

THE RAND/HEW STUDY OF PERFORMANCE CONTRACTING IN EDUCATION

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The performance contracting method was first applied to the education of public school students late in 1969. The ensuing publicity has generated widespread interest in and experimentation with this technique. Payment for services on the basis of student achievement, and the involvement of private, profit-oriented firms in classroom activities, have made performance contracting one of the most discussed and most controversial innovations in American education.

In simplistic terms, an educational performance contract is an agreement between a school district and an agent under which the payment by the district is based on some measure of the agent's performance. The current application of this method is typified by a local educational agency (LEA) contracting with a learning systems contractor (LSC) for the education of a selected group of students, with the contract payment determined by the measured achievement of the students. In most programs achievement is defined as the difference between the results of two tests: a norm-referenced test administered at the start of the program and another form of the test at its completion.

We would like to emphasize three points about the current performance contracting movement. First, a large number of programs are

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in operation, but all are experimental and most are limited in scope. Second, these programs are so diverse that statements and judgments concerning one program may be completely irrelevant to the others. Third, there is great need for carefully planned and executed evaluation of these programs.

#### CURRENT PROGRAMS

The performance contracting movement is well under way. During the 1969-70 school year, only two school districts initiated performance contracting programs. This year there are perhaps a hundred programs; the exact number cannot be known because many programs have received very little publicity and new programs are continually being developed. The accompanying tables give some indication of the current popularity of the movement and illustrate the diversity that prevails.

We have classified the programs into four groups. The first group contains last year's programs. The second comprises the 1970-71 programs for student achievement. The third contains programs that are unique in that they are concerned with the education of teachers rather than the direct education of students. The final group contains the programs in the structured experiment being conducted by the U.S. Office of Economic Opportunity. This sample of programs will illustrate our fundamental points.

#### PROGRAM DIVERSITY

A "performance contracting program" is simply an educational program some portion of which is covered by a performance contract. Programs can therefore differ in a variety of ways: in the characteristics of the educational programs; in the portions of the programs under contract; in contract terms; in characteristics of the contractors; and in characteristics of the contractors' learning programs. This article can discuss only a small portion of the diversity among current programs.

Table 1

COMPLETED PERFORMANCE CONTRACTING PROGRAMS

<u>Educational Agency</u>	<u>Learning Systems Contractor</u>	<u>Subjects</u>	<u>Students Number</u>	<u>Grades</u>	<u>Maximum Payment<sup>a</sup></u>
Texarkana, U.S.A. (Nov. 69) <sup>b</sup> (1969-70 phase)	Dorsett Educational Systems	Reading and Math	300	7-12	\$135,000
Portland, Oregon (Jan. 70)	Audio-Visual Supply Co. (E.D.L.)	Reading	130	7-8	1,200
Portland, Oregon (Jan. 70)	Five reading teachers	Reading	140	7-8	1,500 <sup>c</sup>
Portland, Oregon (June 70) Subcontract with	Six reading teachers Open Court Publishing Co.	Reading	80	4-8	5,500
Portland, Oregon (June 70)	One reading teacher	Reading	55	5-6	1,500
Portland, Oregon (June 70)	Larrabee and Associates	Reading	200	4-8	500

<sup>a</sup>All dollar amounts are approximate.

<sup>b</sup>This program was conducted jointly in Arkansas School District No. 7 and the Texas Liberty-Eylau School District. Some of the techniques of the 1969-70 phase have been turnkeyed for the 1970-71 school year.

<sup>c</sup>This payment is in addition to regular salaries.

Table 2

## OPERATIONAL PROGRAMS FALL 1970/STUDENT ACHIEVEMENT

<u>Educational Agency</u>	<u>Learning System Contractor</u>	<u>Program</u>	<u>Students Number</u>	<u>Grades</u>	<u>Target Payment</u>
Boston (Roxbury), Mass.	Educational Solutions	Reading	400	K-6	\$ 80,000
Colorado, State of	Dorsett Educational Systems	Reading	300	6-8	50,000
Cherry Creek	Dorsett Educational Systems	Reading	100	6-8	--
Denver	Dorsett Educational Systems	Reading	100	6-8	--
Englewood	Dorsett Educational Systems	Reading	100	6-8	--
Dallas, Tex.	New Century	Reading & Math	875	9-12	--
Dallas, Tex.	Thiokol	Occ. Skills & Motiv.	875	9-12	--
Flint, Mich.	Dealer for E.D.L. Materials	Reading	2,160	9	210,000
Gary, Ind.	Behavioral Research Laboratories	All subjects	800	K-6	640,000
Gilroy, Calif.	Westinghouse Learning	Reading & Math	103	2-4	60,000
Grand Rapids, Mich.	Westinghouse Learning	Reading & Math	400	1-6	143,700
Grand Rapids, Mich.	COMES	Reading & Math	600	6-9	164,000
Greenville, S.C.	COMES	Reading	480	6-9	100,000
Jacksonville, Fla.	Learning Research Associates	Reading, Math, Social Studies & Science	300	1	70,000
Oakland, Calif.	Education Solutions	Reading	400	6-8	80,000
Philadelphia, Pa.	Behavioral Research Laboratories	Reading	20,000	1-2, 7-8	800,000
Providence, R.I.	New Century/Communications Patterns	Reading	1,500	2-8	145,000
Savannah, Ga.	Learning Foundations	Reading	1,000		97,000
Texarkana, USA	Educational Developmental Laboratories	Reading, Math & Dropouts	300	7-12	100,000
Virginia, State of	Learning Research Associates	Reading & Math	2,500	1-9	212,500
Norfolk	Learning Research Associates	Reading & Math	500	4-9	--
Buchanan Co.	Learning Research Associates	Reading & Math	500	1-7	--
Dickinson Co.	Learning Research Associates	Reading & Math	250	1-7	--
Lunenburg Co.	Learning Research Associates	Reading & Math	250	4-7	--
Mechlenburg Co.	Learning Research Associates	Reading & Math	250	4-6	--
Prince Edward Co.	Learning Research Associates	Reading & Math	250	4-6	--
Wise Co.	Learning Research Associates	Reading & Math	500	4-9	--

Table 3

TEACHER ACHIEVEMENT PROGRAMS, FALL 1970<sup>a</sup>

<u>Educational Agency</u>	<u>No. of Teachers in Training Program</u>	<u>Target Payment</u>
Alachua Co., Fla.	40	\$24,000
Orangeburg, N.Y.	40	24,000
Port Jefferson, N.Y.	30	18,000
Royal Oak, Mich.	30	18,000
Yellow Springs, Ohio	40	24,000

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<sup>a</sup>The contractor for all these programs is the Institute for the Development of Educational Activities.

Table 4  
OFFICE OF ECONOMIC OPPORTUNITY PROGRAMS, FALL 1970

<u>Educational Agency</u>	<u>Learning System Subcontractor</u>	<u>Program</u>	<u>Students</u>		<u>OEO Grants</u>
			<u>Number</u>	<u>Grades</u>	
Anchorage, Alaska	Quality Education Development	Reading & Math	600	1-3, 7-9	\$444,632
Clarke Co., Ga.	Plan Education Centers	Reading & Math	600	1-3, 7-9	301,770
Dallas, Tex.	Quality Education Development	Reading & Math	600	1-3, 7-9	299,417
Duval Co., Fla.	Learning Foundations	Reading & Math	600	1-3, 7-9	342,300
Fresno, Calif.	Westinghouse Learning	Reading & Math	600	1-3, 7-9	299,015
Grand Rapids, Mich.	Alpha Systems	Reading & Math	600	1-3, 7-9	322,464
Hammond, Ind.	Learning Foundations	Reading & Math	600	1-3, 7-9	342,528
Hartford, Conn.	Alpha Systems	Reading & Math	600	1-3, 7-9	320,573
Las Vegas, Nev.	Westinghouse Learning	Reading & Math	600	1-3, 7-9	298,744
McComb, Miss.	Singer/Graflex	Reading & Math	600	1-3, 7-9	263,085
McNairy Co., Tenn.	Plan Education Centers	Reading & Math	600	1-3, 7-9	286,991
New York (Bronx), N.Y.	Learning Foundations	Reading & Math	600	1-3, 7-9	341,796
Philadelphia, Pa.	Westinghouse Learning	Reading & Math	600	1-3, 7-9	296,291
Portland, Me.	Singer/Graflex	Reading & Math	600	1-3, 7-9	308,184
Rockland, Me.	Quality Education Development	Reading & Math	600	1-3, 7-9	299,211
Seattle, Wash.	Singer/Graflex	Reading & Math	600	1-3, 7-9	343,800
Taft, Tex.	Alpha Systems	Reading & Math	600	1-3, 7-9	243,751
Wichita, Kans.	Plan Education Centers	Reading & Math	600	1-3, 7-9	294,700
Mesa, Arizona	Association of Teachers	Reading & Math	600	1-3, 7-9	33,976 <sup>b</sup>
Stockton, Calif.	Association of Teachers	Reading & Math	600	1-3, 7-9	55,154 <sup>b</sup>

<sup>a</sup>The OEO grant includes the target payment to the subcontractor and \$30,000 to \$50,000 for the LEA management team.

<sup>b</sup>This payment is in addition to regular salaries.



A major feature common to all the programs, and one that has not been sufficiently stressed, is that each involves a remedial reading program. Many of the contracts also provide for the teaching of mathematics, but only three cover other subjects. Behavioral Research Laboratories is providing the entire curriculum for one elementary school in Gary, Indiana. The payments to BRL, however, will be based only on the students' achievements in reading and mathematics. In Jacksonville, Florida, the basic curriculum for a first grade class has been contracted for. In Dallas, Texas some vocational skills are being taught under contract.

Performance contracting for student achievement requires that the outcome of the contractor's efforts can be specified and measured. At present, most educators believe that such specification and measurement are possible only in certain basic areas such as reading and math, and even for these subjects many educators are dissatisfied with the present testing instruments. The expansion of performance contracting into areas other than reading and math will partly depend on the development of norm-referenced and criterion-referenced measures of achievement in other areas.

Prices differ widely among contracts, depending mostly on how much of the educational program is contracted out. The last column in each of the tables is labeled "Target Payment" since no one knows what the actual contract payment will be until the achievement gains are measured. The figures were determined by computing the maximum amount the LEA might have to pay the LSC; however, no comparisons among the various figures should be made, since what is included in the LSC's price differs from one program to another. For example, in some programs the contractors are simply furnishing books or materials, while in others they are responsible for the entire range of classroom resources. In some programs the teachers remain on the district payroll, while in others the contractors are responsible for teachers salaries.

The LSCs are a heterogeneous group, ranging all the way from individual English teachers to subsidiaries of some of the nation's largest corporations. Most of the contractors, however, are profit-oriented educational firms; and in most of the performance contracting programs, they are directly involved in the classroom teaching/learning process. It is interesting that they do not necessarily regard their present role as permanent. Even among the private firms, most of whom are basically developers and marketers of educational research and development, opinion differs about whether this involvement will continue in the future. Some contractors see their current involvement in classroom activities as a rapidly passing phase; soon they hope to be only consultants assisting school districts with "turnkeyed" systems, that is, learning systems originally introduced under performance contracts and subsequently operated by the districts as part of their regular programs. Other contractors, however, question whether the current phase will pass so rapidly.

Curricula and teaching techniques are disparate. Most programs are based upon highly individualized instruction. How the individualized approach is implemented differs substantially, however. Some LSCs make extensive use of teaching machines. Others use no machines, or, at most, simple cassette-players. The majority are somewhere between these two extremes. Some programs emphasize extrinsic incentives; others rely exclusively on intrinsic motivation. Some stress the importance of changing the classroom environment. Some use new materials, others use only well-known materials. In short, the programs employ a wide spectrum of teaching techniques, materials, and general approaches.

#### THE NEED FOR BROAD-PERSPECTIVE EVALUATIONS

Diverse as they are, the present programs represent only a fraction of the variety possible. This potential for almost infinite variation is the real strength of "performance contracting," and the improvement of our educational system demands that the potential be fully explored. This implies that all performance contracting programs must be

evaluated from a broad perspective. Faults will be discovered in any program, but the attempt must be made to determine whether the faults are the result of that program, that contract, and that contractor, or whether, on the other hand, the faults stem from basic defects in the performance contracting concept. In our opinion, if program evaluations are thought of as simply contract evaluations - that is, if they focus merely on the amount of the achievement gain and the payment the contractor earns - much of the information obtainable from this year's experience will be lost. Every school district that is sponsoring a performance contracting program should be studying 1) the performance contracting method, 2) the particular relationships that its program has established between the district and the learning systems contractor, and 3) the composition and effectiveness of the contractor's learning system.

A broad perspective is needed for two reasons. First, a performance contracting program involves the activities not only of the LSC, but of the school district and perhaps other contractors. Perhaps the LEA will utilize management support contractors or independent evaluators or auditors. The LEA will also have to invest in facilities, and engage in planning, supervision and evaluation. The outcome not only of the LSC's activities but of other program activities should be evaluated.

Second, a broad perspective is needed because a performance contract may well generate strong effects other than its impact on student achievement. It will likely have affective or volitional impacts on students. The program will surely have some impacts - positive, negative, or both - on teachers and school officials. The programs may also affect school relationships with parents, taxpayers, and community action groups. Evaluation of program outcomes should therefore not concentrate solely on whether the LSC met the achievement-gain goals specified in the contract, but should include the entire program and its collateral impacts.

There is also a need for dispassionate evaluations. Some people view performance contracting as the harbinger of long-awaited innovations and change in education. Others view it as a Trojan horse for forces inimical to quality education. And, of course, anyone involved

in a program is likely to develop emotional attitudes and feelings about it. All these positions are understandable, but if we are to profit by this year's experience, it is important that there be objective evaluations.

Each LEA with a program will presumably be concerned with evaluations. Many state and Federal agencies are also interested in the potential of this technique and will be studying the outcomes. The OEO experiment should generate considerable information. Under the sponsorship of the U.S. Department of Health, Education and Welfare, The Rand Corporation also seeks to contribute to the evaluation of this year's performance contracting experience.

#### THE RAND/HEW STUDY

The Rand/HEW study is sponsored by the Assistant Secretary for Planning and Evaluation. It began on June 30, 1970 and will continue until November 1, 1971. A major objective of the study is the preparation of a Performance Contracting Booklet for school officials, who may be considering contracts with corporate suppliers of educational services on a guaranteed performance basis. The booklet, which will be available in November 1971, will consider the planning, contracting, managing and evaluating of performance contracting programs. Two major issues will be analyzed. The first is when and to what purposes local educational agencies might wish to engage in performance contracting programs. The second is how local educational agencies might appropriately structure their relationships with contractors. Rand is analyzing the theory and state-of-the-art of performance contracting in both noneducational and educational sectors and also performing field investigations of experience with actual performance contracting programs during the 1970-71 school year. A report on the state of the art is scheduled for March 1971 and the field investigation report in September 1971.

SUMMARY

The 1970-71 school year will provide considerable experience with performance contracting in education services. Not only are numerous programs in operation, but there is a diversity of educational approaches, student populations, and other program variables. It is important that this year's experience be evaluated with an eye to all the activities involved in a program and the many different impacts they might conceivably exert. HEW has contracted with The Rand Corporation to conduct one such evaluation. We hope that this and other investigations of performance contracting in education will provide some answers to the many present questions about this new and expanding educational technique.