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ABSTRACT

This report contains four papers which discuss the theory, development, and evaluation of a Western Michigan University inservice program for developing individualized instruction. The first paper discusses inservice education based on the philosophical assumptions and implications of informal/open education towards individualized instruction. It emphasizes learner autonomy in the process of individualizing instruction. The second paper concerns the continuing professional development of teachers and presents a heuristic model, used at Western Michigan University, as one method of providing for that development. The model interrelates the elements of (a) a programatic component, (b) a renewal system component, and (c) a teacher-learner component. In the third paper, evaluation procedures in which the teacher evaluated the program at Western Michigan University are discussed. The following three instruments were used to obtain the teachers opinion: (a) a program questionnaire, (b) teacher assessment of classroom practices, and (c) an observation rating scale. The final paper discusses the impact of structural constraints of the university and schools on the implementation of inservice education models. (MK)

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The Development and Evaluation of an Inservice Education Model to Develop Informal Individualized Learning and Teaching Practices

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IN-SERVICE EDUCATION BASED ON THE PHILOSOPHICAL ASSUMPTIONS AND IMPLICATIONS OF INFORMAL/OPEN EDUCATION TOWARDS INDIVIDUALIZED INSTRUCTION

To develop in-service education programs which are not developed on the basis of firm principles and assumptions is very much like planning learning experiences for children that do not have significant objectives. They are rudderless ships careening across the ocean and they might reach their objective; and yet, more likely, they will not.

The development of this program was based on a fundamental set of principles which aimed to meet every individual's needs and emphasized learner autonomy in the process of individualizing instruction. Every attempt was made to implement these principles in the in-service program as well as suggest that the participants consider them when examining their own classroom practice.

Perhaps these two statements, one by an American educator, the other a Britisher help to conceptualize the nature of the Informal/Open Education model which was attempting to be implemented, both in the classroom and the in-service workshop.

Lillian Weber says "Informal, as I understand it, refers to the setting, the arrangements, the teacher-child and child-child relationships that maintain, restimulate if necessary, and extend what is considered to be the most intense form of learning, the already existing child's way of learning through play and through the experiences he seeks out for himself." (Weber, 1971)

In addition, Alice Yardley points out that informal provides "Learning situations which encourage the spontaneous efforts of children. The emphasis is on the child learning rather than on the teacher instructing. Flexibility is the keynote of informal learning and freedom of choice enables the child to select jobs which have personal meaning, and to pursue objectives which satisfy his personal needs." (Yardley, 1973)

Principles which promoted this orientation toward learning included: 1) Understanding the difference between experience in learning and in being told about experience in learning 2) When interest is exploited, learning is expanded. 3) There is a need to find a learner's success point and develop learning from that. 4) Structure within the classroom must be intricate and subtle. 5) The learner is viewed as an agent of his own learning with the teacher viewing his/her role to arrange "discovery learning." 6) Learning is facilitated when the curriculum is integrated rather than organized into separate compartments.

An examination of these principles will undoubtedly lead to the conclusion that there is nothing new here. For throughout the history of education, thinking, committed teachers have been ready to defend these principles. A few years ago, John Holt wrote in response to a letter in a popular, national journal, that what we did not need was new knowledge, but that we needed to learn how to apply what we already knew. This is what this project was about.

The first principle focused on understanding the difference between experience in learning and in being told about experience in learning.

Three decades ago, John Dewey insisted that "Everything depends upon the quality of the experience which is had." (Dewey, 1938, p. 27) Teachers and children need to understand what experience is and what makes an experience educative rather than non-educative and mis-educative.

This is perhaps most important, for, if you want to explain to someone how to bake a pie or how to take a carburetor apart, it is best that you should have baked one and that you should have taken a carburetor apart. The main basis of much of learning in good schools is that it is based on what has been done and what has been examined. The old Chinese proverb has become the new cliché: "What I hear, I forget; What I see, I remember; and What I do, I understand" (Nuffield, 1967, inside cover) perhaps best sums it up.

The great experimentalist also warned that " ... mere activity does not constitute experience. It is dispersive, centrifugal, dissipating." (Dewey, 1916, p. 139) He pointed out that "when we experience something we act upon it, we do something with it; then we suffer or undergo the consequences. We do something to the thing and then it does something to us in return; such is the peculiar combination." (ibid.) The relationship of these two phases of experience measures the fruitfulness or value of the experience.

We have found that there is far more "doing" in schools which are organized along informal lines. This becomes the basis for the reading and writing. If you experience a thing, then you want to read about it and consequently, you write about it much more efficiently, and much more personally than if you are merely instructed about it.

One of the great difficulties and disappointments in the beginning was the initial behavior of teachers in the workshop. They were always being introduced to prototypes of learning materials which might assist them to individualize their classrooms. However, rather than seeing these as examples to stimulate the development of materials appropriate to the needs and abilities of their own pupils, they tended to "copy" and reproduce exactly as presented to them.

"Blind and capricious impulses hurry us on heedlessly from one thing to another. So far as this happens, everything is writ in water. There is none of that cumulative growth which makes an experience in any vital sense of that term ... To 'learn from experience' is to make a backward and forward connection between what we do to things and what we enjoy or suffer from things in consequence. Under such conditions, doing becomes a trying; an experiment with the world to find out what it is like; the undergoing becomes instruction-discovery of the connection of things." (Dewey, 1916, p. 140)

As we watched this capricious impulsiveness, we decided another tact was necessary. We asked them to try a variety of things out for themselves. Experiment with the shoebox art, try some of the science experiments, use some of the pictures to write a story, etc. We encouraged them to use the rich environment to experience activity, to reflect on the validity of the activity for their situation, and then to develop materials for their classroom.

It was not long before teachers began to change. They began to question particular prototypes; they began to create their own; they

began to want to know why. All of these were indications that mere activity alone was not the basis of this program, but reflection which a university has traditionally considered priority, began to develop and expand throughout the program.

During the course of the program, every attempt was made to have teachers discriminate between experiences that are worthwhile educationally and those that are not. The principle of continuity (Dewey, 1938, p. 35) was stressed. Teachers and workshop staff attempted to examine the ways in which experience takes "something from those which have gone before and modifies in some way the quality of those which come after." (Dewey, ibid.) Dewey warned us that it is the business of the educator to see in what direction an experience is heading. (Dewey, 1938, p. 39) It is using his greater insight to help organize the conditions of the experience rather than throwing away his insight and leaving matters to chance.

Interaction is the second chief principle for interpreting an experience in its educational function and force. (Dewey, 1916, p.42) It indicates that both factors in experience - objective and internal conditions - play equal roles and the experience is an interplay of the two. Traditional approaches pay little attention to the internal factors which also decide what kind of an experience an individual is to have. It has paid little attention to the powers and purposes of those being taught. If learning took place it was accidental. This program sought to have participants take into account these factors in examining learning experiences not only for themselves, but also for the children they were responsible for.

The second principle focused on the notion that when interest is exploited, learning is expanded. Why bother to get people interested? Although Dewey warned us fifty years ago, it is just as true today as it was then. There are those who see the use of interest only in terms of its making school a more pleasant and comfortable place by increasing pupils' motivation and, therefore, facilitating teachers' control. He was concerned that interests not be treated just as a motivational aid, but that individuals will not only learn quickly what they are interested in, they will learn it in an untroublesome and cooperative sort of way. What they are interested in is what they will learn best. Furthermore, when what they are interested in proves difficult, they will put forth and sustain the best possible effort to master its difficulties. What else other than intrinsic interest in the content of a story will keep a child motivated to decode the words when the going gets rough. The significance of his interest is that it calls forth his best efforts. (Dewey, 1916, pp. 129-138)

There are, of course, several problems raised by Dewey's suggestion. First, "learning through interest" requires that we are able to identify, recognize or diagnose what interests a child actually has. Second, having analyzed what would be involved in locating a child's interests, how could these be fostered and developed? Third, what should we think about the interests which children have that are trivial, harmful or antisocial activities?

First, how do we know a "feeling of interest" when we become aware of it? White says interest is, " ...an inclination to engage in some

one or more perceptual, intellectual, or practical activities that are appropriate to the particular object of interest." (White, 1967, p.85) or as he says in an earlier work, "To feel interested in anything is to feel attracted to it; to feel inclined to give attiontion to it. Naturally, it also involves feelings disinclined to attend to other things, and feeling vexed, unhappy and uncomfortable, when prevented from giving attention to it." (White, 1964, p.104)

Children's interests are fairly settled dispositions which they have to notice, to pay attention to, and to engage in some appropriate activity with certain sorts of things rather than others. An "interested" child is one who is characteristically active, attentive and absorbed in ways appropriate to his interest. A child's interest is what he feels from time to time inclined to do attentively, and thus to find out more about. One mistake that we often make is to assume that children's interest should approximate adult interests or that they must have some normal range of content. It was interesting to note that these same aspects were also indicative of teacher's interests. In our case, however, there was a normal range of content which was expressed throughout the year-long program.

Doing something for its interest is entirely different from doing something with the idea of getting pleasure or having fun, and here again, teachers who confuse the two sets of feelings may be mislead into thinking that by keeping their classes happy or by giving their children pleasure or "fun" they are following Dewey's dictum that children learn best through

interest. Through interest one can as readily be lead to pains as to pleasures and to despair as to happiness.

A feeling of interest is an inclination to notice something, to pay continuing attention to it and to try to enter into some active relationship with it which seems appropriate to its interesting features. The behavioral criteria of being interested are implicit in the logical features of the notion of interest itself, such things as noticing, paying attention, and persisting in one's efforts in an absorbed or undistracted way. Finding an interest means becoming inclined to think something in itself worth notice, attention and an effort to find ways of relating to it in an appropriate manner.

We must be wary of reports which are widespread -- that children's interests are plain to see, that all children have the same interests anyway (look at those abominable studies of children's reading interest), and that if there is any doubt about a particular child's interests, we need only to instruct him to consult his feelings and report back upon what he finds. Implicit in a child's interests is all that is more personal and unique about him, and it takes time and careful observation by trained teachers.

How do we originate, arouse and sustain interest? For some teachers, interest has been used as a means to induce children to undertake activity which the children find tedious, but which from the teacher's view is a goal of the school. There is nothing educative in this. All the teacher is doing is trivializing children's interests, by treating them merely as means to ends. And on the other hand, he is devaluing the tasks themselves

by admitting to children that they are the sort of tasks which any intelligent person would only undertake for a fee. In 1913, Dewey said, "When things have to be made interesting, it is because interest itself is wanting. Moreover, the phrase is a misnomer. The thing, the object, is not more interesting than it was before. The appeal is simply made to the child's love of something else." (Dewey, 1913, p.11-12)

The reduction of learning to performance, which is implied in the strategy of treating interest as a motivational aid, can be dissipating. If a child is interested in rockets and planes, he may find himself used to produce a book on history of planes or transportation. The initial interest may remain unexplored and undeveloped. If the child can be kept performing, he learns about the performance, not the interests. The interest remains at the initial conceptual level and his abiltiy to learn becomes a matter of being able to persist in the performance of tasks of a more or less mechanical kind. Through the teacher's manipulation of interest, the child is not make interested in anything and nothing new is made interesting for him. The more or less arbitrary connection of pre-selected subject matter with children's existing interests is more likely to kill the existing interests than create new ones. Interest has to be aroused.

Perhaps the only way of engendering interest in anything is through helping the individual to see something of its significance. Unless there is something of intelligible interest in what the teacher is doing, nothing of interest is likely to develop. In this program, interests

were aroused through displays of ideas we found interesting to stimulate children's learning: informal conferences, small group discussions, and attempts to create dissonance or disequilibrium in the thinking of participants.

Pursuit of interests requires an enabling environment which contains resources to pursue interests with. How a group could ever really be expected to learn through interest, while kept in a classroom dominated by a series of basal textbooks, is beyond imagination. Such a setting impoverishes the interests.

Finally, there is the issue of undesirable interests. There must be a clear connection between interests and values, and then between both of these and education. The problem of finding educationally good reasons for such selection must be in the mind of the teacher. The validity of value clarification strategies is paramount.

Sometimes we may perceive that the child's interests are trivial, harmful to himself or others, or morally obnoxious. We must help him to choose sensibly in terms of the keenness and clarity of his interest, the availability of resources for the pursuit of it, and the compatibility of this pursuit with other equally interesting pursuits. Beside these educational groups for selection, teachers have a duty to help the child consider whether an interest is trivial, harmful to himself and others, or morally obnoxious.

Certainly we believe in child-centered education, but a teacher who stands back and just allows children to pursue whatever interests come into their heads is practicing a travesty of child-centeredness. There

is nothing else in terms of which a child can be educated than his own interests. A person's education consists in whatever helps him to develop his capacity for valuing and this inclination to pursue what is valued. Whatever enables him to appreciate and understand his interest more fully, and to pursue it more actively and effectively, is educative.

There is a constant risk involved in pursuing an interest, since no one can say in advance exactly how it is going to turn out. The teacher must help the individual to weigh each risk against its possible gain. Teaching of an educative kind consists of helping children to structure their experience and activity in ways which enable them to see more of its intrinsic worth and value. This program attempted to help teachers understand risk and become risk-takers.

Another principle of significance is that there is a need to find a learner's success point and develop learning from that. There are those stupid people who tell you that life is real, and life is earnest. Therefore, school must be made difficult to assist learners to cope with life. This is just as sensible as saying since some seedlings must grow in difficult soil, we must grow them in ashes to teach them a lesson. The idea just doesn't stand up to investigation.

Too often we find children in the schools who seem to have skills and abilities and whose personality should make them feel good about themselves. However, these children have somehow learned to feel and think badly about themselves. Anyone who has worked with children

realizes the difficulty in helping a child who does not like himself. It is this type of child who is most difficult.

Every learner needs to gain self-esteem, to feel that he belongs, that he is competent, and that he is worthy. We know that in the process of learning how to feel about the self, the significant others determine the view that we learn. We know that the research abounds with studies of the relationship of the self concept to all aspects of development. The negative self-concept and its negative impact on school adjustment and academic progress has been well-documented. (Piers and Harris, 1964); (Sears, 1970); (Wattenberg and Cliffors, 1974)

In this program, we were concerned with that sum total view which an individual has of himself. We realize its importance since it determines our actions in various situations. It is a mechanism for maintaining inner consistency, it determines how experiences are interpreted, and it provides us with a set of expectancies.

In addition, the relationship of the self-concept to the locus of control (Rotter, 1954) provides some interesting insight, particularly to the teachers' conception of their ability to have success or failure under their control or whether some outside force is in control. (Crandall, Katkovsky and Crandall, 1965) (Dissinger, 1968) The individual's perception of his control is related both to performance in school and attitudes toward school. (Messer, 1972)

Carl Rogers has written extensively of each individual's desire to strive, to actualize, maintain, and enhance himself. (Rogers, 1951)

Rogers has provided leadership in the development of techniques which help people attain this kind of functioning. He sees this functioning as a goal of all human interaction, not just teaching. (Rogers, 1973) He says: "On the basis of my experience I have found that if I can help bring about a climate marked by genuineness, prizing and understanding, then exciting things happen. Persons and groups in such a climate move away from rigidity and toward flexibility, away from static living toward process living, away from dependence toward autonomy, away from being predictable toward an unpredictable creativity, away from defensiveness toward self-acceptance. They exhibit living proof on an actualizing tendency. Because of this evidence I have developed a deep trust in myself, in individuals, and in groups, when we are exposed to such a growth-promoting climate." (Rogers, 1973) This program attempted to create this climate to enhance individual functioning.

We were concerned with how one develops self-esteem. Writers have emphasized probably three areas as the necessary components of the process of self-esteem: a feeling of belonging (Erickson, 1963,) competence (Diggory, 1966) and worth (Jersild, 1963).

Individuals want to belong. To belong means that an individual is part of a group and is accepted and valued by his colleagues in that group. There is a mutualness between group and individual; each member of the group must see the individual belonging as the individual regards himself belonging. It must be as an accepted and valued member of the group. Raths (1974) has written well of strategies to follow in developing this sense in children.

Another important aspect of self-esteem is competence. Diggory (1966) has pointed out that the basis for self evaluation or behavior is purpose. Behavior is purposeful and humans attempt to do something by their actions. Our evaluation is based on the extent to which we accomplish what we set out to do. In our understanding of behavior, we are aware of observable aspects but must infer the inner and private factors, such as feelings and self-perception. It is these individual perceptions of an individual's competence that influence his self-esteem. As a consequence, any attempt to understand a student's behavior is dependent upon our ability to assess the public and private aspects of any observable behavior. In addition, the teacher must work with the individual to reinterpret the past so that his meanings of past experiences can be changed, particularly when the experiences were negative. The feelings and self-perceptions of competence are important ingredients of self-esteem.

Another ingredient of self-esteem is a sense of worth. Jersild (1952) found that adolescents mention most frequently character and personality characteristics when they describe themselves. Individuals see their worth through the kind of person they are and through the estimation of others. The individual's conceptualization of his worth to others is seen through what people do for and to the individual. It is critical for the sense of worth that the individual perceive actions which express the concern of significant others.

How do we help with self-esteem? Self-referent praise and self-reinforcement can assist the development of the self-concept in

an acceptable and effective way. Some individuals may need to reinforce themselves when they accomplish what they set out to accomplish. A second important approach is that individuals often learn by simply watching someone else. Imitation is a powerful force in learning.

We realized that the development of self-esteem should be of prime concern whether helping children or teachers to grow and develop. Self-esteem is cultivated when we help individuals develop a sense of belonging, competence and worth. Reinforcement and imitation are crucial factors in understanding how individuals learn that they belong, are competent, and are worth.

The school can add pressure or provide alternative sources of rewards and evaluations. Dunn (1968) found that there is a general increase on the part of students to have negative attitudes toward school. School pressures and anxiety may be a result of being thrust into a situation which is evaluative and over which the individual exercises little control. Traditional schools have been structured in that the evaluation is a consequence of external goals being set up and a product being produced which either meets or does not meet the external goals. The fact that the goals of the traditional school are often external is an important aspect of pressure and anxiety for the child.

What can teachers do? First, self-praise for accomplishments, self-reinforcement, and positive self-referent language provide an opportunity to help the child develop his self-concept. We can teach the child to be more positive with others as a means of being more positive to himself.

Secondly, help individuals evaluate realistically. We often make unrealistically high demands upon ourselves. Low-esteem individuals tend to judge themselves on the basis of perfection. Realistic self-evaluation is a mechanism for maintaining a positive self-concept. Realistic evaluation needs to be specific.

The individual needs to be helped to set realistic goals. Realistic goals setting means that the goals are individual, that they are made in relation to past performance and that they must have both a goal and an end in view. The individual needs practice in setting his own goals.

The individual must become his own evaluator and reinforcer. He must learn to praise himself. He must learn to praise others. The use of open sharing times in classroom, receiving help from others, and such organizational concepts as peer tutors assist in this endeavor. (Felker, 1974)

A central assumption of this program has been that it is good for children to have a positive view of themselves. This positive view of self forms the foundation upon which positive learning experiences can be built. Not only were we attempting to assist teachers with this in the classroom, but it was also critical to the development of the program. Much time was often spent by the staff assisting teachers to begin to praise their own attempts at individualization. Initial sessions were spent in helping them to become acquainted with others in the group, to be positive with each other and to provide reinforcement in their individual attempts. We have found that single teachers innovating

alone in their own buildings are susceptible to criticism where those who operate at least in a buddy system can continue their growth. We found many of those aspects which are suggestive for the teacher and child were as applicable for our work with the teachers themselves.

A fourth aspect of this program concerned structure in the classroom. It was our belief that structure within the classroom must be intricate and subtle. There may be a place for the unstructured, haphazard, free, perhaps even uncultivated, but it appears unlikely that the classroom is the place. The classroom must be so structured that each person is the object of the structure. In the traditional school, the aim was at the class, the structure was for the class, and the program was for the class. Now the individual teacher must structure work for the needs that he is aware of for each individual in the class.

The most effective way to maximize the learning opportunity in a situation is to structure it in a way which leads the child from his grasp of simple, familiar ideas towards an even deepening knowledge and comprehension of what a situation can offer. It is far more effective to structure a learning situation from within than to apply external structure by means of learning centers and instruction cards, though these may be a helpful starting point. Yardley warns us that the greater the freedom extended to the individual, the greater the need for thoughtful structure in every aspect of his environment. The key to such structure is our knowledge of the way in which the child's learning develops. (Yardley, 1974)

Our understanding of the way in which a child develops concepts may be used to provide the framework of ideas and of learning situations related to these ideas. Consequently, structure must be based on the developmental knowledge of the individual and related to every aspect of his learning. As teachers, we need to learn to build into the learning experiences which match the stage which the child has reached in his conceptual development.

Teachers need to grow in their understanding of the slow growth to maturity, and what is expected of a child at each stage should be geared to his individual pattern of social and emotional growth. As the child grows, he is involved in every deepening active experience.

In the traditional classroom, attainment was measured against a set of standards related to that mythical average child and the learning activities were dictated by these standards. In the informal classroom, emphasis is on self-direction on the part of the child and achievement is geared to the individual's maturation. The difference between the teacher functioning as a taskmaster directing a child through a sequence of prescribed activities and helping him and his own way through a well-structured situation is the basis of our approach.

Structuring the learning situation depends upon the teacher's abiltiy to apply developmental knowledge to the provision which he makes. Before this can be done, he must be clear about the processes of development and about the conceptual patterns underlying the child's comprehension of each facet of his life and learning. This knowledge of development

implies an unfolding of the organism through a series of orderly changes always advancing toward maturity. The unfolding may be uneven, but it is always integrating.

Knowledge of the child's growth patterns enables the teacher to know what to expect of the child, and to know how much or how little he needs in way of challenge at each stage. Forcing him beyond his pace prohibits learning as effectively as withholding opportunity and challenge.

Teachers need to gain ideas about the way a child's ideas about a concept develop. Then the teacher can plan a sequence of experiences which match the child's unfolding ideas. The ordering of a child's experiences depends on what the adults provide, and there is no other means of insuring that the child's concepts are soundly-based.

To assist teachers in the development of this kind of knowledge, a critical component of the program was a course on psychological foundations of informal education, in which focus on developmental knowledge was crucial. It was also interesting for us to note developmental stages in the teacher's conceptualization of the individualizing process. As our awareness of the teacher's growth became clear, the program structured itself along those lines.

The fifth principle which guided the development of this program views the learner as an agent of his own learning with the teacher viewing his role to arrange "discovery" learning. One needs only observe that the child is a bundle of questions, thoughts, comments, hopes, inquiries and speculation. Underlying most of the activities of the child is a tireless curiosity and a desire to find out through

personal exploration. Spontaneous thinking, based on the following up and extension of natural interests, dictates that arranger role for the teacher.

The individual learns to form new concepts of increasing complexity and is able to enlarge and revise the ideas he has met before. All the time, he is taking in information and using it to help clarify and refine what he already knows. He brings much from past experience to every learning situation and he needs to be constantly challenged so that he can test the accuracy and validity of his accumulated experience. He selects information relevant to the problem at hand. By degrees, he formulates ideas about the possibility of the results of any subsequent action he may take. He is framing a simple hypothesis which he can then test by personal experiment. This is a continuing process which is defining and refining his ideas all the time. He is learning to anticipate the results of his action and formulate ideas of cause and effect. It is this kind of thinking, at best spontaneous, based on the following up and extension of natural interests, which is the nature of discovery learning.

The sure-to-be classic Plowder Report defined learning by discovery as stemming from "initial curiosity, often stimulated by the environment the teacher provides, leads to questions and to a consideration of what questions it is sensible to ask and how to find the answers ... essential elements are inquiry, exploration and first hand experience." (Children and Their Primary Schools, 1967, p. 242)

Implicit in this concept of discovery learning is the question of the relationship between the teacher and the child. Active learning does not flourish in the authoritarian classroom. The role of the teacher in the discovery classroom becomes more advisory than formally and openly didactic, more one of guidance than dispenser of factual information. Where the experience has been intense, where there has been a lively stimulation and imaginative encouragement by the teacher, where there has been creative problem-solving, and the exercise of choice before considered judgments have been made, the principles of discovery learning have been realized.

By discovery learning, we do not mean learning which is completed with little or no help from the teacher. To us, this suggests an abdication by the teacher of his responsibility of arranging children's learning in an ordered manner. First and foremost, a teacher must be concerned with quality. He must be constantly aware that some measure of improvement is taking place. This only happens if he guides the discovery and insures that he knows exactly what each child in the class is doing at a particular time, and has some mechanism for determining how well he is doing.

The sequence is usually as follows: first, aims and objectives of the particular activity are thought out and documented. Then, learning experiences are devised which rely on a form of guided discovery, so that the final act of finding out belongs to the child. These activities should be specifically designed to try to achieve the stated aims and

objectives. Finally, some evaluation needs to be carried out to assess to what degree the aims and objectives have been reached. In this way, the objectives of the next activities are indicated, and the process becomes an organized pattern.

Shulman and Keislar (1966); Bassett (1970); and Rowell, Simon and Wiseman (1969) have written of attempts to compare the effectiveness of various approaches to discovery. Perhaps the best advice is that advocated by Bruner (1971) to develop the best pedagogy you can. This implies a mixture of psychology, common sense and intuition to develop a system based on observation of children's activities, and cautious changes of methods and techniques at the point when cussess in an activity looks obtainable. As a general principle, the more informal the learning arrangements become in a school, the greater is the need for a teacher to prepare a system which permits individual and group inquiry, with frequent teacher contact, and for him also to plan a method of noting the content and degree of success achieved by individual children.

Inexperienced teachers will want a response from every child or worry if a stimulus fails. It is the perceptive teacher who accepts that many ideas will be taken up only by some children. This he must accept if the work is to be geared to individual needs. Flexibility of organization is an essential feature of the discovery learning classroom.

Good discovery learning will usually be accompanied by the children's recording of their findings. The teacher can use this to connect the acquisition of skills with creative activities. The teacher has an important role to play in devising tasks that will have a compelling

impact on the children. If these situations lead to great interest, they will be a spur to the learning of skills through which experiences can be recreated -- speech, writing, painting, modeling, movement or any other form of expression.

Since it is no longer possible to lay down a set of facts which should be known or even to define probable interests which children will follow, one of the fundamental purposes of schools should be to help children to think for themselves, to exercise choice, to make judgments, and to discriminate. The emphasis must be on the process of learning rather than on the end product. (Parker and Rubin, 1966) Teachers must be concerned with the quality of children's learning; they must be aware of its progressive complexity and arrange for an individual approach which grows out of personal discovery and allows for development through widening interests.

The teacher needs to provide opportunities for experimenting to take place. He needs the skill to know when to step in and help, and when to allow the child to adventure freely. The acquisition of this skill is helped by experience but can be aided by a full understanding of the principles of how children form concepts. A knowledge of the complexities of the thinking process is also useful. (Russell, 1956) (Raths, Wasserman, Jones, Rothstein, 1967) The teacher can certainly help a child better if he has a good knowledge of the child's previous experience and if he is able to identify the situations in which a child works best as well as knowledge of his learning style.

Most of what we learn depends on, and is made possible by, what we know already. Children need much first hand experience if they are to be free to adventure in their learning to follow up interesting lines of inquiry, to become aware of unfruitful lines of approach and to evolve an overall view of the problem.

Teachers need to be adventurous in their use of systems which will identify success and diagnose weaknesses, so that the teacher may better ensure the promotion and activation of the child as the principal agent in his own learning.

It was exciting to observe teachers become discoverers and agents of their own learning as they followed fruitful and unfruitful lines of inquiry, designed discovery classrooms for their children, and proved that learning could be an adventure.

The sixth and final principle which guided this program was that learning is facilitated when the curriculum is integrated rather than organized into separtate compartments. In the introductory chapter to the National Society for the Study of Education Yearbook on The Integration of Educational Experiences, Dressel challenges us: "The isolated fact is of no importance. Yet one of the more common criticisms of education has been that it involves too much passive learning of inert ideas. The student reads, listens, fills out workbooks, occasionally writes; and always he prepares for the day when he must repeat on an examination the material which he has learned. Says Whitehead in commenting on University education: '...I have been much struck by the

paralysis of thought induced in pupils by the aimless accumulation of precise knowledge, inert and unutilized." (Dressel, 1958, p.3)

Dressel further points out that when faced with an accusation of this type, teachers are irritated and deny its truth. Yet one need not look far to see the truth of this view. Those who worked on this particular yearbook considered the problem of integration to be truly the central problem of education.

In our attempt to place education in perspective, we find that it is "an integrating process designed by society to help the individual understand, fit into, and contribute to or change that society. On the other hand, it is a process which requires integration both within self and with other social institutions and processes. Finally, by this process, we try to produce individuals who continue to organize their own experiences and, thereby, derive more meaning from them" (Dressel, 1958, p.6)

Integration is both a state and a process. As a state it indicates the attainment of perfection, completion or wholeness. Here it is seen as a goal toward which individuals and social groups strive. As a process, it refers to the means used to achieve this sense of perfection. (Dressel, 1958, p. 11)

The essential element of integration is the relationship of parts and wholes. It is never permanent, for any new knowledge becomes a threat to the established end.

Krathwohl has suggested a set of guiding principles to facilitate integrative behavior. He suggests that the teacher should:

1. strengthen the students' background so that the concepts to be grasped are well understood before integration is attempted.

2. guide the students' attention to the points of similarity which form the basis of the integrative fremework.

3. make sure that the integrative framework is at a conceptual level appropriate to his students' ability and maturity.

4. (make) efforts ... to minimize ... threat by establishing as permissive an atmosphere as possible.

5. (be sure) students ... know what is expected of them. The students should understand from the outset that integration of the material under consideration is a goal of the learning experiences.

6. take advantage of the student's various backgrounds to involve them in his presentation.

7. ...present the framework in such a way that the student can accept it and make it his own but not feel bound by it -- not feel that his capacity for independent thinking is being curbed.

8. "model" integrative behavior for the students. (Krathwohl, 1958, pp. 62-3)

The concern for the integration of educational experience has particularly lead to attempts to organize school programs. The "integrated day" is such an attempt. Observers of the individual's excitement in discovery and learning, and his subsequent push to persevere with a difficult task when he is emotionally involved, help to understand the integration of the day. When individuals are given the time, the subjects and interests soon become integrated quite

naturally as the individual works out his own ideas. The school day becomes an integrated day with a minimum of scheduled changes for subjects. The natural flow of activity is not disturbed by breaks for particular curriculum subjects.

Brown and Precious describe the integrated day as a "school day which is combined into a whole and has the minimum of time-tabling (scheduling). Within this day there is time and opportunity in a planned educative environment for the social, intellectual, emotional, physical and aesthetic growth of the child at his own rate of development." (Brown and Precious, 1968, p. 12-3)

The child is encouraged to commit himself completely to the work in hand which he has chosen. The child also has the time to pursue something in depth even though it may take several days. As he works, problems common to various subjects will arise, but within the integrated framework he can make easy transition between any areas of learning. Subject barriers are extraneous and no limit is set to the exploration involved, which may go off any tangent into any sphere of learning. Within each day there is provision for the natural rhythm of each child, where there are times of deep concentration followed by less involved work or relaxation. The teacher's role becomes one of adviser and guide.

The program for teachers was designed to focus as an integrated day. The workshop was always in operation, with varied sessions provided, and each teacher chose those tasks he wished to persevere in. Every attempt was made to have teachers see the interrelationships among

the curriculum areas of the school and to implement a curriculum of integrated educational experiences.

In reflecting on these principles, it becomes obvious that they are not just related, but integrative. As in the weaving of any good fabric, the wrap and woof became interlaced, and if well-woven, a cloth of admirable quality is produced. Each of these six principles are the warp and woof which become interwoven to produce the cloth out of which an effective program of inservice education based on the assumptions and implications of informal/open education helped three school districts shape their programs of individualized instruction.

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THE DEVELOPMENT OF AN INSERVICE EDUCATION PROGRAM FOR THE PROFESSIONAL DEVELOPMENT OF TEACHERS: A HEURISTIC MODEL

Ronald Crowell and Richard Harring

This paper is about the continuing professional development of teachers - - and one method of providing for it.

Inservice education for teachers has been demanded by some and demeaned by others for many years, especially since the establishment of quantitative standards for teaching certificates after the First World War (Tyler, 1971). Administrators, especially those who hold what Jackson (1971) calls the "defect" point of view (that teachers have defects), have often imposed inservice programs on teachers in the simplistic hope that such programs will repair the defects. And teachers have usually criticized these programs as irrelevant and not helpful. Bush states that "Much of the current paraphernalia and practice in in-service education has grown up haphazardly and without a coherent rationale over a half century or more. It grew in response to a situation in which teachers were, to a large degree, not well prepared." (Bush, 1971, pg. 38)

But, with an increasing push towards professional status by teacher organizations and the shift in the supply of teachers, inservice education, as a specific priority of teachers, is beginning

to elicit renewed interest and activity.

A number of writers offer a variety of reasons and rationale for providing inservice education. Jackson (1971) speaks of two points of view - the "defect" point of view and the "growth" approach as both providing reasons and rationale for inservice programs. Harris and Bessent (1969) cite four underlying reasons to provide inservice programs:

1. Preservice preparation of professional staff members is rarely ideal and may be primarily an introduction to professional preparation rather than professional preparation as such.

2. Social and educational change makes current professional practices obsolete or relatively ineffective in a very short period of time. This applies to methods and techniques, tools and substantive knowledge itself.

3. Coordination and articulation of instructional practices require changes in people. Even when each instructional staff member is functioning at a highly professional level, employing an optimum number of the most effective practices, such an instructional program might still be relatively uncoordinated from subject to subject and poorly articulated from year to year.

4. Other factors argue for in-service education activities of rather diverse kinds. Morale can be stimulated and maintained through in-service education, and is a contribution to instruction itself, even if instructional improvement of any dynamic kind does not occur.

Another argument presented by Hersh and Yarger (1972) is that inservice education is one of the "prerequisites for change" in a school system and in a teacher.

PURPOSE

This paper describes an inservice program based on a specific set of assumptions and strategies which led to the development of a heuristic model for inservice programs. The organization and structure of the model is defined and delimited by the set of basic characteristics and strategies of the program which are likewise defined by the attempt to deal with the criticisms and problems of inservice education.

The development of the program stems from two particular concerns. One is the conviction that teachers and schools must provide for more individualized or personalized education for our youth. For the purposes of this paper this is a given. The fundamental set of principles related to this concern are developed in the first paper by Burns, "Inservice Education Based On The Philosophical Assumptions and Implications of Informal / Open Education Towards Individualized Instruction." The main thrust of the program is to provide teachers with methods of individualizing instruction and the accompanying rationale and theory underlying individualized informal classroom practices.

The second concern has to do with the state of inservice programs and teachers' reactions to them.

In the past, teachers have been openly critical of inservice programs for a variety of reasons. Some of these reasons, both stated and implied, are noted below.

1. Inservice programs are not relevant to the teacher's needs. There is often a failure to relate program plans and pro-

cesses to the perceived needs of the teachers. Teachers express the feeling that university courses too often provide nothing that can be taken back to their own classrooms and used the next day. (Harris and Bessent, 1969)

2. Too often, inservice programs have been selected and designed by school administrators without consulting their own staffs. (Bush, 1971) Such programs are usually required, often on the teacher's own time, and offer no credit or recognition for participating. Although physically present, many teachers psychologically resist the intended efforts or outcomes of these inservice and staff development programs.
3. Since the university person isn't in the classroom on a regular or systematic basis, he or she is often considered to be "out of touch" with the changing scene and therefore does not understand the immediate needs of the teacher. That is to say, the credibility of the university teacher in an in-service role is generally quite low.
4. Generally, programs fail to provide long-term support of teachers seeking to implement the ideas or materials developed during the inservice program. (Katz, Asper and Wolf, 1974) The consultant(s) offers a cluster of ideas to cope with a given situation or problem and then leaves the teacher alone

with a difficult situation and no strategy for implementing whatever has been proposed.

5. The discrepency that often exists between the approaches or techniques being suggested by the university teacher and the didactic approach sometimes used to convey these "ideas" tends to increase the credibility gap between teachers and university consultants. (Harris and Bessent, 1969) To tell a teacher to teach "openly", "flexibly", "humanely" and how to "individualize instruction" in a large group, lecture situation usually generates criticism.
6. There has been insufficient money and other resources allocated to inservice programs to assure effectiveness. (Harris and Bessent, 1969) (Meade, 1971)

In light of these criticisms the developers of the program attempted to wrestle realistically with the problems of providing an effective professional development program both in process and content by following guidelines which relate to each of the criticisms:

1. Inservice programs must be developed to meet the teachers' immediate and long range needs. The content must be such that teachers will conceive of it as relevant to their needs. Bush (1971) makes an interesting point regarding this criticism. "... if teachers have a negative attitude toward the inservice training program offered, the attitude results

less from the fact that no incentive is offered than from the program's being so frequently irrelevant to the improvement of teaching competence. Inservice training programs that are relevant and effective tend to be oversubscribed."

2. Teachers must have a means of identifying and stating their needs as well as input regarding the design and implementation of the program. Participation should be voluntary and, optimally, choices should be offered within the framework of the program.
3. The instructional staff needs to include university instructors who spend part of their time in the classroom observing and working with students to keep abreast of current classroom practices and problems. This tends to increase their credibility in the eyes of the classroom teacher and, therefore, their potential effectiveness. Another means of coping with this dilemma is to include classroom teachers as members of the instructional staff for the inservice program.
4. Inservice education programs must extend the time frame covered by the inservice design if teachers are expected to change their teaching behaviors. George Isaac Brown (1972) speaks of the "risk" that teachers must be prepared to take as they go about the process of change. Several programs have developed

an "advisory" approach to inservice education. The "advisor" supports the teacher in his or her classroom situation through long-term visitations or clinical supervision. The advisory-supportive function, performed over time, should enable the teacher to assume more risks in his or her classroom behavior.

5. The program ought to provide the teacher with a variety of experiences as a producer of knowledge rather than simply absorbing knowledge on "techniques" and theory. However, the simplistic notion that the inservice education of teachers can be approached in the same way that we would approach an elementary classroom is unreasonable. Alternative situations must be developed which provide direct experiences or simulation or involve the teacher in producing rather than "sitting and listening."
6. Finally, sufficient financial resources must somehow be provided to accomplish the necessary support and resources implied by the above points.

PROGRAMMATIC SOLUTIONS

A great deal has been written describing or proposing programmatic solutions to some or all of these problems.

Lilian Katz (Katz, Asper and Wolf, 1974, p. 154) has developed an advisory approach to inservice training. This program speaks to the problem by:

1. Providing inservice assistance to teachers only when such assistance has been requested by them.
2. Providing assistance in terms of the requestors' own goals, objectives and needs.
3. Providing such assistance in situ rather than in courses, institutes or seminars.
4. Providing assistance in such a way as to increase the likelihood that teachers become more self-helpful and independent rather than helpless and dependent.

Louis M. Smith (1972) discusses inservice education and describes a classroom program using an inquiry approach based around a series of theoretical readings and a series of "probes" (scenarios or problem situations). There are no first hand experiences or involvement. The teachers are asked, through their reading, writing and discussions, to inquire into a particular dimension of education (in this case classroom social systems). Smith notes the success of this approach in terms of student interest and conceptual development but also notes the limitation in terms of utilization in the daily classroom routine and extended contact with the students.

These are two examples of programs designed for specific purposes which also address thenselves to the problems outlined. Most of the programs described in the recent literature do seem to deal with some of the problems but seldom do any deal with them all.

Ronald Lippitt and Robert Fox (1971) provide an overall set of assumptions and resulting implications about the initiation in in-service programs, the target for these programs, who should teach them and the design and content of the programs, and the support for what-

ever change efforts stem from these programs. In many respects these assumptions and implications fit the program described in this paper very closely. However, they are very general and tend to probe areas which may be viable in the future but presently are not in terms of designing or supporting programs

They do, however, summarize their "action-research problem-solving model" as containing the following ingredients (Lippitt and Fox, 1971, p. 160):

1. Identifying needs for change
2. Designing action-research projects
3. Working with outside resource people
4. Diagnosing the learning climate
5. Serving as a member of a school building or school system change-agent team.
6. Learning about innovations developed by other teachers or by national projects
7. Utilizing the resources of school system personnel
8. Increasing interpersonal sensitivity to authority figures, peers, and students
9. Deriving implications for learning from research findings
10. Gaining support from colleagues
11. Sharing results with others

With the exception of number five and possibly number eight these are similar to the characteristics of the present program. It is in the application and extension of these dimensions that the programs would differ.

DESCRIPTION OF THE WESTERN MICHIGAN PROGRAM

The program designed to overcome these criticisms and problems while focusing on individualized classroom practices has been developed

over the past two years in the Western Michigan area.

Through the efforts of the Director of the Muskegon Regional Office of Western Michigan University's Division of Continuing Education, a group of teachers and administrators from the Muskegon Area met with members of the Department of Teacher Education at Western Michigan University early in 1972. The university staff members had spent some time over a period of three years studying classrooms in Britain as participants and leaders in educational seminars in England. They were interested in providing more effective inservice programs to teachers. The teachers and administrators were interested in informal, individualized instructional formats such as those often described under the general rubric of "Open Education".

From this initial meeting a curriculum workshop was developed for the Fremont area and Mona Shores area which allowed interested teachers to explore and experience various facets of individualized instruction, with special emphasis on the potential for informal, open classroom approaches to individualize and personalize instruction.

The design and implementation of the initial workshop was predicated on the belief that for most teachers to give serious consideration to making substantive changes in their teaching style, they would need opportunities to experience for themselves a learning environment and instructional format established to demonstrate these approaches.

The Initial Workshops

The first Introductory Workshop was offered in Fremont in the spring of 1972 and was spent in an attempt to develop a sense of group identity and a relaxed, informal atmosphere as well as assessing the teachers' perceived needs. Activities and presentations were provided to help all participants become aware of the many alternative teaching styles and classroom environments available to them. A wide variety of learning centers was used to demonstrate their applicability to an individualized, experience-based program. Another important facet of the program was the use of classroom teachers as consultants who had implemented these approaches in their own classrooms. These teachers shared their own experiences, materials, management systems and their successes and failures. The use of peers as resource leaders enhanced the credibility of the ideas and techniques being examined. The role of the university staff was to create an environment featuring learning centers and to maintain the materials and supplies required by this approach, to provide a variety of small group discussions on a series of readings, and to become well acquainted with all the participants as a base for responding individually to their needs.

The Workshop was an intensive period for exploring new ideas and providing for each participant's needs and interests through:

1. the opportunity to use and develop teacher-made classroom instructional materials essential for an individualized, experience-based curriculum.

2. an examination of various ways to manage individualized, experience-based programs for responsible learning. The works of many writers were used to examine the assumptions upon which such programs are or should be based; and,
3. the development of specific strategies for implementing various facets of individualized instruction within the classrooms of participating teachers.

The six week, after school workshop was filled with the kind of excitement that discovery learning generates. The sessions (twice a week) received enthusiastic support and endorsement from its participants. Participants were pleased with how much they had accomplished, dismayed at how much there was yet to learn, and concerned that much of what had been gleaned from the program might be lost the next school year without the supportive and encouraging climate the program offered. Out of these interests and concerns most of the participants expressed the desire and need for continuing the program thoughout the 1972-73 school year to support their efforts.

A similar two week, five hour a day workshop was offered at Mona Shores prior to the opening of school in August 1972. Responses to this workshop were just as enthusiastic and supportive of the program as the Fremont area teachers had been the previous spring. They, too, expressed the desire and need for the continuation of the program thoughout the 1972-73 school year.

The Fremont/Mona Shores Program

As a result of these reactions and support from school district administrators, a unique inservice program was developed for the Fremont and Mona Shores area school to provide continuous support for teachers who were seeking ways to provide experientially-based individualized instruction.

The primary purpose of the year-long program was to assist and support teachers' endeavors to implement techniques of individualized instruction within the limitations of their own classrooms and school buildings. The objectives of the program were:

1. to familiarize participants with various informal classroom concepts and the principles of child development upon which such practices were based;
2. to experience the organization and operation of a self-selection classroom;
3. to examine various ways to manage individualized, experience-based programs and practices; and
4. to design and develop classroom instructional materials essential for an experience-based individualized curriculum.

To achieve these objectives, participants in the program were given opportunities to discuss innovations, to set goals, to implement various instructional strategies and materials, to evaluate the extent of their success, and to modify practices based on the evaluation feedback.

As in the Introductory Workshop, these objectives were facilitated by providing a wide variety of learning resources and experiences, such as consultants, visitations, mini-workshops and conferences.

Structuring the Program

Organizationally, the inservice program consisted of a two and a half semester sequence of college credit courses following a spring or summer curriculum workshop.

Based on the experiences and outcomes of the first workshops and the expressed interests and needs of the participants, the following format was implemented for the fall and winter semesters:

1. Teachers participating in the program for the first time enrolled in the Introductory Workshop (Phase I) described earlier with modifications based on previous experiences.
2. In addition to greatly increasing the use of classroom teachers as "one-time" consultants, two or three were identified who had the ideas, skills and abilities to relate to colleagues caught up in the desire and interest to change their approaches to teaching but who were inhibited by their own fears of failure and uncertainty of success. During the fall semester these consultants participated in about a third of the workshop sessions. From these, a primary level teacher (K-3) and upper elementary teacher (4-6) were added as regular members of the Introductory Workshop staff for winter semester 1973.

3. Teachers who had taken the initial workshop could select from a variety of course offerings to meet their specific needs and interests, including continuation in the Introductory Workshop phase. Many teachers expressed needs and interests centered on developing an in-depth understanding of the psychological bases underlying the informal, experience-based approach. Another area of immense interest was language development and reading. A third area of interest which seemed to be of continual concern was how to cope with administrators, parents and fellow teachers who were less enthusiastic in their endorsement of the ideas and approaches being fostered throughout this program.

An important point to be noted is that throughout Phases II and III (see Chart A), participants were usually engaged in the workshop approach to learning rather than the more traditional didactic approaches. Consultants continued to be used on a limited basis. The university instructional staff, whose role and responsibilities during the workshop phase were essentially organizational and facilitative, now provided most of the "expertise" for the in-depth topics. When necessary, additional university instructors with expertise in a given area or topic were utilized as the instructional leaders. This had the added benefit of enabling participants to examine and respond to a variety of perspectives.

The final half semester (spring session) consisted of independent study, combined with seminars and with classroom visitations by university faculty members. Based on their visitations, the university members assisted participants in analyzing their needs regarding the continued development of individualized classroom practices. This phase of the program was designed to help participants assess their own growth and to help them develop a strategy for extending and implementing these practices during the next school year.

Chart A

Fremont and Mona Shores Combined Program

1972-73

			Fremont area Teachers	Mona Shores area Teachers
Phase I	Introductory Workshop	Spring or Summer 1972	47	42
Phase II	Introductory Workshop In-depth Topics/Investigations based on participants' interests and needs	Fall 1972	34	40
Phase III	Introductory Workshop In-depth Topics/Investigations based on participants' interests and needs	Winter 1972-1973	42	45
Phase IV	Independent Research/ Evaluation where have I been? where am I now? where do I want to go?	Spring 1973	21	11

Response to the Program

The decision to combine the Fremont area teachers and the Mona Shores area teachers into one program was done for cross-fertilization of ideas, mutual support and program quality. It was believed that enlarging the base increased the likelihood that considering developments in other schools and school districts would enable participants to have a broader spectrum of knowledge and experiences from which to generalize.

The program provided teachers an opportunity to experience an individualized, informal classroom in which experience was provided and examined. Their personal interests as reflected in concerns for their own classroom were the starting points for their learning. Stimulation from university staff, resource persons, etc focused consistently on these personal interests. Each participant was encouraged to begin where they were and to recognize a continuum of growth on which they might develop and improve their teaching style.

Structure was always a problem. Fortunately the school districts cooperated by providing a place to establish a consistent physical environment. To provide an individual structure for each teacher was challenging and probably never fully attained. Each teacher was encouraged to choose from the many alternatives constantly presented. The teacher was to be the agent selecting appropriate experiences from those provided. The staff created centers, situations, etc. to engender this discovery learning. The traditional lines distinguishing university

courses were constantly battered to provide for integrating of learning. Students crossed the boundaries of course outlines to pluck and savor an experience being offered others if they thought it would be the most beneficial use of their time and energy. Again the totality of teaching and learning was recognized.

Forty resource people were used to supplement and extend the experiences of the regular staff members. All resource people were budgeted for in the contract and were paid on a regular consultant basis. Resource people discussed everything from macrame, shoebox science, reading management systems, to the language experience approach in reading.

A typical resource person arrived with several cartons of materials to share with the participants. These often were samples of the latest children's work, stimulus materials to develop children's learning, resource books that had helped the resource person, and home-made instructional materials. The resource person generally made some opening remarks, shared his/her children's work, some of the ideas (s)he found helpful, responded to questions, and then provided participants a chance to copy, modify or create materials for their classrooms based on the ideas presented and discussed. The resource then became free to counsel the participants individually. "How did you get them started on ...?" "How do you cope with the kid who won't ...?" "I tried that and ..." This had an immense influence on the participants.

Here was a fellow teacher who faced daily the same problems as the participants. They could readily identify with each other, yet one was a little further along the continuum to inspire, noticeably not too far down the pike that the beginner couldn't catch up. The ideal could be realized. Generally, the resource teachers were dealing with their jobs in a creative manner. They could see tentative solutions to their problems. They could suggest some very specific creative solutions that had worked for them. In addition, they could empathize with the workshop participants. They'd been there, not too long ago, and could suggest a recent solution that they had tried. Some very warm relationships developed and the participants often spoke glowingly of these resource people after they had left.

There was an enthusiastic response of teachers from the neighboring non-sponsoring school districts. Although more than half of the Fremont teachers participated in the program, of the seventy-two from Fremont and its environs, forty-three were from the greater Fremont area. Similarly in the Mona Shores District, thirty-three teachers participated, while thirty -eight were from the Greater Mona Shores Area school districts. A total of one hundred forty-three teachers were influenced directly by this program.

Throughout the year the Director of the Muskegon Regional Office received numerous inquiries from other school districts seeking information about the program. Several districts had heard about the quality

of the program and wanted to know if it could be offered in their own districts. The program staff conducted several demonstration workshops for individual school, for entire school systems and for regional reading association meetings. On three occasions they met with school district's curriculum council to explain the intent and approaches being developed in the year-long program. The inservice program had succeeded in generating a great deal of enthusiasm and interest throughout the area, primarily on the basis of its growing reputation as a program that was relevant and responsive to the needs of participants and provided tools and techniques which could be used immediately in the classroom. As a result of these activities several districts learned about the quality of the program and wanted it implemented in their own district. On the basis of this interest it was decided to plan an inservice program with another school district which could begin spring 1973 and continue throughout the 1973-74 school year. This also provided the staff with an opportunity to incorporate changes in its delivery system based on its experience with the Fremont/Mona Shores program. Because of the interest and support of the superintendent and available facilities, the Grand Haven school district was selected to serve as the sponsoring agency for the second inservice program.

The Grand Haven Program

The program was introduced to the elementary and junior high school staffs through a half day inservice program. The session provided an

overview of the kinds of experiences and materials teachers could expect if they participated in the Introductory Workshop. Fifty teachers, including fifteen junior high school teachers enrolled in the six-week spring workshop meeting after school and on two Saturdays. Except for staff utilization the format of the Introductory Workshop (Phase I) was similar to the ones described for the Fremont/Mona Shores program. Each university staff member had the primary responsibility for coordinating discussion sessions and resource teachers and interacting with participants about their particular concerns, interests and problems. Groups were arranged according to teaching levels (K-3,4-6,7-9) for many of the activities. The university staff was complemented and supplemented by the ongoing involvement of public school teachers who were successfully implementing the ideas and strategies being advocated. Each university member chose a public school teacher with whom (s)he felt comfortable and who taught at one of the specified levels. Each pair worked as a team throughout the workshop.

Structuring the Program: the Elementary Teachers Segment

One the basis of the experiences and outcomes of the Fremont/ Mona Shores Inservice Program and the expressed interests and needs of the participants, the following format was implemented for the year long program for the elementary classroom teachers.

1. Those participating in the program for the first time enrolled in the Introductory Workshop (Phase I).

2. In Phase II whose who had been in the program previously had the choice of enrolling in the Introductory Workshop or in a "Psychological Bases ..." course. The Psychological Bases ..." course provided the understanding and knowledge necessary if one was expected to do more than "join the band-wagon." For many it offered new insights regarding the intellectual and social development of the children they were teaching.
3. In Phase III, first-time participants enrolled in the Introductory Workshop. Those who had been in the Workshop could chose to continue or enroll in the "Psychological Bases ..." course. Those who had completed these two aspects examined the nature of the reading process and investigated ways to implement individualized reading.
4. Phase IV enabled previous participants to evaluate their growth and consider tentative changes for the following school year. This phase of the program was similar to the one described for the Fremont/Mona Shores program.

Chart B
Grand Haven Program
Elementary Classroom Teachers
1973-74

			Grand Haven area
Phase I	Introductory Workshop	Spring 1973	35
Phase II	Introductory Workshop Psychological Bases of Informal, Individualized Instruction	Fall 1973	60
Phase III	Introductory Workshop Individualized Reading Psychological Bases of Informal, Individualized Instruction	Winter 1974	35
Phase IV	Independent Evaluation where have I been? where am I now? where do I want to go?	Spring 1974	37

Response to the Program

A total of fifty-three resource people were used in the program, including those utilized in the spring Introductory Workshop. Most of the resource people were used during the Introductory Workshop segment of the program when the design was to bombard participants with ideas, materials, choices, successes, failures, different perspectives, etc. Perhaps the most significant aspect of this is that whereas no Muskegon area teachers had served as resource leaders in the Fremont/Mona Shores program, over fifty per cent of the resource leaders used in the Grand Haven program had participated in the Fremont/Mona Shores program. This

had several advantages. First, it identified teachers in the area who were engaged in similar efforts and could be called or visited for exchanging ideas, observing how others were operating their classroom, etc. Second, it provided reinforcement and support to resource teachers who were changing their own classroom environment and teaching practices often with little or no support from colleagues or administrators, and in some cases they were proceeding in an atmosphere of open hostility. Third, it enabled university staff members to assess the extent to which the program seemed to be having any "long-term impact" on earlier participants.

Of the ninety-seven teachers who participated in one or more of the Grand Haven programs, fifty-nine teachers were from the Grand Haven District and thirty-eight were from the Greater Grand Haven non-sponsoring school districts.

Structuring the Junior High Program

The Introductory Workshop for the junior high school teachers differed significantly from its elementary level counterpart. Early in the program it became apparent that although the fifteen junior high school teachers were interested in, and concerned about, individualizing instruction, the organizational and operational structure of their school dictated a different format and focus This was done immediately. The semester was spent visiting and examining several exemplary middle and junior high

schools with the goal of developing a proposal for an alternative program within their school building or to use one of the smaller elementary schools which was not being utilized to capacity. Within this context, resource people were used who helped the members of the group develop a more thorough understanding of various approaches to individualized instruction and staffing patterns at the middle and junior high school level. The workshop culminated with the development of a proposal to establish an alternative instructional program within their school which students could select with parental approval. With the encouragement of the superintendent's office, they met with the school board to discuss their proposal. Although the response was generally favorable, it was determined that it should be examined and developed more fully during the 1973-74 school year. This gave impetus to the development of a junior high/secondary school program.

In general, the design and implementation for the year-long inservice program for the junior high school teachers followed the structure described for the elementary school teachers group (see Chart B and C). The group was expanded to include junior high and secondary teachers from other systems interested in learning more about individualized instructional practices and who were looking for others sharing similar concerns and frustrations. The addition of teachers outside the Grand Haven Schools was essential for three reasons. First, teachers who are seeking to explore the possibilities of changing or attempting to change their teaching practices markedly from most of their colleagues

need a haven of refuge where they can get their ideas reinforced, share their frustrations, etc. Second, it was necessary to increase the number of participants in order to have sufficient financial support to provide the resources necessary to meet the individual needs of participants. A total of thirty-two resource teachers were used in the program. Given the number of participants, this ratio was much greater than its elementary counterpart. Third, again, it identified colleagues who could be called or visited to share ideas, problems, etc. Although the staff supported this, both in philosophy and practice, this created some problems that were difficult to overcome. The original group had become close knit through their pursuit of common goals within their school district and it was not easy to coordinate the talents, needs, interests and concerns of the expanded group.

Chart C

Grand Haven Area Program:
Junior High and High School Teachers
1973-74

			Grand Haven area
Phase I	Introductory Workshop	Spring 1973	15
Phase II	Problem Solving Seminar	Fall 1973	17
Phase III	Problem Solving Seminar (with other Muskegon Area Secondary teachers)	Winter 1974	14
Phase IV	Independent Evaluation where have I been? where am I now? where do I want to go?	Spring 1974	7

Of the thirty-three teachers who made up the junior high school cadre, fifteen came from the sponsoring Grand Haven district and the remaining from the nonsponsoring greater Grand Haven school districts. Although the number of participants was considerably fewer in number, their feelings regarding the value of the program were just as strong and supportive as their elementary level colleagues.

Impact of the Program on Sponsoring Agencies

The Department of Teacher Education

The nature of this program produced some interesting insights for the department of teacher education. For instance, during the Fall and Winter semester phases of the program in the first in-service program, the Fremont/Mona Shores participants had the opportunity to select from a wide variety of course offerings.

In an effort to support the professional development of the teachers participating in this program as they pursued their own graduate studies and/or certification requirements, they could select a course that would fulfill a particular requirement. For instance, participants interested in and needing a reading course could select from three different courses taught by three different staff members, the one which would best meet his/her own programming needs. In the event that a course was not available the student could enroll for

Independent Readings in Education to pursue a specific interest. In addition, the courses were tailored to meet the special interests and needs of participants.

This led to the development of new courses, which could be offered for variable credit hours designed especially for use in meeting specialized interests and needs of teachers for which there were no existing courses.

Consequently, the department has utilized the experience gained by its faculty members in these two programs in the development of a masters degree program in elementray education offered through a two-year in-service program in the Marshall area. This program is adapting aspects of the Muskegon area program.

Also, the production of a series of grant proposals for the training of preservice teachers has utilized the model for those programs. An undergraduate program in the preparation of classroom teachers has utilized much more extensively the workshop approach as a fundamental aspect of its daily program for undergraduate students who spend half of each day in the classroom.

Division of Continuing Education

Perhaps the most significant contribution to the success of the program was the efforts and leadership of the Dean of Continuing Education

in the development of a special "contract" method to financially support programs specifically developed in conjunction with another agency.

The contract method to developing a budget enabled the inservice program coordinator to allocate 90% of the monies received from tuition paid by participating teachers to be used for instructional resources. This enabled the University inservice staff to use a variety of resource people to meet the specific needs of participants, even for small groups of two's and three's. This single factor perhaps had the most significant influence on the success of the program, especially for the initial curriculum workshop. Prior to this arrangement, the only monies available for instructional purposes were for the designated instructors. This had previously limited the opportunities to utilize the talents and abilities of others who could provide unique contributions to the programs.

Sponsoring School Districts

Fremont, Mona Shores and Grand Haven Public Schools each provided storage and display facilities where instructional resources could be developed, displayed, tried out, etc. While this was immensely helpful to the university staff, it had the added benefit that non-participating teachers could see what many of their colleagues were doing. This often served as a catalyst for initiating change in non-participants, as well as a means of inducing them to join the program.

Additional financial support was provided by the Grand Haven Public Schools because of the desirability of supporting teachers as they seek to increase their professional skills.

Implications of the Program

The organization and operation of these inservice programs were determined and defined by an attempt to deal with the problems of professional staff development programs noted earlier. The process is equally as important as the content. The concern for affective outcomes is equally as important as the concern for cognitive learning. Each of the expressed criticisms was dealt with in these programs as follows:

1. The programs attempted to provide immediately relevant experiences (as perceived by the teacher) through the series of make-it/take-it workshops and mini-sessions. The teachers were immediately involved in producing something for use in their classroom. Early in their involvement teachers were asked to write their goals and objectives - often in consultation with a staff member. This served as a focus for their choices and as a gauge for the nature of the resource people utilized.
2. The program provided a wide variety of choices. In fact, teachers were forced to choose between activities, since many were scheduled simultaneously.

3. The program provided a high degree of credibility because of the collaborative team approach with the university staff, and the use of regular classroom teachers as consultants, who were coping with problems similar to participants' on a daily basis.
4. The program provided continuing support for the teacher over a long time span. The relationship between the staff and the participants was a key variable in the teacher's confidence to change his/her classroom environment and/or teaching procedures. This was especially true for the participants who came by ones and twos from neighboring school systems and lacked teaching colleagues within their own building to share ideas, failures, concerns, etc. Given the approach to individualization described earlier, many teachers and building principals were at best non-committal and in some cases hostile towards this orientation. If substantive change is to occur it generally requires a supportive, reinforcing climate.
5. The program provided a more easily perceived link between theory and practice than many other staff development programs. The type of experiences and activities provided and the collaborative team approach allowed the discussion of theory to take place in the practical context, without the usual dichotomy. The effect on the teachers was an increasing request for in-depth reading and discussion rather than more production activities, and an increasing

sensitivity to the implications of child development research on the development and selection of learning experiences.

THE HEURISTIC INSERVICE MODEL

The organization and structure of the inservice program described above can be characterized by the components of the heuristic model which evolved as the program developed. The parameters of the model were delimited by the attempt to deal with the criticisms and problems of inservice education noted earlier.

However, in discussing these components the writers wish to point out an important caution. The model, taken as a whole, can be considered a systematic (although evolving) approach to the professional development of teachers. A systematic approach to anything lends itself to thinking about the components as separate entities. The temptation then exists to deal with the elements as mutually exclusive parts and to transfer to other situations only those parts which "fit the situation."

It must be stated emphatically that the components of the model described below, as with most programs, are inter-related -- the whole is greater than the sum of the parts. Therefore, to deal with the model as anything less than an inter-related set of variables would decrease the effectiveness of its application as an inservice model.

The model has three salient components; a programatic component, a renewal system component, and a teacher-learner component. Each component has, at least, three elements.

The inter-relationships of the components of the model are diagrammatically characterised in figure number one. Each element is critical to the overall function of the model.

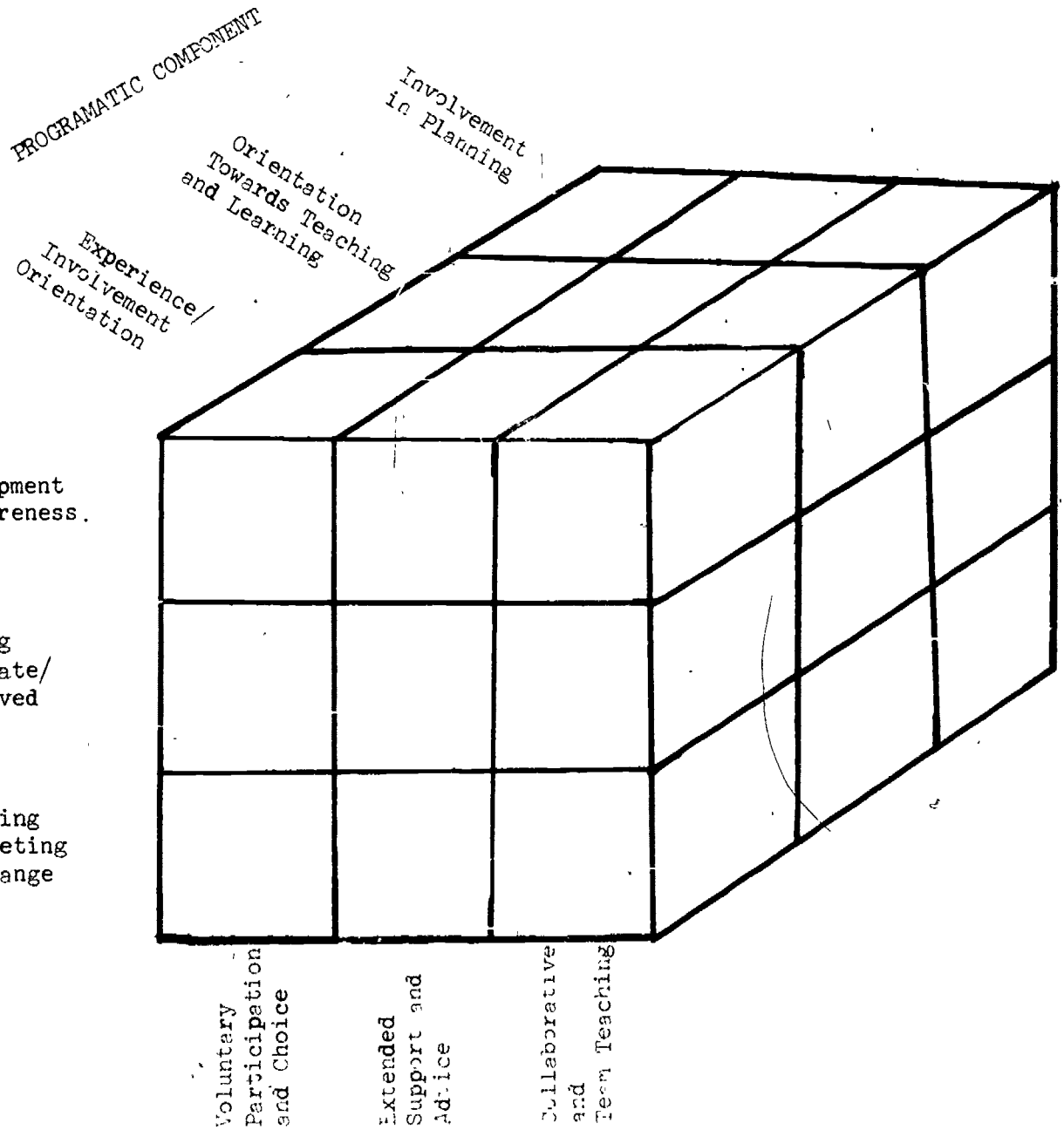

Figure One

Programatic Component

This aspect of the model is concerned, obviously, with broad, general program and planning functions - the learning environment in which the program functions, the basic direction and objectives of the program, and the structure designed to involve people in planning. In other words, the basic parameters of the program itself is the focus of this component. The specific elements are noted below:

1. An Experience/Involvement Orientation. This may indeed be considered a general feature of the model and is concerned with the basic learning environment established for the program.

   The program provides a more easily perceived link between theory and practice than many other inservice programs. The type of learning environment provided - the experiences, activities, and the team approach - allows the discussion of theory to take place in a practical context, without the usual dichotomy. The structure also provides an effective model for the teacher's own classroom organization. The effect on the teacher is an increasing request for in-depth reading and discussion and an increasing sensitivity to the implications of child development research.

2. Orientation towards Teaching and Learning. This element reflects the main philosophical/programmatic orientation of the entire program. In this case the underlying philosophical emphasis is

reported in the paper by Burns. Although the organization and operation of the program is concerned with meeting the needs of the classroom teacher, this overall orientation is reflected in the title of the program -- Developing Informal, Individualized Classroom Practices. The orientation is exhibited in the background and interests of the university staff and in the interests of the school systems which originally requested the program and, in this respect, deals with institutional needs.

3. Involvement in Planning. The teachers are asked to assess their needs in relation to their goals and objectives. This serves as a guide for the development of the program and for the selection of resource people Resource people are often suggested by the participants as well as by the university staff.

Renewal System Component

The elements in this component deal with meeting the needs of the teachers as well as the process of change and innovation in the classroom. The three elements are conceived as a "loop" system which leads to the on-going development and self-renewal of the teacher.

As the program extends over time the content focuses increasingly on topics which deal with the teachers in-depth understanding of teaching and learning. Through the support offered by the staff the

teacher is often able to recognize long range needs and set long range goals. In the process of reading these goals the teacher encounters new needs and his or her awareness continues to develop which, of course, leads to the reexamination and refinement of his or her long range goals. The key to this process is the time frame of the supporting inservice program. Teachers, like all people, change in different ways over varying amounts of time. The year long program described in this paper may be the minimum time necessary for a program to achieve success.

1. The Development of Awareness. It was the experience of the developers that even enthusiastic teachers often lack awareness of available materials, alternatives for classroom management, child development principles, and even the basis of their perceived needs. Bussis and Chittenden (1974) speak to a related issue when they point out the importance of teachers being able to analyze and articulate the teaching/learning environment in which they are involved. Many teachers have difficulty expressing their views of the teaching/learning situation and often are unable to articulate the connection between what they know about children and learning and how they function in the classroom. A set of assumptions about teaching and learning in the form of a self rating scale developed by Barth (1971) was used early in the program to help teachers begin to think about their own understanding. The pre-program overview, the introductory workshop,

the nature of the presentations of the early resource people and the visitations all served to increase teachers' awareness in the above areas.

4. Meeting Immediate - Perceived Needs. The program attempts to provide immediately relevant experiences (as perceived by the teacher) through the series of make-it take-it workshops and mini sessions described earlier. The teachers are immediately involved in producing instructional materials for use in their classroom with individuals and/or small groups of children.

5. Assessing and Meeting Long Range Needs. A teacher's perceived needs often focus on providing a variety of materials for use in the classroom; a "What do I do Monday?" sort of need. However, as their awareness of available resources and classroom alternatives increase, their attention often turns to questions of their own interest in the classroom situation. Bussis and Chittenden have distinguished two levels of curriculum.

> "At one level, curriculum refers to the variety of activities the teacher plans for and encourages as well as those he/she may merely permit or tolerate. Because this is what an observer would see going on in the classroom, we have thought of this as the surface content of curriculum.
>
> At a deeper level, curriculum has an organizing content which consists of the learning priorities and concerns a teacher holds for children. To oversimplify matters, what does the teacher want children in his or her classroom to know, do, feel, think, or care about? What qualities of learning are valued and are trying to be promoted?"
> (Bussis and Chittenden, 1974, p.6)

Early in their involvement teachers are asked to write their goals and objectives -- usually in consultation with a staff member. This serves as a focus for their future choices and as a guage for the nature of the resource people utilized. Further, as the program proceeds, teachers are increasingly involved in in-depth study focusing on reading, child-development, etc. The result generally is an increase in the teacher's ability to articulate long range needs and develop effective classroom programs.

Teacher - Learner Component

Any number of elements might be included in this component although only three were identified in the program described. These three seem to be critical in the functioning of this program although the emphasis might vary as the model is applied to the development of other programs.

1. Voluntary Participation and Choice. Participation in the program is absolutely voluntary. Once involved the teacher is confronted with a wide variety of choices (several activities are often scheduled at the same time.) This simulates the situation in an individualized classroom and helps facilitate the setting of priorities and helps develop decision-making abilities and the responsibility for one's own learning. This provides first-hand experience and enables them to recognize the benefits children receive when this approach is extended to their level.

2. Extended Support and Advice. The program provides continuing support for the teacher over a long time span. It also allows teachers to integrate new ideas without the usual time restrictions of a single "course", or "module", etc. The final phase of the program utilizes an advisory approach, rather than the centralized workshop approach, for the continued support and development of the teacher. Each staff member visits participant classrooms on a periodic basis to offer support and further suggestions for the implementation of those ideas and practices developed in the earlier phases of the program. The relationship between the staff and the participants apparently is a key variable in the teachers confidence to change his or her classroom behavior or teaching procedures.

3. Collaborative and Team Teaching.

   a) The use of a classroom teacher in a collaborative relationship with a university staff member is a crucial component in the program. Teachers tend to relate quickly with a peer and tend to accept his or her views as valid. The university staff member provides the theoretical link to the practical information supplied by the classroom teacher. In this way the credibility of the university based person is greatly enhanced and ultimately, the effectiveness of the program.

b) The university staff functions in a true team teaching situation. Each person's strengths are utilized and the members are often involved in twos or threes with a large group of teachers.

c) Since the program is centered, at any one time, on a particular school district, teams of teachers from schools in the district are informally formed to work together and support each other in their schools. This has obvious advantages for the teacher and the school district. However, while the program may focus on one school district, it is crucial that teachers from other school districts are involved. In this way interaction is increased, new ideas are stimulated and the classroom practices developed in the program are disseminated to other school districts.

d) One important outcome is that teacher/participants who have been involved in the program for a period of time are often called on as resource people by others. This, of course, is extremely beneficial for the teacher involved. It can also be beneficial to the school district as the teacher's skills as a resource person enable him or her to aid other teachers in the district.

CONCLUSION

The evolving inservice model described in this paper has proved both innovative and effective. Several basic criticisms of traditional, college based, inservice programs have been recognized and dealt with. However, the program cannot be considered appropriate as a general model for all situations. Many changes were made in response to local needs and the model must still be considered evolutionary. Also, it must be recognized that perceived needs change with time and would clearly effect the structure of any professional development program similar to the one described.

In the challenging, changing scene of college-based inservice education, the program cannot be considered as an end product, but rather as a beginning.

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AN EVALUATION OF AN IN-SERVICE PROGRAM FOR DEVELOPING INDIVIDUALIZED INSTRUCTION

INTRODUCTION

At some point during the life of most educational programs the momentus question is asked: Is the program effective? Have the desired outcomes occurred? Typically this question is asked after the program has begun. Unless one is lucky, pre-program measures are unavailable. Attempts to evaluate are hindered by other problems as well. Random assignment to the program is rare--the persons who want or need the program the most are generally the ones who get it. Other problems that beset the evaluator are The Hawthorne effect and the ability to isolate the effect of the treatment on only those in the program frequently confound the evaluation. Since the training of researchers is so heavily oriented to experimental methods, we may decide that there is so much "messiness," that we act irresponsibly to pursue the evaluation. But you may have guessed that I am not going to say "That was our approach" and sit down. We decided that although there were numerous problems, we ought to collect the best information that we could about the in-service individualization program.

In developing the evaluation two decisions were made:

1. Since the immediate intended effects of the program were on the teacher, the teacher should constitute the principle data source.
2. In order to interpret data some normative standards would be needed.

Thus data from non-participant teachers were collected. These data were not interpreted as a control group data in the experimental sense, but rather as a normative data.

The evaluation was structured around three basic questions:

1. What feelings did participants have about the experience?
2. In what ways do project teachers differ from other teachers with regard to beliefs about the ideal way to function relative to individualization and self-reports about the actual way they have functioned?

3. Is there an observable difference in the classroom behaviors of project teachers in comparison with other non-participant teachers?

PROCEDURE

Three instruments were used:

1. Reaction to the Program Questionnaire: This questionnaire collected information about the participant reaction and attitude toward the program. All project teachers received the questionnaire through a three stage mailing (pre-questionnaire letter, questionnaire, and one follow-up). A % return was secured.

2. Teacher Assessment of Classroom Practices (TACP): The development of the Teacher Assessment of Classroom Practices (TACP) was based on the concept that individualization of instruction is a multi-dimensional concept, and that, it is possible to individualize one dimension of the instructional system while leaving other aspects "unindividualized".

The TACP identifies three aspects of individualization: grouping patterns, type of information used for instructional decision-making, and type and extent of curriculum flexibility.

a. Grouping patterns: Teachers use one of several types of patterns in establishing the student groups. They may establish one large group which includes all pupils in the class, they may set up small groups or each pupil may be working individually. Various combinations are also possible. For example, most pupils in the class may be in one large group with three or four working individually.

b. Type of information used for decision-making: This aspect identifies input information teachers use to make decisions about what and how to teach. The information used for decision making may reflect group characteristics or individual characteristics.

Among the types of information which may influence instructional decision-making are parent's expectations, ages of pupils, achievement test scores, etc.

c. Curriculum flexibility: This aspect is the type and extent to which the instructional program can be adapted. Curriculum provided, and the time spent on each aspect of learning. With regard to objectives, for example, teachers may establish a set of objectives which they hold for all or most pupils in the class, or they may establish a different set of objectives for each child in their class.

At one pole is the arch-typical unindividualized program with all pupils in one large group, with age and possibly mean achievement level (i.e., high or low track) as the essential determinent of the curriculum they will experience, and with objectives, learning experiences and pacing the same for all pupils. At the other pole is the arch-typical individualized program wherein each child is working individually, with information about the particular pupil serving as the basis for establishing a program for the pupil, and with distinct objectives, learning experiences, and pacing for the pupil. Programs can vary between these polar types.

Each question on the TACP was asked in two ways. First, the teacher was asked to describe how she would like to function. Then she was asked to describe how she actually functioned. By collecting information on ideal practices and on actual practices it is possible to describe differences between what a teacher believes she ought to do and she believes she is doing. Also by distinguishing between teacher beliefs about ideal practices from questions on what the teacher believes actually is happening in her classroom the tendency to answer questions on actual practice in terms of beliefs of what ought to be the practice is minimized. The instructions for the test were worded so that they did not pass judgment on the teacher who reported practices that conflict

with the social norms of the profession. The items on the TACP have gone through many revisions to eliminate ambiguity of items and to revise the format for responses as well as clarify instructions for each item.

The TACP was mailed along with the Reaction to the Program Questionnaire and the return rate was 81%.

3. Observation Rating Scale (ORS): This scale was developed through the Pilot Community Program at the Education Development Center in Newton, Massachusetts and was used by trained outside observers to assess classrooms and instructional practices.

The ORS was originally developed to differentiate between "open" classrooms and traditional classrooms. In 1970 Bussis and Cittenden (1970) identified ten dimensions as being valid indices of open education. The Education Development Center team (Walberg and Thomas, 1971) isolated eight of these characteristics and developed a 106 item questionnaire based on quotations from the open education literature. These eight characteristics are: Provisioning for learning, diagnosis, instruction, evaluation, humaneness, seeking opportunities to promote growth, assumptions, and self-perception of the teacher.

The 106 item questionnaire was sent to 41 people identified as open education "experts" and they rated each iten as "very important", "relatively important", and "not important". From their responses the 50 item ORS was constructed. A four point rating scale was used for each item with 4 indicating a strong evidence of the characteristics is observable and 1 indicating no evidence of the characteristic.

The ORS was used as a basis for examining the classrooms of 24 teachers in each of the three districts, twelve of whom had been program participants and twelve of whom had not been participants. The ORS was used in March, 1975 one year after the program had ended.

FINDINGS

The findings for the investigation are organized in three sections. The first section will present the results of the questionnaire. The second section will present the results of the Teacher Assessment of Classroom Practices (TACP), and the final section will present the results of the Observation Rating Scale (ORS).

Questionnaire

It is possible that persons may react negatively to an experience and yet derive benefit from it. For reasons philosophical, psychological and political, however, we generally prefer that our students like the program. Thus, we sought information concerning the reaction of the project participants to it. Several questions were asked of program participants about their reaction to the program. Table one summarizes their responses. Participants were generally favorable to the program. There was a considerable proportion (70%) that felt that this program was better than most other graduate courses or the best ever taken and a comparable percentage felt that the program helped them to become a better teacher. The percentages of favorable responses were comparable on the two other attitude questions dealing with perceived usefulness and the help provided by the program in becoming a better teacher. The least favorable response was found regarding perceived implementation. Slightly more than one-fourth of the participants indicated that they had done little or no implementation of the approaches suggested by the program.

Table 2 presents more specific reaction to the impact of the program. An examination of this table shows that the perceptions of the participants were very related to instructional materials and to a secondary extent with changes in the way they work with children. The participants reports of change coincide with emphases in the program.

Tables 3 and 4 provide some additional information about factors that

promote or hinder change. Three-fourths of the participants felt the in-service project was an influential source of change. In Table 4 the factors which hinder change were examined. Fear of failure and lack of materials were the most dominant barriers to change. It was worth noting that the data for each school district revealed sharp differences among the districts. In School System A the dominant perceived barriers were lack of materials (83%) and fear of failure (83%). In School System B the dominant barrier was disciplinary action (67%), and in School System C it was pressure from colleagues (65%). The comparisons among the districts on these items are shown in Figure 1 below.

Percentage of Participants in Each System Selecting Response:

	A	B	C
No materials or equipment	83%	43%	30%
Pressure from colleagues	00	00	65
Disciplinary action	00	67	00
Fear of failure	83	17	20

Figure 1. Comparison of systems with regard to dominant barriers to change.

TACP

The TACP provided information about three dimensions of individualization.

1. Grouping

The TACP asked teachers to report how they felt they ought to function and how they did function with regard to the grouping of children for instruction. Based on the information we received, there are two general findings. (See Table 5) First, teachers tend to feel they ought to use large groups less frequently than they do, and that they ought to use individual groupings more frequently than they do. Second, individual grouping are seen as ideal and higher percentages are reported as occuring in reading and math than in social studies and science.

An inspection of Table 5 shows that the percentages for program participants were higher in the individual grouping category and lower in the large group

category than they were for the non-participants. With the exception of actual practices in social studies and science, all chi-squares presented in Table 6 were significant with an .05 alpha level. Thus, it may be concluded that project participants generally differed from non-participants in grouping practices, and that the difference was a result of more belief in individual grouping as ideal and more reported actual use of individual grouping on the part of program participants.

2. Curriculum Decision Making

The second dimension of the TACP dealt with the use of various types of information in making curriculum decisions. Teachers were asked if they felt they ought to and if they did use the following types of information: Pupil's needs based on standardized achievement or diagnostic test, the school's adopted texts-curriculum guides-and other instructional materials, the knowledge and skills expected for children at the grade level you teach, differences among pupil's interests and preferences, pupil's interaction with materials and equipment, pupil's affective needs.

The response categories for idea (Table 7) and actual (Table 8) were "seldom or never", "occasionally", and "usually or always". Seldom or never was deleted from these tables in order to simplify the presentation, since response of seldom or never were infrequent (the percentage of "seldom or never" response is the remaining residual of 100%).

A greater percentage of participants reported that information about the individual rather than group characteristics or predetermined criteria should be and actually is used in curriculum decision making. Table 9 shows a rather sporatic pattern of chi-squares. There were more similarities between participants and non-participants on this dimension than on the other two dimensions.

Curriculum Flexibility

Teachers can modify the curriculum in response to individual differences of pupils in three ways. They can modify objectives, learning experiences, or time allocations for pupils. What differences were there between participants and non-participants? In Table 10 the distributions of teacher response for idal type of objectives, learning experiences and time are presented. This table shows that the largest percentage of teachers who indicated that the differentiated objectives, learning experiences and time were ideal occured in reading. Smaller percentages chose differentiation as ideal in math, and even fewer teachers considered differentiation ideal in social studies and science.

The percentages of teachers choosing differentiation in objectives, learning experiences and time tended to be comparable within each of the four curriculum areas. That is, for participants, the percentages of teachers choosing differentiation in reading for each dimension were in the high sixties and seventies (67% - 77%), for math in the low sixties, and for social studies and science in the forties. In the previous study which involved TACP, the percentages of differentiation (ideal and actual) were highest in objectives, followed by learning experiences, and lowest in time. No comparable decrements within subject areas were observed here.

For both participants and non-participants, the percentages for actual objectives, learning experiences and time (Table 2) generally tended to be lower in the "different" category than in the "same" category. In other words, the combining Tables 6 and 7 shows that there is less differentiation with regards to the curriculum than is considered to be ideal. In all comparisons, a greater percentage of program participants tended to indicate that their actual behavior was differentiated with regard to objectives, learning experiences and time spent than did the non-participants.

Table 12 contains the chi-squares for the comparisons of participants and

non-participants on the curriculum flexibility dimension of the TACP. With the except of objectives (ideal and actual) in social studies and objectives (actual) in science, all comparisons were significant when alpha was set at .05.

ORS

The ORS observation scale has a range of 43 to 172 with higher scores indicative of more of an open classroom. The mean for participants was 126.2 and for non-participants it was 88.2. A t test was run and the resultant t=7.445. With 69 degrees of freedom a t=7.445 is less probable than .005. One year after the conclusion of the program, participants classrooms were generally more "open" than non-participants.

Conclusions:

1. Participant teachers differ considerably from non-participant with regard to beliefs and practices regarding individualized instruction. A significantly greater number of participats reported individualized beliefs and practices with regard to grouping and curricular flexibility than non-participants. Participants tended to use smaller instructional groupings than non-participants, and were more oriented to participants differentiated objectives, learning experiences and time allotment. Both participants and non-participants see individualization as more important in reading and math than in social studies and science.

2. The attitude of the participants toward the program was very favorable. Although most participants reported the program had been quite useful and had helped them become better teachers and that it was better than most other graduate programs or in-service programs, a relatively larger percentage indicated difficulty in implementing the ideas and approaches presented.

3 About one year after the program had ended, differences in classroom practices of participants and non-participants were observed, and the differences were in line with the goals of the program.

Table 1

Participants Attitude Toward the Program

N=100

	%
HOW USEFUL WAS PROGRAM?	
None	0%
Very little	7
Some	33
Very much	58
No response	2
HOW MUCH IMPLEMENTATION?	
Not at all	3%
A little	24
Somewhat	35
A great deal	31
No response	7
HAS PROGRAM HELPED YOU BECOME A BETTER TEACHER?	
No	6%
Not sure	17
Yes	68
No response	9
COMPARISON OF PROJECT TO OTHER GRADUATE COURSE PROGRAMS	
Worst ever taken	0%
Below the general quality	1
About the same	7
Better than most	33
Best ever taken	37
No response	22

Table 2

Percentage of Participants Who Selected Various Options as Indicative of the Changes in Their Teaching Practices Caused by the Program

		Percentate of Participants Selecting Response
1.	Diversity of instructional materials	71%
2.	Attitude about teaching	25
3.	Attitude about students	27
4.	Way I work with children	42
5.	Willingness to share ideas	28
6.	Types of materials I use	64
7.	Arrangement of classroom	59
8.	Amount of time in preparation	55
9.	Amount of time in planning	37

Table 3

Participants Perceptions of Influential Sources
that Produce Change in Their Teaching

	Percentage of Participants Selecting Response
INFLUENTIAL SOURCES OF CHANGE	
1. No significant change	16%
2. Reading-self study	56
3. Local in-service	49
4. District curriculum	12
5. Disciplinary action	00
6. Parental pressure	21
7. School visitations	26
8. Graduate study	51
9. Informal discussions	54
10. "Individualized learning project"	75
11. Special in-service	47
12. Education conferences	26

Table 4

Participants Perceptions About Barriers
to Implementing Change

	Percentage of Participants Selecting Response
1. Satisfied with teaching	33%
2. No administrative support	28
3. No materials or equipment	52
4. Lack furniture	33
5. Pressure from colleagues	22
6. Disciplinary action	22
7. Personal responsibilities	25
8. Fear of failure	40
9. Lack of time	18

Table 5

Percentage of Type of Instructional Groupings

Part. N=100
Non-Part. N=148

	Exclusively or Predominantly Large Groups		Exclusively or Predominantly Small Groups		Exclusively or Predominantly Individuals		Other and No Response		Total	
	Ideal	Actual	Ideal	Actual	Ideal	Actual	Ideal	Actual	Ideal	Actual
READING										
Participant	2%	6%	34%	42%	59%	42%	5%	10%	100	100
Non-Part.	7	16	48	47	39	26	7	11	101	100
MATHEMATICS										
Participant	23	40	19	14	54	33	4	13	100	100
Non-Part.	41	57	20	10	31	20	7	12	99	99
SOCIAL STUDIES										
Participant	41	61	35	6	12	7	12	26	100	100
Non-Part.	58	70	20	7	11	5	10	18	99	100
SCIENCE										
Participant	28	49	30	17	34	16	8	18	100	100
Non-Part.	41	60	33	16	14	9	12	14	100	99

Table 6

Summary of Chi-Squares for
Participants and Non-Participants on
Grouping for Each Subject Matter Area

df=2

	IDEAL	ACTUAL
READING	10.84[b]	10.43[b]
MATHEMATICS	13.5[b]	7.48[c]
SOCIAL STUDIES	8.93[c]	.90
SCIENCE	6.64[c]	3.97

[b] $p \leq .01$

[c] $p \leq .05$

Table 7

Percentage of Response Concerning
Various Factors in Curriculum
Decision Making (Ideal)

	READING		MATHEMATICS		SOCIAL STUDIES		SCIENCE	
	Occasi-onally	Usu-ally	Occasi-onally	Usu-ally	Occasi-onally	Usu-ally	Occasi-onally	Usu-ally
ACHIEVEMENT TESTS								
Part.	26%	59%	33%	45%	36%	14%	35%	15%
Non-Part.	30	64	32	51	46	16	46	18
ADOPTED TEXTS								
Part.	35	54	34	54	42	41	36	41
Non-Part.	24	72	26	69	37	53	40	48
KNOWLEDGE & SKILLS								
Part.	35	49	34	48	41	34	41	34
Non-Part.	23	72	24	70	31	58	32	55
DIFFERENCES IN INTEREST								
Part.	16	80	25	68	22	71	22	70
Non-Part.	20	78	26	68	26	66	24	67
INTERACTION W/ MATERIAL								
Part.	12	83	15	17	14	75	11	78
Non-Part.	16	78	23	68	22	66	22	67
PUPIL'S AFFECTIVE NEEDS								
Part.	9	85	10	81	12	77	12	75
Non-Part.	12	79	13	77	18	69	20	67

Table 8

Percentage of Response Concerning
Various Factors in Curriculum
Decision Making (Actual)

	READING		MATHEMATICS		SOCIAL STUDIES		SCIENCE	
	Occasi-onally	Usu-ally	Occasi-onally	Usu-ally	Occasi-onally	Usu-ally	Occasi-onally	Usu-ally
ACHIEVEMENT TESTS								
Part.	25%	53%	28%	30%	22%	9%	24%	7%
Non-Part.	34	57	40	43	39	16	41	15
ADOPTED TEXTS								
Part.	30	56	24	61	36	37	40	31
Non-Part.	20	72	20	73	33	52	34	50
KNOWLEDGE & SKILLS								
Part.	31	50	32	47	39	31	37	42
Non-Part.	24	70	16	69	42	44	41	42
DIFFERENCES IN INTEREST								
Part.	24	66	32	44	38	40	40	42
Non-Part.	34	60	38	49	41	41	41	43
INTERACTION W/ MATERIAL								
Part.	27	66	33	53	33	44	32	51
Non-Part.	34	59	36	53	39	46	38	50
PUPIL'S AFFECTIVE NEEDS								
Part.	14	77	21	64	26	52	30	52
Non-Part.	24	69	28	61	33	51	33	51

Table 9

Chi-Squares for Differences Between
Participants and Non-Participants Concerning
Factors in Curriculum Decision Making: Ideal and Actual

df=1

	READING		MATHEMATICS		SOCIAL STUDIES		SCIENCE	
	Ideal	Actual	Ideal	Actual	Ideal	Actual	Ideal	Actual
Achievement Tests	.36	.15	2.16	1.04	3.08	8.41[a]	.92	6.64[b]
Adopted Texts	8.57[a]	3.36	.00	1.82	.70	2.91	.64	7.29[b]
Knowledge & Skills	7.50[b]	7.89[b]	3.80[c]	4.99[c]	3.26	4.35[c]	2.27	2.31
Differences in Interests	.77	2.67	.00	.02	1.20	.07	.67	.29
Interaction w/ Materials	1.00	1.62	2.61	.39	3.34	.05	4.91[b]	.31
Pupil's Affective Needs	.75	3.68	.52	1.37	1.77	.85	1.93	.52

[a] $p \leq .001$

[b] $p \leq .01$

[c] $p \leq .05$

Table 10

Percentages of Type of Ideal Objectives, Learning Experiences and Time for Each Subject Matter Area for Participants and Non-Participants

Part. N=100
Non-Part. N=148

	READING		MATHEMATICS		SOCIAL STUDIES		SCIENCE	
	Part.	Non-Part.	Part.	Non-Part.	Part.	Non-Part.	Part.	Non-Part.
OBJECTIVES								
Same	19%	38%	30%	51%	48%	59%	40%	53%
Different	77	56	60	41	42	31	48	37
Other-No Response	4	6	10	7	10	9	12	9
TOTAL	100	100	100	99	100	99	100	99
LEARNING EXPERIENCE								
Same	20	43	31	55	45	59	40	54
Different	73	50	60	36	42	29	46	35
Other-No Response	7	7	9	9	13	11	14	10
TOTAL	100	100	100	100	100	99	100	99
TIME								
Same	23	50	28	47	43	59	39	54
Different	67	44	63	44	45	28	48	36
Other-No Response	10	6	9	9	12	13	13	9
TOTAL	100	100	100	100	100	100	100	99

Table 11

Percentages for Type of Actual Objectives, Learning Experiences and Time for Each Subject Matter Area for Participants and Non-Participants

Part. N=100
Non-Part. N=148

	READING		MATHEMATICS		SOCIAL STUDIES		SCIENCE	
	Part.	Non-Part.	Part.	Non-Part.	Part.	Non-Part.	Part.	Non-Part.
OBJECTIVES								
Same	36%	60%	54%	70%	70%	78%	64%	78%
Different	56	33	34	21	13	10	20	14
Other-No Response	8	7	12	9	17	11	16	8
TOTAL	100	100	100	100	100	99	100	100
LEARNING EXPERIENCE								
Same	30	58	50	69	62	77	60	76
Different	60	33	35	20	19	9	23	14
Other-No Response	10	9	15	11	19	14	17	9
TOTAL	100	100	100	100	100	100	100	99
TIME								
Same	34	64	45	68	63	78	59	74
Different	53	32	39	24	16	8	25	15
Other-No Response	13	5	16	8	21	14	16	11
TOTAL	100	101	100	100	100	100	100	100

Table 12

Chi-Squares for the Association of
Participants and Non-Participants with Ideal and
Actual Type of Objectives, Learning Experiences, and Time

df=1

	READING		MATHEMATICS		SOCIAL STUDIES		SCIENCE	
	Ideal	Actual	Ideal	Actual	Ideal	Actual	Ideal	Actual
OBJECTIVES	10.98[a]	14.31[a]	10.70[b]	6.16[c]	3.02	.79	3.89[c]	2.40
LEARNING EXPERIENCES	14.85[a]	19.94[a]	15.47[a]	8.96[b]	5.25[c]	5.85[c]	4.18[c]	4.60[c]
TIME	17.14[a]	16.63[a]	9.84[b]	9.21[b]	7.52[b]	4.83[c]	4.70[c]	5.04[c]

[a] $p \leq .001$

[b] $p \leq .01$

[c] $p \leq .05$

THE IMPACT OF STRUCTURAL CONSTRAINTS OF THE UNIVERSITY AND SCHOOLS ON THE IMPLEMENTATION OF INSERVICE EDUCATION MODELS

The inservice program reported in these papers is one response to a rapidly changing scene in professional development programs throughout the country. Other aspects of this developing "new look" are: changing priorities of professional organizations, the development of state-mandated inservice models, changing certification procedures, the development of modular programs for fractional credit hours which can be applied towards continuing certification requirements and towards graduate degree program requirements, and broadly expanded cooperative relationships between various educational institutions.

Traditionally, colleges and universities have provided the dominant leadership role for both preservice and inservice education. Today, colleges and universities find themselves in serious competition with other institutions and agencies for the leadership position regarding the professional development of teachers. A number of factors have contributed to this situation. Some of these were reported earlier in the paper "The Development of an Inservice Education Program for the Professional Development of Teachers: A Heuristic Model," which deliniated a number of criticisms of inservice programs. Another major reason for this situation has been the inability of professional teacher educators to overcome institutional constraints associated with the traditional organization and operation of institutions of higher

education. This dilemma has been compounded by: changes in the priorities of teacher organizations which are now seeking professional governance, changes in continuing certification procedures, changes in state departments of education and their agencies, and the emergence of teacher centers.

Concurrently, staff development activities are receiving top priority at every level of education. Edelfelt (1974) predicts that the professional development of teachers through inservice education will be the major focus in teacher education for the next decade. This is further evidenced by the theme and focus of the second Annual Conference on Collective Negotiations in Education, held in Ann Arbor, Michigan, in May 1974, "Collective Negotiations and Teacher Staff Developments." The potential for positive change, coupled with the financial and human resources support these endeavors will require, has increased the number of groups eager to acquire a "piece of the action."

Unless colleges and universities are willing and/or able to modify aspects of their programs and procedures, they are in danger of being left behind or being bypassed completely in providing for the professional development of teachers.

The purposes of this paper are: 1) to examine the effect of "institutional press" at the college and university level and at the K-12 school level in limiting and directing change; 2) to identify potential and existing barriers to collaborative efforts within and among the groups that have a special interest in the professional development of teachers; 3) to examine factors (survival and political in nature) forcing

and supporting cooperative efforts; and 4) to cite examples where such endeavors are succeeding.

Institutional Constraints Affecting Inservice Programs: College and University

Historically, teacher educators who have attempted to implement innovative, graduate credit inservice programs designed to involve teachers in their own professional development and to focus on resolving actual teaching problems which did not "fit" existing course structures or procedures have known the frustration of trying to get such programs through the bureaucratic structure. Through an extensive search of the literature related to factors influencing the implementation and diffusion of innovative practices, Lindquist (1974, p. 327) identified seven conditions that affect innovation and change from the conception of new ideas to implemented reform in colleges and universities:

1. major academic changes threaten secured positions (and procedures);
2. colleges are vivisected into diverse and isolated subgroups;
3. academic power is dispersed among pluralistic interest groups;
4. prevalent academic values oppose much current innovation;
5. measuring the relative advantages and future context for academic innovations is extremely difficult;
6. most faculty are isolated from teaching-learning research, theory, and practices conducted elsewhere; and
7. there are few adaptive mechanisms to fight organizational inertia.

Within these seven conditions perhaps the most significant challenges raised whenever proposed innovative inservice programs and/or procedures are seeking approval and acceptance through the appropriate "channels" is the question of institutional and academic integrity of these credit

programs. The concern for academic standards is one of the most elusive and difficult hurdles to overcome. Moore (1973) points out that because nearly everyone concurs that academic standards are important, the charge that a proposed change in educational practices will lower standards is often sufficient, without proof, to end consideration of the proposal. Too often, the concept of academic standards is interpreted in measures of quantity rather than as models of quality. This is especially true of innovative inservice programs that seek to alter or eliminate current procedures or practices. These may include such things as: changing from the use of letter grades to a credit/no credit or pass/fail system for recording a student's achievement; changing the course structure and time requirements to meet the needs of participants; increasing the number of credit hours of variable-topic, variable-credit courses which can be applied to degree programs, and developing a conversion system for applying partial credits earned through short-term workings, modules or learning packages. These examples illustrate Lindquist's first condition — major academic changes threaten secured positions. While concern for the overall quality of new innovative inservice programs (as well as existing programs) must be exercised, consideration of the criteria used in making these judgments needs to be examined with equal rigor.

Another major constraint on the implementation of new programs is the number of curriculum committees and administrative bodies that have the opportunity to examine the proposed program and suggest or require revisions prior to acceptance. Given the diverse nature of these

subgroups, each with its own way of approaching such proposed innovations; a program can remain in a state of "limbo" until it is no longer appropriate to be implemented or the developers simply lose interest and give up. Researchers such as Baldridge (1971) find that campus governance resembles conflict among vested interests more than it does the mythical collegial consensus model.

The bureaucratic structure and decision-making process at each institution determines the number of channels a proposed program must pass prior to full implementation. Generally, the greater the number of departments and/or colleges represented in the program, the longer the length of time between conceptualization of the idea and implementation of the program. These factors tend to mitigate against the development and implementation of programs that are too innovative or radical from current practices. Mohr (1969, pp. 111-26) hypothesizes that "innovation is directly related to the motivation to innovate, inversely related to the strength of obstacles to innovation, and directly related to the availability of resources for overcoming such obstacles." This dilemma is compounded by the fact that power to implement academic decisions tends to be pluralistic rather than monolithic.

Other constraints affecting the participation of faculty members in inservice programs include: the traditional view many graduate faculty members have towards inservice programs versus teaching regular graduate courses, the concern for credit hour production in regular

teaching assignments, and the lack of rewards or recognition within the academic community for participating in such programs.

While many department chairpersons and deans encourage faculty members to become involved in inservice programs, such endeavors receive little, if any, recognition or significance in the university at large when considering individuals for tenure and promotion. Traditionally, the reward system at the college and university level tends to favor those individuals who can produce tangible evidence. This usually takes the form of writing and/or research. Components such as effective teaching and service to the profession and/or community, though stated as important and encouraged, tend to have limited impact. This has tended to minimize the contributions many faculty members could make to the professional development of teachers.

Institutional Constraints Affecting Inservice Programs: School Districts

Institutional characteristics of schools and school systems which may contribute to the impotence of many school-sponsored inservice programs include: 1) the limited amount of monies budgeted for such endeavors, 2) the limited amount of time allocated for such purposes, 3) the generally inadequate expertise to plan and conduct these programs, 4) the lack of long-range goals or purposes for such programs, 5) the group conformity design of most endeavors, and 6) the new "in look" bandwagon approach to selecting the current year's efforts.

To say that the amount of monies school districts generally budget for inservice programs has been woefully inadequate would be to understate the situation. Traditionally, school districts have provided one

or two inservice programs focused on a recent trend or area of concern within the school system. Since teacher organizations have entered into collective negotiations, the amount of monies allocated for staff development programs has increased but is still so limited that it has little impact on improving or changing classroom teaching practices. In summarizing this situation, Cuban (1971) states:

> Most staff development operations are minimally funded and are usually at the top of the superintendent's list in rhetoric and at the bottom in funding priority.
> ... The point is that a potential lever for shoving a system off dead center is often seen as a window dressing, a frilly program that lends pizazz to public relations handouts, but little more.

Inservice education takes place almost entirely on the teacher's time. The amount of time provided teachers for staff development activities is proportionate to the amount of monies allocated for such activities. The majority of time and energy teachers spend in professional development activities usually comes at the end of a full day of teaching or in the evening. More often than not, the teacher is "trapped" into taking courses that will apply towards continuing certification or towards a graduate degree. If the course should provide ideas, techniques and strategies which can be applied to his or her classroom, it is an unexpected benefit. The school system itself provides little time in which the teacher can engage in self-renewal activities. Generally, when schools have a half day for inservice, the focus is on curriculum projects.

Most school systems' attempts to provide inservice programs may be characterized as haphazard, intermittent, lacking in continuity, and void of long-range plans. Few school districts have demonstrated

the expertise necessary to design staff development programs based on long-range goals and adequate support systems that will enable teachers to improve existing teaching competencies and develop new ones.

Many of the inservice programs provided by schools have tended to mitigate important individual differences among teachers. These include creativity, experimental nature, values and attitudes. This push towards conformity has attempted to produce a standardization of performance considered undesirable by many educators. In addition, it has caused some teachers to leave the system rather than surrender their sense of creativity and originality.

Another approach towards inservice education has been to focus on the current educational fad, be it individually prescribed instruction, team teaching, behavior modification, or "open" education. This approach of getting the teachers excited about the new program and involving them in a variety of inservice sessions to learn "all about" the program, tends to dissipate the very energies they are supposed to nurture. This approach often produces two negative side effects: First, both fads and promising innovations suffer the same fate -- extinction; and second, teachers become fatigued, disillusioned and cynical. School systems need programs rather than fads.

Dillon (1974), p. 138) summarizes what is required if schools are going to meet their responsibilities for staff development.

> If we're really going to improve the quality of education for students, it's going to be through improving the effectiveness of staff members who work with them. This means the superintendent and the board have to commit themselves through overt actions -- budgetary considerations specifically for staff development, and human resources and time where necessary.

Barriers to Collaborative Efforts

On the basis of the evidence presented thus far, it seems apparent that given the needs of teachers and schools and the recent developments within various educational institutions and organizations, broadly expanded cooperative relationships between various educational institutions would be established. For example, Edelfelt has called for a national consortium of agencies, institutions, and groups to "plan direction, establish policy, promote programs and research, and evaluate outcomes." (Edelfelt, 1974, p. 252) In many instances, that which seems so obvious and logical to the outside observer, may be perceived quite differently by those members of an institution who have been in competition with other institutions for the dominant leadership role in the area of inservice offerings and program development.

Now that teacher organizations have increased the power of teacher bargaining agents, as evidenced in their efforts to achieve legally sanctioned professional governance over all aspects of teacher education and certification, the struggle for leadership is likely to intensify rather than diminish.

Hough (1975, pp. 308-9) stresses the need for parity. He notes that bureaucratic structures make it very difficult to have co-equals in decision making, implementation and responsibility for success and failure. He states that parity in programmatic decision making is a key to effective collaboration. Personnel representing each institution or organization should have equal power in decision making and

that programmatic decisions should be made and implemented only when there is mutual agreement.

This concept of parity requires considerable interpersonal skill on the part of participants to resolve diverse viewpoints and bring about a unified thrust for educational improvement. It will require a type of commitment that can only exist when institutions work together as equals in a cooperative rather than a superordinate-subordinate relationship.

Henry (1972) summarizes the complexities involved when any interinstitutional partnership is attempted. She identifies three universal factors which should be considered in the prediction of conflict. These are: institutional stability, inclusiveness of the partnership and interinstitutional role dissonance.

Institutional stability refers to the "consistency with which various individuals and groups within an organization subscribe to common goals. When a divisiveness occurs among the individuals and particularly the formal or informal groups of an organization, the conflict potential inherent in establishing a partnership with another institution increases." (Henry, 1972, p.34)

Inclusiveness of the partnership relates to the degree of involvement relative to the total functioning of each institution. At the university level the fact that "liberal arts and professional professors share responsibility for the total preparation of the teacher candidate is a potential arena of conflict internal to the Teacher Education Institution." (Henry, 1972, p. 34)

Another factor in the conflict potential is that "each individual in the school and in the teacher education institution must face the possibility of interinstitutional role dissonance." (Henry, 1972, p. 35)

It is apparent that collaboration among the various parties - teacher organizations, colleges and universities, government agencies and local administrators - won't be easy.

Edelfelt (1974, p. 251) states that each party has vested interests as well as legitimate differences of opinion.

> "For example, teachers want a voice in determining the content and process of staff development programs because they know most directly the problems teachers face. Teacher educators believe they should devise and control graduate training because it is their area of expertise. School district administrators feel they know what teachers need because they oversee the total school program. School boards assume that improving or maintaining professional competence is largely the responsibility of the individual teacher and is part of what they buy in hiring professional services." (Edelfelt, 1974, p. 251)

Other factors influencing collaborative efforts are: finding enough individuals willing to invest the time, energy dispersion and hard work these types of endeavors require, and finding ways of deploying the resources necessary from the schools and the colleges in the most effective way, while building on the strengths of each.

Cooperative Endeavors

Although many barriers to collaboration do exist and institutional constraints are present, many universities have begun the process of finding alternative ways to provide for the needs of teachers in the field. A variety of programs have been implemented throughout the

country in which the traditional university role has been altered. Smith notes that the "structure of the partnership is being reformed with teachers having more say, and in some instances, control over inservice programs." (Smith, 1974, p. 254) He goes on to call for the "full spectrum of institutions" to become involved in consortium efforts for what each can contribute.

A few examples of the many emerging types of relationships are noted below. These merely scratch the surface of the current endeavors but do reflect the variety of alternative approaches to be discussed and implemented.

1) Preservice/Inservice Combinations

An increasing number of educators are calling for a more meaningful link between the teacher's preservice education and his or her continued professional development on the job.

McLeod has described a cooperative relationship between universities and schools in the Macomb County, Michigan schools and the Macomb County Intermediate School District. The intermediate purpose of the consortium is to "develop programs relating preservice teacher education to in-service teacher education." (McLeod, 1975, p. 323) In this program the formal aspect of the teacher's professional development occurs during a two hour period once each week while a student teacher takes over the classroom.

As the press on the universities noted below increases, it is likely that more university staff will begin to examine this need to

tie preservice to inservice. Programs developed around this focus may, in the future, be among the most important efforts in the entire area.

2) School-College Partnerships

Partnerships between universities and public schools have existed at the preservice level for a long time. The teacher education center of the past decade exemplified this. However, universities, as in the above, are expressing more interest in developing this kind of relationship. Edelfelt notes that

> "Colleges and universities are becoming more receptive to working with public school teachers on inservice education. In 1973, for the first time, the number of college graduates in teacher education decreased. The problem is and will be how to continue tenured college faculty unless new demands for their services can be found. This may be the most compelling reason for the growing collegiate interest in committing more resources and people to inservice education. For many colleges, it is a matter of survival." (Edelfelt, 1974, p. 250)

3) Consortia

Many of most promising alternative programs being developed are the result of some type of consortium effort between universities and other educational institutions. These vary widely in both form and function but in all cases some attempt is made for parity in the decision making process. As part of an extensive study into the nature of the teacher center movement (see below) Schneider and Yarger (1974) note that a large percentage of all center were consortium efforts.

4) Teacher Centers (Professional Development Centers)

The "Teacher Center" seems to be emerging as the vehicle most widely accepted to meet the many needs of teachers and institutions.

However, there is no single organizational pattern to a "teacher center." Rather, teacher centers have a number of organizational patterns, functions, purposes, financing arrangements and methods of governance. It is for this reason - lack of specific definition - that the concept of the teacher center is so widely accepted.

Many arrangements occurring in the relationship noted above might be considered teacher centers. Schneider and Yarger (1974) discuss the wide variety of teacher centers now in existence. The first teacher center organized as a joint effort was established in 1966 between the University of Maryland and the Montgomery County Maryland School System. (Collins, 1972) Collins (1974) describes seven broadly different teacher centers, five of which have relationships with universities. Clearly, at this point in time, the teacher center concept is one of the most promising alternatives that universities have in the area of inservice education.

5) Other Alternatives

In addition to these cooperative relationships and broad based programmatic changes, the university does have other possible alternatives which will enable it to take a more vital, active role in its inservice function. A few illustrations are the use of mini courses and partial credit, inservice modules offered on a choice basis, the development of Continuing Education Units to replace some traditional "credit hours", and interdisciplinary programs (across departmental lines) for more integrated approaches to teaching and learning.

These "in-house" changes may face as much institutional resistance as the broader programs requiring formal relationships between institutions and parity of decision making. However, if the university is to re-emerge as a leader in the inservice arena, changes and cooperative relationships such as noted here must continue to be developed throughout the country.

Conclusion

In the context of the program for the professional development of teachers reported in the accompanying papers, this paper has examined the efforts of "institutional press" in limiting and constricting changes in inservice programs and university offerings. The barriers to collaborative effort were discussed and the factors which are promoting institutional cooperation were noted, as well as some current endeavors which hold much promise for the university.

In examining the current scene in inservice education across the country, the university must also consider the rapidity of current developments. No longer does the university have a decade to consider the development and implementation of alternative programs. This additional factor is put into perspective by deBono:

> "Change occurs so fast that the future can no longer be regarded as a reasonable extension of the past. History is no longer a scaffolding but a cage. The expert is no longer the man with stores but the man with vision. To be able to look ahead, we must develop [ways] which allow us to restructure concepts so that we can look further than is allowed by current concepts." (deBono, 1969)

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