment by results" was in operation in English Schools. It ended as abruptly as it began, since payment for examination scores became a game

of mechanical manipulation in which teachers learned to beat the system.¹

Contracting was initiated in the United States by the United States Office of Education. Charles Blaschke and Leon Lessinger were influential in this development. This happened while they worked together during the time Lessinger was associate commissioner of the United States Office of Education. Lessinger's interest was the principle of accountability while Blaschke thought along the same lines but emphasized the idea of performance contracting. Later Blaschke left the United States Office of Education and became president of "Education Turnkey Systems," the private firm contracted by the Office of Economic Opportunity to "negotiate" and "manage" performance contracts between the Office of Economic Opportunity and local education agencies.

Specifically, Education Turnkey Systems was contracted by the Office of Economic Opportunity to provide management support to the Office of Economic Opportunity and participating schools in the "Performance Incentives in Education Experiment." The purpose for the contract was:

To provide support and assistance necessary to establish the experimental programs; to develop the system of monitoring on-site progress reporting and operating procedures; and to provide assistance to the school districts in implementing and managing the program.²

¹Sir Francis Sanford, Reports on Elementary School, 1852-88 (London: MacMillan Company, 1889).

²Blaschke, p. 12.

The goal of the Office of Economic Opportunity for establishing and purchasing support was to demonstrate a high level of "efficiency" through bringing about close cooperation between the Office of Economic Opportunity, local educational agencies, and subcontractors.³ Consequently Education Turnkey System, a private firm, became the Federal government's agent to negotiate and to provide management support for Federally funded programs in local public school systems. Therefore, for at least the duration of this experiment, the Federal government had much visibility in local decision-making processes of participating schools.

During the year 1969-70 the United States Office of Education funded one performance contract project, located in Texarkana. Soon after operationalizing this project the United States Office of Education gave the responsibility for development of additional projects to the Office of Economic Opportunity. The OEO funded forty projects for the year 1970-71, of which eighteen became the nucleus for the "Performance Incentives Experiment." In addition to projects funded by the Federal government there were many additional projects funded by state and local educational agencies. Of interest also was the Washington, D.C. Board of Education's adoption of a contract project funded by universities and foundations.

In 1972 the Battelle Institute, a private auditing firm, was contracted by the Office of Economic Opportunity to audit the eighteen projects funded for the 1970-71 year. Results from this audit indicated

³Ibid., p. 12.

no significant increase in reading and math achievement of students in experimental classrooms. Further reference is made to the Battelle report in this chapter.

As projects became operationalized, positive and dramatic publicity focusing upon the successes and merits of contracting, were given wide coverage in newspapers and educational journals. Seth King in a "Special to the New York Times," reported that a private firm operating in the Gary, Indiana, Bannaker Elementary School had substantially improved the reading and math skills of pupils.⁴ During the first year of this project a report issued by the Gary Schools indicated that nearly 73 percent of the pupils at the Bannaker Elementary School reached or exceeded the national norms in reading or math skills or both in the first year.⁵ Croft Educational Services also reported improvement in reading in the Gary project.⁶

James Mecklenburger and John Wilson reported successes for three private firms operating in Grand Rapids, Michigan. Combined Motivation Education Systems, Westinghouse Learning Corporation, and ALPHA Learning Corporation taught 1000 elementary and junior high pupils for the Grand Rapids Schools. Mecklenburger and Wilson reported that participating students became self-motivated, contractors developed a feeling of having performed a service beyond the teaching of reading

⁴Seth S. King, "Gary, Indiana Pupils Improve in School Run by Private Company," The New York Times (September 29, 1971).

⁵Ibid.

⁶Education Summary, "Contracting Improves Reading in Gary," Croft Educational Services (October, 1971), p. 3.

and math to children, and that the school system developed a philosophy, ". . . that every child will learn or the schools are to blame."⁷

These positive reports tended to give a sense of credibility to the potential of contracting for effecting achievement of disadvantaged students. However, before the Office of Economic Opportunity completed its 1971-72 performance incentive experiment, negative reports related to the merits of contracting had begun to appear. And early in 1972 the OEO reported that contracting was a failure as a vehicle for increasing the reading and math skills of students in the experimental program.

The New York Times,⁸ Today's Education,⁹ The Grand Rapids Press,¹⁰ and the NEA Reporter¹¹ carried reports of the OEO's announcement that contracting had failed to significantly improve the reading and math achievement of disadvantaged pupils.

The Washington Monitor reported that the Office of Economic Opportunity's contract experiment had failed. However in the same report, Edward Trice, Superintendent of the Texarkana Schools, who developed the first pioneer contracting project, challenged the Office

⁷James A. Mecklenburger and John A. Wilson, "The Performance Contracts in Grand Rapids," Phi Delta Kappan (June, 1971), pp. 590-594.

⁸Fred Hechinger, "Contracts: Negative Verdict on a Teaching Program," The New York Times (February 6, 1972), Sec. 4, p. 9.

⁹Today's Education, "Performance Contracts Achieve Little," a study by Rand Corporation, NEA Journal (February, 1972), p. 3.

¹⁰Rober Lewis, "Contract Classrooms, No Gain for Pupils," The Grand Rapids Press (February, 1972), pp. 1A-3A.

¹¹Reporter, "Performance Contract Flunks," National Education Association (February, 1972), p. 1.

of Economic Opportunity's conclusion by observing that the record of their performance contract anti-drop-out program spoke for itself, since only eight out of eight hundred potential dropouts left school during the first two years. The normal rate for this group was twenty-five percent or two hundred dropouts.¹²

The Grand Rapids Press at the time of reporting the failure of contractors to reach predetermined achievement goals in the Grand Rapids Schools projects, also reported sentiments of school administrators who expressed satisfaction with contracting effects upon students and school personnel. In particular the Grand Rapids Press reported administrators had become more enthusiastic toward a search for answers to the problems of achievement, that participating students were enthused, and that disciplinary problems had diminished.¹³

As a result of the Michigan Department of Education's belief that contracting in Michigan had been successful in contrast to several national negative reports, the Department funded six projects for the 1972-73 school year. John Porter, Superintendent of the Michigan Department of Education, in announcing that \$500,000 in State aid had been set aside for further contract experimentation, expressed the belief that Michigan had become the first state in the nation to take this kind of action.¹⁴

¹²"OEO Flunks Performance Contracting," Washington Monitor, National School Public Relations Association, Washington (February 7, 1972), pp. 125-126.

¹³Lewis, 1A.

¹⁴John W. Porter, "The Educational Report," State Board of Education, Lansing, Vol. VI, No. 30 (April 3, 1972), p. 60.

In the short time that contracting functioned as an experiment, much interest in its potential as a vehicle for solving some of Michigan's educational problems was generated. Further, numerous reports inferred that there were positive effects of contracting affecting the attitudes of school personnel and students. Therefore the challenge was to identify these positive effects and relate them to the needs of education in Michigan.

Texarkana's Dropout Prevention Program

Texarkana is well known for having developed the first major performance contract in the United States. A timely combination of local school problems, initiative by professionals anxious to develop contracting, and Federal appropriations for funding contracts culminated in the development of a five year dropout prevention program in the Liberty-Eylau, Texas, and Texarkana, Arkansas, school districts. Since the Texarkana, Arkansas, district was designated as the legal agent for the program, the project has been commonly referred to as the Texarkana contracting experiment.

Faced with a community problem of a six percent unemployment rate and an increase in the school dropouts, the school community through their Model Cities Agency began searching for means to reform education in the hopes that in so doing these problems would be alleviated.

Integration on the Texas side of the border had been accompanied by an increase in school dropouts. The cause for this was attributed to the wide disparity between educational achievement of blacks and

whites in Texarkana. It was at this juncture that Texarkana school officials decided to make a special effort to prevent integration from leading to severe academic difficulties and widespread dropouts.¹⁵

Dr. Joel Hart, associated with the University of Arkansas, was assisting the Texarkana Model Cities Agency at this time when the agency was looking for ways of improving local educational opportunities. Having previously worked with Charles Blaschke, President of Education Turnkey Systems, to set up a performance contract for young adults, Hart contacted Blaschke and urged him to take advantage of what appeared to be an ideal time and place for designing a performance contract in Texarkana. Blaschke proceeded to take the initiative to assist the Texarkana schools in designing a contract between the United States Office of Education and the Texarkana schools. As a result the Office of Education awarded Texarkana with a five year dropout prevention program.¹⁶

Dorsett Education Systems of Norman, Oklahoma was the successful bidder for the subcontract for the 1969-70 program. During Dorsett's first year the program involved 351 students: 219 male and 143 female students. The racial division was 203 white and 148 black students. Six junior and senior high schools were involved. The students were in grades seven through twelve and most spent two hours in the learning center: one hour for reading and one hour for mathematics. The

¹⁵P. Carpenter, A. W. Chalfant, and G. R. Hall, "Case Studies in Educational Performance Contracting, Texarkana, Arkansas, Liberty-Eylau, Texas" (Sant Monica: The Rand Corporation, 1971), p. 6.

¹⁶Ibid., pp. 8-9.

initial group was composed of near equal numbers of volunteers, students selected by counselors, and students randomly selected. The target population was potential dropouts.¹⁷

Dorsett Educational Systems proposed to: (a) replace conventional textbooks and materials with materials designed around audio visual equipment, (b) use individualized programmed materials and contingency management, and (c) to change the "image" of the teacher and classroom. To change this "image," classrooms were carpeted, air conditioned, and furnished with office-like desks in place of school desks. Teacher education graduates who had not acquired teaching positions were selected to teach in the project. To change the "image" of the teachers they were given new titles and red blazers to wear. To complete the staffing, para-professionals were recruited from members of a local football team.¹⁸

For behavior modification Dorsett provided green stamps, radios, television sets and a reinforcement center for rewarding students. Dorsett reported that the extrinsic rewards did capture the students' interest in the beginning stages of the program, but felt that the attractiveness of the instructional program to students replaced the need for extrinsic rewards.¹⁹

Results. "After a thorough and sophisticated analysis, the final report concludes that Dorsett had exposed so many test questions

¹⁷Ibid., pp. 13-14.

¹⁸Ibid., p. 14.

¹⁹Ibid., p. 15.

that no statistically valid achievement gains could be determined."²⁰ This action of "teaching to the test" resulted in legal action by Dorsett to claim \$30,000 withheld by the Texarkana Board of Education. It was not until March 1973, that this complex issue was resolved by the court in favor of Dorsett Learning Systems. The court held that there were no provisions in the contract prohibiting teaching to the test. There were in fact no provisions in the 1969-70 contract discussing evaluation and auditing. This latter point is surprising when considering the emphasis placed upon evaluation and auditing in a performance contract.

There was however one dramatic accomplishment and that was a decrease in the dropout rate, the ultimate goal of the program:

For 181 students meeting the entry criteria, the dropout rate was only 1.7 percent, while for 170 students not meeting the criteria, the rate was 12.4 percent. Hence, the contract program was particularly effective for those students that met the program criteria, i.e. the population for which it was designed.²¹

Dorsett was replaced as the subcontractor for the 1970-71 year. Nonetheless Texarkana's program has continued to date, having become one of the few contract projects "turnkeyed."

The Texarkana project highlighted (a) complexities of testing, (b) the problem of how to settle payments for services when the conditions assumed in the contract do not apply, (c) the need for clearer role definitions of all participants, and (d) the importance of planning a program for more than one or two years to improve the chances of reaching the objectives of the program.

²⁰ Ibid., p. 23.

²¹ Ibid., p. 27.

Historically, the Texarkana project holds a prominent place since it pioneered the performance contracting concept. It stirred substantial interest in and much controversy about contracting. It was the site of the first "scandal" over "teaching to the test," and the first dispute between a local educational agency and learning system contractor over final payment. As a result of these experiences the project served as a model for other contracting programs. Of importance also was the goal to "turnkey" the contractor-developed systems into the regular school programs. Finally the Texarkana project was successful in its effort to decrease the dropout rate.

Banneker School, Gary, Indiana

In September 1970, Behavioral Research Laboratories of California assumed authority for operating the Banneker Elementary School located in Gary, Indiana on a performance basis. The performance contract was scheduled to continue for four years with the hope that during the fourth year of operation the program would be transferred to the Gary schools for continuance. Behavioral Research Laboratories was given complete authority to employ teachers, to establish its system of instruction, and to provide whatever instructional materials needed. At the end of three years BRL was to have refunded per-pupil costs, calculated at the same level as those in the other elementary schools, for any child who failed to reach or exceed the national grade-level norm on a standardized test in reading and mathematics.

To operationalize the instructional program pupils were tested, then grouped by skill level. Programmed materials were emphasized and efforts were made to individualize instruction.

At the end of one year BRL reported that nearly seventy-three percent of the pupils reached or exceeded national norms in one or both of the skills.²² This dramatic announcement was much publicized and received enthusiastically by the supporters of contracting.

The Rand Corporation in its 1971 case study of Banneker School identified some potential problem areas which ultimately had an effect upon the nature and continuance of the project. The program seemed to have generally beneficial effective impacts. However, BRL's desire for a more humanistic approach, with a greater stress on self-discipline, was not received kindly by the Gary community since they had a dislike of "permissiveness" and strongly desired strict discipline in the schools.

The program generated friction within the faculty at Banneker, within the ranks of Gary teachers, between School City, and the State Department of Education. Also a major issue was the extent to which reading and mathematics skill-improvement would be correlated with or conflict with, improvement in other educational areas.²³

The Banneker performance based contract continued for two and a half years before a December 31, 1972 mutual consent termination, based upon voided guarantee aspects of the contract. Specifically these aspects were a teacher strike the previous year and a low student enrollment, well under the 700 student guarantee.

²²Education Summary, Croft Educational Services, Inc., New London, Connecticut (October, 1971), p. 3.

²³G. R. Hall and M. L. Rapp, "Case Studies in Educational Performance Contracting, Gary, Indiana" (Santa Monica: The Rand Corporation, 1971), p. 92.

Staff members of Banneker School spoke favorably of the experiment's accomplishments by observing that (a) most staff felt that the individualized instructional program was educationally sound, (b) individualized instruction was more cost-effective than the conventional approach to education, (c) school people and company personnel did not always have the same motivation or priorities, and (d) the program was innovative and brought about change that was often threatening. It should be noted that cost-effectiveness was not achieved in the Gary project, since the experimental program cost more per pupil than the conventional classroom approach.²⁴

The Gary project was unusual in that it gave to a private firm substantial authority for operating a public school. Student permissiveness and friction with teachers likely contributed much toward ending BRL's involvement in the Banneker School. During the 1973-74 year Gary Schools "turnkeyed" the program. Turnkeying along with continuous evaluation and upgrading appear to have resulted in improved instruction for pupils through individualized instructional approaches and differentiated staffing.

A Cost-Effective Analysis of Selected Reading Programs
in the Grand Rapids Public Schools

The purpose of this study was to determine a cost-effectiveness relationship between instructional cost and pupil achievement gains in six reading programs in the Grand Rapids Public Schools. To compare instructional costs the reading programs of three private companies

²⁴Ibid., p. 31.

operating performance contracts in the Grand Rapids schools were compared with "traditional remedial reading" a regular (control) school program. Cost categories identified were (a) staff salaries, (b) added facility costs, (c) staff training costs, (d) student and teacher incentive costs, and (e) costs for materials and supplies.

Since grade levels were exposed to different program treatments, three levels of reading instruction were identified within the design. These levels were grades two and three, seventh grade, and eighth and ninth grades. Following are the major results for the three levels.

Grades Two and Three

All reading programs studied resulted in less than one year reading achievement gain.

There were no significant differences in grade gain achievement among the programs within the two studied grade levels.

Cost-effective analysis leads one to conclude that traditional remedial reading programs are the most costly.

The Westinghouse program is indicated to be the least expensive per one-tenth (.1) grade gain.

Westinghouse, Project Read, and the control program are the most cost-effective, producing the greatest gains for less cost. All three are within a \$4.00 cost per one-tenth (.1) grade gain. However, the control group was over 20 percent more expensive than Westinghouse. Project Read was over 38 percent more expensive.

The overall mean gain for traditional remedial reading was the highest but the cost was considerably higher than the other four programs, almost five times as much as the lowest cost program.²⁵

Middle School, Grade Seven

The traditional remedial reading program had the highest cost per one-tenth (.1) achievement gain (almost twelve times the control group cost).

²⁵Joan Marie Webster, "A Cost-Effective Analysis of Selected Reading Programs in the Grand Rapids Public Schools" (unpublished Ph.D. dissertation, Michigan State University, 1972), Dissertation Abstract.

The Combined Motivation and Educational Systems and ALPHA II programs were the most cost-effective, i.e., they provided the most learning for the dollar.

The control group performed half as well as the performance contracting programs.²⁶

Middle School, Grades Eight and Nine

There was a significant difference between the control group and both performance contracting programs; ALPHA II and CMES.

The control group was the most expensive group per one-tenth (.1) grade gain with the ALPHA II program being only slightly over 41 percent the cost of the control group and the CMES program cost being 68 percent of the control group.

Student achievement gains in ALPHA II and CMES were slightly above one (1) grade level, whereas the control group only gained approximately one-tenth as much.²⁷

On the basis of Webster's findings traditional remedial reading programs were least efficient for producing reading achievement gain. Also it appears some private firms in Grand Rapids did produce grade gains in reading at a more efficient rate than the control group. The gains do not appear to be substantial, nevertheless recognizing that much of educational technology is undeveloped, the gains made may encourage further sophistication of programmed instruction.

Webster also presented several implications reflected from the study that harmonize with the objectives of this study. They are:

The apparent implications created by the intergrouping of students in learning situations may have some sociological impact. In the performance contracting programs, there appeared to be an effective social relationship established among students for self-help and a help-one-another attitude, i.e., one student tutoring another which could have a further positive effect on better achievement.

Students who could evaluate their progress in the more structured and individualized programs appeared to have an improved attitude towards themselves, their peers and the school.

²⁶Ibid., p. 152.

²⁷Ibid., p. 152.

Student attendance in school did improve in the performance contract and programmed instruction programs which may have been a result of (a) better student self-image, due to the student's perception of his success, (b) the contract obligation of the contractor and staff which required a minimum number of days, and (c) or a greater sensitivity of the school system for keeping more accurate records.

The role of the building principal may need to be redefined. The principal, in order to fulfill the requirements of a two-way street of accountability must have the autonomy to make decisions in implementing learning programs which should include day-to-day changes in program design as well as adequate local latitude in financial decisions affecting the immediate implementation of program changes.²⁸

Although these are areas of implied speculation, the points raised are very close to the teaching and learning environment and therefore justify further analysis.

A breakthrough was made in producing reading gains efficiently through performance contracting in the Grand Rapids schools. But perhaps the greater and more immediate gains were best reflected in the areas of (a) students assisting students, (b) improved student attitudes toward school, (c) improved pupil attendance, and (d) the need for changing the role of building principals. Efficiency, improved student attitudes, building management, and school climate are prime responsibilities of each school-community. The contribution being made by contracting in these areas is pursued in this study.

An Experiment in Performance Contracting

In 1970 the Office of Economic Opportunity selected 18 school districts in which to conduct an "on-site" experiment in performance contracting. Six private firms were selected on the basis of experience,

²⁸Ibid., pp. 162-164.

interest, the types of achievement they thought they could guarantee, the diversity of instructional approach they represented, and staff qualifications. Each firm was assigned three relatively dissimilar sites, and were given the following assignment:

The companies were to teach disadvantaged students in grades one, two, three, seven, eight, and nine; both reading and math for two hours a day in the experimental schools. The performance of these experimental students in these subjects was to be compared with that of similar students in the control classrooms.

To prevent the contractors from "teaching to the test," which as it turned out was what apparently had happened in Texarkana, experimental students were given separate tests for evaluation and payment purposes, with the evaluation tests, administered first to prevent practice effects.²⁹

To clarify what the objectives of the program were, the OEO emphasized the importance of what was being tested in the experiment which were:

The capabilities of a representative group of private education firms using existing instructional materials and technologies and working under a specific kind of performance-based contract.

A concept that proponents hoped would be more effective than traditional classroom methods in improving the reading and math skills of poor, under-achieving children.³⁰

The outcome of the experiment was reported as follows:

The results of the experiment clearly indicate the firms operating under performance contracts did not perform significantly better than the more traditional school systems. Indeed, both control and experimental students did equally poorly in terms of achievement gains, and this result was remarkably consistent across sites and among children with different degrees of initial capability.³¹

²⁹Office of Economic Opportunity, "An Experiment In Performance Contracting," OEO, Office of Planning, Research and Evaluation (June, 1972), p. 6.

³⁰Ibid., p. 6.

³¹Ibid., p. 3.

The OEO report went on to say, "Surely the clearest conclusion drawn from the experiment is that we still have no solutions to the specific problem of teaching disadvantaged youngsters basic math and reading skills. Thus while we judge this experiment to be a success in terms of the information it can offer about the capabilities of performance contractors, it is clearly another failure in our search for means of helping poor and disadvantaged youngsters to develop skills they need to lift themselves out of poverty."³²

The OEO also reported that experimental programs tended to be equal to or more costly than control classrooms.

The OEO report is replete with illustrations emphasizing their conclusion that the experiment was a failure. However those favoring contracting rejected the OEO's contention that contracting did so poorly.

School project directors and contractors drew attention particularly to a lack of planning time for pre-testing and adequate training of testers, which in some cases delayed assignment of pupils as late as January of 1971. Also in question was the extent to which tests used harmonized with the subject matter and objectives of the reading and math programs used by private firms. Outside of the negative reflections cast by short-comings in evaluation procedures, directors and contractors drew attention to numerous instances in which students reacted positively who had not responded in regular programs.

Battelle, after performing several analyses of their data drew the following conclusion:

³²Ibid., p. 5.

There is very little evidence that performance incentive contracting, as implemented by the technology companies at the eighteen school districts in this study for a period of one year, had a beneficial effect on the reading and mathematics achievement of students participating in the experiment, as measured by a standardized achievement test.³³

Gary Saretsky feels this statement is ambiguous and clarifies his viewpoint by stating:

First of all, it is not clear what the phrase "There is little evidence . . ." means. It might indicate that there is not sufficient evidence (information) to come to any conclusion. Or it might mean that there is sufficient evidence (information) to forthrightly say that performance contracting is not an effective, viable, innovative technique. If the evidence (information) was insufficient than the following alternative statement could have been made: "There is very little evidence that either performance incentive contracting or traditional instruction had a greater or lesser beneficial effect." If there was sufficient evidence and if the evaluation was to aid and abet decision making, Battelle's extensive qualifying statements do not enable a decision maker to reach conclusions as to the efficiency of performance incentive contracting.

In contrast to Battelle's conclusion, if one were to consider the gains students in both control and experimental groups made, there is ". . . evidence that performance incentive contracting . . . had a beneficial effect on the reading and mathematics achievement." In other words, mere inclusion in the experiment had a beneficial effect for many, if not the majority, of participating students.³⁴

Saretsky hoped that the controversy over the conclusions reached by the OEO would not doom this attempt at educational innovation to failure and deprive us of the great mass of valuable information gathered by Battelle.

³³Battelle, "Final Report on the Office of Economic Opportunity Experiment in Educational Performance Contracting" (Columbus: Battelle Columbus Laboratories, 1972), p. 142.

³⁴Gary Saretsky, "The OEO P. C. Experiment and the John Henry Effect," Phi Delta Kappan (May, 1972), p. 581.

Mecklenburger and Goldenbaum also felt that the conclusion reached by the OEO was not clear. As they observed, "If the experiment failed, a good part of the reason is because OEO failed the experiment by acting hastily, by expecting a panacea, by adopting a shaky experimental design, by carelessly analyzing data, and by only partially releasing pertinent information."³⁵

The OEO tagged the performance incentive experiment a failure, but at the same time analysis of the OEO's data by researchers revealed flaws in the experimental design and, as a result, faulty conclusions that tended to negate numerous positive effects of contracting.

A Demonstration of Incentives in Education

Believing that the most crucial aspect of performance contracting might be the incentives to teachers and students rather than a particular instructional technique or use of audio-visual aids, the OEO operationalized two sites that would not involve private companies. This was achieved by school districts contracting with their local teachers' association to provide instruction using the regular school curriculum. Mesa, Arizona, and Stockton, California, were selected as sites. Contract specifications in these projects provided for payment of bonuses to teachers beyond their regular salaries, based upon the performance of their students.³⁶

³⁵Donald M. Goldenbaum and James Mecklenburger, "How OEO Failed Performance Contracting," Nations Schools, Vol. 89, No. 4 (April, 1972), p. 3.

³⁶Battelle, p. 1.

The OEO's purpose for the "Incentives Only" projects was to determine whether or not the introduction of incentives alone into an existing school curriculum would increase achievement in reading and math. About 600 pupils were involved in this experiment. The schools in these projects carried on the regular program with the added feature of "material Incentives."³⁷

Project goals for the Mesa and Stockton teacher associations were similar as follows: (a) to generate in students the desire to learn for the sake of learning, thus knowledge becomes the incentive, (b) to involve the teachers association in educational processes and decision-making which directly affects the education of children, and (c) to participate in research to determine if the use of student and teacher incentives can accelerate achievement in reading and math for disadvantaged students.³⁸

In particular the teachers' association had some reservations as to the soundness of using incentives. Therefore one of their major objectives was the goal to move away from using incentives as soon as students achieved the desire to learn which would, in effect, be the incentive.

The OEO experimental specifications called for grouping children participating in the experiment in special classrooms. Mesa, because of boundary changes resulting in an equal balance of minority groups in each school and belief in heterogeneous grouping, refused to group students as required by the OEO. As a result the students were in

³⁷Ibid., p. 6.

³⁸Ibid., p. 6.

various classrooms of four schools and not grouped together.³⁹ This is noteworthy since in some projects parents looked upon grouping practices as another form of segregation. Also the OEO's grouping practices were often in conflict with other Federal agencies pressing for an end to ability grouping.

Stockton grouped pupils to meet the OEO's specifications. Since both projects grouped pupils in different ways and both used incentives to motivate students, it is especially important to observe that incentives did not have a significant effect upon improving achievement regardless of how pupils were grouped. Battelle reported that in both the Mesa and Stockton projects results were ". . . equally disappointing in terms of absolute gains. Overall, there is little or no evidence at Stockton and Mesa that the "Incentives Only" programs were beneficial to the students in reading and mathematics achievement, as measured by a standardized test."⁴⁰ The addition of incentives into the classroom routine did not have any effect on students' achievement in math and reading in Mesa and Stockton according to the Battelle report.

Through a questionnaire mailed to each participating teacher in the Mesa project most elementary teachers responding felt that incentives were effective for motivating disadvantaged students, whereas the junior high teachers responding, reflected a general negative attitude toward the incentives system.⁴¹

³⁹Ibid., p. 9.

⁴⁰Ibid., p. 150.

⁴¹Ibid., pp. 13-15.

In the Stockton project 87.5 percent of the participating teachers expressed an interest to participate in another project.⁴²

Educational Turnkey System, the Management Support Group for both sites was considered to be a nuisance factor by both teacher groups. The main complaint was the voluminous reports required by this group which had little value to aspects of the "Incentives Only" projects.⁴³

If the OEO's report on the "Incentives Only" projects are credible, there would be little basis for anticipating a positive effect upon achievement in reading and math of disadvantaged students through the use of incentives. However it should be noted that a high percentage of participating teachers in these two projects looked favorably upon incentives as a technique for motivating disadvantaged students. This appears to be of particular significance, since the Mesa and Stockton teachers' associations were reluctant to enter into a contract involving the use of incentives.

Summary

The performance incentive education experiment gave to private enterprise decision-making authority for classroom instruction. This was not without precedent, since schools had previously contracted with private agencies for cosmetology and other vocational areas through legal and financial support of government. For private firms to be given authority for choosing materials, designing the curriculum, and employing staff within the shelter of the school, were quite different

⁴²Ibid., pp. 15-16.

⁴³Ibid., p. 17.

matters with possible far reaching implications. Testing individualized prescribed instruction and other technology on such a broad scale was exemplary. Teacher, company, and student incentives for results achieved reopened issues of differing and conflicting motivational philosophies. And the issue of merit pay for teachers again became a questionable matter.

Accountability for achievement results was hampered by the limitations of private firms to "define in measurable terms" what it was that they wished to "measure" and this to harmonize with the theory of performance incentives must be definable. It appeared quite reasonable to assume that existing standardized testing programs would be appropriate for measuring achievement in a performance contract situation. These tests were designed for the purpose of showing norms of achievement. They were not however designed for the purpose of measuring growth rates of students with dialect and other language patterns differing from the norm.

That every child will learn and therefore must be effectively taught were points that have been appropriately placed before those responsible for education.

Decision-making authority, resulting in management flexibility, was looked upon as the key to success. Given the authority for decision-making, potential for effective flexibility did exist. Performance incentive contracts endeavored to produce "efficiency" with this flexibility, without the encumbrances of bureaucracy. Nevertheless in this experiment internal management limitations were replaced with inflexible external controls.

The Federal government's action to design programs with the exclusion of teacher participation in decision-making raised questions concerning its intentions. It raised, too, the question of who was in the closest proximity and best position to solve classroom problems. Authorities in charge processes recognize the general problems connected with advocating change by those who are located too distant from the action.

Grouping children was in conflict with Federal government desegregation trends. In the Hobson versus Hansen and School Board of District of Columbia court case, Judge Wright ruled that all forms of ability grouping were unconstitutional, and that such practices were another form of segregation.⁴⁴ This may have illustrated lack of communication between government agencies or interpreted as the beginning of a regressive trend toward segregation.

The OEO invested seven million dollars into performance contracting. After two years of experimentation few reliable and generalizable conclusions about the effects of contracting were available. Nevertheless the experiment did produce substantial information about the problems and pitfalls of implementing large scale, rigorous, informative experiments.

Texarkana, Gary, and Grand Rapids school officials, in an attempt to blunt the OEO reports of the experiment's apparent failure, put forth efforts to convince other educators that contracting had

⁴⁴J. Skelly Wright, Federal District Court Judge, "Hobson versus Hansen and School Board of District of Columbia," Congressional Record, Washington, D.C. (June 21, 1967), pp. 16763-16764.

indeed positively affected students' and teachers' attitudes, as well as having improved the rate of reading achievement of disadvantaged children.

Many Michigan educators were convinced that contracting effected changes in their schools. Therefore this study was an effort to search for the impacts of performance contracting upon students and educators in the participating schools in Michigan. The design for gathering this information is presented in Chapter III.

CHAPTER III

DESIGN OF THE STUDY

Through promoting performance contracting, the United States Office of Education influenced Michigan education. As a consequence of the experiment's design, industrial firms were placed in charge of managing school programs. Private firm responsibility within projects ranged from developing reading and math curriculum, to assignment of teachers, aides, and project managers. Consequently Michigan Schools were faced with an on-site challenge to their capability of meeting the educational needs of students, as well as being confronted with the necessity of weighing the quality of this recent federally sponsored educational innovation.

A number of Michigan educators closely associated with the experiment highly favored the concept of performance contracting. Therefore they were disappointed when the OEO announced that contracting had failed to significantly increase reading and math skills of students, and, as a result, the experiment would be terminated at the end of its third year of operation. Several educators and private firms felt this early termination was premature and that many beneficial effects of contracting had been overlooked by OEO auditors. The interest of these educators reinforced the importance of doing this study.

John Porter, Superintendent of the Michigan Department of Education, was also impressed with Michigan's experience in performance

contracting. Through his leadership the state appropriated resources which assured continuing contracting activity in Michigan and underlay the need for researching this activity.

Since schools with experimental projects were in an excellent position to evaluate this federally sponsored intervention in local school affairs, they were called upon to participate in this study. The following design was constructed to identify the impact of contracting upon students in participating schools.

Statement of the Problem

This study, therefore, was an endeavor to examine (a) the impact of performance contracting upon pupils, teachers, administrators, and instructional programs in participating schools, (b) the type of relationships that were established between the district and the learning systems contractor, (c) the effectiveness and quality features of contractors' learning systems, (d) the reason for the federal government's original intervention and termination of the experiment, and (e) the implications that contracting may have for teacher education.

Objectives

The objectives of this study are:

- A. To identify effects of the performance incentive experiment upon participating students.
- B. To analyze the impact of incentives upon "efficiency" and "achievement."
- C. To identify humanizing effects operating in experimental classrooms.

- D. To identify features unique only to contracting practices.
- E. To seek the cause for the OEO's sudden diminishment of support for contracting.
- F. To solicit teachers' reactions to the extrinsic reward system used in contracting for motivating students.
- G. To identify management techniques that have had an effect upon individualized instruction.
- H. To determine applicability of individualized instruction to mobile student populations.
- I. To provide teachers with the opportunity to express preferences for specified sources of inservice education.
- J. To examine the implications of Federal government involvement in local school operations as related to decision-making roles of teachers, administrators, and local determination of school policy.
- K. To identify changes effected by contracting in participating schools.

Limitations of the Study

This study was limited to contract projects in Michigan, although information from experiments throughout the United States was drawn upon for background information. Thus the results of this study are primarily applicable to Michigan.

While the study endeavored to outline the status of contracting and to delineate its implications for educators, it was primarily limited to those areas most familiar to project participants.

Data were gathered through structured interviews. The method of gathering data through interview has the advantage of being a flexible and accurate tool in the hands of a skillful interviewer. However the interview also increases the potential for subjectivity and innocent modification of facts.¹ The design of the study is structured to control for this limitation.

Assumptions of the Study

This study assumed that:

1. Contracting had substantial impacts upon participating schools;
2. Participants in each project could clearly identify the nature and extent of these impacts;
3. The operational features common to performance contracting projects have unresearched implications for public school educators, for teacher preparation, and for the concept of individualized instruction; and
4. Data necessary to identify the impacts that performance contracting has made could be retrieved through structured interviews.

Instrumentation

A questionnaire reflecting the unique features of contracting was designed with the following guidelines used in the construction

¹Pauline Young, Scientific Social Surveys and Research (Englewood Cliffs, N.J.: Prentice Hall, 1966), pp. 222-223.

and development of procedures for administering a structured interview instrument.

It was most important to give care to wording to make certain the specific issue which the questionnaire had in mind was the issue to which the interviewee would give an answer.²

Theory indicated it was generally best to proceed from the general to the specific. Therefore "opener" or introductory questions were designed to be of the most general free answer type. These helped to lead into the subject, to elicit non-directed unstructured replies, and to provide the background for interpreting detailed questions asked later in the questionnaire.³

For the purpose of refining and timing the instrument, it was essential to conduct pilot interviews in situations approximating the main study.⁴

Each question was to be read to all interviewees in the exact wording given, subsequently emphasis was placed on stating each question as written and recording the respondent's replies as given.⁵

Oppenheim has drawn attention to the interacting variables of an interview instrument, and the possible bias that may result from a respondent's answers.

²Stanley L. Payne, The Art of Asking Questions (Princeton: Princeton University Press, 1951), p. 10.

³Ibid., p. 34.

⁴Ibid., pp. 52-53.

⁵Abraham Oppenheim, Questionnaire Design and Attitude Measurement New York: Basic Book, Inc., Publishers, 1966), p. 29.

The interview consists of three interacting variables (1) respondents, (2) interviewer, and (3) the interview schedule. Each of these, as well as the interview situation, can have an important influence on the results though the interview procedure is standardized, there will always remain differences in the way in which questions are put to each respondent; and these may, or may not, have an important influence on the results. Equally what is understood by the respondent and what is recorded or noted down from the respondent's answer will be selected and possibly biased.⁶

To control for interview bias, interviews were tape recorded and transcribed onto the interview instrument as soon after each interview as possible.

The interview was selected for gathering data for this study because of its distinct advantages. Oppenheim states, "The greatest advantage of the interview in the hands of a skilled interviewer is its flexibility. The interviewer can build up and maintain rapport, that elusive motivating force that will keep the respondent interested and responsive to the end of the interview. There remains the undisputed advantage that the richness and spontaneity of information collected by interviews is higher than that which a mailed questionnaire can hope to obtain."⁷

The instrument is divided into eight sections with each division focusing upon an objective of the study. Section "A" was structured to gain background information related to each project. To illustrate the content of the other divisions, each is briefly introduced as follows:

⁶Ibid., p. 35.

⁷Ibid., pp. 31-32.

B. Review of project's success, which includes open-ended questions structured to identify each project's successes.

Ex: What evidence would you point to, to show that this project was really successful?

C. Reward "Incentives" system: Please indicate your feeling to the reward system used for motivating students. For the following statements select the code letter that best describes your agreement with each statement.

Strongly Agree "SA," Agree "A," Neutral "N," Disagree "D."

Strongly Disagree "SD"

Ex: The "free room" or "RE" room had a positive effect upon students' attitudes.

SA A N D SD

D. Individualized instruction: Please indicate the "effectiveness" of individualized management techniques and concepts that have improved individualized instruction, by selecting the code letter that best describes your agreement with the following.

Ex: Charting progress "charts."

SA A N D SD

E. Inservice education: There are numerous inservice education alternatives open to teachers, with private firms adding another source. I am interested in knowing which of several alternatives you feel are most effective. Please select three from the following list that you feel are most effective and rank them in order of preference from one, "1" to three "3," with one being the most preferred form of inservice.

Ex: ☐ Local school staff
☐ Local school staff-university
☐ Private firm

F. Decision-making: The following questions are designed to determine the decision-making relationships that developed through contracting. Please respond to each question by indicating "Yes" or "No" to the various alternatives.

Ex: What effect has the Federal government's "management support system" had upon local school community decision-making,

- | | |
|---|--------------|
| a. Different people made decisions | Yes___ No___ |
| b. Development of Federal local partnership | Yes___ No___ |
| c. More innovative programs | Yes___ No___ |
| d. Less local control | Yes___ No___ |

G. Changes resulting from contracting: The following changes have become a part of the regular school program as a result of contracting.

Ex: Commitment to concept of "positive reinforcement." Yes___ No___

Each of the divisions was particularly designed to gather data related to the eleven objectives of this study. A final section of the instrument was structured to bring the interview to a close in an atmosphere of appreciation for the interviewee's cooperation. The complete instrument is located in Appendix A, page 116.

Procedures

Through unstructured interviews with private contracting firms and public educators, practices and procedures common to contract projects were identified. These practices and procedures were used to prepare a structured interview instrument. Therefore to refine the questionnaire, the initial instrument was submitted to a jury consisting of a contract teacher, a private firm consultant, a school administrator, and a university professor closely associated with contracting. Also pilot interviews were conducted with the revised instrument for the purpose of further refining the questionnaire. The pilot interviews took place in an elementary performance contract school.

Interview procedures. Forty minute structured interviews were conducted with project managers, school directors of projects, administrators, private firm consultants, and teachers involved in projects, and presidents of local teachers' associations. To eliminate the need for writing during the interview, responses were taped and transcribed onto the instrument as soon after each interview as possible, but no later than twenty-four hours after each interview. To assure uniformity of time for each interview, a clock was conveniently located to assure appropriate pacing.

All schools in the State of Michigan that were funded for two or more years, and with an operational project for the 1972-73 year were included in this study. Eight school districts qualified, however one preferred not to be a part of the study and several contract personnel in another district had changed their place of employment. Therefore eight elementary and two junior high schools located in six school districts participated in the study.

Table 1, shows the population sample by school district sites. In districts two, five, and six the population to be interviewed included all professional personnel connected with the performance contract project in each respective school. The population for districts one, three, and four were included on the basis of (a) one school project site designated by the local educational agency, and (b) one school project randomly selected from all remaining projects in each of the three districts.

TABLE 1.--Population Sample.

Interviewees	School Districts						Totals
	1	2	3	4	5	6	
Teachers	4	2	4	4	2	2	18
Principals	1	1	1	2	1	1	7
Directors of Curriculum	1	1	1	1	0	0	4
Private Firm Consultants	1	1	2	2	1	1	8
Superintendents	1	1	1	1	1	1	6
Presidents of Local Education Associations	1	1	1	1	1	1	6
School Project Directors	1	0	1	1	0	0	3
Totals	10	7	11	12	6	6	52

Scheduling of interviews. Superintendents of schools in the study were contacted by phone in January of 1973, for the purpose of gaining permission to conduct the research. Each was offered the opportunity to discuss the purpose of the study through an appointment with the interviewer. None felt this was necessary and indicated so

by encouraging the researcher to proceed with scheduling of interviews. A staff member in each district was designated by the superintendent as a liaison to the researcher. A copy of a follow-up letter mailed to each superintendent is found in Appendix B, page 128.

Analysis of data. Data collected from participants are presented and analyzed in table and narrative form in Chapter IV. The nature of the data analyzed consists of (1) demographic information, (2) responses to eight open-ended questions in Section "B" of the questionnaire, which focused upon successes of projects, (3) response to eighty-two Likert items, which focused upon the "Reward System," and "Effectiveness" of individualized instruction, (4) rank order of preferred sources of inservice education, (5) decision-making relationships, and (6) changes resulting from contracting.

Data are presented and correlated with objectives delineated in Chapter I. Each section is introduced with the objective related to that division or subdivision, followed by presentation of findings taken from the structured interview instrument, which was divided into the following sections:

I. Demographic Information

- A. Population [Interviewees]
- B. Funding
- C. Pupils enrolled

II. Review of Projects' Successes

- A. Results of school data
- B. Efficiency of contracting
- C. Individual student successes
- D. Group successes
- E. Contracting compared to remedial reading
- F. Humanizing features of contracting
- G. Features unique to contracting
- H. Federal support for contracting

III. Reward "Incentives" System

- A. Effect upon pupils
- B. "RE" rooms

IV. Individualized Instruction

- A. Effectiveness
- B. Application to mobile student populations

V. Inservice Education Sources

- A. Local school
- B. University
- C. Private firms
- D. Teacher associations

VI. Decision-making Roles

- A. Federal government
- B. Teachers' association
- C. Teachers
- D. Private firms
- E. Principals
- F. Aides

VII. Changes Resulting from Contracting

- A. Decision-making
- B. Reinforcement
- C. Individualized instruction
- D. Inservice
- E. Ability grouping
- F. Differentiated staffing

VIII. Closing the Interview

- A. Willingness to participate in future contracting
- B. Further comments

Summary

This study was designed to examine the impact of performance contracting upon pupils, teachers, administrators, and instructional programs of participating schools in Michigan.

Through unstructured interviews with public educators and private firm consultants, practices and procedures common to contract

projects were identified and used to prepare a structured interview instrument. To refine the questionnaire the initial instrument was submitted to a jury consisting of a contract teacher, a private firm consultant, school administrator, and a university professor closely associated with contracting. Pilot interviews were conducted in an elementary performance contract school.

Fifty contract participants, located in six school districts, were individually interviewed. Interviews were scheduled by an administrator in each district, who had been appointed to act as a liaison between those to be interviewed and the interviewer. Forty minute tape recorded interviews took place with each of the participants between January 2, and May 30, 1973. Recordings were transcribed onto a questionnaire assigned to each participant. For anonymity, districts and schools were assigned a code number for reference purposes. Schools and interviewees are to remain anonymous.

The interview instrument was designed to collect data essential for meeting the eleven objectives of this study. Data were catagorized and computer-programmed for easy accessibility. Results in Chapter IV, presented in table and narrative form, are correlated with the eleven objectives of this study.

CHAPTER IV

ANALYSIS OF DATA

The prime purpose of this study was to examine the effects of performance contracting upon children in the participating schools in Michigan. To gain a clear picture of the effects of contracting, teachers, directors of projects, principals, superintendents, and presidents of local teacher associations were interviewed. The fifty professionals closely associated with contracting who were included in the study were located in six different school districts ranging in size from 2,000 to 50,000 students.

Schools qualifying for this study were in their second or third year of operation with a project in process for the 1972-73 school year. Efforts were made to include all schools in Michigan that qualified. There were, however, two projects where personnel matriculation made it quite impossible to collect data, as well as one school which declined participation in the study feeling that the gathering of data would cause interference with school activities to a degree that teachers would be unwilling to tolerate. Therefore the six districts included in this study, with the exceptions mentioned, constitute the total population of schools with two or more years of contracting in the State of Michigan.

Efforts were made to consistently conduct a forty minute interview with each person involved in the study. The personnel of

the participating schools and private firm personnel were most cooperative and eager to share their experiences with performance contracting. Interviews were scheduled during school hours beginning in January and ending in May of 1973. Following the interview, taped recordings were transcribed onto the interview instrument.

The data which follows are correlated with the eleven objectives delineated in Chapter III. The first major division includes demographic information with each succeeding section introduced with the objective related to that division or subdivision, followed by presentation of findings taken from the structured interview instrument. Responses by interviewees to open-ended questions were paraphrased for the purpose of maintaining the flavor of respondents' attitudes toward contracting.

Demographic Information

Table 2, shows the categories of personnel interviewed and their distribution within the six school districts participating in this study. Interviewees for schools two, five, and six were chosen since they represented the total participants in the program. In schools one, three, and four, the school administrators selected the first two teachers and school, and the second two teachers and school were selected at random. Schools five and six did not have any one person designated as director of curriculum. Also only schools one, three, and four appointed directors for their contracting projects. Programs in districts two, five and six were primarily administered by private firms.

Success in securing reliable funding data was qualified although efforts to gain such information through interview and follow-up

TABLE 2.--Population Interviewed.

Interviewees	School Districts						Totals
	1	2	3	4	5	6	
Teachers	4	2	4	4	2	2	18
Principals	1	1	1	2	1	1	7
Directors of Curriculum	1	1	1	1	0	0	4
Private Firm Consultants	1	1	1	2	1	1	7
Superintendents	0	1	1	1	1	1	5
Presidents of Local Education Associations	1	1	1	1	1	1	6
School Project Director	1	0	1	1	0	0	3
Totals	9	7	10	12	6	6	50

correspondence were made. Teachers, school administrators and private firm consultants lacked accurate knowledge of Federal, State and local funding amounts. Contributing to this lack of information was the common administrative practice of inter-mixing Federal, State and local funding for operational purposes. Although these projects were to be "models" for "efficiency" participants appeared to have limited knowledge of funding and program costs.

Dollar amounts in Table 3, partially reflect funding from various sources.

In Table 4, enrollment figures represent the number of pupils in the project schools assigned to contract projects for the 1972-73 school year. Four school districts assigned pupils who were two or more years below grade level in reading to project rooms. In contrast two school districts included all pupils in their project schools in

TABLE 3.--Amount and Source of Funding Expressed in Thousands of Dollars.

Funding	School Districts						Totals
	1	2	3	4	5	6	
Federal	\$ 0	0	0	30	12	14	\$ 56*
State	50	9	19	67	0	8	153
Local	36	0	0	0	0	0	36
Foundations	36	0	0	0	0	0	36
Totals	\$122	9	19	97	12	22	\$281

*Thousands.

TABLE 4.--Number of Pupils Enrolled.

Pupils Enrolled	School Districts						Totals
	1	2	3	4	5	6	
Elementary	300	500	600	300	300	300	2300
Jr. High School	500						500
Totals	800	500	600	300	300	300	2800

specialized contract programs. Also interviewees in schools one, three, and four reported plans to include all pupils within their building in future individualized reading programs. Initially schools included pupils who were below grade level in reading two or more years as their prime target, but by the third year of operation schools reported substantial interest by teachers to include all children enrolled.

Two different approaches were used to involve children in specialized reading programs. Most schools grouped pupils by skill level and scheduled groups for a reading laboratory. In contrast one large district believing that children should not be grouped or sent to a laboratory for instruction, scheduled specialized reading activities into the existing curriculum under the supervision of classroom teachers.

Review of Projects' Successes

- I. Objective A. To identify effects of the performance incentive experiment upon participating students.
 - A. Were criteria for evaluating the program established before the program began?
 1. In answer to the question, forty-two respondents answered yes and three answered no. Forty-eight interviewees reported that an audit was made at the end of each year's operation. Two interviewees not responding lacked knowledge of this function. All schools participating in this study did audit achievement in reading, though in some instances no pretesting had been done.
 2. Interviewees were asked to share their audit results. Table 5 gives results as reported by respondents for 1970-71.
 3. Interviewees reported that standardized test results did not clearly reflect the effects of treatment. The following paraphrased responses were exemplary of reasons given for inconclusive audits as well as explanations for students not realizing predicted gains:

TABLE 5.--Gains in Reading and Math Reported by Interviewees for 1970-71.

Results	Totals	Percent
One year or more of reading gain	9	18
Students did not make predicted gains	10	20
Some successes	22	44
One year or more of math growth	1	2
Inconclusive	6	12
No response	2	4
Totals	50	100

- a. Many reading experts tend to agree that it is almost impossible to obtain an accurate evaluation of reading ability by a single standardized reading test. It is generally agreed that a criterion-referenced test be used along with a standardized measure.
- b. Reluctant readers generally tend to avoid tests which require concentrated reading.
- c. Unknowingly, the test situations may have hindered optimum student efforts. Students were often pre-tested and post-tested in large groups, sometimes as large as 180 pupils. For this target population, large groups such as this might have proven to be too distracting.
- d. In order for problem readers to read even at minimal levels, they must be thoroughly motivated. Because of time limitations this was not possible.
- e. In some instances substitute teachers, with no prior knowledge or preparation were hired by auditors to administer pre-tests. This testing was believed to be highly unreliable.

Undesirable testing situations, audits administered by outside firms, and difficulty in matching standardized tests to fit the needs of the programs were cited as partial explanation for results contrary to what contractors under optimum condition may have achieved. These

results left schools who believed they had made considerable gains highly frustrated with publicized results. Therefore, it was necessary to look more closely at the successes reported by participating schools.

- B. Table 5, shows that eighteen percent of those interviewed reported students had gained one or more years in reading. Another 44 percent reported "some successes." Paraphrased response of these successes follows:

1. Attitudes

- a. Attendance rates improved as well as transiency movement in and out of buildings.
- b. Students' work and social attitudes improved.
- c. Principals said that the children who had sat in their offices the previous year for disciplinary action now during the year 1972-73 were seldom sent to the office.
- d. Many parents said their children were enjoying school for the first time.

2. Achievement

- a. State Assessment for 1971-72, showed that pupils made substantial gains in reading in district "one." This was verified by tests given by the district which paralleled State Assessment reports.
- b. Standardized pre-tests and post-tests administered by school counselors from another district for school district "two," indicated that the objective of 2.0 years gain in reading for one year's effort was realized.
- c. Sampling of twenty-five students in district "two," tested at the end of one year in the program and again the following fall showed twenty-one pupils maintained their growth, with four regressing.
- d. Results for school district five:

Grade	Students Averaged Grade Gain
1	1.0
2	1.3
3	1.2

Grade	Students Averaged Grade Gain
4	.9
5	1.0
6	.8

Given a standard expectation of one year's growth for one year's attendance, these results represented moderate successes. However when considering that many of these students, especially in the higher grades, had not achieved at this rate for several years the results for grades four, five, and six could be interpreted as being better than expected.

- e. In district "three," on an expectancy table which required greater growth for the higher scoring students in the pre-testing, a private company lost \$13,000. The company had anticipated that the brighter students would make greater gains than those who had scored lower in pre-testing. By being overconfident with this group, the resulting contract firms worked to the advantage of the school district.
- f. Students enrolled in the project gained an average of .6 of a year or more on the Stanford Achievement Test in district "three."
- g. Over half of the 145 students enrolled did not achieve three-fourths of a year's gain, which was the expected performance level for school "one," in district "three."
- h. OEO data for district "four" reported students did not gain appreciably in reading and math, other than what they normally would in a regular classroom. However strong objections were voiced toward the OEO's evaluation procedures.

Schools interviewed reported consistently better results for the second year of operation. Interestingly, local school educators, especially teachers, had greater input into second year programs than they had in the first year. Some educators blamed much of the first year's failures to poorly administered audits and the sparse involvement of local decision-making. Nevertheless as shown by the above

paraphrased remarks, substantial successes were attributed to students who previously had been labeled failures. Reports from three schools raised the possibility of a breakthrough for motivating students in grades four, five, and six. Students in these grades, located in three different districts, achieved at higher rates than they had in previous years.

- C. Even though companies did not meet their achievement goals, it is possible to conclude on the basis of data in Table 5, that companies did meet with some successes. Since there was the possibility that firms set their performance levels above normal expectations, interviewees were asked, "Do you think private firms set their performance levels too high?" Sixteen respondents replied yes and twenty-six said no. Those replying yes were asked, "If too high how do you think it should have been?" Their replies are paraphrased as follows:
 1. It was unrealistic to use standardized tests to measure educationally deprived children. An expectancy rate for a child gaining .3 of a year the prior year, followed by .6 of a year's gain for the next year would have been an appropriate pattern to follow.
 2. An arbitrary target of one year should have been replaced with an average of student growth. To illustrate, there were instances where students achieved .9 of a year's growth, but the company received no payment since they had missed the target by .1 of a year. Also there was a lag with testing and placing pupils before instruction could begin. Therefore a target of 75 percent of a year's gain for a year's effort would have been more realistic.
 3. Month to month gains should have been based primarily on criterion-referenced tests designed to harmonize with the instructional objectives.
 4. It would have been realistic to expect between a year and a year and a half growth for a school year, rather than two year's growth.
 5. An improved test would have been desirable. Also students should have been tested in groups of thirty and under appropriate testing conditions.

6. Though the company in district "three" established an expectancy table level based upon thousands of previously computerized test score performances, the company still lost so it is difficult to predict what should have been expected.

Since two school districts, one with a target for two year's gain and another with a target for one month's gain for each month in the program, did reach their objective, it is difficult to establish a definitive answer to the question of, "Did the private firms set their performance levels too high?" On the basis of this limited insight into establishing performance levels it would seem that private firms had difficulty with (a) securing adequate testing instruments, (b) testing conditions, (c) establishing realistic expectancies for populations with which they were unfamiliar, and (d) overcoming considerable lag time between pre-testing and the beginning of instruction.

A further analysis of successes follows.

- D. To gain further evidence of successful outcomes interviewees were asked, "What evidence would you point to, to show that this project was really successful?" The following paraphrased responses identify these successes:

1. Reading achievement.

- a. Seventy-five percent of 150 students enrolled gained one year or more of growth in reading, as measured on the "Oral Gilmore Reading Test." The mean grade gain for all pupils in the reading program was 1.15.
- b. The Gates-MacGinitie Reading Test showed that students surpassed normal expectations in reading comprehension at all levels for the 1971-72 year.
- c. Students in the 50 percentile or lower on an expectancy table made remarkable gains, to the extent that they were used to justify a continuation of the program for at least another year.
- d. Pupils in one school made an average gain of .8 of a grade in reading during eight months of instruction.

- e. Two schools did not show a gain in reading during the first year of the project. Thereafter students increased vocabulary and comprehension by one grade level for each year of effort.
- f. Prior to performance contracting, pupils gained .3 of a year in reading. During contracting they gained .6 of a year and the following year without contracting .8.
- g. A teacher stated that his English laboratory students gained two or more levels in one semester. Students also enjoyed the freedom of the laboratory, which was not available in their regular classes. Although the students designed their own programs, near the end of the program many students became bored and needed other activities to motivate them. Regarding the post-test, some of the students said they were "fed up" with testing.

2. Attitudes.

- a. For some children performance contracting was their first opportunity to succeed.
- b. The program gave students confidence in themselves.
- c. An auditor from outside the district who gave a pre-test and post-test, stated the children exhibited a positive change in their attitude toward testing.
- d. Encouragement of independent work habits created a climate for pupils to progress as rapidly as possible.
- e. Teachers' and pupils' feelings toward performance contracting were very positive.
- f. Children were more enthusiastic and willing to try to complete their studies in contrast to saying, "I can't."

3. Instruction.

- a. Through management of human and material resources students had opportunities to be taught on a one-to-one basis, which brought into reality the process of individualized instruction.
- b. As a result of contracting reading programs were organized in several secondary schools.

- c. Success was indicated by a building staff decision to go building-wide as opposed to continuing the program restricted to two classrooms.
 - d. Several schools moved from performance contracting to a district modified design of contract learning.
- E. To identify individual successes interviewees were asked, "Would you cite individual instances of successes?" Most interviewees were enthused with the impact of these projects upon individual pupils. An enumeration of some of these effects follows:
- 1. Individual sixth graders made grade gains in reading of 3.3, 3.5, 4.0, and 3.2 years in one year of study.
 - 2. One girl, who had previously been labeled a slow retarded reader, made two years gain in reading in one academic year.
 - 3. One boy diagnosed as dislexic, worked very hard and progressed to the third and fourth grade level during his seventh grade in school.
 - 4. On the Iowa Achievement Test one student gained three years and another four years in reading.
 - 5. According to a Michigan State University survey most students showed an improvement in self-concept in one school.
 - 6. It was possible to point to almost any group or individual in the school and conclude that the program helped students academically, behaviorally, and attitudinally. These feelings were expressed by a teacher with two and one-half years of experience in the program, and two and one-half years in the school prior to the beginning of the project.
 - 7. One boy firmly believed that he could not read. After working with him for two years his whole attitude was characterized by, "I can do it! Look at what book I'm in now!"
 - 8. One girl with twin sisters a year older than she, moved into the school the previous year. All three were exceedingly disruptive and ran wildly about the school. By giving her specific contracts with a performance flow chart, and placing her on a "skins economy" to modify behavior, she became a responsible student.

9. A very quiet pupil showed over four years growth in reading in one academic year.
 10. Students liked the feeling of being responsible for themselves, and not being in competition with others. Their learning was strictly personal based upon confidence that they had good materials, and that teachers were there to help when needed.
- F. To further identify successes interviewees were asked, "Would you cite group instances of successes?" The paraphrased responses of group successes follows:
1. A group of fourteen students who were pre-tested and post-tested by Michigan State University, made 2.0 year's growth in reading in five months.
 2. Nineteen students from a group of fifth and sixth graders made two or more years gain in reading in one year.
 3. A laboratory teacher's comparative study of a group of fifteen seventh graders in a remedial class, with a group of fifteen eighth graders in the contract laboratory, reflected gains of 1.5 years in reading. The average previous gain had been eight months for a year's effort.
 4. Through token economy (monetary reward), English language speaking students were successfully organized into small groups for studying the Spanish language.
 5. Several students decided to work together completing reading lessons. After they discovered that it was not cheating to assist one another, they appeared to learn from each other.
 6. The program seemed to work best with pupils of normal intelligence, but who had some reading difficulty. The attitudes of these children toward school improved considerably.
- G. To compare the success of contracting with regular classroom instruction interviewees were asked, "Was performance contracting more successful than traditional classroom methods for improving reading and math skills of disadvantaged students?"
1. Table 6 shows that eighty-five percent of the respondents said that performance contracting for reading was more successful than traditional classroom methods. Since

TABLE 6.--Success of Contracting in Comparison to Traditional Instruction.

Instructional Areas	Yes	No	Response
Reading	85%	15%	80%
Math	87%	13%	30%

the number of projects with a math program were few, a similar judgment could not be made about the effectiveness of math through contracting.

2. The following paraphrased responses were the reasons given for the success of performance contracting in reading:
 - a. Skills were sequenced which assured that pupils would learn each skill before going to the next level. Often in traditional programs skills needed by children were not sequenced or even omitted.
 - b. It was the instructional program that the company had to offer that was more successful, not performance contracting.
 - c. Success may have been caused by the "Halo" or Hawthorne effect.
 - d. Math achievement exceeded reading achievement during the experiment. This report by one school was given credit for the ability of the students to more capably read math assignments.
 - e. It was more efficient in terms of specific instruction for a specific objective. The program was very concentrated and highly controlled tending to reduce spurious behavior and forcing the children through pacing to concentrate on the issue at hand. There were, however, instances of negative attitudes developing among children as a result of being rapidly paced. Once the students lost the pacing they were left out of the program and since it was a group instructional program few deviated from the pacing.
- H. Summary of effects [successes] from the performance incentive experiment.

1. Greater impetus was given to contingency management and individualized programs than to performance contracting. School personnel reported greater success during the second and third year of program operation than during the first year. Therefore success may have resulted in a change from performance contracts for achievement to contracts for consultant services, the latter allowing more teacher input.
2. Teachers and programmed materials were identified as the most effective components for assuring success of these programs.
3. Teachers and school administrators gave credit to private firms for initiating new instructional approaches.
4. Dramatic effects were recorded for individual pupils and groups in achievement ranging from improved attitudes, to gains of four grades or more in reading.
5. Use of positive reinforcement to motivate children was the most striking feature of contracting.

II. Objective B. To analyze the impact of incentives upon "efficiency" and "achievement."

- A. Private firms had anticipated producing achievement gains at a more efficient rate than costs for regular classroom instruction. To delineate what had been accomplished by private firms in their objective to achieve "efficiency," interviewees were asked, "Did private firms produce achievement grade units in reading or math at a more 'efficient' rate (cost) than control classrooms?"
 1. Table 7, illustrates the difficulties in gaining a clear picture of what was achieved in "efficiency." Substantial increase in "no response" for reading appears to support the belief that OEO audit reports did not eliminate the confusion centered around the capacity of private firms to achieve gains at a more efficient rate than control or regular classrooms.
 2. Four firms felt strongly that efficiency goals may have been legitimately met, had criterion-referenced test results been used to determine payment.
 3. One district reported greater efficiency for contract gains than for regular classrooms, per grade unit of gain. However partial credit for this gain was given to a human relations inservice workshop which was given credit for helping teachers to improve self-concepts of pupils.

TABLE 7.--Efficiency of Experimental Classroom Compared to Control Classrooms.

Subjects	Yes	No	No Response	Totals
Reading	17	10	23	50
Math	5	6	39	50
Totals	22	16	--	--

- B. Although private firms did not reach their efficiency goals, numerous reports show their efforts were marked by substantial success with students who had reading problems.

Teachers and administrators commended private firms for improving student attitudes, promoting positive reinforcement stances among teachers, and for setting into motion new instructional alternatives. Thus "efficiency" in terms of "costs" was not achieved yet in terms of individual and group successes numerous effects were seemingly realized.

III. Objective C. To identify humanizing effects operating in experimental classrooms.

- A. An objective of this study was to look for humanizing features of contracting that removed the stigma of "remediation." A search for humanizing effects was made by asking interviewees, "Would you identify humanizing features operating in contract classrooms that improved the learning climate?" The following are paraphrased responses for features identified by respondents:

1. Reinforcement.

- a. Highest respect was given to individual students.
- b. Positive rewards were given in place of punishment as a means of motivating pupils to learn.
- c. Interaction between teachers and students was organized to stress positive pupil behavior in

efforts to eliminate negative teacher reinforcement patterns. A system of monetary rewards and teacher verbal and non-verbal praise was used to bring about the desired effect.

- d. During the first year in a project pupils' social and study habits appeared to be effectively altered through being given monetary rewards. Thereafter students began to feel more self-rewarded for their achievements. As a result some teachers developed a modified extrinsic reward system identified as "social approval." In place of individual rewards, monetary resources were used by pupils to share through staging social functions of benefit to the total group. Additionally teachers stimulated pupils to reinforce one another through encouragement and recognition of academic progress.

2. Teachers.

- a. The presence of certificated teachers supported the humanizing features as opposed to the mechanistic nature of the system approach to instruction.
- b. Teacher aides were of immediate value to children, working in teams with black and white teachers.

3. Instruction.

- a. Peer group interaction, pantomime, and debates were effectively used.
- b. Instruments were available for identifying more rapidly the weaknesses and strengths of individual pupils.
- c. Activity and recreation rooms were popular with students.
- d. In one project, if students did not want to work, they were required to place their head down on the desk or just sit after completing an assignment. Some students were observed picking up their pencils with the attitude that they might as well work. They appeared to have concluded if no one were pushing them they were willing to try.
- e. Vital to the learning process were meetings on a weekly basis with the project consultant to discuss ways in which adult behaviors were changed as they viewed children.

- f. In small groups teachers felt closer to pupils than they did in a regular classroom. Children also apparently felt closer to each other.
- g. Communicating closely with individual students for five or ten minutes in a teaching situation gave a teacher time to be with each child, his problems, and the opportunity for undivided teacher attention.
- h. Some students who were labeled "trouble makers," performed well in contract rooms.
- i. As a result of success experiences in the classroom students felt good about themselves.
- j. It was stimulating to children to organize the instructional time each day into eight parts: two parts on machines, one part for "teacher talk" and reinforcement, and four parts for creative story writing.

B. The number of humanizing features attributed to contracting were numerous. Therefore an effort was made to determine some cause or motivation for this activity. How teachers felt about pupils was considered fundamental to their ultimate success in efforts to humanize instruction. To further explore what teachers basically believed about the ability of children to learn they were asked, "Do you believe any child can learn regardless of the child's past record?" Ninety-three percent of the ninety percent responding said they believed any child could learn regardless of his past record. The major reasons given are paraphrased as follows:

- 1. We learn all through life.
- 2. All children can learn, only the rate of learning varies.
- 3. Contract environment proved that children can learn since all children showed some acceleration.
- 4. It's human to learn to grow.
- 5. Children can learn to read as naturally as they learn to speak.
- 6. If properly paced, all children can learn.
- 7. Type "A" pupils did very well in contract programs. Even in cases of extreme retardation, children made good gains.

As contracting developed, private firms encouraged use of a monetary reward system in an effort to eliminate negative teacher and pupil behavior, which was believed to have been an underlying cause for low achievement. Through observation teachers reported that students were initially motivated by being given rewards, but increasingly felt self-rewarded by having success experiences. Consequently interviewees reported that reinforcement systems greatly contributed to humanizing instruction for children previously experiencing failure.

IV. Objective D. To identify features unique only to contracting practices.

A. To identify innovative performance contracting ideas, interviewees were asked, "Were there features operating in your project that were only unique to contracting practices?" Thirty respondents said that there were unique features operating in their projects. Table 8, lists the features reported.

1. Contingency management was ranked as the most unique feature of contracting, with flow charts, prescription teaching, and machines following close behind.
2. The most common characteristic of the features is the closeness to which most items come to fitting into a system of management techniques and organization of curriculum for instruction.
3. Managing curriculum through skillful coordination of human and technological resources was a unique characteristic of contracting.

V. Objective E. To seek the cause for the OEO's sudden diminishment of support for contracting.

A. In February 1972, the OEO announced that its objective to improve instruction through contracting had failed and that support was being diminished. To gain clarification for the government's decision interviewees were asked, "Why did the Federal government rapidly diminish its support for contracting?" The following paraphrased remarks were typical of the reasons given:

TABLE 8.--Unique Features of Contracting.

Features	Number Reporting Features
Contingency management	11
Flow charts	9
Teaching machines	8
Multilevel materials	6
Teacher aides	5
Systems management	5
Inservice teacher education	2
Small group with like skill needs	3
One-to-one pupil-teacher ratio	3
Individualization	4
Highly structured program	1

1. The Federal government had one grant for six million dollars, administered through the OEO, but did not particularly diminish their support outside of that one instance. Title I and Chapter III even encouraged contracting.
2. The government gave the thrust to contracting and from there expected schools to turnkey, evaluate, and continue contracting through local initiative.
3. The evidence became quite clear, particularly in Gary, Indiana, and Texarkana, Texas, that all that was claimed for these programs would not hold true. Several private firms realized little or no profit on their contracts, since factors basic to contract terms had not been considered. Consequently, as support diminished the original contractors realized that they could not produce their objectives efficiently.

Since other sources of support were available for continuing contracting after the early years, schools were less irritated by diminished OEO support than they were with the sudden announcement of

the OEO that their contracting experiment had failed. In the judgment of interviewees the OEO failed to thoroughly measure many positive effects of contracting as well as having conducted a questionable audit of achievement.

VI. Objective F. To solicit teachers' reactions to the extrinsic reward system used in contracting for motivating students.

- A. This system featured schools using tokens, skins, green stamps, reward rooms, and numerous other items as extrinsic rewards for reinforcing positive student behavior. To determine the effect of contingency management teachers, principals, and private firm consultants were asked to react to their reward system. Of the eighteen teachers interviewed four did not use a systematic form for giving extrinsic rewards.
- B. Teachers were asked to express their agreement with the statements in this section of the questionnaire by (a) Strongly Agree "SA," (b) Agree "A," (c) Neutral "N," (d) Disagree "D," or (e) Strongly Disagree "SD." The statements were designed to solicit reactions to extrinsic motivation and the impact of incentives upon "efficiency." Following is the enumeration of each of the eight statements, followed by paraphrased responses of interviewees:
 1. "The attitude toward school of incentive students was better than students in non-incentive classrooms."
 - a. Table 9 shows fifteen of the twenty-three respondents felt the attitude of incentive students was better than non-incentive students. Although the tendency was toward agreeing, there was no evidence of systematic comparing of incentives students' attitudes with those of non-incentive pupils.
 2. "Incentives were effective in modifying student behavior when used properly and systematically."
 - a. Table 10 indicates that well over half of the respondents believed that incentives modified student behavior.
 3. "Incentives used were appropriate for rewarding student behavior."

TABLE 9.--Attitude of Incentive Students Compared to Non-Incentive Students.

Respondents	SA	A	N	D	SD	Totals
Teachers	4	5	4	1	0	14
Principals	1	1	2	1	0	5
Private firms	4	0	0	0	0	4
Totals	9	6	6	2	0	23

TABLE 10.--Effectiveness of Incentives in Modifying Student Behavior.

Respondents	SA	A	N	D	SD	Totals
Teachers	4	5	4	1	0	14
Principals	1	1	2	1	0	5
Private firms	4	0	0	0	0	4
Totals	9	6	6	2	0	23

- a. Table 11 shows a tendency toward strongly agreeing with the appropriateness of incentives used for rewarding behavior.
- 4. "Students were able to attend to a given task for a substantially longer period of time."
 - a. Table 12, indicates that students were able to attend to a given task for longer periods of time

TABLE 11.--Appropriateness of Incentives for Rewarding Behavior.

Respondents	SA	A	N	D	SD	Totals
Teachers	7	7	0	0	0	14
Principals	2	2	1	0	0	5
Private firms	4	0	0	0	0	4
Totals	13	9	1	0	0	23

TABLE 12.--Ability of Students to Attend to a Task for Longer Period of Time.

Respondents	SA	A	N	D	SD	Totals
Teachers	6	5	3	0	0	14
Principals	1	2	1	1	0	5
Private firms	2	2	0	0	0	4
Totals	9	9	4	1	0	23

- 5. "Incentives were effective in stimulating achievement."
 - a. Table 13, reflects the tendency of respondents' belief that incentives were effective in stimulating achievement.

TABLE 13.--Effect of Incentives in Stimulating Achievement.

Respondents	SA	A	N	D	SD	Totals
Teachers	4	9	1	0	0	14
Principals	2	1	2	0	0	5
Private firms	1	1	2	0	0	4
Totals	7	11	5	0	0	23

6. "Participating teachers favored the use of incentives with disadvantaged students."
 - a. Table 14, shows that most teachers favored the use of incentives with disadvantaged students.
 - b. The position of private firms was influenced by teacher opposition to incentives during the earlier stages of contracting.

TABLE 14.--Participating Teachers Favoring Incentives.

Respondents	SA	A	N	D	SD	Totals
Teachers	4	9	1	0	0	14
Principals	0	4	1	0	0	5
Private firms	0	2	0	2	0	4
Totals	4	15	2	2	0	23

7. The "free room" or "RE" room had a positive effect upon student's attitudes.
 - a. Table 15, shows that most respondents had taken a neutral position toward the concept of "RE" rooms. After two years of experience most schools had replaced reward rooms with other forms of reinforcement.

TABLE 15.--Effect of "RE" Rooms Upon Students' Attitudes.

Respondents	SA	A	N	D	SD	Totals
Teachers	2	4	3	0	0	9
Principals	0	2	2	0	0	4
Private firms	1	0	3	0	0	4
Totals	3	6	8	0	0	17

b. Respondents reported social approval, profile chart progress, and ability of students to feel self-rewarded for achievement as primary reasons for de-emphasizing "RE" rooms.

8. Incentives were being used for students during the 1972-73 school year.

a. Table 16, shows the broad acceptance given to using incentives for reinforcement of pupil behavior.

TABLE 16.--Reported Use of Incentives for 1972-73 School Year.

Respondents	Yes	No	Totals
Teachers	14	0	14
Principals	5	0	5
Private firms	4	0	4
Totals	23	0	23

C. In Table 17, which is a summary of responses to statements one through seven, 82 percent of the respondents agreed or strongly agreed with the effectiveness of contingency management, fifteen percent took a neutral position, and three percent disagreed.

TABLE 17.--Total of Responses to Statements 1-7, Effectiveness of Rewards.

Summary	SA	A	N	D	SD	Totals
Statements 1-7	84	65	26	6	0	181
Percent	46	36	15	3	0	100

1. On the basis of these responses it can be concluded that incentives did positively motivate students.
2. Superintendents, directors of curriculum and presidents of local educational agencies refrained from making judgments about effects of reward systems since they lacked specific knowledge of this activity.
3. Projects in this study reported increased costs per grade unit of gain in comparison to regular classroom costs. Originally it was hoped that through incentives for teachers, pupils, and the contracting firms themselves a significant increase in efficiency would be achieved. However in only one project were incentives offered to teachers and these were reluctantly rescinded by the private firm when faced with opposition and court action by the local teachers' association.
4. During earlier phases of these experiments teachers commonly rewarded children for positive behavior with tokens, skins, school store privileges, listening to records, free paper backs, reward rooms, and flow charts designed to show each individual student's progress. [See profile chart in Appendix C, page 130.] As teachers gained experience with behavior modification they changed the original system of giving monetary rewards to individuals to a system of "social approval," a teacher coordinated individual and group reward process with major emphasis upon promoting social and academic growth of pupils within a group. Social approval was characterized by:
 - a. Teachers sitting down with pupils so that students felt they had their teacher's attention;
 - b. Turning points and tokens into a group sharing process, which made it possible for classrooms to have Christmas, pizza and dinner parties; and

- c. Teachers consistently reinforcing students with expressions of "out of sight," "wild," "beautiful," or "tremendous."

A major goal of private firms was to place emphasis upon student incentives in an effort to get teachers to consistently reinforce students positively. Project participants reported success through use of extrinsic rewards with pupils who had a history of failure. As pupils continued in the program they appeared to become more self-motivated with less need for being monetarily rewarded. Observing this change teachers diminished use of individual monetary rewards and placed more emphasis upon social approval. Through social approval individual pupils were rewarded by teachers' praise, gestures and other non-verbal communication. Monetary rewards were banked and used to benefit the group in efforts to build group cohesiveness or motivation. Therefore Table 15, indicating extrinsic motivation continued to be popular, is a reflection of the change from giving monetary incentives to individuals, to that of reinforcing positive behavior through group process.

VII. Objective G. To identify management techniques that had an effect upon individualized instruction.

- A. An analysis of management techniques was done to delineate features that improved individualized instruction and features that may have application for students within the normal ranges of intelligence, as well as disadvantaged and migrant student population. To determine the "effectiveness" of management features interviewees were asked, "Indicate the 'effectiveness' of individualized management techniques and concepts that have improved individualized instruction." The interviewees were asked to select the code letter (a) Strongly Agree "SA," (b) Agree "A," (c) Neutral "N," (d) Disagree "D," or (e) Strongly Disagree "SD," that best described their agreement with the following individualized instructional components.

1. Table 18, indicates that individualized organizational techniques provided constructive opportunities for students to work independently and improve their self-concept. Teacher aides and teachers were rated as being the third and fourth most effective individualized management components. In contrast, the use of teaching machines ranked the least effective management technique.
2. Items 16, "Center Manager," 22, "Reading Specialist," and 24, "Math Specialist," have an unusually high number of "neutral" ratings caused by the fact that these professionals were not featured in most projects. Private firms favored employment of teachers who did not have a specialist background in reading or math. For a number of reasons, these projects focused upon reading skills, with most of the mathematics generally being taught in non-contract classrooms.
3. In Table 18, item number 21, "Student opportunities to interact more with materials than with teachers and aides," reflects conflicting beliefs related to the role of teachers and materials. Those agreeing with this point of view were teaching in programs where teachers had close contact with children or in situations where children had time to interact with materials independently of teachers and aides. Those opposed to the concept monitored a program in which students upon entering the learning center, were given taped recorded instructions and materials and then proceeded to do their work completely independent of assistance from teachers and aides. This latter highly controlled approach exemplified one of the few programs that reached its target of 2.0 years grade gain for one year of instruction.
4. Objections to private firms consultants recorded in item number 20, Table 18, were (a) inability to relate to local school population problems, (b) lack of promptness or on-site presence when needed, (c) late or non-delivery of materials and parts for teaching machines, and (d) lack of educational expertise. In contrast, these program weaknesses of some consultants, were reported as effective strengths for many private firm consultants. Several teachers and principals were highly impressed with the promptness of firms in supplying continuous inservice education and needed materials throughout the experiments.

Individualized prescribed instruction was to be operationalized by pre-testing students to determine their level of skill development

TABLE 18.--Intensity of Agreement with "Effectiveness" of Individualized Management Components.

Individualized Components	SA	A	N	D	SD	Totals
1. Student Opportunities to work independently	31	9	2	1	0	43
2. Student opportunities to improve self-concept	31	9	2	1	0	43
3. Teacher aides	30	8	3	1	1	43
4. Certificated teachers	28	12	3	0	0	43
5. Self-pacing	27	10	5	1	0	43
6. Charting progress	25	11	7	0	0	43
7. Monitoring progress	23	15	4	0	1	43
8. Programmed materials	22	15	5	1	0	43
9. Student opportunities to work without fear of staff criticism	22	14	6	1	0	43
10. Diagnostic procedures	19	8	13	1	2	43
11. Building principal	19	14	10	0	0	43
12. Learner controlled materials	19	13	7	1	3	43
13. Performance prescriptions	18	6	16	3	0	43
14. Provision for cooperative peer interaction	17	11	15	0	0	43
15. Student importance evidenced by room full of materials and machinery	11	12	9	10	1	43
16. Center manager	16	6	19	2	0	43
17. Grouping practices	16	16	9	2	0	43
18. Differentiated staffing	14	17	11	1	0	43
19. Teacher-pupil contracts	13	14	15	1	0	43
20. Private firm manager	12	12	7	8	4	43
21. Student opportunities to interact more with materials than with teachers and aides	11	12	9	10	1	43
22. Reading specialist	10	12	10	10	1	43
23. Teaching machines	9	16	12	3	3	43
24. Math specialist	2	2	39	0	0	43
Totals	445	274	238	58	17	1032
Percent	43	27	23	5.5	1.5	100

in reading, and then matching materials and a feedback system with skill needs. Individualized materials were sequenced to produce logical development of desired skills. Theoretically this methodology brings into reality a one-to-one teaching-learning relationship. Item 17, Table 18, reflects a contradiction in the methods used by private firms to individualize instruction. Individualization in several projects gave way to organizing instruction for skill groups rather than for individuals. Teachers, principals, and private firms, however approved this arrangement, which appeared to reflect strong orientation to grouping practices. Typically, a team of teachers and aides, selected on their ability to skillfully apply management techniques of positive reinforcement and pacing, made up the core of an effective individualized instructional program.

Table 18, reveals that seventy percent of those responding agreed with the effectiveness of individualized instructional components identified in this table. Therefore the "effectiveness" of individualized instructional techniques in contract environments was strongly supported by participants.

VIII. Objective H. To identify applicability of individualized instruction to mobile student populations.

A. The question was asked, "In what ways would individualized instruction be effective for mobile student populations?" Following are exemplary paraphrased responses:

1. In projects children were sometimes absent for two months, and upon returning to school began where they left off. Therefore individualized materials are beneficial for students who are mobile or who attend school irregularly.
2. If a number of schools were using the same program it would be convenient to send a child's instructional profile to the receiving teachers for continuing instruction.

3. Ideally, students in an individualized program are learning to work independently, therefore this should ease the adjustment for those that are mobile.
4. Students scheduled for individualized instruction are programmed into a range of skill levels, therefore incoming students can more effectively be paced than in traditional classrooms.

Large city systems reported some success with standardizing materials city-wide to benefit in-city mobility. The above responses support the belief that individualized programs similar to those used in contract experimentation have potential for developing standardization of materials to adapt to increased mobility between schools using this method.

IX. Objective I. To provide teachers with the opportunity to express preferences for specified sources of in-service education.

- A. To determine which programs were most preferred interviewees were asked to select three sources of inservice from a list of nine, and then rank them in order of preference from "1" to "3," with one being the most preferred form of inservice.
 1. Table 19, indicates a preference by educators interviewed for inservice education drawn from a combination of local school staff, university, and private firm sources. Private firms appear to be partial toward educational assistance which would help them realize their own particular program goals.
 2. The least preferred source of inservice appears to be that resulting from resources selected from a combination of local school staff and the professional teachers association.
 3. It should be noted that nine first choices were given to an inservice combination of professional teachers association, local school staff, private firm, and university. Therefore the desire of the professional teachers association to have an input into inservice is strong.
 4. Teachers voiced support for involving the university in development of inservice. This is especially

TABLE 19.--Preferred Sources of Inservice Expressed by Interviewees.

Sources of Inservice Education	Teachers	Principals	Superin- tendents	Directors of Curriculum	Project Directors	Presidents of Local Ed. Ass's.	Private Firms	Totals
	First and Second Choices							
School staff	4-3	2-2	0-2	1-3	2-0	2-0	1-2	12-12
School staff--private firm	4-2	1-3	0-1	1-0	0-1	2-1	5-1	13- 9
School--teachers association	0-1	0-0	0-0	0-0	0-0	0-1	0-0	0- 2
School staff--university	5-3	2-0	3-0	2-0	0-0	0-2	1-0	13- 5
Teachers association	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0- 0
Teachers association--school staff--private firm	0-2	0-1	1-1	0-0	1-0	0-0	0-1	2- 5
Teachers association--school staff--private firm-- university	4-2	2-1	1-1	0-1	0-1	1-0	1-0	9- 6
Teachers association--school staff--university	1-2	0-0	0-0	0-0	0-0	0-0	0-2	1- 4
Teachers association-- university	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0- 0
Totals	18-15	7-7	5-5	4-4	3-2	5-4	8-6	50-43

important considering efforts by teachers associations to have a greater voice in the process of licensing teachers. Teachers, administrators, and the teachers association still look to the university for quality consultants.

X. Objective J. To examine the implications of Federal government involvement in local school operations as related to decision-making roles of teachers, administrators, and determination of school policy.

A. In practice, a private firm may enjoy full or partial authority for making curriculum decisions and for administering a contract project. To determine to what extent this took place and to discover other decision-making relationships that developed through contracting, interviewees were asked to respond to the following questions. (This section of the questionnaire is included in its entirety, followed by a table for each section.)

1. "What effect has the Federal government's 'management support system' had upon local school-community decision-making?"

a. Table 20, shows that even though a number of educators felt the Federal government had become extensively involved in local school affairs through contracting few felt it threatened local control of education.

TABLE 20.--Effect of "Management Support System: Upon Decision-Making."

Questions	Yes	No	Percent	Totals
Different people made decisions	17	28	38	45
Development of Federal-local partnership	19	25	42	44
More innovative programs	34	11	76	45
Less local control	9	36	20	45
Totals	79	100	44	179

- b. Seventy-six percent of the respondents gave credit to the Federal government's funding for providing resources for development of "more innovative programs." Consequently few felt they could have brought about the kinds of changes typified by contracting without initial governmental support.
- 2. "To what extent was the local teacher's association involved in developing contracting?"
 - a. Table 21, reflects teacher resentment for not being involved with initial planning of contract experiments.

TABLE 21.--Involvement of Teachers' Association in Contracting.

Questions	Yes	No	Totals
Local teacher's association was involved in contracting	11	33	44
Initial planning	8	36	44
Operational phase	22	19	41
Association support	21	20	41
Totals	52	118	170

- b. Some administrators explained that teachers were not involved because in many instances programs had to be quickly designed during the summer vacation to take advantage of current funding.
- c. Other administrators reported that teachers had been involved in initial planning, while the teachers in the school system were denying that they had been involved. Contract participants reflected the continuing struggle by teachers for increased involvement in decision-making authority. Interestingly, as contracting moved into its second and third years of operation, the teachers but not their associations achieved greater involvement in structuring projects.

3. "Certified teachers played which of the following roles?"
 - a. As can be seen by the responses in Table 22, the teacher's role in contracting was as comprehensive as that of a teacher in a regular classroom.
 - b. Teachers increasingly became the leaders in curriculum development and they held most of the positions needed to supervise the projects.
4. "The private firm's learning manager played which of the following role(s)?"

TABLE 22.--Roles of Certificated Teachers in Contracting.

Questions	Yes	No	Totals
Project director	35	12	47
Math specialist	5	42	47
Center Manager	26	21	47
Reading specialist	20	27	47
Only a technician	10	37	47
Participator in curriculum decisions	26	21	47
Only a facilitator	13	33	46
Totals	135	193	328

5. The building principal played the following role(s),"
 - a. Tables 23 and 24 illustrate the conflicting roles of principals and private firms and it would seem that building principals were keenly aware of their conflicting role. As projects progressed the role of learning manager was changed from "manager" to "consultant" thus diminishing possible conflict between private firms and principals.

TABLE 23.--Contracting Role of Private Firm's Learning Manager.

Questions	Yes	No	Totals
Administrator of contracting program	22	20	42
Director of project	26	17	43
Consultant to staff	42	2	44
Totals	90	39	129

TABLE 24.--Contracting Role of Principal.

Questions	Yes	No	Totals
Director of curriculum	17	26	43
Administrator of contracting project	22	22	44
Consultant to contracting staff	19	25	44
Authority over the private firm's personnel	14	28	42
Totals	72	101	173

6. The teacher aide played the following role(s)?"

- a. Although the role of an aide in Table 25 was identified as a technician, so similar were the roles of teachers and aides that interviewees made little distinction between functions of aides and teachers.
- b. The diversified role of the teacher aide was considered by the respondents to be of tremendous support to teachers and pupils.

7. To conclude this inquiry on decision-making, interviewees were asked, "Do you consider empowering private firms with decision-making authority a productive alternative for improving educational programs?"

TABLE 25.--Contracting Role of Teacher Aide.

Questions	Yes	No	Totals
Technician for coordinating individualized instruction	38	9	47
Record Keeper	40	7	47
Tutor	39	8	47
Supervisor of "RE" rooms	16	27	43
Contingency manager	16	27	43
A second teacher	25	22	47
Totals	174	100	274

- a. Interviewees were somewhat divided on this question with forty-eight percent answering yes and fifty-two percent responding no. They were however, impressed with the ability of private firms to get contract projects initiated.

Conflict of roles diminished rapidly as private firms moved away from the arena of performance contracting toward selling materials and consultant services to schools. Increasingly teachers and principals took the initiative to further develop instructional programs begun by private contractors.

XI. Objective K. To identify changes effected by contracting in participating schools.

A. With two or more years of performance contracting experience there was potential for change to develop in participating schools. Section "G" of the questionnaire asked interviewees to identify innovations that had taken place in their schools as a result of contracting. Changes identified are ranked in order of greatest change to least change in Table 26.

1. A directional change did occur in overall instructional procedures in a commitment to positively reinforce pupils.

This evidence of change was supported by seventy-three percent of the respondents as noted in Table 26. It would seem that private firms did achieve their objective of influencing teachers to change from negative to positive reinforcement.

2. Individualized instructional components substantially replaced traditional remedial reading practices in project schools. Table 26, reflects this and identifies a pattern of diagnostic-prescriptive teaching. Criterion-referenced tests continue to replace other standardized measures, particularly for post-testing. Quick assessment tests were used extensively for pre-testing.
3. Inservice education from private firms was substantial during initiation of projects. Table 26, shows a continued interest in these services. The role of firms changed from initiating action in the schools to that of consulting services.

Although schools referred to their reading instruction as individualized often students were grouped by skill needs. Computers and other machines played a role, but their potential was not realized in contract projects. Table 26, reflects the diminishing use of extrinsic incentives. Finally, although teachers were initiating changes in organization and structure of their reading programs, there were few situations where local teacher associations were involved in decision-making.

Summary

Most interviewees questioned the validity of externally audited standardized test results, believing that the audits not only failed to accurately measure reading achievement, but overlooked other positive effects of contracting as well. Large group testing, inexperienced test administrators, and difficulty in obtaining an accurate evaluation of reading ability with a single standardized reading test were cited

TABLE 26.--Changes Resulting from Contracting.

Changes	Yes	No	Percent	Totals
Pre and post-testing	38	11	78	49
Use of programmed materials	38	11	78	49
Belief that children can learn regardless of their past record	37	12	75	49
Commitment to concept of "Positive Reinforcement"	36	13	73	49
Individualized instruction	36	13	73	49
Criterion-referenced tests	34	15	69	49
Sequencing of objectives	32	17	68	49
Grouping by skill needs	29	20	59	49
Use of teaching machines	25	24	51	49
Continuing inservice by private firm	25	24	51	49
Use of intrinsic incentives	19	29	39	48
Use of extrinsic incentives	17	32	35	49
Differentiated staffing	17	32	35	49
Computerized grading	16	33	33	49
Curriculum decision-making by teachers	16	33	33	49
Decision-making at school building level	15	34	31	49
Building budgeting	14	33	29	47
Ability grouping	14	35	29	49
Local teacher association involvement	10	39	20	49
Totals	468	460	50	928

as major reasons given for seriously questioning reported results. In contrast internal reports by participating schools showed that many pupils made substantial gains in reading and social attitudes.

Through private firms' contracting, there was a demonstrated growth of measured pupil achievement in the lower percentile groups of elementary children. Contrary to expectations, pupil growth was more significant in these lower percentile levels than in upper percentile groups. It is possible that influences upon pupil growth such as teaching materials may have been unconsciously aimed at the lower groups or that contracting schools placed greater emphasis upon these pupils in requesting contract assistance in less sophisticated skill development areas. The decrease in absenteeism, for example, might have more influence in improving reading skills for lower performance children than those who were clearly high achievers in the upper percentile groups.

Since the instructional systems used in experimental programs were effective for students in the lower percentile of an expectancy table, there appears to be hope for many students who fall below the national average norms in reading. Further evidence for this possibility was reflected in the progress of later elementary children. Groups of fourth, fifth, and sixth graders located in three different districts produced results in reading ranging from 1.5 years to over 2.0 years for a year's effort. Because these groups of pupils had not achieved at this rate in previous years the results were impressive.

Because most school districts reported increased costs per grade unit of gain compared to regular classroom costs, the performance

contract objective to produce "efficiency" was not realized. Nevertheless substantial successes in reading achievement were recorded for individuals and groups of pupils. Therefore the extent to which individual pupils were achieving may have been a better determiner of efficiency, since many students who had been labeled failures or retarded made impressive gains in reading ranging from 2.0 to 4.0 grade gains for one year's effort. Efforts by contract teachers to positively reinforce behavior through individualized instruction appear to have overcome the stigma of "labeling" resulting in improved attitudes and achievement for many pupils.

Resources allocated to inservice activities through private firms were substantial. Consequently project personnel had opportunity to participate in preoperational inservice as well as having time for on-site training as projects became operationalized. Initially, private firms structured the inservice content, however teachers were increasingly called upon to develop project changes designed to improve instructional patterns. This input by teachers may have determined the success of contract programs since it was during the second year of operations that schools began to reach their achievement objectives.

Teachers, administrators, and the teachers' association were impressed with success private firms realized in helping teachers to positively reinforce student behavior. Nevertheless they also look to the university for consultant assistance and urged professors to become more closely involved with on-school-site inservice education.

The performance contract "climate" characterized by (a) inservice education for teachers, (b) promotion of positive reinforcement techniques,

and (c) use of individualized instructional technology may have created a "halo" effect. In particular, personnel working in project classrooms reflected enthusiastic commitment to improving the classroom climate through clever coordination of human and technological resources. As a result there were some indications that teachers in regular classrooms became competitive with contract classrooms through exposure to this activity.

Federal government funding provided schools with resources to develop innovative programs for improving achievement in reading and math through performance contracting. One result was government participation in local school programs. However few educators felt that this interfered with local control of education. The government, in becoming the change-agent for instructional features typified by contracting, was assisting educators to facilitate change that under ordinary circumstances may have been politically difficult to expedite by local educational agencies.

A trend in projects was to expand specialized reading instruction to all elementary pupils, with large city systems reporting some success with standardizing materials city-wide to benefit in-city mobility. Therefore individualized reading programs, similar to those used in contracting, have potential for making a contribution through standardizing materials to adapt to increased mobility within and between cities.

Eighty-two percent of the respondents felt that contingency management did effectively motivate students. Although teachers reported positive effects resulting from student incentives, projects

in this study reported increased costs per grade unit of gain for reading in comparison to regular classroom costs. As projects moved into the second and third year, social approval, a teacher coordinated effort to reinforce positive behavior through group processes, decreased use of the original system of monetarily rewarding individual students. Although the reinforcements were still extrinsic in form, more recognition appeared to be given to the intrinsic nature of students feeling self-rewarded for academic and social successes.

As contract projects progressed, local school personnel increasingly initiated changes from modifying reinforcement and instructional systems, to purchasing materials and consultant services from private firms. Consequently the interest of educators in the potential benefits of individualized reading systems continued to be considerable. In Chapter V the implications of these findings are discussed further.

CHAPTER V

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

The central purpose of this study was to identify possible effects from school performance contracting projects upon children in the schools involved in the experiment. To gain a clear picture of the effects of contracting teachers, directors of projects, principals, superintendents, and presidents of local teacher associations were interviewed. Some fifty professionals closely associated with contracting, representing six different school districts ranging in size from 2,000 to 50,000 pupils, participated in this study.

Through unstructured interviews with private contracting firms and public educators, practices and procedures common to contract projects were identified and used to prepare a structured interview instrument. The questionnaire was designed to gather the information needed for fulfilling the eleven objectives of this study.

In this final chapter conclusions are listed; implications of the findings are discussed; and suggestions and comments for further research are identified.

Conclusions

Eighteen percent of those interviewed reported students had gained one or more grades in reading for a year's effort. Another

forty-four percent recorded "some successes." Consequently there were "effects" from the performance incentive experiment favoring disadvantaged pupils.

For reference purposes the conclusions which are related to "effects" of contracting, are correlated with the eleven objectives of this study.

- I. Objective A. To identify effects of the performance incentive experiment upon participating pupils.
 - A. Since students who had been previously labeled reading failures or mentally handicapped made gains in reading ranging from one to four grade levels for one year's effort, these programs were effective in overcoming detrimental effects of labeling and stigma of remediation. It is possible that a self-fulfilling prophecy resembling that identified by Rosenthal and Jacobson influenced achievement. Since contract teachers, expecting children to do well, probably gave them closer attention with the resulting improvement in reading. Conversely when pupils are not expected to do well, they generally do not.¹
 - B. Through contingency management many students gained "control" of their social behavior and ability to achieve. To illustrate, absenteeism and disciplinary problems diminished during the initial OEO experiment and the trend continued the following two years. Further, individuals and groups of fourth, fifth, and sixth graders made surprising grade gains in reading ranging from .9 to 4.0 years for a year's effort. It appears that contingency management initially motivated this "target" population to perform at higher rates than they had achieved in the past. Also pupil control and motivation continued to improve as teachers modified the system of giving monetary rewards to individuals with, "social approval," a teacher coordinated effort to reinforce positive behavior through group process.
 - C. Students in the fifty percentile or lower on an expectancy table made gains in reading sufficient for some schools to continue the program. As this group was the "target" population for which much contracting was designed, compensatory programs were effective for disadvantaged children.

¹Robert Rosenthal and Lenore Jacobson, Pygmalion in the Classroom (New York: Holt Rinehart and Winston, 1968).

This effect appears to contradict findings by Vrugink and others in which compensatory education was reported to have had no effect upon achievement.² Therefore until educators can devise more constructive programs for educationally handicapped children, compensatory education offers some hope.

- D. Prior to performance contracting pupils in a sample school district gained .3 of a grade in reading during the school year. During contracting they gained .6 of a grade in reading for a year's effort, and the following year, without contracting, .8 of a year.
- E. Externally audited, two school districts, one with a target of two years grade gain in reading for a year's effort, and the other with a goal for one month's reading gain for each month in the program, reached their objective. Given the right mix of human and technological resources reasonable target objectives can be met as measured with standardized testing instruments.

II. Objective B. To analyze the impact of incentives upon "efficiency" and "achievement."

- A. "Efficiency" as measured by objective "costs" was not achieved, but in terms of more subjective individual and group success some dramatic effects were reported. To cite a few, using the Iowa Achievement Test as a basis for determining growth, one student gained three grades while another demonstrated four years of reading growth in one academic year. In a comparative study, a group of fifteen seventh graders showed a gain of 1.5 grades in reading, whereas the average previous gain had been eight months for a year's effort. Although these examples are perhaps a bit isolated, if one can assume that schools are serious about helping disadvantaged children, it may be essential to accept increased costs or reconsider priorities to bring about improved achievement.
- B. Use of incentives resulting in improved student attitudes and increased achievement may have influenced development of positive reinforcement attitudes among teachers.

III. Objective C. To identify humanizing effects operating in experimental classrooms.

- A. Efforts were made to humanize classrooms by encouraging respect for all individuals and by motivating pupils with

²Elmer Vrugink, "A Study of the Contribution of Compensatory Programs in a Large Urban School System" (unpublished Ph.D. dissertation, Michigan State University, 1970).

social and personal rewards. Praise rather than punishment was encouraged with early extrinsic teacher use of praise and privileges replaced for the most part by self-reward through successful social and learning experiences.

- B. Several inservice education workshops by universities and private firms were designed to develop positive reinforcement techniques among teachers. During the early development of contracting projects, private firms promoted use of a monetary reward system in an effort to reinforce positive behavior and universities encouraged reliance upon intrinsic rewards for improving self-concepts of pupils. As programs progressed the pattern of social approval, a modified form of the above systems, emerged as the most popular reinforcement method. It was in this area of reinforcement that contract resources allocated to inservice education markedly contributed to humanizing experiences for children.

IV. Objective D. To identify features unique only to contracting practices.

- A. Contingency management was ranked by interviewees as the most unique feature of contracting with specific support for the utilization of flow charts, diagnostic-prescriptive teaching, and teaching machines. Prior to contracting prescriptive teaching was a part of many school programs and the use of gold stars for pupil rewards, progress charts and teaching machines were common. Therefore the above techniques and resources were unique only in as much as they were molded into a management system designed to increase the effectiveness of curriculum through skillful coordination of human and technological resources.

V. Objective E. To seek the cause for the OEO's sudden diminishment of support for contracting.

- A. The OEO had hoped to bring about efficiency, first through reducing lost time and motion by organizing instruction so that pupils could progress at their own rates, and secondly by initiating competitive bidding by profit-oriented firms to produce grade level growth at costs competitive with those of the traditional classroom. Although many instances of pupil-teacher success were recorded in the realization of the first objective, few private firms achieved grade level increases at costs comparable to those incurred in operating the regular classroom.
- B. Without doubt the gains resulting from contracting as reported by interviewees were genuine, nevertheless the inability of private firms to efficiently produce achievement increases seems to be the major cause for diminished OEO support.

- VI. Objective F. To solicit teachers' reactions to the extrinsic reward system used in contracting for motivating students.
- A. Performance contract participants strongly believed positive reinforcement helped children to overcome educational handicaps as evidenced by improved self-concepts and reading achievement. A decrease in pupil absenteeism and behavior requiring disciplinary action was a side effect of this method. Consequently noticeable changes in pupil behavior motivated through the use of tokens, rewards rooms, and other extrinsic reinforcements encouraged teachers to modify the system and reinforce positive behavior with "social approval." Through social approval individual students were reinforced with teacher verbal and non-verbal praise and use of student profile charts. Monetary rewards were pooled to benefit the group in efforts to build group cohesiveness and motivation. As a result students appeared to progress to the point of feeling more intrinsically rewarded by having academic and social successes.
 - B. There appears to be more than a casual relationship between reinforcement strategies used by teachers and Rosenthal and Jacobson's theory of expectations. Teachers may have communicated to pupils that they expected improved academic performance by what they said, how and when they said it, by obvious facial expressions, and possibly even by their touch.³
- VII. Objective G. To identify management techniques that had an effect upon individualized instruction.
- A. Private firms endeavored to increase achievement in reading through a system of individualized instruction involving the coordination of learning managers, teachers, aides, materials, and hardware. Interviewees ranked teachers and aides the most effective assistance to instruction with self-pacing, progress charts, and positive reinforcement reported as highly effective management features.
 - B. Reading specialists, teaching machines, and private firm managers were ranked the least effective components of individualized instruction. Therefore the key to successfully individualizing reading instruction appeared to be the quality of interaction between teachers, aides and the pupils with other instructional components playing a less important role.

³Rosenthal and Jacobson.

VIII. Objective H. To determine applicability of individualized instruction to mobile student populations.

A. At a time in contemporary society when diversity and increased options in curriculum would seem to be preferable, increasing mobility suggests the need for standardization of basic learning, especially for developing reading and math skills. Through expansion of individualized instruction in project schools some standardization for the benefit of pupil mobility within districts did occur. Even though the potential applicability of specialized materials appears great, there was little indication that it is being developed for future use in the schools.

IX. Objective I. To provide teachers with the opportunity to express preferences for specified sources of inservice education.

A. Although performance contracts for the greater part were structured to acquire inservice education through private firms, two school districts contracted for human relations workshops from universities. Schools using private firms reported that teachers, as a result of the inservice education, were more consistent in positively reinforcing pupil behavior. In districts where universities conducted workshops, teachers reported improved self-concepts among pupils. As a consequence teachers and administrators took advantage of available inservice education opportunities whether they were locally initiated or cooperatively planned with private firms, universities, and other agencies.

X. Objective J. To examine the implications of Federal Government involvement in local school operations as related to decision-making roles of teachers, administrators, and local determination of school policy.

A. Even though a conflict of roles did exist between building principals and private firm learning managers as a result of dual responsibility for building administration, local determination of school policy was affected very little through contracting. By changing the function of private "manager" to consultants, conflicts between building principals and private firms were diminished. Interviewees reported very little substantive influence resulting from governmental support of performance contracting, even though the OEO's support system and external audits were looked upon as nuisance factors.

B. It does seem reasonable to conclude that some of the innovations developed in the schools resulted from the government's promotion of change through the performance experiment. As a consequence teachers found it possible to

initiate additional changes in room and school procedures. This may have been inevitable since with the exception of the private firm managers, teachers and local school administrators were consistently assigned as project directors, center managers, and contract teachers.

- C. With local educators holding most of the important assignments of the projects, teachers and principals gained greater responsibility for initiating changes at the building level.

XI. Objective K. To identify changes effected by contracting in participating schools.

- A. After two or more years of performance contracting experience there was potential for change in participating schools. A directional change occurred in teachers as revealed by their commitment to positively reinforce pupil behavior. A diagnostic-prescriptive system of teaching substantially replaced traditional reading practices in most project schools. In addition, the use of quick assessment and criterion referenced tests expanded the options available for assessing student progress in reading. Of the many innovations the use of positive reinforcement appears to have had the greatest lasting impact upon pupils and teachers.
- B. Although management of instruction through individualization became a reality, pupils were often placed in large groups with similar skill needs. Since grouping is sometimes associated with labeling, these practices may be questionable.
- C. Computers and teaching machines, because of frequent mechanical failures, were not particularly useful for teaching reading. Materials and ideas superseded hardware for reorganization of curriculum and management of instruction. Consequently teachers and local school staff became the innovators with greatest potential for restructuring educational programs.

Suggestions for Future Research

The thrust of this study was to identify effects from school performance contracting projects upon children involved in the experiment. A modified structured interview design similar to that developed for this study could be used to further analyze the achievement of contracting identified in this study.

Further research of the effects of contracting might include the following:

1. Design an experimental study comparing fourth, fifth and sixth graders with first, second, and third grade pupils. This would enable a comparison of the effectiveness of an individualized reading program between beginning and concluding students.

2. Compare in random sampling studies the results of Michigan State Assessment tests of student achievement of contract pupils with non-contract students. If significant differences occurred between the two groups on a common evaluation instrument, a study of the cause would seem fruitful.

3. Develop a cooperative school-university inservice project designed to improve self-concept and achievement of pupils with a focus upon individual classrooms and schools. School-university "linkages," cooperatively designed for the central purpose of developing a "climate" stimulating social well-being and academic growth, can best be implemented by educators closest to the instructional processes and who ultimately carry the responsibility for curriculum development.

4. Implement a follow-up study of a random sample of contract pupils to project their achievement and social aptitude profile over a span of three to four years. This may help to establish relationships between achievement and use of "social approval" as an effective reinforcement concept in assisting children to validate positive behavior patterns.

5. Economic, social and even more subtle forms of groupings appear to be a fundamental educational problem resulting in detrimental labeling effects. Therefore, studies need to be designed to delineate attractive alternatives for changing an educational system that enhances self-fulfillment for few of its pupils.

Implications

This study reflects implications which are presented for further deliberation.

1. Results of this study gave consistent low marks to the use of remedial reading programs and the remedial reading specialist in contract teaching. Yet state and local certification programs are increasingly requiring more preservice work in reading. The study results are pointing to the need for quality classroom instruction rather than quantity of teacher exposure in reading methodology--the latter so frequently cited as the ingredient needed for promotion or qualification for specialization.

2. Individual students labeled failures, retarded, or slow readers often recorded striking gains in reading. Therefore should educators eradicate forms of negative labeling and the stigma of remediation, validation of each child's finer qualities through positive reinforcement could bring about a desired reversal effect. Further, caution should be exercised in grouping pupils by criteria that may perpetuate social, academic, and economic segregation or labeling.

3. Prior to performance contracting compensatory education was generally criticized for having had little impact upon children.

In contrast there were positive "effects" of contracting which were not characteristic of previous compensatory programs. Therefore, since for many contracting was their first "touch of success," this form of compensatory education clearly was of significant help to many disadvantaged pupils. Consequently until more efficient models of instruction are discovered, compensatory education or re-evaluation of educational priorities to benefit this target population seems more than defensible.

4. Although tokens, skins, and special privileges seemed initially to spark latent capacities of children, social approval, a group process in contrast to an individually administered monetary behavior modification system appeared to be a more desirable alternative for affecting behavior. To illustrate, since increased achievement and diminished absenteeism were fruitful results of an overall project "climate," it is possible that group social and academic success experiences were the variables affecting behavior rather than a system of extrinsic rewards. It may be for educators seeking an answer to the question of what can make the difference for pupils in need for catching up, that resources for development of a school "climate" indicative of respect, dignity, and expectations for achievement could make the difference.

5. Universities and private firms involved with inservice education for contract participants, found teachers receptive to ideas offering hope for improving educational experiences for children. Nevertheless several major modifications which improved contracting practices were suggested by principals and teachers. Therefore

educational agencies should make it possible for individual building personnel to initiate development of cooperative "linkages" with universities and other inservice resource agencies for the purpose of focusing upon curriculum improvement at the building level.

6. There appeared to be a relationship between the use of programmed reading materials and the rate of achievement in reading for many students, which was much higher than in comparison to pre-contract years. Therefore since programmed materials designed to assure "mastery" of skills did make a difference for target children, there is an implication for adopting more structured programs for students who have had serious difficulty with reading.

7: Greater gains were reported for students scoring low in pre-testing than for those closer to grade level. Since in most projects the target population was students measuring two or more years below grade level in reading, it is possible that greater efforts were directed toward the success of the lower achievers. Although speculative, if the higher scoring pupils were made the target, comparable if not results exceeding that for lower percentile students could be achieved.

8. Since most students enrolled in projects made gains in reading there is the possibility of the experiment's treatment having had a "halo" effect or overt impact upon the experimental groups' performance. Further, if the gains in control or regular classrooms as well as those of experimental classrooms were considered, it is possible that mere inclusion in a program had a beneficial effect. Thus in addition to the Hawthorne effect there may have been a John Henry

effect, that is, an impact upon the control or regular classrooms close to the experiment in which the experimental group was perceived as competing with or threatening to surpass or replace the control groups. Therefore, if schools were to subject more of their curriculum to performance contracting, achievement gains similar to those produced in reading could be expected to be influenced by these factors.

9. Experimental projects focused upon very prescribed skill acquisition through closely structured individualized reading programs, supported by an extrinsic reinforcement system. As a result most participating students appeared to benefit with increased achievement in reading skills. As teachers gained experience with this approach they tended to balance focus upon skill attainment with greater emphasis upon affective pupil behaviors, believing that self-motivation is the key to academic progress. Therefore if a school were to place other areas of its curriculum on a contract basis it could expect improvement in subjects other than reading to be related to the capacity of teachers to bridge the gap of educational deficiencies with appropriate reinforcement patterns.

The performance incentives in education experiment set the stage for many students labeled failures to gain their first experience of success in a contract project. Teachers, aides, principals, and private firm consultants contributed much to this success through development of affirmative reinforcement techniques and restructuring of individualized reading systems. Nevertheless as a result of the rapid modification of contracting the performance contracting concept has lost much of its appeal, but the reading programs and reinforcement concepts it used have potential for diffusion in Michigan schools.

APPENDICES

APPENDIX A

INTERVIEW SCHEDULE

APPENDIX A

INTERVIEW SCHEDULE

A STUDY OF THE EFFECTS OF PERFORMANCE CONTRACTING IN MICHIGAN

Contents

- I. Interview Introduction
- II. Questionnaire
 - A. Background information
 - B. Review of project's success
 - C. Reward "incentives" system
 - D. Individualized instruction
 - E. Inservice education alternatives
 - F. Decision-making
 - G. Changes resulting from contracting
 - H. Closing the interview

I. INTERVIEW INTRODUCTION: (Read A to the interviewee.)

- A. The purpose of this study is to examine the effect of performance contracting as a change agent upon the teachers, administrators and instructional programs in participating schools. To gain a clear picture of the effects of contracting as a change agent in Michigan, I am interviewing contract participants that have been closely involved in operationalizing a contract project. I am especially interested in those areas of contracting with which you are most familiar.

All information will remain anonymous. It will definitely be anonymous since neither your name, the name of your school nor the private firm's name will be identified. All taped responses will be destroyed.

The time for each interview is to be kept uniform. Therefore I will appreciate your endeavor to give equal time to each question, keeping in mind that "time" is a factor. There will be time at the end of the interview for additional comments.

Your assistance is greatly appreciated. Also should you appreciate a brief summary of this study, I will be pleased to forward a copy to you.

- B. (Reconfirm permission to tape interview; and give assurance that interview will remain anonymous.)
- C. "*", This symbol signals the interviewer to probe and tape. Prephrased probes are illustrative and are to be used if appropriate, however there may be situations where an extemporaneous or no probe will be more appropriate.

- II. Questionnaire: I would like to begin the interview by obtaining background facts; then I would appreciate your review of the success of your project; and then I would like to gain your feelings about several contract features.

As we progress through contract features there will be occasions where I will ask you to clarify your reaction to certain questions.

Interview Number _____

- A. Background information: (This form to be completed for each interview.)

Tape number____; side 1____ or 2____; order 1____, 2____, or 3____

Time started____; time ended____; Date of interview_____

Location of interview _____

1. Name _____
2. Position _____
3. Name of school system _____
4. Name of project school _____
5. Name of contracting firm _____
6. Name of project _____
7. Description of student population served _____

8. On what date did the project begin? _____ Is it still operative?
Yes ____, No ____. If not, on what date did it end? _____
* _____
9. How many students were involved in the program in the first year?
19 __; elementary grades __; other levels __; in the second year 19 __; elementary grades __; other levels _____
10. Was Federal or State funding involved? Federal __, \$ _____, State __, \$ _____. If so what is the name of the program? _____

If the program is still operative, is funding still present?

Yes ____, No ____. Other funding? (State source and program.)

B. Review of project's success:

1. Were criteria for evaluating the program established before the program began?

Yes___ No___

- * If so was an evaluation made?

Yes___ No___

- * What does the data tell you?

2. Did private firms produce achievement grade units in reading or math at a more "efficient" rate "cost" than control classroom?

Reading: Yes___ No___

Math: Yes___ No___

*

3. Do you think private firms set their performance levels too high?

Yes___ No___

- * If too high how do you think it should have been?

4. What evidence would you point to, to show that this project was really successful?

*

Would you cite individual instances of student successes?

*

Would you cite group instances of successes?

*

5. Was performance contracting more successful than traditional classroom methods for improving reading and math skills of disadvantaged students?

Reading: Yes___ No___

Math: Yes___ No___

*

6. Would you identify humanizing features operating in contract classrooms that improved the learning climate?

*

* Do you believe that any child can learn regardless of his past record?

Yes___ No___

*

Why do you think that is so?

7. Were there features operating in your project that were only unique to contracting classroom practices?

Yes___ No___

*

If yes, would you identify those features?

8. Why did the Federal government rapidly diminish its support for contracting?

*

- C. Reward "Incentives" system: Please indicate your feeling to the reward system used for motivating students. For the following statements select the code letter that best describes your agreement with each statement.

Strongly Agree "SA"; Agree "A"; Neutral "N";

Disagree "D"; Strongly Disagree "SD."

- | | | | | | |
|--|----|---|---|---|----|
| 1. The attitude toward school incentive students was better than that of students in non-incentive classrooms. | SA | A | N | D | SD |
| 2. Incentives were effective in modifying student behavior. | SA | A | N | D | SD |
| 3. Incentives used were appropriate for rewarding student behavior. | SA | A | N | D | SD |
| 4. Students were able to attend to a given task for a substantially longer period of time. | SA | A | N | D | SD |
| 5. Incentives were effective in stimulating achievement. | SA | A | N | D | SD |

6. Participating teachers favored the use of incentives with disadvantaged students. SA A N D SD

7. The "free room" or "RE" room had a positive effect upon students' attitudes. SA A N D SD

* Are incentives for students being used this year? Yes__ No__

D. Individualized instruction: Please indicate the "effectiveness" of individualized management techniques and concepts that have improved individualized instruction, by selecting the code letter that best describes your agreement with the following.

Strongly Agree "SA"; Agree "A"; Neutral "N".

Disagree "D"; Strongly Disagree "SD."

1. Charting progress "charts"	SA	A	N	D	SD
2. Diagnostic procedures	SA	A	N	D	SD
3. Differentiated staffing	SA	A	N	D	SD
4. Aides	SA	A	N	D	SD
5. Center manager	SA	A	N	D	SD
6. Certified teachers	SA	A	N	D	SD
7. Private firm learning manager	SA	A	N	D	SD
8. Math specialist	SA	A	N	D	SD
9. Building principal	SA	A	N	D	SD
10. Reading specialist	SA	A	N	D	SD
11. Learner-controlled materials	SA	A	N	D	SD
12. Learner learns	SA	A	N	D	SD
13. Monitoring progress	SA	A	N	D	SD
14. Performance prescriptions	SA	A	N	D	SD
15. Programmed materials	SA	A	N	D	SD
16. Provision for "cooperative" peer interaction	SA	A	N	D	SD
17. Student opportunities to work independently	SA	A	N	D	SD

- | | | | | | | |
|-----|--|----|---|---|---|----|
| 18. | Student opportunities to improve self-confidence | SA | A | N | D | SD |
| 19. | Student opportunities to work without fear of staff criticism | SA | A | N | D | SD |
| 20. | Student importance as evidenced by room full of materials, staff and machinery | SA | A | N | D | SD |
| 21. | Student opportunities to interact more with materials than with teachers and aides | SA | A | N | D | SD |
| 22. | Teaching machines | SA | A | N | D | SD |
| 23. | Grouping practices | SA | A | N | D | SD |
| 24. | Self-pacing | SA | A | N | D | SD |
| 25. | Teacher/pupil contracts | SA | A | N | D | SD |
| * | Are there other features of individualized instruction that were especially effective? | | | | | |
| * | In what ways would individualized instruction be effective for mobile student populations? | | | | | |

E. Inservice education: There are numerous inservice education alternatives open to teachers, with private firms adding another source. I am interested in knowing which of several alternatives you feel are the most effective. Please select three from the following list that you feel are most effective and rank them in order of preference from one "1" to three "e," with one being the most preferred form of inservice.

- ___1. Local school staff
- ___2. Local school staff--private firm
- ___3. Local school staff--professional teachers association
- ___4. Local school staff--university
- ___5. Professional teachers association
- ___6. Professional teachers association--local school staff--private firm
- ___7. Professional teacher association--local school staff--private firm--university

___8. Professional teachers association--university--local school staff

___9. Professional teachers association--university

___10. Other_____

F. Decision-making: The following questions are designed to determine the decision-making relationships that developed through contracting. Please respond to each question by indicating "yes" or "no" to the various alternatives.

1. What effect has the Federal government's "management support system" had upon local school/community decision-making?

a. Different people made decisions Yes___ No___

b. Development of Federal/local partnership Yes___ No___

c. More innovative programs Yes___ No___

d. Less local control Yes___ No___

*

2. To what extent was the local teacher's association involved in developing contracting?

a. Local teacher's association was involved in developing contracting Yes___ No___

b. Initial planning Yes___ No___

c. Operational phase Yes___ No___

d. Association support Yes___ No___

*

3. Certified teachers played which of the following roles?

a. Project director Yes___ No___

b. Math specialist Yes___ No___

c. Center manager Yes___ No___

d. Reading specialist Yes___ No___

e. Only a technician Yes___ No___

- f. Participator in curriculum decisions Yes___ No___
- g. Only a facilitator Yes___ No___

★

4. The private firm's learning manager played the following role(s).

- a. Administrator of contracting program Yes___ No___
- b. Director of the project's curriculum Yes___ No___
- c. Consultant to staff Yes___ No___

★

5. The building principal played the following role(s).

- a. Director of curriculum Yes___ No___
- b. Administrator of contracting project Yes___ No___
- c. Consultant to contracting staff Yes___ No___
- d. Authority over the private firm's personnel Yes___ No___

★

6. The teacher aide played the following role(s).

- a. Technician for coordinating individualized instruction Yes___ No___
- b. Record keeper Yes___ No___
- c. Tutor Yes___ No___
- d. Supervisor of "free-room" Yes___ No___
- e. Contingency manager Yes___ No___
- f. A second teacher Yes___ No___

★

7. Were there similarities between the role of an aide and a certified teacher?

Yes___ No___

8. Do you consider empowering private firms with decision-making authority a productive alternative for improving educational programs?

Yes___ No___

- G. Changes resulting from contracting. The following changes have become a part of the regular school program as a result of contracting.

- | | |
|---|--------------|
| 1. Building budgeting | Yes___ No___ |
| 2. Decision-making at school building level | Yes___ No___ |
| 3. Curriculum decision-making by teachers | Yes___ No___ |
| 4. Use of extrinsic incentives | Yes___ No___ |
| 5. Use of intrinsic incentives | Yes___ No___ |
| 6. Commitment to concept of "positive reinforcement" | Yes___ No___ |
| 7. Belief that all children can learn regardless of their past record | Yes___ No___ |
| 8. Ability grouping | Yes___ No___ |
| 9. Grouping by skill needs | Yes___ No___ |
| 10. Individualized instruction | Yes___ No___ |
| 11. Sequencing of objectives | Yes___ No___ |
| 12. Pre and post testing | Yes___ No___ |
| 13. Criterion referenced tests | Yes___ No___ |
| 14. Use of programmed materials | Yes___ No___ |
| 15. Use of teaching machines | Yes___ No___ |
| 16. Differentiated staffing | Yes___ No___ |
| 17. Computerized grading | Yes___ No___ |
| 18. Continuing inservice by a private firm | Yes___ No___ |
| 19. Local teacher association involvement | Yes___ No___ |
| 20. Other | |

H. Closing the interview:

1. Would you be willing to participate in another year of performance contracting?

Yes___ No___

*Why particularly?

2. Would you like a brief summary of this study?

Yes___ No___

3. Is there anything further about which you would like to comment?

APPENDIX B

LETTER OF TRANSMITTAL

APPENDIX B

March , 1973

Dear :

Thank you for permission to visit your schools for the purpose of gathering information about your district's experiences with performance contracting.

An interview instrument has been designed to gain information about the following areas: (a) Demographic information, (b) Review of project's success, (c) Reward "incentives" system, (d) Individualized instruction, (e) Inservice education, and (f) Decision-making patterns that developed as a result of contracting.

Design of the study calls for interviewing the following personnel of an individual performance contract school--a school that presently has an operating project, (a) superintendent, (b) building principal, (c) school project director, (d) K-12 director of curriculum, (e) two performance contract teachers, (f) president of the local teachers' association, (g) performance contractor on-site manager, and (h) three additional interviews, two with teachers, and one with a principal, selected at random from other contract projects within the district.

Each interview will be 40 minutes in length. Names of educators and schools interviewed will remain anonymous. Also I will take the initiative to contact the private firm and the president of the local teachers' association.

I will plan to be in your district on March and . Should alternate dates be necessary, please call collect, 516-828-5355.

Sincerely,

Donald O. Martz
Central Michigan University
Mt. Pleasant, Michigan

APPENDIX C

STUDENT PROFILE CHART

APPENDIX C

INDIVIDUAL STUDENT PROFILE CARD Basic Reading Skills ESEA TITLE I

Student's Name _____

Date _____ Age _____ Grade _____
(entered program)

School _____

		Developmental Levels															
Reading Units		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI
VIS. DISCR.	01	1 2 3 4 5 6	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18														
AUD. DISCR.	02		1 2 3 4 5 6	1 2 3 4 5 6 7 8 9													
REL. TO RDG.	03	1 2 3 4 5 6 7	1 2 3 4 5	1 2 3 4	1 2 3 4 5 6	1 2	1 2 3 4 5				1 2						
VOCAB. DEVEL.	04		1	1 2 3	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4 5	1 2	1 2 3	1 2	1 2	1 2 3 4	1 2	1 2 3 4	1 2
PHONETIC ANALY.	05			1 2 3 4 5 6 7 8 9 10 11 12 13	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2	1 2 3 1 2							
STRUCT. ANALY.	06				1 2	1 2 3	1 2 3 4	1 2 3 4	1 2 3 4 5 6 7 3 9	1 2 3 4 5 6 7 8	1 2 3 4	1 2 1 2 3 4	1 2 3	1 2 1 2	1 2	1 2 3 4 5	1 2 3 4 5
FACT. COMPR.	07		1 2 3	1 2 3 4 5 6 7 8 9	1 2 3 4 5	1 2 3 4	1 2 3 4	1 2 3	1 2 3	1 2	1 2	1 2 1 2 3 3 4	1 2 1 2 3	1 2 1	1 2	1 2 3 4 5	1 2 3
INFER. COMPR.	08	1 2 3	1 2 3 4 5	1 2 3	1 2	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5	1 2 3 4 5 6	1 2 3	1 2 3 4 5 6 7 8 9	1 2 3 4	1 2 1 2 3 3 4 4 5 6 7 8	1 2 1 2 3 3 4 4 5 6 5 6 7	1 2 1 2 3 3 4 4 5 6 5 6 7	1 2 1 2 3 3 4 4 5 6 5 6 7	1 2 1 2 3 3 4 4 5 6 5 6 7	1 2 1 2 3 3 4 4 5 6 5 6 7
RESEARCH SKILLS	09		1	1 2 3 4	1 2 3 4	1 2 3	1 2 3	1 2 3	1 2 3 4 5	1 2 3 4 5 6 5 6 7 8 9 10	1 2 3 4	1 2 1 2 3 4 5 6 7 8	1 2 1 2 3 4 5 6 7 8	1 2 1 2 3 4 5 6 7 8	1 2 1 2 3 4 5 6 7 8	1 2 1 2 3 3 4 4 5 6 5 6 7 8	1 2 1 2 3 3 4 4 5 6 5 6 7 8

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