ABSTRACT

        Research studies have found a number of
teacher-related variables that are associated with student
achievement. Professional development activities designed to improve
the knowledge and skill of teachers can help students improve
academically. In investigating the motivation for professional
development, the findings of several researchers support the
conclusion that teachers are motivated to participate in continuing
professional development activities primarily by intrinsic factors.
Evaluation results of an Australian inservice program for educational
administrators indicate that well-designed continuing professional
development programs can change the behavior of participants. In
addition, research on effective schools has shown the important role
of the school principal in encouraging and supporting the continuing
professional development of teachers. Several elements essential for
or conducive to effective professional development programs are
identified and discussed briefly. A 17-item bibliography is appended.
(MLF)

Changing Educational Practice Through Continuing Professional Development Programs*

by

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Improvement of educational practice is accorded high priority in every nation that has a formal public educational system. Formal and informal programs designed with the expectation (or at least the hope) that they will assist those currently involved in teaching to develop further their professional knowledge and skills represent one of the most common strategies for improving educational practice. In view of the limited evidence that such programs produce the desired results, the widespread faith in the efficacy of inservice education is a bit surprising, yet examples of this faith abound.

Educators in the United States have been virtually inundated by reports addressing the quality (or the lack thereof) of American public schools. The National Commission on Excellence in Education in its report, A Nation At Risk, addressed the need for professional development as follows: "School boards should adopt an eleven-month contract for teachers. This would ensure time for curriculum and professional development . . . . (National Commission on Excellence in Education, p. 31, emphasis added)."

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In another well publicized report, the Task Force on Education for Economic Growth stated, "Among those dedicated people who choose teaching--and who choose to remain in the profession--the lack of opportunity for in-service training is deeply discouraging (p. 26)." In its recommendations for action, this task force stated: "We recommend that the states, singly or in cooperation with one another, establish better preservice and inservice education programs for teachers, so that teachers can constantly enrich their academic knowledge and improve their skills (p. 37, emphasis added)."

Concern for the continuing professional development of teachers is not confined to the United States. In Brazil, for example, a unit within the Ministry of Education and Culture, Coordenacao do Aperfeicoamento de Pessoal de Nivel Superior (CAPES) was assigned major responsibility for improving the knowledge and pedagogical skills of professors in Brazilian colleges and universities. Using means ranging from short-term workshops and seminars to extended periods of study at universities abroad, CAPES has sought to raise the quality of Brazilian institutions by improving the skills, competencies, and performance of teachers (Department of University Affairs, 1976).

In North and South America and indeed, throughout the world, great reliance is placed upon in-service education of teachers as a means to increase the learning of their students and to achieve excellence in education. Is this trust well placed, or is it misguided? That is, will programs of continuing professional development induce teachers to change their practices in ways which result in increased learning by students? Although there is little empirical evidence to substantiate the existence of a close causal linkage between teachers' participation

in in-service programs and enhanced performance by their students, circumstantial evidence supports the view that such a linkage does exist.

The School as a Learning System

Figure 1 is a schema portraying how various resources drawn from a school's environment flow to classrooms and are applied within programs to produce student learning. A school does not exist in a vacuum; it exists in a distinct environment, and the educational processes and procedures within a school and its classrooms inevitably will be influenced by the nature of the community it serves. There is ample evidence that a community's socioeconomic characteristics, values, attitudes, and expectations bear a significant relationship to the outcomes of schooling.

The second component of the scheme shown in Figure 1 may be further subdivided into two elements—resource inputs and resource applications. Resource inputs may be grouped into two major categories—human resources and material resources. In addition to students, human resources include teachers, administrators, and other supporting personnel. Material resources include the school building and equipment, instructional media and learning aids, and all the paraphernalia employed in the instructional process. All of these resources have potential for affecting the results of schooling.

Resource applications include the alternative ways the human and material resources available in the classroom are combined to achieve educational goals and objectives. Note that teachers are primarily
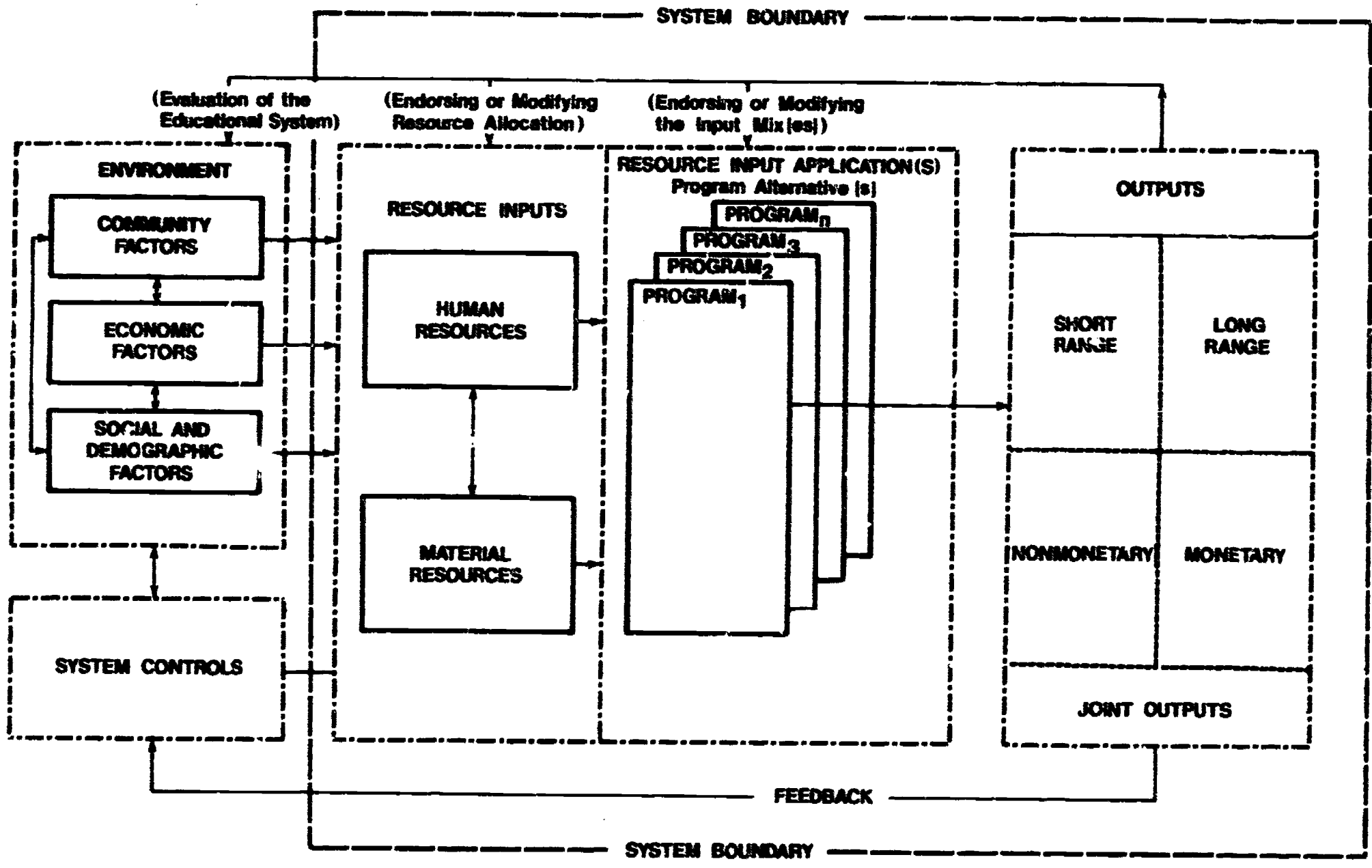
Figure 1--The flow of resources to schools and classrooms (adapted from Rossmiller and Geske 1977).

responsible for the process through which resources are brought to bear in classrooms. It is teachers who determine both the mix of content (reading, mathematics, science, etc.) and the mix of instructional processes to be employed. The way the time of students and teachers is used in the instructional process is particularly important, and teachers are primarily responsible for the use made of time in classrooms.

The results of the educational activities carried on within a school and classroom may be categorized as short- or long-range, as cognitive or affective, or as monetary or non-monetary outputs. However categorized, the activities carried out within a school or classroom must flow from the goals and objectives established for individu students and for the school.

The final component of the schema shown in Figure 1 is feedback. Teachers observe students in classrooms and modify their instructional strategies accordingly; they administer check tests or unit examinations to assess student mastery of important concepts; or they use work samples to assess student mastery of skills. This information is used by teachers to modify instructional strategies, to experiment with different instructional media or materials, or to alter grouping arrangements.

The schema portrayed in Figure 1 illustrates clearly the prominent role teachers play in organizing, conducting, evaluating, and modifying instructional programs for students in their classrooms. One is thus lead to conclude that activities which improve the knowledge base and/or

pedagogical skills of teachers should affect positively the learning of their students.

One need not rely, however, on circumstantial evidence of the relationship between teachers and student learning. Research I have reviewed elsewhere (Rossmiller, 1982) supports the view that teachers are a particularly important resource in the educational process. Researchers have consistently found teacher-related variables to be associated with student achievement. More recent studies focusing on the process of schooling have found variables such as the recency of the teacher's professional training, the extent to which teachers are involved in decision-making, and the instructional strategies and techniques employed by teachers to be related significantly to the achievement of their students.

The process of schooling, which is largely determined by classroom teachers, is emerging as a potentially useful focus of inquiry. The way the time of students and teachers is utilized, the way paraprofessionals are used, and the matching of instructional strategies and procedures to the learning styles and needs of students are illustrative of the process-related variables that have been shown to be related to student learning. It is clear that professional development activities designed to improve the knowledge and skill of teachers already in service represents a potentially effective means of changing educational practice and, in turn, the learning and achievement of students.

Motivation for Professional Development

Why do teachers engage in continuing professional development? The literature in adult education offers a variety of reasons why adults engage in continuing education activities. Houle (1961) for example, delineated a three-way typology of adult learners: (1) goal-oriented individuals who use learning to gain specific objectives based on a need or interest, (2) activity-oriented individuals who participate primarily for the sake of the activity itself and (3) learning-oriented individuals who pursue learning for its own sake. An alternative view is that adults respond to intrinsic and extrinsic motivation. Extrinsic motivation is illustrated by rule enforcement (e.g., renewal of licensure or mandatory participation as a condition of employment), or by rewards valued by participants which do not stem from improved performance (e.g., salary increments or certificates for participation). Intrinsic motivation is illustrated by personal satisfaction, a sense of accomplishment, or increased status.

Maslow's (1954) hierarchy of needs has been applied widely in studies of motivation. Maslow postulated five basic need levels—physiological; safety and security; belonging, love, and social activity; esteem; and self-actualization or fulfillment. These needs are arranged in a hierarchy and it is assumed that as lower level needs are satisfied, higher level needs are activated. Research based on Maslow's theory has been conducted by Trusty and Sergiovanni (1966) and McKibbin and Joyce (1980). McKibbin and Joyce concluded that consideration of the psychological states of individual teachers is of great importance in staff development activities. They stated:

The general milieu of the school and the social movements of
the times interact powerfully with the personalities of the
teachers to create personal orientations which greatly influence
how teachers view the world (and themselves in it), and these views
largely control what the individual can see as possibilities for
personal and professional growth and the kind of options to which
they can relate . . . .
The importance of Maslow's conception lies in the emphasis given to
the total personality of the individual. His views contrast
sharply with the narrow conceptions of motivation and social
engineering. Motivation is often spoken of as if all people were
alike ("If we can provide the 'right' incentives, everyone will
respond.") Teachers are people, however, and while they share much
in common, they are also different from each other (p. 254).

Herzog (1984) recently completed a study in which she sought to

identify factors which motivated effective teachers to engage in

continuing professional development. The subjects in Herzog's study

were 109 teachers nominated by their respective school districts for

Wisconsin's 1983 Teacher of the Year Award. The teachers were asked to

indicate their frequency of participation in each of 27 professional

development activities during the most recent two years, the extent to

which each of these activities had contributed to their professional

development, and their primary reason for engaging in each activity.

The choices for reasons for participation were based on Maslow's

hierarchy of needs. The reasons given most frequently by respondents

reflected Maslow's levels of self actualization (gain personal or

professional success) and self esteem (gain competence, status or

recognition). The reasons given least often were social (gaining

acceptance or friendship of others) and autonomy (gaining authority,

control, influence, or independence).

The results of Herzog's study, and the findings of several other

researchers, support the conclusion that teachers are motivated to

participate in continuing professional development activities primarily by intrinsic factors. However, even a cursory review of current practice suggests that extrinsic motivators are being used far more widely to encourage (or coerce) participation by teachers in professional development activiites. For example, continuing education requirements frequently are mandated in teacher contracts and completion of additional education requirements may be required as a condition of license renewal for teachers. It appears that too little attention is paid to the importance of satisfying their intrinsic needs when designing continuing professional development programs to enhance the performance of teachers and administrators.

Are Continuing Professional Development Programs Effective?

In view of the advocacy of continuing professional development programs which is found in the literature, the paucity of careful studies examining the intermediate and long term effects of in-service programs is rather surprising. As Silver and Moyle (1984) observed with regard to in-service programs for educational administrators:

> . . . little is known about the effects of continuing education programs on the school leaders who participate, and virtually nothing is known about the effects of such programs on the schools administered by the participants. So-called evaluations of in-service programs typically take the form of an opinionnaire completed by participants at the conclusion of the program . . ., a practice having notable shortcomings. For one, the survey responses often reflect an euphoria that quickly dissipates after the workshop experience . . . .
> Further, survey responses are more likely to reflect participants' degrees of enjoyment than the actual amount of learning. Finally, survey responses reveal little about the extent of cognitive learning or about attitudinal and behavioral changes following the experience. In brief, almost nothing is known about the effects of in-service professional development on program participants and the organizations they lead (p. 18).

The situation described by Silver and Moyle relative to in-service programs for school administrators is equally true of to continuing professional development programs for teachers. Most evaluations pay attention only to short term objectives--how do the participants feel about the activity, did they enjoy the activity, were the facilities conducive to the activity? Whether the continuing professional development activity has consisted of a formal course at a university, short seminars at a conference center, or half-day sessions when students are dismissed from school, evaluation of in-service programs typically has focused on short term outcomes or attitudes that have little or no connection with what goes on in the participants' schools and classrooms. There is need for research on continuing professional development activities in which the focus is on changes in the behavior of the participants--for example, changes in instructional processes or procedures, modifications of course content, or changes in teacher-student interaction patterns. The implicit (if not explicit) goal of most continuing professional development activities is enhancement of the teacher's knowledge and skill which, in turn, should lead to observable changes in the teacher's behavior and improved performance on the part of students.

Silver and Moyle (1984) have reported encouraging results from an intensive in-service program for educational administrators offered by the Institute of Educational Administration (IEA) in Melbourne, Australia. The professional development programs sponsored by the IEA are one month in length with participants in residence at the IEA facility. An intensive set of experiences is provided while participants are on leave of absence from their regular position.

The program evaluation was designed to assess the degree to which the programs impacted on the cognitive, affective and psychomotor characteristics of the participants and on the school units of which the participants were leaders. To accomplish this task, both pre- and post-participation measures were obtained from participants and from staff members in the participant's school. The pre-participation data were gathered three months before the program began and post-participation data were obtained at least three months after the end of each program.

Silver and Moyle found significant changes in the conceptions of the educational leadership role held by participants, with a large increase in the perceived importance of production emphasis behaviors and a significant decrease in the perceived importance of demand reconciliation and integration behaviors. Measures of affective changes revealed that participants "gained in self-confidence and became more appreciative of the diversity and unique merits of other people (p. 29)." Staff members in the participants' schools perceived changes in the behavior patterns of IEA participants as well as changes in the leaders' skills. The researchers reported that "there seemed to have been slight but real improvements in the organizational health of the participants' schools," and that "the participants' school units were actually slightly less bureaucratic after the leaders IEA experiences (p. 32)." Thus, Silver and Moyle found changes in both the cognitive, affective and psychomotor characteristics of participants in the IEA programs and in the structural features of the schools administered by the participants.

One must recognize, of course, that the IEA programs are

distinctive not only for their duration and scope but because of their

residential nature. Also, the participants are carefully selected using

such criteria as their commitment to education, their perceived

effectiveness, and their willingness to devote a period of time to

residential study. And, of course, the follow-up activities associated

with data collection for the evaluation of the program may have helped

sustain the behavior of participants after returning to their schools.

The results of the evaluation do, however, lend support to the belief

that well designed continuing professional development programs can

change the behavior of participants.

The Principal and Teachers' Professional Development

The familiar rhetoric that the principal must be an instructional leader

has been given substantial underpinning by the growing body of

literature on effective schools. Research on effective schools has

shown that they are headed by effective principals (Cohen, 1983; Lipham,

1981; Purkey and Smith, 1983). Wilson (1978) has written:

> Administrators and others who are influential within a school
> system can do much to create an atmosphere wherein staff
> development is encouraged and valued. Whether they realize it or
> not their behavior has a substantial impact cn those with
> whom they work. For example, by acknowledging their own needs for
> growth and seeing to it that those needs are met in a constructive
> and professional manner, they may be modeling an attitude toward
> staff development. Giving frequent attention to staff development
> in important system councils and other meetings may reinforce its
> importance as a system function. The discussion of staff
> development expectations during interviews might encourage the
> hiring of those with positive attitudes toward their own
> responsibility for continuous growth . . . . These who willingly
> support reasonable new ideas rather than routinely opting for the
> way things have always been done undoubtedly encourage purposeful
> creativity in staff development (pp. 281-282).

Herzog's (1984) findings further buttress the important role of the
school principal in encouraging and supporting the continuing
professional development of teachers. Herzog found a positive
relationship between the building principal's support and the reasons
teachers gave for engaging in professional development activities. One
of the most effective ways for principals to encourage teachers to
continue their professional development is by modeling the desired
behavior; that is, by setting an example through their own participation
in continuing professional development activities. Another effective
strategy used by principals was encouraging and working with a building
in-service council. Other effective principal behaviors identified in
Herzog's study were including continuing professional development in
their evaluation of the teacher, providing school funds for professional
travel, acknowledging teacher participation in continuing professional
development activities, devoting time at faculty meetings to planning
continuing professional development activities, and providing
information or offering suggestions on professional development
opportunities.

Elements of Effective Professional Development Programs

Researchers who have studied continuing education have identified
several elements that are essential for or conducive to effective
professional development programs (Sprinthall and Thies-Sprinthall,
(1983); O'Neal, Estes and Castleberry, (1983). Some of the most
important elements will be identified and discussed briefly.

--<u>Collaboration between participants and program sponsors</u>--

building or district-wide professional development councils

can foster collaboration and cooperation in planning

effective in-service programs.

--<u>Learning needs are identified by participants</u>--professional

development programs responsive to the reeds of participants

will maximize the probability of success. A comprehensive

assessment of needs should be undertaken before planning

specific programs.

--<u>Prog ams are offered at convenient locations.</u>

--<u>Intrinsic and extrinsic rewards are provided</u>--extrinsic

rewards could include certificates, enhanced promotional

opportunities, or increments in pay. Intrinsic rewards are

derived by gaining competence (self-esteem) or success

(self-actualization).

--<u>Modeling by experts of skills and concepts</u>--demonstrations

by skillful practitioners should be an integral part of

professional development programs.

--<u>Utilization of participants' talents and abilities</u>--

independent study, role-play exercises or presentations by

participants can be used to draw upon their talents and

abilities.

--<u>Synthesis of content and adaptation to diverse situations</u>--

case analyses, site visits, or guided group discussions may

be employed to achieve synthesis of content and to explore its adaptation to diverse situations.

--Learning activities should be individualized--small group discussions, private counseling, or case studies written and analyzed by participants may be useful.

--Significant and challenging role-taking experiences-- role-play can be an integral part of many professional development programs, particularly those dealing with interpersonal relationships or instructional procedures.

--Opportunities for reflection--time for reading and reflection is essential; programming must provide time for this to occur.

--Continuity and logical sequencing of activities--all presentations and activities should be carefully planned and coordinated to build on previous learning.

--Both personal support and personal challenge-- participants grow through confrontation with challenges; they must have freedom to try, to fail, and to try again without penalty.

--Assessment of results--the program should be evaluated in terms of its objectives which might include cognitive, affective, or psychomotor development, or combinations thereof.

There is ample evidence that teachers are an extremely important element in the learning process. Countries throughout the Americas devote a great deal of time and money to human resource development programs--programs designed to enhance the knowledge and skills of teachers and other educators. In this paper we have identified factors which motivate educators to engage in activities designed to enhance their professional competence as well as some of the elements and procedures which characterize effective programs of continuing professional development in the hope of improving the efficiency and effectiveness of in-service programs for professional educators in all countries.

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