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ABSTRACT

This study examined (1) the rewards and incentive systems currently used in schools, (2) the relationship between the existing reward system and both the excellence of the school and the behavior of teachers and administrators in searching for alternatives, and (3) the possibility of defining a rewards system for teachers which would elicit greater pupil achievement. Results suggest that teachers in both high achieving and low achieving schools would be most highly motivated by a system which encourages the conscious application of a variety of intrinsic rewards. Situations which foster a sense of achievement and which lead to increased self-confidence were found to be useful, especially if self-assigned rather than externally-assigned. School administrators can help teachers analyze their teaching effectiveness as a means of generating these intrinsic rewards by using the techniques of clinical supervision. The study indicates that certain extrinsic rewards are also very important. Some of these take the form of job security and monetary arrangements; others relate to various feedback arrangements which provide the teacher with normative and neutral data describing the administrator's perceptions of his/her teaching effectiveness. (DDO)

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The Effectiveness of Rewards and Incentives for Teachers

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One of the key words of the educational world now seems to be "accountability". Schools are expected to take a close look at what they are attempting to accomplish, and to assess the level of success in achieving the intended objectives. Related concerns develop as a result of this. If a program is effective, how can other teachers be induced to use it? If a program is not effective, how can teacher behavior be modified to make the educational activity of the school more effective? These considerations suggest the need for specific studies of the effects of various incentives and rewards on the performance of teachers and administrators.

The study reported here is addressed to these considerations. In particular, the investigators examined the following questions:

- (1) What rewards and incentives systems are now used in the schools?
- (2) Is there a relationship between the existing rewards system and the excellence of the school?
- (3) Is the existing rewards system related to the "seeking behavior," the search for alternatives, of teachers and administrators?
- (4) Can a rewards system for teachers be defined which gives promise of eliciting greater pupil achievement?

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Educational Goals

Recent expressions of concern for accountability have placed emphasis on the educational progress of the learners (Barro, 1970; Lieberman, 1970). More traditional concerns for accountability as a fiscal, legal, or custodial obligation remain (CIRCE, 1971), but these are not central to the current study.

Even when the question of educational effectiveness is restricted to the matter of student growth, complex issues must be resolved. Student mastery of language skills and computational skills is usually accepted as a central responsibility of the school, but there is no agreement that it is the only responsibility. Many would argue that a strengthened self-concept, improved interpersonal skills, critical thinking, and a coherent value system, are equally important educational goals. And if they are, then rewards for teachers should be related to school effectiveness in these areas as well (Robinson, 1970; American Teacher, 1970; Brenton, 1970; Jackson, 1968).

Despite the persuasiveness of the contention that educational goals are diverse, the current study utilized measures of "school effectiveness" which were based only on standardized test scores in arithmetic, language arts, and reading. It is recognized that these somewhat narrow measures place exclusive attention on cognitive development. This approach was dictated in part by the need to keep the study manageable, but also because the development of a student's competence in these areas is critical (Wildavsky, 1970). No matter what else a school does for a child in terms of human values gained, or attitudes developed, if it does not give that child the basic language and mathematical skills to continue learning or functioning in our type of society, then that school has not accomplished one of its important purposes, and to that extent the school is not effective.

Motivations and Needs of Teachers

Characteristics of teachers have been the focal point of numerous studies and much speculation. For the most part, conclusions have tended to confirm common sense observations, but have added little to them (Brenton, 1970; Ryans, 1960). It seems clear that intelligent, imaginative men and women, enthusiastic about their subject and the teaching of it, and concerned with the development of young learners, can become effective teachers.

But what motivates a teacher? Most commonly, the motivation of teachers is discussed in relation to Maslow's concept of a hierarchy of needs (Maslow, 1947). The concept suggests that once the basic biological needs are met, a series of higher order needs motivate the individual, culminating in the need for achievement or "self actualization." It seems, however, that a paradox presents itself. Both teachers and the public view teaching as a profession where the more significant rewards are in the area of these higher psychological needs. Yet the fulfillment of these higher order needs is unlikely unless the more material "basic" needs are met. Hence, much of the current militancy of teachers is prompted by a concern for adequate salaries and other conditions of employment which pertain to more basic needs. Some teachers find it very difficult to reconcile a "professional" approach with a "union" approach simply because the two often address different levels in the hierarchy of needs. And those responsible for designing and enacting rewards systems for teachers may also find it difficult to reconcile the differences implicit in this paradox.

Reward Systems in Schools

Most firmly established and most widely used, the single salary schedule now is the traditional reward system for teachers. The only recognized

variables are the educational and experiential background of the teachers, the level of responsibility on the hierarchical scale, and the nature of any additional non-classroom duties (American Teacher, 1970; Brenton, 1970; Stieber, 1969). Quality of performance rarely is given tangible recognition (Jackson, 1968). In some situations, promotion within the system may be a form of reward, imbedded within the traditional rewards system. It is difficult to find evidence that promotions are related to effective teaching, however.

Since the 1950's merit salary systems have attracted considerable attention. Seen by school boards and the community as an eminently reasonable procedure for rewarding effective teaching, such plans have not gained strong support from professional organizations. Variations of this general approach include differentiated staffing and in-house performance contracting, each representing an effort to identify and reward more effective educational leadership by the teacher.

Competition as a device to motivate and reward teaching effectiveness is used more directly in "pure" performance contracting and educational voucher plans (Boyer, 1971; Jung, et al, 1971; Lessenger, 1969; Mecklenburger, 1972). There is virtually no specific evidence presently available regarding the efficacy of such approaches.

Concern for Intrinsic Rewards

For years schools were organized to reflect a more or less classical bureaucratic pattern. Many still are (Blau and Scott, 1969). This organizational pattern utilizes hierarchical arrangement, specialization of function, formal systems of rules and regulations, and impersonal arrangements. McGregor (1969) suggested that such a pattern is based on a pessimistic view of the nature of the worker which assumes the need for direction and control

by management and little confidence that workers can be expected to exhibit initiative, responsibility, or competence without these externally imposed controls.

In contrast to this view, an emerging theory of organization and management is premised on much more optimistic assumptions about the nature of the worker and his readiness to be a partner in participatory management (Argyris, 1964; McGregor, 1969; Likert, 1961, 1969). Contemporary organizational structures provide for participation in goal-definition; for shared decision-making with respect to procedures, resource allocation, policy development and evaluation of results. The implications are clear. Rewards under such an arrangement are intrinsic as well as extrinsic; they attend to ego-needs as well as material needs.

Institutional Values and Associated Rewards

The review of the literature, summarized briefly in the preceding paragraphs, led the investigators to formulate the following summary of the values and rewards recognized by educational systems. The instruments designed for this study were developed in terms of this point of view.

Values which could conceivably receive rewards in school systems appear to fall into two major categories:

(1) Organizational values: These relate to those situations which make the school system easier to run, more predictable, quieter, neater, more controlled. Certain conventional variables which may or may not be related to effective teaching, such as length of service, number of degrees held, and courses taken for credit are given explicit recognition.

(2) Education values: These relate to situations which indicate concern for the learning of students, the seeking and sharing of alternative teaching methods (including in-service training), and perceived or measured effectiveness in achieving the educational goals of the school.

Rewards also fall into two major categories:

(1) Extrinsic rewards: These are the rewards which can be bestowed by others. The extrinsic category of rewards can be further divided into sub-categories: (a) money in the form of base salary, step increases, or bonus amounts; (b) other material rewards, such as additional resources to be used in specified or unspecified ways to enhance the teaching situation; (c) promotion to higher levels in the hierarchy, or designation of promotions within the basic level of classroom teaching (differential staffing); (d) privilege, such as the assignment or non-assignment of extra duties, the assignment of aides or assistants to relieve the work-load, or variations in the assignment to certain schools, classrooms, ability groups, or materials and equipment of a preferred nature; and (e) psychological rewards, such as praise, support, encouragement, knowledge of results, given by superiors or others, and evaluations by superiors, apart from any relationship to promotion, salary, or other reward. Any of these can be evidenced in either a positive or a negative way." A teacher can be passed over for promotion, a bonus withheld when others receive them; a teacher can receive criticism and be actively or passively discouraged in connection with certain actions or situations.

(2) Intrinsic rewards: These are the rewards which the rewarded perceives for himself in a situation. Examples of this type of reward might be (a) a sense of power or the opportunity to fulfill the need to dominate others; (b) a sense of achievement and self-actualization in having taught well, or in having opportunities for creative expression; (c) self-confidence in the role of the teacher or in a leadership situation in which the person feels competent; (d) the opportunity to be highly challenged, if this suits the individual need pattern, or to avoid challenge if one has a strong

fear of failure. Intrinsic rewards may also be either positive or negative, may exist or not exist for a given teacher in a certain situation.

A search of the literature revealed no instruments specifically designed to examine the operating rewards system, or the preferred rewards system within an organization setting. Attention has been given to means of identifying organizational structure and climate, but not to the specific rewards system that is utilized. Hence, instruments used in this study were designed to reflect the preceding analysis and formulation of rewards systems that school systems might use to motivate teaching effectiveness.

DESCRIPTION OF THE REWARDS AND INCENTIVES QUESTIONNAIRE

This is the major document for gathering detailed information concerning the rewards system. It consists of four sections. Part I requests the respondent (teacher or administrator) to identify the actual rewards perceived to be used by the school system in response to specified behaviors or "school situations" which might occur. The designated rewards can subsequently be categorized as positive or negative, formal ~~or~~ informal, extrinsic ~~or~~ intrinsic. Part II requests the respondent to rate the incentive value which various specified rewards hold for that respondent. Part III describes the voucher system, a particular type of reward system, and requests opinions on a short check-list of possible opinions. Part IV describes performance contracting and similarly provides a check-list of possible opinions. The questionnaire required about one hour to complete.

SELECTION OF SCHOOLS

Two groups of schools were studied in depth. In 1971-72, twelve schools in New Hampshire, six identified as "high achieving schools" and

six as "low achieving schools," were included in a field study carried out by the research team. In the fall of 1972, one "high achieving school" and one "low achieving school" in each of four large cities located in southern New England or in the mid-west participated in the same type of field study. A variety of special circumstances made it impossible to replicate in exact detail the study in the non-urban schools and the urban schools (for example, the test data for identifying "high" and "low" schools in New Hampshire came from state-wide testing programs where all schools used the same instruments, but test data from the cities varied according to the particular city-wide testing program in use). Nevertheless, the basic design of the study was unchanged and this report is based on a pooling of the data gathered during the two field studies. The detailed research report included separate analyses for the two groups of schools and revealed no significant differences in the patterns of responses concerning rewards and incentives.

Identification of schools as "high achieving" or "low achieving" is at best a controversial and debatable process. In the initial efforts to do this, a variety of in-pup variables were considered, including mental ability of the students, cost per pupil, equalized tax valuation per pupil, and proportion of student body from an economically disadvantaged background. Multiple regression techniques were used to predict achievement scores on standardized achievement tests, and the predicted scores were compared with actual scores in order to identify high achieving and low achieving schools. However, the dominant variable that influenced the predicted achievement scores was the measure of mental aptitude. Adding other input variables had only an insignificant influence on the predicted achievement score. Hence, final identification of the high achieving and low achieving schools was made

by comparing actual achievement on standardized tests of school performance with the achievement scores predicted in the light of the mental ability scores. School personnel were not aware of the categorization of their particular school when they participated in the on-site, in-depth study.

Table I gives a summary of the sample which was investigated during this study.

SUMMARY AND DISCUSSION OF FINDINGS

Rewards and Incentives Questionnaire

Responses to Part I of the Rewards and Incentives Questionnaire indicate there is a significant difference in the pattern of responses from personnel in high achieving schools and low achieving schools. This section of the questionnaire requested information concerning the rewards which, in the judgment of the respondent, were actually used. Table 2 summarizes the total responses for all items in this section of the questionnaire.

Teachers in the high achieving schools reported the use of intrinsic rewards more frequently than would be expected. In the low achieving schools teachers reported the use of formal extrinsic rewards (job security, salary increases) more frequently than would be expected. Teachers in the low achieving schools also indicate that certain types of teacher behavior are ignored or considered unimportant more often. This suggests that administrative indifference to teacher performance, manifested by a failure to respond to this behavior in any recognizable manner, characterizes low achieving schools more than it does high achieving schools.

The responses to Part I of the Rewards and Incentives Questionnaire were analyzed in terms of rewards for behavior that supported organizational values (situations relating to the administration of the school) and educational

TABLE 1

Summary of Participants Responding to
In-depth Study

	High Achieving Schools			Low Achieving Schools			TOTAL		
	Number of Schools	Teachers	Other Personnel	Number of Schools	Teachers	Other Personnel	Number of Schools	Teachers	Other Personnel
City School Systems	4	67	9	4	64	10	8	131	19
Non-urban School Systems (New Hampshire)	5	41	5	6	49	5	12	90	12
	10	108	15	10	113	16	20	221	31

RESPONSES OF TEACHERS: MOST IMPORTANT REWARD IN SPECIFIED SITUATIONS

TABLE 2

Achievement Level	POSITIVE			NEGATIVE		No Action	No Response
	Formal Extrinsic	Informal Extrinsic	Intrinsic	Formal & Informal Extrinsic	Intrinsic		
High Achieving (N=2784)	170	1085	742	101	120	195	371
Low Achieving (N=2832)	246	1091	633	104	114	250	394

Chi-square analysis shows significant difference in the pattern of responses ($p < .001$)

values (situations relating to concern for instructional effectiveness). Patterns similar to that represented in Table 2 were evident. That is, teachers in high achieving schools reported greater use of intrinsic rewards; teachers in low achieving schools reported greater use of extrinsic rewards.

Part II of the Rewards and Incentives Questionnaire asked teachers to indicate the incentive value of various kinds of rewards that might be provided. Both positive and negative rewards were considered. Table 3 summarizes the rank order ratings indicating the incentive value of the rewards.

The similarity of ratings of the incentive value of rewards is quite remarkable. No differences of significance were found between the responses from teachers in high achieving and low achieving schools.

For all teachers, a sense of personal achievement and self-confidence appear to be the best incentives to improve teaching. Because these are intrinsic rewards, school administrators cannot dispense them directly. However, it may be possible to arrange circumstances which enhance the likelihood that teachers will more frequently and more explicitly perceive these intrinsic rewards.

Furthermore, it is noteworthy that certain extrinsic rewards are identified as highly motivating. These are rewards which can be controlled more directly by administrative personnel. Among the more important are basic job security (in the sense of protection against arbitrary dismissal, but not necessarily in the form of tenure which protects poor teachers), ample support, assistance, overt encouragement, regular salary adjustments, and reimbursement for in-service courses. By and large, it appears that positive rewards are considerably more influential than negative rewards.

TABLE 3

RATINGS OF THE INCENTIVE VALUE OF REWARDS FOR TEACHERS -
TOTAL SAMPLE

Key: 5 = Strong Incentive to Improve or Continue to Improve
 4 = Somewhat of an Incentive to Improve or Continue to Improve
 3 = Neutral, Neither an Incentive nor a Disincentive to Improvement
 2 = Would Cause a Negative Reaction, Would Not Lead to Improvement
 1 = Strong Disincentive - Would Cause the Teacher to Want to Leave
 the School System if it occurred regularly or continually.

Reward	Mean Rating by teachers in High Achieving Schools	Rank	Mean Rating by teachers in Low Achieving Schools	Rank
Job Security	4.4336	3	4.3965	3
Salary Increase (standard)	4.3693	5	4.2672	6
Extra Increase	4.1727	7	4.1304	8
Promotion	3.5598	20	3.7105	18
Personal Bonus	3.9272	15	3.9824	14
Bonus for School Use	4.0000	11	4.0265	11
Reimbursement for Credit Courses Taken	4.0353	8	4.1932	7
Authority over Peers	3.0720	21	3.2368	21
"Good" Evaluation	4.3243	6	4.3391	5
Class Assistance (Aide)	3.9639	13	4.1491	9
Participation in Decision making	3.9819	12	4.0420	10
Adult Contact, school hours	3.6036	19	3.7719	17
Release Time	3.9363	14	4.0000	13
Public Recognition or Praise	3.6181	18	3.5652	20
Privilege	3.6972	16	3.8086	16
More Autonomy	3.6513	17	3.6578	19
Feedback	4.0275	9	3.9823	15
Praise- in private	4.0183	10	4.0173	12
Support, Assistance, Encouragement	4.3853	4	4.3826	4
Sense of Achievement	4.7889	1	4.7391	1
Less Responsibility	3.0450	22	3.0869	22
Self-Confidence	4.4495	2	4.4000	2
Loss of Expected Raise	2.5000	25	2.5130	25
Passed Over for Promotion	2.3240	27	2.4869	26
Demotion	1.9906	34	2.1052	33
Suggested Resignation - or Harassment to En- courage Resignation	2.0000	33	2.0446	34
"Poor" Evaluation	2.2777	28	2.8260	23
Public Censure	2.2592	30	2.1826	30
Private Censure	2.8148	23	2.8318	24
Loss of Privilege	2.5648	24	2.4000	27
Lack of Support	2.3333	26	2.1217	32
Powerlessness, Frustration	2.2500	31	2.1896	29
Insecurity	2.2710	29	2.3043	28
Sense of Failure	2.0841	32	2.1652	31

Parts III and IV of the Questionnaire dealt with attitudes and judgments regarding the educational vouchers and performance contracting. These responses are not central to this report, but it is worth noting that neither the teachers in high achieving schools or low achieving schools were convinced that these are viable means for improving schools.

SUMMARY

This study suggests that teachers in both high achieving and low achieving schools would be most highly motivated by a rewards system which encourages the conscious application of a variety of intrinsic rewards. Situations which foster a sense of achievement, and which lead to increased self-confidence are especially useful. However, the need is for a set of circumstances which lead each individual teacher personally to perceive and internalize these states, thus making them self-assigned, not externally assigned. School administrators can help teachers to analyze their teaching effectiveness as a means of generating these intrinsic rewards, using the techniques of clinical supervision.

The study indicates that certain extrinsic rewards are also very important. Some of these take the form of job security and monetary arrangements, others relate to various feedback arrangements which provide the teacher with normative and neutral data describing the administrator's perceptions of his/her teaching effectiveness.

Negative rewards show little promise of serving as useful incentives to change teacher behavior.

It should be recognized that the foregoing paragraphs summarize an "ideal" rewards system based on responses made by teachers participating in this study.

A related aspect of the study was an examination of rewards systems in actual use in high achieving and low achieving schools.

This portion of the study suggests that the "ideal" rewards system will in fact yield a more effective educational program. Whether attention is focused on organizational values or educational values, teachers in high achieving schools report more frequent use of intrinsic rewards. Teachers reporting more frequent use of formal extrinsic rewards tend to be teaching in the low achieving schools. Equally important, the absence of any recognized reward, an indication of administrative insensitivity to teacher motivation and incentives, is associated more frequently with the low achieving schools.

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