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ABSTRACT

Evidence indicates that lack of an explicit planning paradigm may account for widely reported unsystematic staff development and ineffective inservice teacher education programs. No published paradigm-related study provides a comprehensive framework for staff development. This paper synthesizes and develops a set of classes and models into a pretheoretical system and offers a conceptual framework that may be applied by school personnel to improve their planning and conducting of staff development programs. Fifteen operationally defined inservice models are synthesized from published literature and a taxonomic key is provided to classify each model and establish a planning "decision tree." Dissemination and application of this paradigm could improve staff development efforts for teachers, administrators, and other members working in the education community. Over 50 references are included. (Author)

AN EMERGENT PARADIGM FOR STAFF DEVELOPMENT

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An Emergent Paradigm for Staff Development

TABLE OF CONTENTS

ABSTRACT

AN EMERGENT PARADIGM FOR STAFF DEVELOPMENT

Problem and need. Evidence indicates that lack of an explicit planning paradigm may account for widely reported unsystematic staff development and ineffective in-service teacher education programs. No published paradigm-related-study provides a comprehensive framework for staff development.

Scope. This paper synthesizes and develops a set of classes and models into a pretheoretical system and offers a conceptual framework that may be applied by school personnel to improve their planning and conducting of staff development programs. Fifteen operationally defined in-service models are synthesized from the published literature and a taxonomic key is provided to classify each model and establish a planning "decision tree."

Impact. Dissemination and application of this paradigm could improve staff development efforts for teachers, administrators, and other members working in the education community.

Adapted from Chapter 7 of Donald C. Orlich, (1989). Staff Development: Enhancing Human Potential. Boston: Allyn & Bacon.

AN EMERGENT PARADIGM FOR STAFF DEVELOPMENT

Donald C. Orlich

Staff development is a basic component in the continuing preparation of teachers and administrators as their professional knowledge is extended. As a result, much has been written about the topic with over 14,000 citations currently listed in Education Resources Information Clearinghouse (ERIC). Most of the published papers are nonempirical, thus one cannot use them as a data base by which to induce testable theory. Nicholson et al. (1976) came to a similar conclusion after studying approximately 2,000 published and unpublished in-service related documents.

Scope of the National Problem

The number of those conducting and participating in staff development via in-service education is staggering. Joyce et al. (1976) calculated that there was about one in-service instructor for every eight teachers in American schools.

Feistritzer and McMillion (1979) calculated that in FY 1980 approximately $340,000,000 was spent at the federal level alone on projects involved with personnel development and in-service training. Moore and Hyde (1978) provided evidence that the public schools may be expending from three to six percent of their operating budgets on in-service education activities. Using the lower estimate, The United States may be investing almost five billion dollars yearly for in-service education. Statistical Abstract, 1988. From a fiscal perspective, in-service

teacher education is obviously a major activity in America's public schools (Orlich, 1982).

Criticisms of In-Service Programs

Davies, in testimony before a Congressional subcommittee, stated that: "In-service teacher training is the slum of American education--disadvantaged, poverty-stricken, neglected, psychologically isolated, whittled with exploitation, broken promises, and conflict" (as cited in Bush, 19711974). Others have written negatively on the topic (Dillon, 1976; Joyce et al., 1976; NEA, 1973; NEA Reporter, 1974; and Nicholson et al., 1976.)

Positive Effects of In-service Programs

Contrariwise, several studies report positive effects of in-service training. Borg et al. (1970); Hall & Loucks (1978); Oja (1980); Runkel, Wyant, Bell & Runkel (1980); Carney et al. (1979); Cohen & Perez (1980); Williams (1978); Baca (1979); Bethel & Hord (1981) and Orlich (1987) reported successfully conducted in-service programs. These successful programs either explicitly or implicitly tended to rely on a described conceptual model, e.g., competency based, organization development, social system, concerns based, developmental, or AAIM.

The basic assumption of this writer is that if school district staff development directors rely on an explicit planning paradigm then they increase the probabilities that their in-service education efforts will be successful. The remainder of the paper is devoted toward elaboration of this assumption.

Theory, Paradigms, Staff Development and In-Service Programs

The lack of theory associated with the bulk of in-service training programs at all levels is documented adequately by Rubin's (1971) early collection of essays and papers. In a scathing criticism about the quality of staff development, Cruickshank, Lorish and Thompson (1979), reported the apparent lack of theoretically based in-service programs and concomitant problems.

Feiman (1981) observed a lack of theory being applied by in-service designers and suggested using: (a) scientific or causal, (b) analytic, and (c) naturalistic models. Feiman, however, did not propose any specific in-service models.

Fenstemacher and Berliner (1983) published A conceptual framework for the analysis of staff development which is one of the few attempts to establish a workable model. They identified four critical determinants:(a) initiation, (b) purpose, (c) participation, and (d) motivation. These are expanded into three dimensions (worth, merit, and success) with an accompanying 12 enhancing conditions. However, their framework is not a theoretical paradigm, but is basically an evaluation model. Further, their framework is not "needs" driven and could be used to perpetuate rationalized in-service programs.

Likewise, Gall and Renchler (1985) published ". . . A Research-Based Model" for staff development in which 27 criteria were listed by which to conduct in-service projects or to plan an effective staff development program. Their criteria, while having some empirical bases, are very similar to those of

Lawrence (1974), Edelfelt (1977), and Craven (1978). The 27 criteria, if followed, would improve the general nature of staff development, but Gall and Renchler do not collapse their extensive list into useable paradigm.

Glassberg and Oja (1981) presented one model derived from the major conclusions of the developmental psychologists, e.g., Piaget (1970) and Kohlberg (1971). Hall and Loucks (1978) suggested the Concerns Based Adoption Model or "CBAM Model." Lieberman and Miller (1979) edited several major statements and research findings; as did Griffin (1983).

However, the above models and statements may be categorized as being too specific, and not adequately comprehensive. My intent is to synthesize several models into a meaningful and useful paradigm that may be applied or tested in the schools. The paradigm, predictions and practices would interact in a cyclical manner.

Applying the Concept of Theory

The simplest definition of a theory is taken from Hardie (1973) who wrote that, "Theories thus should be seen as deductive systems whose theorems, when suitably interpreted in observational terms, become laws to which our observational generalizations are approximations" (p. 90). While there are more comprehensive definitions of theories, (Popper, 1959; and Kuhn, 1962) the essence of a theory is to provide a deductive system, i.e., provide general statements that may be applied to specific cases. Further, given a valid theoretical premise, one should be able to predict the consequences of those activities

associated with the theory. If upon verification, the theory helps one to predict consequences with a high degree of accuracy or probability, then a user of the theory may begin to place even greater confidence in its future applicability.

Brodbeck (1973) discussed the concept of "models" in the construction of theories by noting that the terms model and theory were often synonyms. She wrote that models may: (a) be tentative and unconfirmed, (b) exhibit isomorphism, (c) have if-then relationships, (d) have an established order of traits, (e) be comprised of concepts, and (f) serve to connect identified variables.

Black (1973) concluded that models help to establish dynamic relationships of the various parts of a theory. He then identified the following five conditions needed to construct a theoretical model: (a) an original field of study is described, (b) facts and regularities associated with the field need explanation, (c) related components or systems are identified, (d) explicit or implicit rules are formulated, and (e) inferences or hypotheses which emerge are verified or refuted by empirical tests.

My proposal, however, is not a theory. My intent is to provide a pretheoretical statement--a paradigm--that provides workable concepts and describable models within a structured typology for school staff development decision-makers. A rationale for proposing a paradigm is rather basic: My statement, to date, cannot meet the test of Black's (1973) five

criteria for the establishment of a theory. But, my statement clearly meets Gage's (1963) criteria for a paradigm.

Characteristics of a Paradigm

Gage (1963) wrote that: "Paradigms are not theories; they are rather ways of thinking or patterns for research that, when carried out, can lead to the development of theory" (p. 95).

Two major characteristics of a paradigm were then identified by Gage. First, a paradigm is generalizable to a class of events or processes. Second, a paradigm may represent variables and their relationships in graphic form.

Thus, a paradigm represents a pretheoretical statement which attempts to provide order to a class of events and to provide a means by which that order may be communicated.

The ultimate end of paradigm building is to describe and predict practices or the consequences that will probably follow by applying the identified concepts or models in the most appropriate manner and then observing predictable results. This is the process of validation.

The above discussion relating to the construction of a paradigm for in-service teacher education is most essential, for as Hofstadter (1963) observed, educators for the most part, especially administrators, have a great distrust and disdain for theory: And, that includes paradigms!

Definitions of Staff Development and In-service Education

Before presenting the paradigm, the problem of defining in-service must be addressed. Various terms are used to define the

concept of in-service teacher education. These include: professional development, in-service training, professional growth, staff development, continuing education, on-the-job training, organization development, in-service teacher education, continued professional development, and in-service education. All terms seem to be utilized in the literature, with the term used being more dependent on the author's connotation rather than any significant denotation. Yet, for decision-makers an operational definition of the term is critical.

Good (1973); Howsam (1974); Joyce & Showers (1988); Edelfelt & Johnson (1978); Harris (1989) are but a small sample of those offering definitions of in-service or staff development. Collectively, these writers define both terms as professional activities in which educators engage after they begin to teach, with the emphasis being on job improvement.

Two more precise definitions are offered by me.

1. Staff development describes the totality of activity used in formal organizations to improve the education, training, skills, attitudes, or personal attributes of all members of a specific organization. Staff development denotes the expansion, enhancement, and improvement of the totality of human potential.

2. In-service education denotes projects and processes which are based on identified needs, planned and designed for a specific group of individuals in a school district, having a specific set of learning objectives or activities and are designed to extend, add or improve immediate job-oriented skills, competencies or knowledge.

It should be noted that staff development is an umbrella that subsumes in-service education. The connotation of any definition tends to be critical. One major connotation describes staff development and in-service education as distinct processes; while another views them as distinct acts. How one implements a staff development program is highly dependent on the connotation of the definition being assumed.

Throughout this paper it is implied that in-service education will lead to changes in the classroom, individual building or district operations. Thus, one should be aware of various theories concerning change strategies. But that is a topic for another time. Further, a staff development and in-service paradigm is of great use to program designers for it causes them to analyze their assumptions, assertions, and definitions before they even begin the planning of projects. Such analyses are notoriously lacking from the current state of the art for in-service programs. My plea is for systematic decision-making followed by action, not the converse.

Described Models for Staff Development

Since 1976, I have attempted to describe various theories, paradigms, classes, and models for in-service. There appear to be currently described in the literature, four general classes which seem to incorporate at least 15 different in-service models. The three general classes focus on: (a) organizations, (b) individuals, (c) roles, and (d) trainers. These and the attendant models are enumerated below and are then expanded. These models all need greater development to be operationally

defined and implemented. That development, obviously, is beyond the scope of this paper.

Class 1. Organization Based Models

The common characteristic of organization based in-service models is the focus on the institution, agency or school building. To be sure, individuals are considered as givens in this class. Organizationally related problems are identified, usually by needs assessments. The primary emphasis is to correct deficiencies or provide new skills in the system or a related subsystem. At least four models have been described in the literature.

1. AAIM Model (Orlich, 1979)
2. School Based Model (Henderson, 1979; Goodlad, 1955 and 1978; Howey, Bents & Corrigan, 1981; and Bolan, 1982)
3. Organization Development (Schmuck & Miles, 1971; and Runkel, Wyant, Bell & Runkel, 1980; and Dillon-Peterson, 1981)
4. Social Systems Model (Getzels, 1959)

Class 2. Individual Based Models

The basic premise of all individual based models is that individuals, per se, make the "difference" between an effective and an ineffective organization. The amount of freedom given to the individual varies with each of the four identified models. There is little freedom in the behavioral model and nearly absolute freedom in the humanistic model.

1. Behavioral Model (Skinner, 1969; and Litzenberger, 1979)
2. Humanistic Model (Combs, 1962; and Beck, 1978)
3. Concerns Based Adoption Model (Hall & Loucks, 1978)
4. Developmental Model (Oja, 1980)

Class 3. Role Based Models

Role based models have as a common characteristic the emphasis on the practitioner's role as determined by the institution and modified by the individual. Role-based models focus on the individual's self-determination of needs, but in an institutional context. Three models fitting this class have been published.

1. Independent Study Model (Kipp, Thayer & Olivero, 1981; and NEA, 1971)
2. Competency Based Model (Borg, Kelley, Langer & Gall, 1970; and A[illegible]S, 1967)
3. Educator Center Model (Bell & Peightel, 1976; Fieman, 1977; Donaldson, 1982; and Huddle, 1982; Levine, 1986)

Class 4. Trainer Based Models

Trainer based models rely on specifically trained personnel to conduct on-site training. To be certain, all models require specifically trained individuals to conduct the training. But, models subsumed under this class require the additional role function of an outside intervener or a person who is "certified" to conduct in-service activities. Four models have been described in the literature as exemplars.

1. Exchange Model (Carlson & Potter, 1972)
2. Peer Coaching (Joyce & Showers, 1988)
3. Linking Agent Model (Sieber, Louis & Metzger, 1972; and Havelock, 1967)
4. Advocacy Model (Gray & Myers, 1978; and Hunter, 1979a and 1979b)

Using the Paradigm to Plan

Each of the above models contains concomitant concepts, assumptions, techniques, and characteristics which establishes it as being unique. The manner in which a model is implemented or conducted can be adapted to a number of delivery systems. Table 1 illustrates a set of potential delivery systems.

Insert Table 1 About Here

The goal of this paper is to illustrate that all staff development programs must first be examined to determine exactly what class is being addressed. In-service planners will be shown that if they select a specific class, then they will be able to match a compatible action model by which to implement the in-service activities in the most efficacious manner. Thus, the paradigm anticipates the consequences of the initial decision. Refer to Figure 2 at the end of this paper to observe how the planning is initiated. Each model will now be examined in more detail to observe its unique characteristics.

A Short Expansion of the Classes

Class 1. Organization Based Models

The AAIM model. Orlich (1979) described a six-step process model for the conduct of in-service by relying on needs

assessments followed by five other logical steps. The six steps are: (a) assessment, (b) awareness, (c) application, (d) implementation, (e) maintenance, and (f) evaluation. Full commitment to the training takes place during the implementation phase. All appropriate personnel are trained during the first five steps in this model. The final phase is the maintenance of a continued and longitudinal set of activities. Evaluation is viewed as a continuing process.

School based model. Henderson (1979); Goodlad (1984); Howey, Bents,and Corrigan (1981); and Bolan, (1982) describe school based in-service models. In-service is a process to accomplish school change efforts. This model has great application to programs as the individual school becomes responsible for its own improvement. As early as 1955, Goodlad proposed the school as a basic unit for change and implied that in-service was the means to accomplish curriculum change. (We seem to have progressed very little in 35 years!)

Organization development model. Schmuck and Miles (1971); Runkel, Wyant, Bell and Runkel (1980); Fullen, Miles and Taylor (1980); and Dillon-Peterson (1981) described the major elements of the organization development (OD) model. Proponents of OD stress that most school systems are "reactive" in characteristic and that by incorporating the major techniques of OD, districts may become "proactive," i.e., anticipate problems and solve them before they interfere with organizational efficiency.

Organization development is a series of processes and strategies that focus on the organization. Members of the

general system and the various subsystems diagnose and analyze strengths, weaknesses, and potentials. The organizational plan determines the changes that are needed and identifies the personnel and implementation strategies required to achieve them.

Social system model. The social system model is in reality an authoritarian adaptation of a theory published by Getzels (1959). Organizational and institutional goals are paramount in this model; with the superordinate making his or her wishes felt by all subordinates.

In-service programs which fit this model are those that are administratively dominated and planned. It would appear that the popularity of teacher centers is a direct reaction to the social system model.

Class 2. Individual Based Models

A behavioral model. The basis for the behavioral model stems from the pioneering work of Skinner (1969). However, for in-service, the model is more precisely described by Litzenberger (1979). Litzenberger adapted single subject design to incorporate both a research and evaluation basis for programs that focus on just one person or one subsystem.

The behavioral model requires that: (a) a problem be identified, (b) base-line behaviors be charted, (c) a contingency be introduced, (d) new behaviors be charted, and (e) evaluation be continuous.

Humanistic model. Combs (1962) and Rogers (1969) imply use of the humanistic model for in-service education. However, Beck (1978) illustrates how humanistic tenets are applied directly to

in-service programs. Humanistic programs stress application of the affective domain. Emotions and feelings are encouraged. The entire process tends to proceed "unscheduled" with human relations skills, warmth, and trust being emphasized. Flexibility is the critical concept.

Concerns based adoption model. Hall and Loucks (1978) and Loucks and Hall (1977) describe the Concerns Based Adoption Model (CBAM). The basis of CBAM is that change is viewed as a process to be accomplished by people who are involved both experientially and emotionally. Through the use of systematic data collection, individual differences, and concerns about impending changes may be assessed. The "Stages of Concern" in CBAM have seven ascending levels: awareness, information, personal, management, consequence, collaboration, and refocusing. Eight "Levels of Use" of an innovation: nonuse, orientation, preparation, mechanical use, routine, refinement, integration, and renewal are also identified. The CBAM model requires longitudinal commitment--one shot projects cannot suffice.

Developmental model. Knowles (1980) expresses the major assumptions and tenets of the developmental model. However, Oja (1980) and Glassberg and Oja (1981) describe how the model is applied. The developmental model assumes that adults have a great accumulation of valuable experiences on which to draw, they are self-directed, and enjoy problem oriented learning rather than subject centered learning alone. (Obviously, there are cases when "subject material" is critical to adults, especially in the professions where information and skills change so

rapidly.) Plans are goal focused rather than being focused on specific objectives.

Class 3. Role Based Models

Independent study model. Independent study, e.g., the correspondence course has been available for most of the 20th century. The National Education Association (1971) prepared several sets of materials for teacher use with in-service programs. These materials were designed for individual or small group utilization.

The Association of California School Administrators developed a training model called "Project Leadership" (Kipp, Thayer & Olivero, 1981). Project Leadership is one of the few in-service programs designed specifically for school administrators. They identify their own high priority goals for continued learning. The project utilizes a peer network and workshop format for some training.

Project Leadership is based somewhat on the anthropological finding that administrators rely on "oral tradition" in the continuation of their professional training.

Competency based model. The competency based model for in-service is an adaptation of the behavioral model. One of the early programs was "Science: A Process Approach" produced by the American Association for the Advancement of Science (AAAS, 1967).

Borg, Kelley, Langer and Gall (1970), then of the Far West Laboratory for Educational Research and Development, produced teacher skill mini-courses that used: (a) print materials, (b)

training and modeling films, and (c) micro-teaching as the subsystems. The Far West Laboratory mini-courses focus on specific sets of teaching strategies, e.g., questioning or tutoring mathematics. Each mini-course is nearly self-contained. If one were diagnosed as needing an extension of some skill, e.g, questioning, then, one could use that mini-course and it would be "in-service for one," an independent model, to be sure.

Educator center model. The teacher center was imported to the United States by American teachers who visited British schools. Centers are administered by teachers to meet their own perceived needs (Bell and Peightel, 1976).

The rationale for educator centers rests on three premises: (a) fundamental reform comes only through the teachers who must implement such changes; (b) teachers are unlikely to change how they teach simply because they are told to do so; and (c) teachers take reform seriously only when they define their problems, determine their needs, and voluntarily seek help.

The Maryland Professional Development Academy (Huddle, 1982) the Maine Principals' Academy (Donaldson, 1982) and the Harvard Principals' Center (Levine, 1986) are adaptations of the teacher center concept. These academies are excellent examples of professional educational centers which focus on critical concerns of principals.

Class 4. Trainer Based Models

The trainer-based models are a special subset of the role models. The basic difference between the role and trainer

distinction is one of a specialization. It may be argued that trainers play a dynamic role and thus should be simply included in the role class, However, it may also be argued that training roles are distinct sets of roles that emerge from special considerations to disseminate rather than teach children. To accommodate this apparent difference a special class is extended from role-based models.

The exchange model. Carlson and Potter (1972) described a project which they called the "Behaviorally Engineered Classroom for Rural Areas" (BECRA). The objective of BECRA was to provide special education services. The exchange aspect stemmed from preparing preservice students to use all aspects of the BECRA model. Students then worked as aides in a selected school as part of their orientation to know teachers and children in specific classes. The inexperienced teachers replaced their respective experienced teachers in the rural schools. The teachers were then brought to the University of Idaho campus to receive the same training.

The exchange model is most effective as it allows teachers to be trained during the regular school day, but with no loss to the children or the school districts. Further, it permits intensive instruction, rather than a simple awareness training session, and is applicable to almost all areas of the school curriculum.

Peer coaching model. This model has emerged as one of the major innovations in staff development. The basic concept is rather simple: Train a group of teachers or administrators to be

proficient in selected instructional or managerial techniques, and then allow them to act as coaches for their colleagues. The model has some similarities to the linking agent model.

Joyce and Showers (1988) have been the major developers and proponents. The model recognizes local personnel as providers of in-service education. Feedback and positive reinforcement help those extending their knowledge base.

Linking agent model. Havelock (1967) was an early proponent of the linking agent model as a means of disseminating research data from the generators of knowledge to the transmitters of knowledge--the practitioners. Sieber, Louis and Metzger (1972) reported an extensive national project that utilized educational linkers--identified as dissemination agents. The linking model is an adaptation of the very successful agricultural extension agent.

Advocacy model. Gray and Myers (1978) described the "Bay Area Writing Project" (BAWP), an in-service model that teaches teachers how to teach writing more effectively. Gray and his associates established an in-service system that builds in a "multiplier effect." While the emphasis is on English teachers, the BAWP has had an impact on writing instruction in all areas of the school. The cadre of trained teachers thus, become advocates for writing--not just English instruction.

Hunter's (1979a and 1979b) "Theory into Practice" model is an excellent example of the advocacy model. Her program has four main elements: (a) teaching to an objective; (b) teaching at an appropriate level of difficulty for the learners; (c) monitoring

and adjusting instruction; and (d) increasing motivation, learning, retention and transfer.

The advocacy component comes not from the four basic elements of the program, but from the delivery and indoctrination systems that are built into the presentation of the elements by "certifying" clientele. By "credentialing" trainers, the model automatically builds, through a pyramiding principle, a huge corps of advocates.

Implications for Staff Developers

By selecting a testable class and model from the paradigm, in-service education directors may speculate about the logical consequences of their decisions. That is one of the powerful advantages of using an explicit paradigm. Further, the more closely that the elements of the paradigm converge, the higher the probability that the in-service project will be successful. A valid paradigm generates predictable and successful results.

Figure 1 provides a dichotomous key which may be used to classify any in-service model or to determine the most likely model for success of a specific project. This key is constructed similarly to plant or animal classification schemes. The in-service model taxonomy is designed to establish nonhierarchical relationships between the various models and may be expanded to accommodate other models as they are operationally described in the literature.

Insert Figure 1 About Here

For example, if a school district assessment illustrates a need to improve some institutional dimension of a selected

school, then the in-service director would seek a class and models which are convergent within the institutional context, i.e., an organizational class. There would be a series of different models from which to choose. The model ultimately selected would best coincide with the intended needs and goals. Compatibility of training, focus, and delivery will converge by explicit planning and by following the rules of the paradigm. By applying the paradigm, efficacious in-service programs will evolve as a science--not simply as chance events.

Figure 1 illustrates how the paradigm may be applied. Of critical importance are the decision-making processes being employed. Further, in-service directors must have a great knowledge about the field of in-service teacher education to apply the paradigm. Table 2 illustrates the relationships that exist between the various elements.

Insert Table 2 About Here

Conclusion

I have attempted to describe a comprehensive paradigm for the totality of staff development and attendant in-service programs and projects. To state that one has, indeed, identified the major paradigm, classes, and models for the profession may be naive and optimistic--if not arrogant. Yet, this proposal must be considered as a major step in providing a comprehensive staff development system for identifying and implementing effective, consistent and concept oriented in-service programs. When directors, administrators, designers and planners are aware of internally consistent in-service classes and models, they may

begin to view in-service education as an esteemed activity, not something that is conducted by the organization in a perfunctory manner.

Others will certainly examine and evaluate this paradigm. It is predicted that changes will be made and that classes and models will be created, merged and deleted. That process, of course, is in keeping with a scholarly and scientific tradition. Yet, there is the potential that in-service education could be positively affected by the acceptance and implementation of this planning paradigm.

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Table 1

Partial Listing of In-service Delivery Systems

1.	Amplified telephone	21.	Micro-teaching
2.	Cadre system	22.	Oral traditions
3.	Classes	23.	Peer Coaching
4.	Class observations	24.	Professional association meeting
5.	Clinics	25.	Professional association training
6.	Coaching	26.	Professional journals
7.	Committees (task group)	27.	Programmed instruction
8.	Computer aided instruction	28.	Resource persons
9.	Conferences	29.	Role modeling
10.	Consultants	30.	Role playing
11.	Continuing education	31.	School/University cooperatives
12.	Discussion Groups	32.	Simulations
13.	Educational TV	33.	Staff meetings
14.	Films	34.	Study groups
15.	Extension courses	35.	Teacher visitations
16.	Institutes	36.	Teacher associations briefings
17.	Instructional TV (close circuit)	37.	Team teaching
18.	Internships (close circuit)	38.	Television: Satellite System
20.	Laboratories	39.	Two-way telecommunications
21.	Lectures	40.	University courses
		41.	Workshops

Table 2
Schemata of the Paradigm

Elements of the Paradigm			
Class (Focus)	Models (Operation)	Characteristics (Variables)	Delivery Systems (Mechanisms)
I. Organization	AAIM	Major systems	Decision-makers would select most appropriate delivery system by which to conduct in-service education. Refer to Table 1 for listing.
	School-Based	Individual subsystems	
	Organization Development	Systems and subsystems	
	Social System	Superordinate and subordinate dimensions	
II. Individual	Behavioral	Single subject designs	
	Humanistic	Relations and interactions	
	Concerns-Based	Individual needs	
	Developmental	Experiential orientation	
IIIA. Roles	Independent Study	Transmission of knowledge	
	Competency	Demonstration of skills or processes	
	Education Center	Special focal groups	
IIIB. Trainer	Exchange	Modeling and inter-changes	
	Peer coaching	Pairing and feedback	
	Linking Agent	Outside interventions	
	Advocacy	Credentialing of clientele	

A PLANNING TAXONOMY FOR IN-SERVICE EDUCATION MODELS

Prior to designing any staff development program, select the one major focus or goal of the intended project, then proceed through the key.

The Goal or Focus is:

To further the organization. Go to 1.

To promote individual competence. Go to 4.

To change an indvidual's role. Go to 7.

To develop a cadre of trainers. Go to 9.

1. The goal of the project is to develop a systematic plan for the organization. Use the AAIM model.

1a. The goal for the project is to develop some subsystem within the organization. Go to 2.

2. The goal of the project is to focus on one school or one unit in the organization. Use the "School Based" model.

2a. The goal of the project is not focused on any one specific unit. Go to 3.

3. The goal of the project is to increase the organization's problem solving capacity. Use "Organizational Development" model.

3a. The goal of the project is to promote a social hierarchy. Use "Social Systems" model. (If no, go to 4.)

4. The project will emphasize the concept of "reinforcement." Use the "Behavioral" model.

4a. The project will not emphasize "reinforcement" techniques. Go to 5.

5. The project will place a premium on individualism. Use "Humanistic" model.

5a. The project will not stress individualism, per se. Go to 6.

6. Individual concerns will be prime focus of the project. Use "CBAM" model.

6a. The project will stress individual growth and development. Use the "Developmental" model. (If no, go to 7.)

7. The goal of the project is to promote individualized training materials. Use "Independent Study" model.

7a. The goal of the project is not to focus on individualized training materials. Go to 8.

8. The goal of the project is to utilize carefully prescribed competencies or objectives. Use the "Competency Based" model.

8a. The goal of the project is to establish a common learning site. Use the "Educator Center" model. (If no, go to 9.)

9. The goal of the project is to develop trainers by allowing individuals to trade "role" positions. Use "Exchange" model.

9a. The goal of the project is to use other means to develop trainers. Go to 10.

10. The goal of the project is to establish change agents within the system. Use "Linking Agent" model.

10a. The goal of the project is to use peers or colleagues as much as possible. Use "Peer Coaching" model. (If no, go to 11.)

11. The goal of the project is to create a pool of staunch program supporters. Use "Advocacy" model.

Figure 1. A Dichotomous Key Applied To Staff Development