FACTORS AFFECTING THE IMPLEMENTATION OF INSERVICE INFORMATION IN THE SECONDARY CLASSROOM: A CASE STUDY

DISSERTATION

Presented to the Graduate Council of the University of North Texas in Partial Fulfillment of the Requirements for the Degree of

DOCTOR OF EDUCATION

By

Frances Hollowell Sharpe, B.S., M.L.S.

Denton, Texas

May, 1989

The purpose of this study was to describe factors affecting the use of instructional ideas by secondary teachers in the academic year following a series of staff development sessions designed to present information on effective teaching practices. The research questions addressed the characteristics of information selected for use in classroom practice and the characteristics and relative degree of influence of salient factors affecting the use of ideas.

Ten teachers from a large suburban school district in North Texas were selected for this study. Qualitative techniques were used to collect data. Each teacher was interviewed three times and observed in the classroom setting. Documents such as lesson plans were analyzed as a third source of data.

Several factors evolved from the data. In varying degrees, these factors predicted teacher use of new instructional practices. Some factors dealt with the teacher's level of understanding and internalization of the information. These factors were labeled as instrumentality, congruence, and analytical thinking. Two other factors which were fairly strong predictors were labeled cost and intrinsic motivation. Cost concerned the amount of time or effort required to implement new ideas versus the perceived benefit to
either teacher or student. Intrinsic motivation concerned the personal desire a teacher felt to try new ideas which might improve student learning. Another factor, professionalism, or teacher commitment to the teaching profession, was found to be a less powerful predictor.

Two factors were found to be inconclusive predictors of implementation. They were the support felt by the teacher and external pressures, such as legislative mandates and district evaluations and career ladder.

The cluster of factors developed in this study offer some possible guidelines for persons concerned with patterns of knowledge utilization among teachers. It is recommended that further studies be conducted to determine if the categories used in this study are consistent predictors of implementation and to verify the research implications in this study.
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CHAPTER I

INTRODUCTION

The American public school has been subjected to pressures for change throughout its history. However, curriculum change has succeeded in varying degrees. Several recent studies (e.g., Berman & McLaughlin, 1976; Hall & Loucks, 1978a, b) have suggested that curriculum innovations meet with limited success in implementation. Hord et al. (1987) warn that administrators make two common fallacies in judgment where the change process is concerned. First, they assume that once the training has been done that teachers will become implementers. Second, they assume that implementers will react in similar fashion. Teachers seem not to accept readily changes in style, methodology, or content. The field of implementation of curriculum and instructional innovation has become a significant one for researchers in recent years.

Specific factors which enhance the probability of implementation have been studied since the early 1970's. For example, Doyle and Ponder (1977a, 1977b) suggested that teacher judgments of instrumentality, congruence, and cost affect implementation. This is supported in other research studies (Waugh & Punch, 1987). Loucks and Lieberman (1983) and Ponder (1983) stressed the need for support as an important factor in implementation. Hord and Hall
(1986) emphasized the need for "a great deal of commitment and enthusiasm" on the part of key individuals at the onset of a change process (p. 3). Miles (1983) has identified twenty "key variables" that predict the stabilized use of any innovation. All of these relate to strong commitment from administrators for support of the innovation so that it can be extended to a larger group and protected from staff turnovers. Miles stated that specific changes in the organization are likely to occur if the innovation is to survive. Huberman (1983) echoed Miles' findings as he stated, "Administrators, both at the central office and building levels, have to go to center stage and stay there if school improvement efforts are to succeed" (p. 27).

Additionally, there is a growing body of research on how to design and present staff development programs for teachers (Mohlman et al., 1982; Wood et al., 1981; Joyce & Showers, 1983). These researchers have suggested that there are specific designs which increase the probability that teachers will implement new ideas presented in inservice programs. The goal of inservice programs is the usage of new processes and products. Despite the fact that many school districts present innovations through inservice sessions delivered to teachers, these sessions seldom are followed by extraordinary support systems within the district. Usage levels may be affected by unpredicted context factors, such as implementation of legislative mandates, changing district priorities, or unforeseen community developments.
This study addressed the above scenario. It differed from many other studies in that it focused on secondary teachers. Lieberman and Miller (1984) have found that secondary teachers are more resistant to change and less inclined to adopt new practices than are their counterparts in elementary school. They describe the unique cultural phenomena in secondary schools which make improvements and innovations difficult to implement, support, and maintain. They explain the culture of the secondary school as different from the culture of the elementary school in basic organization (more hierarchical), size of student body, subject matter (very specialized), age-related difficulties (adolescents), and faculty culture (primarily male dominated). Any change at the secondary level, according to Lieberman and Miller (1984), must work with the individual teacher and the very complicated organizational structure they work in if it is to be successful.

Specifically, this study was designed to add to the research on staff development and implementation of innovations by examining factors affecting secondary teacher usage of information presented in a series of structured staff development sessions. Factors investigated included personal motivation and characteristics, organizational characteristics, contextual factors such as legislative mandates and district priorities, and characteristics of the information itself.
Statement of the Problem

The problem for this study was to determine factors that affected the usage of inservice information by secondary teachers in classroom practice.

Purpose of the Study

The general purpose of this study was to describe the factors affecting the use of instructional ideas by secondary teachers in the academic year following a series of related staff development sessions designed to present information on effective teaching practices. Specifically, the study had the following purposes:

1. To determine the teachers' understandings and judgments of the characteristics of the ideas with respect to their own practices.
2. To determine the effects of organizational, personal, and environmental factors on user effort to implement recommended practices.

Research Questions

The following research questions were addressed through this study:

1. What are the characteristics of information selected for use in classroom practice?
2. What appear to be the characteristics and relative degree of influence of the several factors affecting the use of ideas in classroom practice?

Limitations

This study provides detailed descriptions of factors affecting teachers in the process of implementing innovations. Broad generalizations from this study will not be possible because of the nature of the subjects. Teachers selected to participate in the staff development sessions were chosen by their principals because they were viewed as "good" teachers and leaders among their peers. Their perceived leadership qualities may make them more atypical than typical teachers as they may be more predisposed to change. The variance among these subjects may not be as great as would be found in the general population.

The timing of this study could provide another limitation. The staff development sessions were presented in August, 1984. This study was not initiated until January, 1985. The teachers had approximately four months between treatment and study during which time little district support was shown.

A further limitation of this study was what Fine and Glassner (1979) describe as the halo effect. The teachers involved in the study may have said what they think the researcher wanted to hear. To counteract this, the researcher insured anonymity as much as was possible. All data were collected under code numbers instead of
names, and new names were assigned to individuals before publishing this study. Also, the purpose of this study—to improve staff development sessions in the future—was communicated to each individual so that he or she felt less "in the spotlight." Each participant then was asked if the fact that the researcher worked for the district affected the answers given. All indicated that it would not.

Finally, no baseline data were collected in advance on the subjects in this study. This data may have included such information as teaching style determined by a preobservation.

This study investigated the effects of a series of staff development sessions as typically prepared and delivered by district personnel. Therefore, this study investigated a real-world, naturally-occurring phenomenon as given rather than as a researcher may have set up more ideal conditions.

Definitions

1. **Practicality**, as defined by Doyle and Ponder, includes these three factors:
   a. Instrumentality - the clarity or specificity of an innovation
   b. Congruence - the degree to which an innovation matches a teacher's preferred style or conduct in the classroom
   c. Cost - the ease with which an innovation can be implemented and the potential value to the teacher in the classroom
2. **Innovation** - any change in practice based on new information
3. **Inservice sessions** - programs presented to teachers employed in a district. This term will be used interchangeably with staff development throughout the paper.

Background and Significance of the Study

**Staff Development for Effective Teaching**

Recent research has found positive correlations between specific teacher behaviors and desirable student outcomes. Reviews of the literature on these teacher behaviors have been compiled by Brophy (1983) and Rosenshine (1983). A composite of teaching practices was found by these researchers which results in higher student achievement scores in the teaching of basic skills to young students. Rosenshine (1979) labeled this composite **direct instruction**. A teacher using direct instruction would be characterized as focusing on academic objectives, promoting high levels of student involvement with the task, monitoring practice and providing immediate feedback, holding students accountable for their work, and having high expectations for student achievement. These same behaviors were emphasized in the modules for effective instruction presented in the staff development sessions which served as the treatment for this study.

In summarizing the research on staff development for effective teaching, Sparks (1983a, b) has identified some
suggestions for inservice sessions. Sparks' findings range from providing demonstration, practice, and feedback to specific suggestions for a warm, interactive climate. These suggestions were used to design the staff development program (treatment) presented to the teachers in this study.

Some suggestions made by Sparks were not adaptable as they required a lengthy time period. The amount of time designated for the staff development program on effective instruction was a variable over which this researcher had no control. Thus, Sparks' recommendations for conducting sessions several weeks apart allowing teachers to observe each other and discuss their experiences were impossible to use in the designed staff development sessions.

Implementation

The yardstick by which to measure the success of staff development sessions is the degree of implementation of new ideas. Loucks and Lieberman (1983) found that the interest in implementation of curriculum can only be traced back to the mid-1970s. This interest stems from the belief that very few changes make it into actual classroom practice.

Loucks and Lieberman (1983) have identified three factors that are crucial for successful implementation of an innovation. These factors are developmentalism, participation, and support. Developmentalism focuses on the changes a teacher goes through as he or
she is confronted with a new idea. Inherent in developmentalism is the attitude of the teacher as he or she faces implementation. Hall and Loucks (1978b) worked in this area as they refined their Stages of Concern. The seven stages they identified ranged from self-oriented concerns, through task-oriented problems, to the effect of an innovation or what impact the innovation is having on students. Participation is the amount of teacher involvement from start to finish in the project. Adequate teacher participation has been found to be a crucial element in decisions made during the process of implementation if an innovation is to be used. Berman and McLaughlin (1978) have worked in the area of participation. Support involves not just financial and material support but also human support from the principal, from peers, from local consultants and trainers, and from external sources. The combination of developmentalism, participation, and support was found to increase the likelihood of implementation of a new idea or practice (Loucks & Lieberman, 1983; Ponder, 1983).

Miles (1983) and Huberman (1983) support Loucks and Lieberman (1983) while stressing the role of administrative support. Miles (1983) identified such factors as administrative commitment, user effort, environmental turbulence, stability in leadership, and career advancement motivation which lead to or prevent institutionalization of an innovation.

The study for this paper described factors affecting the effort to use instructional ideas from a series of staff development
sessions on effective teaching techniques. Specifically, the study addressed selected components from the model by Miles (1983)—administrative pressure, administrative support and assistance, environmental turbulence, and career advancement motivation—as factors affecting user effort to implement new ideas. The characteristics of the ideas from the staff development sessions were explored to ascertain their effect on implementation (Doyle & Ponder, 1977a, 1977b).

Methods

The approach used in this study was qualitative. According to Bogdan and Biklen (1982), the qualitative approach "attempts to understand the meaning of events and interactions to ordinary people in particular situations" (p. 31).

Assumptions about human thought processes and decision-making are not made but rather observed from a neutral point. The researcher tries to understand the subject's point of view. Qualitative researchers using this approach are then more likely to analyze data inductively. Theory is built from the bottom up. Glaser and Strauss (1967) identify this type of theory development as grounded theory.

The data for this study were collected from three sources of information: interviews, an observation, and document collection. The interviews were similar in format to the Loucks et al. (1975)
focused interview. In this type of interview, the researcher has a primary objective, uses specific questions to elicit needed information, but is free to follow up answers with probes and spontaneous questions.

Observations traditionally have been viewed as a way of supplementing data from interviews. They provide a more comprehensive picture than interviewing alone. Goetz and LeCompte (1984) indicate that discrepancies exist between what participants say and what the observer sees. Observations, then, can help the researcher see how a particular participant reacts to curriculum innovation.

Data collection by documentation provides evidence for questions and topics pursued by the researcher. Goetz and LeCompte (1984) identify four aspects of document collection: locating artifacts, identifying them, analyzing them, and evaluating them. Documents collected included lesson plans, activity sheets, letters to parents, and other prepared materials from teachers. Analysis and evaluation involve searching for documented evidence of the existence or nonexistence of an activity, idea, or event. Data collected from a study of documents can be compared to data collected in the observation and interviews to complete the triangulation procedure.

In analyzing the data collected from the observations and interviews, Bogdan and Biklen (1982) suggest that fieldnotes be considered of utmost importance. Fieldnotes may be defined as "the written account of what the researcher hears, sees, experiences, and
thinks in the course of collecting and reflecting on the data in a qualitative study" (p. 74). The notes from the observation, documents, and transcripts from interviews are fieldnotes.

According to Bogdan and Biklen (1982), data analysis involves "organizing it (data), breaking it into manageable units, synthesizing it, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell others" (p. 145). Data analysis requires theorizing. According to Goetz and LeCompte (1984), theorizing involves the tasks of "perceiving, comparing, contrasting, aggregating, and ordering; establishing linkages and relationships; and speculating" (p. 167). Rather than using a limited focus such as a quantitative study might do, each aspect of a phenomenon was treated as having possible significance. Analytic units were then sought to reduce raw data into manageable categories. Comparing, contrasting, aggregating and ordering were used to group and reduce data. Once aggregation had taken place, the data were studied to form possible generalizations or understandings.

Procedures

Population

Twelve participants were selected as case studies from approximately thirty-two teachers who had completed the staff development sessions on Effective Teaching in August, 1984, in a
large suburban school district in North Texas. The larger group of teachers had been selected within the district under the guideline that they be "good" teachers (i.e., teachers nominated as "good" by principals). Principals were asked to select teachers who were respected by their colleagues and considered to be highly competent. Because this study was limited to secondary school teachers (middle schools, high schools, and senior high schools), the twelve teachers from the secondary schools were selected for this study. Two of these teachers were dropped from the study, however, because one moved from the area, and the other attended only a few of the staff development sessions. The final number of participants was ten (N=10).

**Research Design**

The purpose of this study was to describe the factors affecting the effort to use instructional ideas presented in a series of related staff development sessions on effective teaching techniques by secondary teachers in the academic year following the staff development sessions.

Specific factors from the Miles (1983) and Huberman (1983) models such as administrative pressure, administrative commitment, administrative support and assistance, environmental turbulence, and career advancement motivation were anticipated as influential. Certain characteristics of the ideas presented in the staff development sessions which encourage or discourage usage of
the information were a primary focus (Doyle & Ponder, 1977a, 1977b).

Staff Development Sessions

A staff development program was presented to the thirty-two teachers in August, 1984. The inservice consisted of forty hours of instruction and was designed around the principles and format found by many researchers to enhance participant learning (e.g., Wood et al., 1981; Mohlman et al., 1982; Joyce & Showers, 1983). The staff development practices recommended by these researchers were that staff development information should be research based, informal and nonthreatening, include much practice and interaction, and provide practical help with implementation. The information was divided into eight modules for presentation to the teachers. Every module contained elementary and secondary examples and suggestions for use. The forty hours of the staff development for this study were spread over a ten-day period.

The content focused on specific practices determined to be effective teaching techniques. These techniques included the writing of behavioral objectives (Popham & Baker, 1970; Mager, 1962) and the subsequent task analysis of these objectives (Bloom, 1976; Hunter, 1974), the design of an instructional lesson (Hunter, 1982) which leads readily in practice to direct instruction (Rosenshine, 1979; Brophy, 1979), and techniques to evaluate the lesson such as criterion-referenced tests using the multiple choice test format (Gronlund, 1973; Simas, 1976). In addition, the content
covered learning theory (transfer, retention, and motivation),
questioning techniques designed around the taxonomy of Bloom
(1969), higher level thinking and critical reading skills from such
researchers as Guilford (1956) and Beyer (1984), and the latest
research on classroom management adapted from the work of Emmer
et al. (1983) at the University of Texas Research and Development
Center for Teacher Education.

**Legislative Mandates**

In 1984, House Bill 72 was passed by the Texas Legislature. A
portion of this bill deals with a career ladder for teachers. Each
district was to design an evaluation system for placing teachers on
the different levels of the ladder. The district involved in this
study designed such a system which included multiple evaluations on
specified criteria. (See Appendix A.) These criteria were similar to
the information presented in the staff development sessions.
Currently, all districts in Texas use the Texas Teacher Appraisal
System. This appraisal instrument recognizes and rewards teachers
for the same effective teaching practices that were taught in the
staff development sessions and encouraged on the first district
evaluation form. Since passage of House Bill 72 in 1984, districts
now emphasize many of the behaviors presented in the staff
development sessions in August, 1984.
Case Studies

The purpose of this study was to determine the factors which affect user effort in trying new information derived from staff development sessions. Each of the ten teachers who participated in this study was visited four times over a period of five months to ascertain which ideas or practices from the staff development program were being tried in the classroom. The visits consisted of three interviews and one observation. Documents (lesson plans or other prepared materials) were collected at each interview.

The participants were interviewed and observed with the intent of discovering factors that affected their efforts at using ideas presented at staff development sessions. Each interview included specific questions from the interview schedules used in the Loucks et al. (1975) study of Levels of Use; questions on the characteristics of ideas presented in the staff development sessions (Doyle & Ponder, 1977a, 1977b); and questions from Miles (1983). (See Appendix B for the interview format.) The researcher particularly noted the use of the trigger terms (see Appendix C) or other language labels from the staff development sessions. These interviews were used to determine initially which ideas were being used and how they were being used as well as factors affecting user effort at implementation. The first collection of documents took place after completion of the first interview. Between the first and second interview, each teacher was observed to verify information from the interview.
The second interview was conducted to determine what factors affected user effort and to elaborate data from the observation. (See Appendix B.) The second collection of documents was used to monitor and to elaborate which innovations were being used and how they were being used.

The final interview and collection of documents added additional data on factors affecting user efforts to implement the information presented in the staff development sessions. (See Appendix B.)

The data were then triangulated (collected from three sources—interviews, observation, and documents) to verify the participant's description and understanding of the innovations. The use of interviews, observation, and documents helped protect the study from researcher bias.

Data Analysis

Data analysis in this study was designed to determine which factors similar to Miles' (1983) study of institutionalization and Doyle and Ponder's (1977a, 1977b) practicality ethic contributed to user effort to implement new ideas and which factors inhibited implementation. This determination was made from the data collected by interviews, observation, and documents.

The three interviews were taped, and pertinent information was transcribed. Interviews were transcribed verbatim or in summaries if the researcher deemed that no data would be lost. For
all interviews, the Comments section contained remarks about the use of trigger terms and codes for the specific factors affecting user effort—administrative or legislature pressure, administrative commitment, support, and assistance, and career advancement motivation. This coding system aggregated and reduced the data (Glaser & Strauss, 1967). The three interviews for each participant were then compared with data from the observation for similarities and differences. These similarities and differences were noted in a general summary of the information from the three interviews.

Notes from the observation were recorded manually. The observer found an unobtrusive location from which to watch. Pertinent information was recorded as faithfully as possible with observer inferences clearly marked in the margin. As comprehensively as possible, interactions, activities, and behaviors were noted. Specifically, attention was given to the use of any terminology from the staff development sessions. These field notes were used to corroborate or explain information from the interviews. Discrepancies and consistencies with interview data were included in the summaries.

Documents such as lesson plans, activity sheets, tests, or other prepared materials were studied for such things as actual use, frequency of use, and understanding of the ideas presented in the staff development sessions. These data were added to the summary of the interviews and observation for each participant. Again, inconsistencies and corroborations were noted.
Finally, initial participant reaction to the staff development sessions was added to the information gleaned from the interviews, observation, and documents. Participants' reactions were collected in an evaluation administered immediately after the program in an attempt to gauge understandings and attitudes of participants. Any relevant information was noted.

The data in summaries was reread several times to check for accuracy and completeness as each step in the process (interviews, observations, document collections) was completed. Another purpose for the rereading was to make notes of observer's reactions. Then, the data were sorted into categories, first the most obvious, then into other possible patterns. This assembling and reassembling helped the researcher view the whole as well as its parts. This sorting required matching, comparing, and contrasting of the field notes to form patterns and relationships (Goetz & LeCompte, 1984). Summaries outlining the major events and issues were written. After the summaries were written, they were compared for patterns and relationships, similarities and differences. Finally, tentative explanations were posed for the research questions in this study.
Throughout its history, the public school has been expected to change when subjected to new pressures from the public. Doll (1974) concluded that, "The schools, as an instrument of American society, have pressures, the nature of which tends to change from generation to generation" (p. 12-13).

Seldom in the past has this pressure been felt more than it is today. The public's demand for quality from the schools has increased, and it would seem unrealistic to expect the demands to lessen or fade in the near future.

Can public schools rise to the challenge? One method for improvement lies in curriculum or instructional changes. Berman and McLaughlin (1976, 1978), in reviewing the process of implementation in the 1960's and 70's, found that educational innovations seldom made it behind the classroom door. For a variety of reasons, implementation of curricular or instructional changes has been generally disappointing. Similarly, Hall and Loucks (1978a) determined that few innovations have been successfully implemented. Zaltman, et al. (1977) state:

Educators are often criticized for being among the most conservative professional groups in the face of change. What is usually overlooked is that educators have more reason to
resist change than other professionals. Few groups have as many innovations or pseudo-innovations presented to them with as little hard evidence about their effectiveness as do educators. (p. 29-30)

Mann (1976) states that:

With hindsight it is easy to see that designing and disseminating change is not implementing change. What happens inside the school, at the service delivery level, is absolutely related to our success and failure, yet the gap in our knowledge about implementing change in the schools is formidable. (p. 323)

In the last ten years, a growing body of research has added to the knowledge on implementing changes. Researchers are now beginning to unravel some of the mystery surrounding change. The study of changes, whether in content or methodology, has produced volumes of literature but few discuss comparisons or methods of integration. Waugh and Punch (1987) believe this is because of difficulties in defining the subject and the number and interaction of factors involved in the study.

This study focuses on the implementation stage of change. Waugh and Punch (1987) found fewer studies in this area than in other stages of change. Institutionalization of innovations is still an area which needs more research. It is a new field for researchers, and relatively few studies have focused on how to determine if institutionalization has occurred. Miles (1983) and Hord and Hall (1986), among others, have researched the area of site-level institutionalization.
Implementation of Innovations

The success of staff development sessions depends largely upon the degree of implementation of new ideas. Loucks and Lieberman (1983) found that the interest in implementation of innovations can only be traced back to the last 15 years or so. This interest stems from the belief that very few changes are used by teachers in their classrooms.

Romberg and Price (1983) argue that the teacher's perception of the change determines if and when implementation will take place. They point out that adoption of an educational change does not ensure that the change will be used. Furthermore, even if it is used, the innovation will rarely be implemented as the developer visualized it. Their research supports the findings of Berman and McLaughlin (1976) and Hall and Loucks (1978a) who studied the scholar-dominated curriculum changes in the late 1960's.

In the Rand Study (Berman & McLaughlin, 1978), factors determining the implementation of scholar-dominated curriculum changes were identified. First, they found that what happens at the school level (activities and discussions) can determine successful implementation. Second, mutual adaptation, the interaction between the innovation and the classroom environment, is an integral part of implementing a new idea. Finally, mutual adaptation needs the following:
1. Practical teacher experiences.
2. Assistance from key personnel.
3. Peer observations.
4. Continued sessions focused on issues.
5. Participation by teachers in decision making.
6. Participation by teachers in the development of materials.
7. Involvement from the principal of the school.

In other words, innovations must be fit into the existing context or mode of working. Smith and Keith (1971) provide some insight into how innovations are implemented quite differently from their intended design. Fullan and Pomfret (1977) also found that teachers vary widely in their actual adoption of a change.

Berliner (1978) stresses the importance of understanding why teachers support certain kinds of performance theories. Wheeler (1980) states:

> Many educational changes have only minimal acceptance by the individuals in organizations affected by change .... Educators have too long focused on the problems in education and how to resolve them--ignoring the people who must face change. (p. 93)

Mohlman et al. (1982) see the need for studying which teacher behaviors are most effective and why teachers do or do not adopt recommended teaching practices. Giacquinta (1973) believes that teachers who can adapt to new attitudes and beliefs are more likely to effect changes. Romberg and Price (1983) recommend that the culture of the school be the focus for any change strategies.
Specifically, the beliefs and work habits of the teachers are central to implementing a change. Baldridge and Deal (1975) support Romberg and Price (1983) in finding that teachers are unreceptive to any change that conflicts with the basic or traditional values of a school.

**Knowledge Utilization**

House (1979) identifies three viewpoints on implementation: the technological view, the political view, and the cultural view. The technological viewpoint considers that teachers are technicians simply needing to be trained. The innovation is valued above the process, which is assumed to be linear—the idea is taught to the teacher who in turn puts it into practice. The political view focuses on the organization. Educators following this point of view look at innovations as they are put into the political context of the school. Organizational or institutional influences, such as values of groups, are considered as important as the innovation itself. Finally, the cultural view looks at the complexity of classroom life and the role of the teacher within the complex environment. The teacher as a decision maker is given priority.

The process of knowledge application or utilization has interested recent researchers. Holzner and Marx (1979) describe six models concerning the movement from knowledge production to knowledge use: (a) the research, development, and diffusion model (RD&D) which assumes there is a linear continuum between
production and use of knowledge with the users ready to adopt new ideas that are presented rationally; (b) the social interaction model which focuses on psychological and attitudinal factors of the users; (c) the problem solving model which begins with the needs of the users thus allowing self-initiated change to occur; (d) the plan change model which contends that change will occur when data are generated, planned for, and implemented; (e) the action research model which emphasizes research done on-site and within the context of the using organization; (f) the problem solving linkage model which looks at the flow of knowledge as two directional. These models are inherently instructive and assume the desire "to intervene planfully in the knowledge utilization process" (p. 283). They manifest a strong managerial concern and are generally "unidirectional" from the development of knowledge to its use. However, they provide some basis for the relationship of social structures and knowledge.

Definitions

Loucks and Lieberman (1983) broadly define innovation as "any process, product, idea, or practice that requires new behaviors of the user" (p. 127). Innovations may be further defined by the degree of restructuring they involve. Put on a continuum from the least restructuring to the most restructuring, Romberg and Price (1983) define the most distant points as ameliorative innovation and radical innovation. They see ameliorative innovation as designed to
improve or make more efficient some accepted practice. This type of innovation will not challenge the values and traditions of the school culture. At the other end of the continuum, radical innovations are those which seek to change accepted values and traditions.

Implementation, then, is the actual use of a new idea, process, or product. Fullan and Pomfret (1977) posit the black box theory of implementation, defined as the components of the innovation and why it develops in practice as it does. They see implementation as a black box into which innovations enter on one side and exit as unpredictable results on the other side. Upon reviewing the research literature on curriculum and instruction implementation, Fullan and Pomfret (1977) determined that the user was the important element to study. They found both dimensions of curriculum change and determinants of implementation. (See Figure 1.) The three internal dimensions of change are concerned with changes in the teacher. The two internal determinants which affect the internal dimensions are the characteristics of the innovation and the strategies used to introduce and implement innovations. The external dimensions of change, subject matter and materials, and organizational structure are influenced by characteristics of the adopting unit and macrosociopolitical characteristics.
Determinants of Implementation Change

INTERNAL

1. Characteristics of the Innovation
   - Explicitness
   - Complexity

2. Strategies
   - Inservice training
   - Resource training
   - Feedback mechanisms
   - Participation

EXTERNAL

3. Characteristics of the Adopting Unit
   - Adoption process
   - Organizational climate
   - Environmental support
   - Demographic factors

4. Characteristics of Macro-Sociopolitical Units
   - Design questions
   - Incentive system
   - Evaluation
   - Political complexity

Figure 1. The black box of implementation.


Factors Affecting Implementation

Nicholls (1983) refers to users and nonusers of new ideas as innovators and resistors. She identifies an important factor that innovators have in common--participation in decision making
throughout the development and use of the innovation. Nicholls argues that teachers are better prepared today than were their predecessors; thus, they expect to be more involved. Involvement must be meaningful and at the times of critical decision making. Berman and Pauly (1975) support Nicholls in finding that teachers involved in day-to-day decisions were more open to implementation of changes. However, some researchers have found that teacher participation is more important and more effective in the adoption stage than in the implementation stage (Duncan, 1976; Kane, 1976).

Nicholls (1983) also found that organizational arrangement can enhance or inhibit innovativeness. This refers to school, department, or classroom settings. Additionally, school climate is an important factor. Halpin (1966) found six different climates:

1. Open--characteristics are high morale, teachers helping each other, and an involved principal.
2. Autonomous--characteristics are that the staff is free to make many of the decisions, there is high morale, and the principal sets the example but doesn't check on teachers.
3. Controlled--characteristics are that achievement is the focus, there is high morale, and the principal is an authoritarian.
4. Familiar--characteristics include friendly climate, social needs placed above achievement, and the principal keeps a happy family atmosphere.
5. Paternal--characteristics are that teachers do not work
well together, the principal has little control and sets no example to follow.

6. Closed-characteristics are that social needs and achievement are both lost here, the principal is ineffective, and morale is low.

Innovations were more often found in open situations. The least innovative were closed climates (Halpin, 1966; Hilfiker, 1971).

Stiegelbauer, et al., (1986) see the need for certain activities to accompany an innovation if implementation is to take place. These activities include teacher training and individualized problem solving to help the teacher with the innovation.

Loucks (1983) identifies factors which may be critical to the successful implementation of innovations. They are teacher commitment either at the onset of implementation or during development of the practices; research-based curriculum or instructional techniques which are clearly defined; instructors who have credibility with the staff and who provide some form of follow-up; support and assistance from peers, principal, and central office staff members; identification and use of factors which lead to stabilized use of innovations (institutionalization), including budgeting, extension of the use of the innovation, and changes in procedures and curriculum guidelines to encourage implementation. Miles (1983) and Huberman (1983) support Loucks (1983) while stressing the role of administrative support.

Miles (1983) identifies key variables which lead to or prevent
institutionalization of an innovation. (His model is displayed in Figure 2.) Administrative commitment (1) is the critical element which determines administrative pressure (2) on teachers to use the innovations and administrative support (3) and assistance (6). These in turn are likely to have a positive effect on user effort (5) which affects user commitment (9). Conversely, Miles posits two threats to the institutionalization of an innovation—environmental turbulence and career advancement. Environmental turbulence could be a cut in funding or a change in student population. Career

Figure 2. A data-grounded model of institutionalization

Note. From "Unraveling the Mystery of Institutionalization" by M. Miles, 1983, Educational Leadership, 41, p. 18.
advancement could be a threat to stability because of the desire of professionals to seek new challenges.

Huberman's (1983) scenario for successful institutionalization includes the following: district central office staff provide strong support and follow-up to the innovation; teachers are discouraged from making any changes, at least during the first year; the innovation is clear, well-designed, and somewhat challenging; central office staff who are viewed as leaders remain with the project for the duration of institutionalization. He finds that "successful projects are clearly ones in which both agendas, those of administrators and teachers, are met" (p. 27).

In their study of twelve sites, Huberman and Miles (1984) found that innovations generally failed where massive changes were allowed, where adequate assistance was not given, and where users felt little sense of commitment. On the other hand, innovations tended to succeed where adequate assistance was given and where local acceptance was maintained. Strong administrative and peer commitment were factors in maintaining innovations. In some cases, strong-arming actually succeeded also.

Loucks-Horsley and Hergert (1985) support the research of both Miles and Huberman. They specify three factors involved with administrative expectations: (a) allowing ample time for an innovation to take hold; (b) refusing to allow major modifications until the innovation is thoroughly understood by teachers; (c) and providing extra time to teachers for practicing the new skills and
Researchers have also looked at characteristics of an innovation. Among them are Baldridge and Deal (1975); Giacquinta (1973); Paul (1977); and Rogers and Thomas (1975). Specifically, Rogers (1962) found five characteristics of innovations that will affect implementation:

1. Relative advantage: Is the change an improvement over current practice?
2. Compatibility: Do the values inherent in the change mesh with those of the users?
3. Complexity: Is the change easily understood and applied?
4. Divisibility: Can the change be broken into smaller components.
5. Communicability: Can the effects of the change be easily communicated to others?

Doyle and Ponder (1977a, 1977b) studied teachers' reactions to proposals for change. They posit the practicality ethic as a possible guide to understanding teachers' reactions to change. The practicality ethic refers to the belief that teachers implement changes that seem practical to them. Practical is defined by three factors: instrumentality, congruence, and cost. Instrumentality is the clarity and specificity of the proposed change or the ease with which the teacher perceives that the change can be transposed to the classroom. Congruence refers to the similarity between the proposed change and the teacher's style in conducting classroom
activities. Congruence also concerns the perception by the teacher of the origins and rationale for the change. Cost concerns the amount of difficulty (time, money) required to implement the change as well as the possible results it will yield. The practical value is weighed in relation to the cost to the teacher. The research of Doyle and Ponder (1977a, 1977b) is supported by Crawford et al. (1978), Anderson et al. (1979), Good and Grouws (1979), Ebmeier and Good (1979), Stallings et al. (1979), and Gage and Coladarci (1980). The idea that implementation is primarily determined by local factors rather than by outside sources is supported by Berman and McLaughlin (1976), Brown and McIntyre (1978), and Waugh and Punch (1985, 1987).

Buchmann (1984) believes that educators rely too heavily on research knowledge to the exclusion of practical wisdom. She posits that research knowledge is "only a fragment of human awareness--precious, no doubt, but not created for the purpose of actions nor sufficient to determine them" (p. 422). Action requires also common sense, commitment on the part of the teacher, and supporting policies. Buchmann believes that implementation of knowledge is a conceptual problem. Knowledge cannot be an end. Knowledge must be practical and usable and must be close to the user's cognitive processes. Elbaz (1983) has further researched the field of teacher thinking, stating, "Teachers hold a complex practically-oriented set of understandings which they use actively to shape and direct the work of teaching" (p. 3). Buchmann (1985)
further states, "That people learn about the way things are by taking experience to be the best teacher, learning the lessons of experience, and going to the school of hard knocks is, of course, a theory of learning, of the relationship of mind to reality, and of adaptation to the social world" (p. 157). Lieberman and Miller (1984), among others, support Buchmann by stating that practical use of an innovation (or knowledge) is critical. "Their [teachers'] cry that ideas are too theoretical speaks often to the complexity of keeping the classroom operable while incorporating new ideas" (p. 102).

Zumwalt (1986) similarly takes issue with the linear approach to knowledge utilization. The application of research will not improve education, she states. The gap between researchers and practitioners is one that must be bridged before action or utilization of knowledge can take place.

Lieberman and Miller (1984) have posited theories concerning the need for teacher acceptance of models in their study. They stress how much time is required to bring changes into a classroom where the daily routine is already very time consuming for the teacher. Fullan (1982) and Miller and Sellar (1985) identify the world of the classroom teacher as isolated, allowing little time to interact with colleagues. Teachers, then, must cope with problems in the classroom with little input from others. The result is discrepancy in classroom practices and little time to discuss routines or concerns with peers. They believe change requires time
and must be clearly described as it is brought into the subjective world of the teacher.

In compiling some of the more recent research on implementation, Loucks and Lieberman (1983) found that the studies are inconclusive. This may be explained in part because few earlier studies (1970's) focused on the perspective of the teacher in his or her school. However, in those which focused primarily on the teacher and the culture of the school, some key factors on successful implementation were identified. These factors are developmentalism, participation, and support. Developmentalism concerns the stages a teacher goes through when confronting an innovation. According to Loucks and Lieberman (1983), as teachers confront new curricula:

They first orient and prepare (attend training, acquire supplies); initial use is mechanical, where the unanticipated often happens and planning is largely day-to-day; curriculum use becomes routine, with few changes being made; and they then may refine or adjust the curriculum to better meet learner needs. (p. 130)

The most extensive research done in this area was by Hall, et al. (1975). In their Levels of Use manual, they trace the stages of teacher change or concern from the "self-oriented" through "task-oriented" to the stage of concern for students, or effect of the innovation.

Participation deals with involving teachers in every aspect of the innovation. Not only is involvement necessary, but the perspective must remain that of the teacher. This precludes a
trusting relationship between those responsible for the implementation and the teachers. This research supports that of Berman and McLaughlin (1978) in their studies of implementation. They stressed the need for teachers to be involved in all aspects of decision making. Finally, support as a critical factor for implementation concerns not just financial and material support but human support. While frequently overlooked by many trainers, human support in the form of trainers, peers, or external individuals (national consultants or trainers) can enhance implementation of innovations. Time is also a factor in support. Ample time for institutionalization is required so that implementers can "plan, adapt materials, train, solve problems, and provide peer support" (Berman & McLaughlin, 1978, p. 133).

Loucks-Horsley and Hergert (1985) also stress the importance of support in successful implementation of innovations. The support can be shown by person-to-person assistance, materials, leadership to clarify goals and expectations, or moral support. A successful support system assumes that someone outside the realm of teachers should provide the support. The researchers also suggest a more in-depth approach to staff development—one that includes demonstrations, one-on-one tutoring, extended sessions, observations, and feedback.

Loucks-Horsley and Hergert (1985) predict three to five years as a timeline from the first staff development session to institutionalization. This timeline is based on change theory as well as the
stages a person goes through in implementing a new practice.

Loucks and Lieberman (1983) believe that mandates for educational change should be viewed as an opportunity for improvement. However, they will not be viewed in this light as long as mandates are decreed from a purely technological or linear point of view. Developmentalism, participation, and support must be present for optimal implementation of knowledge, a new program, or an innovation.

In a study of two groups of teachers, one which made major strides in implementing innovations and one which made no improvements, Sparks (1983a) found that individual level of self-expectation made a difference. The group of teachers who were successful implementers felt they had more power and control over a situation. The nonimplementers felt that no change could really make a difference in their situation. They seemed to have low expectations for themselves and their students.

Showers (1983) found that many teachers have difficulty with the cognitive skills needed to transfer innovations into their individual classrooms, such as writing objectives for and working with new models of curriculum. New ways of thinking about curriculum and instruction were simply beyond many teachers. Oja (1980) and Wood and Thompson (1980) support this study and suggest that teachers may need more training in developing higher level thinking skills. Gross, et al. (1971) found that when teachers lacked the necessary skills and knowledge, change was unlikely to
In studying innovation adoptions by sites, several researchers (Turner & Haley, 1975; Hahn, 1974; Pahl, 1977) determined that larger schools in larger cities tended to be more innovative in social studies than did their smaller counterparts in rural areas. Also, teachers who belonged to and participated in professional organizations were more aware of social studies innovations than were those without professional ties. The correlations between innovativeness and age of the teacher, sex, years of experience, and academic background were inconclusive. Several researchers have found that characteristics of innovations are only weakly correlated with adoption and innovation in the social studies (Schumaker, 1972; Miles, 1978). They determined that external factors such as priorities of the school system, the local political climate, and specific constraints in the school environment may be more important in the implementation process. Hahn (1974) found that when social studies teachers are given new materials or a new course to teach, training and support are crucial. Marker (1980) discovered a relationship between innovator and new staff members in social studies. When the advocate for a specific idea or innovation was no longer present, the remaining teachers abandoned the innovation.

**Institutionalization of Innovations**

Hord and Hall (1986) warn against a simplistic approach to change. The process is highly complicated, and change is not accom-
plished until innovations are institutionalized. According to Hord and Hall, institutionalization does not occur until new procedures become a routine part of the classroom operation. They posit three vectors to determine innovation use and whether that use eventually becomes regular practice or is institutionalized:

1. User reaction to or feeling about the innovation.
2. Description of the user implementation of the innovation.
3. Description of the innovation in classroom practice.

Vector 1 deals with individual Stages of Concern as the teacher moves through the implementaton process (Hall, Wallace & Dossett, 1973). The Stages of Concern questionnaire (Hall, George & Rutherford, 1977) can be used to determine where an individual is on the seven levels ranging from self-concern to concern about the effects or impact of the innovation. (See Figure 3.)

The second vector looks at Levels of Use (Loucks, Newlove, & Hall, 1975) to ascertain changes in the user as he or she becomes more familiar with the new idea(s). The eight levels, ranging from nonuse to refinement, are designed to determine the extent of implementation. The focused interview procedure determines level of use. (See Figure 4.)

The third vector describes Innovation Configurations, or the various ways each implementer uses the parts of the innovation. Hall and Loucks (1978a) looked at the individual parts of an innovation as the implementer was putting them to use in the
<table>
<thead>
<tr>
<th>STAGES OF CONCERN</th>
<th>EXPRESSIONS OF CONCERN</th>
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<tbody>
<tr>
<td>6 REFOCUSING</td>
<td>I have some ideas about something that would work even better.</td>
</tr>
<tr>
<td>IMPACT</td>
<td>I am concerned about relating what I am doing with what other educators are doing.</td>
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<tr>
<td>4 CONSEQUENCE</td>
<td>How is my use affecting kids?</td>
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<tr>
<td>TASK</td>
<td>I seem to be spending all my time in getting material ready.</td>
</tr>
<tr>
<td>2 PERSONAL</td>
<td>How will using it affect me?</td>
</tr>
<tr>
<td>1 INFORMATIONAL</td>
<td>I would like to know more about it.</td>
</tr>
<tr>
<td>0 AWARENESS</td>
<td>I am not concerned about it (the innovation).</td>
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</table>

**Figure 3.** Stages of concern: typical expressions of concern about the innovation.

<table>
<thead>
<tr>
<th>LEVEL OF USE</th>
<th>BEHAVIORAL INDICES OF LEVEL</th>
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<tbody>
<tr>
<td>VI RENEWAL</td>
<td>The user is seeking more effective alternatives to the established use of the innovation.</td>
</tr>
<tr>
<td>V INTEGRATION</td>
<td>The user is making deliberate efforts to coordinate with others in using the innovation.</td>
</tr>
<tr>
<td>IVB REFINEMENT</td>
<td>The user is making changes to increase outcome.</td>
</tr>
<tr>
<td>IVA ROUTINE</td>
<td>The user is making few or no changes and has an established pattern of use.</td>
</tr>
<tr>
<td>III MECHANICAL USE</td>
<td>The user is using the innovation in a poorly coordinated manner and is making user-oriented changes.</td>
</tr>
<tr>
<td>II PREPARATION</td>
<td>The user is preparing to use the innovation.</td>
</tr>
<tr>
<td>I ORIENTATION</td>
<td>The user is seeking out information about the innovation.</td>
</tr>
<tr>
<td>0 NONUSE</td>
<td>No action is being taken with respect to the innovation.</td>
</tr>
</tbody>
</table>

**Figure 4.** Levels of use of the innovation: Typical behaviors.

classroom. This Innovation Configuration made it possible to label and describe how the innovation looked as it was put into use. The components of an innovation are identified and variations noted by use of the Innovation Configuration Component Checklist. (See Figures 5a and 5b.)

Hord and Hall (1986) see these vectors as possible determinants of change. Used together, they posit, the level of implementation of an innovation can be established on the Levels of Use line scale. Full institutionalization of the innovation is accomplished when the user reaches Stages of Concern 4 or above, Levels of Use IV A or above, and is using ideal variations of the components of the innovation. Minimum institutionalization has been reached when the users' concerns have been lessened (Stages of Concern 1, 2, or 3), when the user is on Levels of Use IV A, and when acceptable variations of the components of the innovation are put into practice.

Hord and Hall (1986) also stress the need for intervention in the change process by trained facilitators. They see the need for professional development for these facilitators to make them knowledgeable about the process of change as well as skillful in problem solving. Additionally, support from policy makers must allow for continued maintenance of the innovation until full institutionalization is achieved.
### Teacher Rater

**I. Instructional Materials**

<table>
<thead>
<tr>
<th></th>
<th>1. program materials only</th>
<th>2. program materials plus</th>
<th>3. text only</th>
<th>4. teacher-made materials only</th>
</tr>
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</table>

**II. Grouping**

|   | 1. completely individualized | 2. small groups | 3. large homogenous | 4. large heterogenous |

**III. Testing Component**

|   | 1. students test themselves as they complete each objective | 2. testing done weekly with test results fed back to students | 3. testing done once every six weeks--nothing done with test results | 4. no regular testing except standardized achievement tests required by district |

**KEY FOR FIGURE 5a AND 5b**

- - - To left of slashed line is ideal variation
- - - To left of solid line is acceptable variation
- - - To right of solid line is unacceptable variation

* Critical Components

**Figure 5a.** Innovation configuration components and variations of a continuous progress mathematics curriculum.

**Note.** From *Institutionalization of Innovations: Knowing When You Have It and When You Don't* (p. 11) by S. Hord and G. Hall, 1986, Austin: Research and Development Center for Teacher Education, The University of Texas at Austin.
### Component 1: Using an Anticipatory Set

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<tr>
<td>(1) Teacher typically uses an anticipatory set including the elements of review, preview, motivation and direction.</td>
<td>(2) Teacher typically uses an anticipatory set that includes 1-2 appropriate elements.</td>
<td>(3) Teacher typically uses an anticipatory set mainly of focusing attention.</td>
<td>(4) Teacher seldom uses an anticipatory set.</td>
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*Component 2: Selecting and Stating Objectives

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<td>(1) Teacher typically uses an objective that is relevant to students and states it.</td>
<td>(2) Teacher typically states objectives, but not in student terms.</td>
<td>(3) Teacher never states an objective.</td>
<td>(4) Teacher seldom uses an objective.</td>
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*Component 3: Explaining and Modeling

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<td>(1) Teacher typically explains and models so that students understand the assignment.</td>
<td>(2) Teacher typically gives explanations that are not on the explanation or modeling student's level.</td>
<td>(3) Teacher typically makes assignments with no explanation or modeling.</td>
<td>(4) Teacher occasionally checks for understanding and gives feedback during the lesson.</td>
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*Component 4: Checking for Understanding

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<tr>
<td>(1) Teacher typically checks for understanding and gives immediate feedback after each section of the lesson.</td>
<td>(2) Teacher occasionally checks for understanding at the end of the lesson.</td>
<td>(3) Teacher typically gives feedback of the lesson.</td>
<td>(4) Teacher usually checks for understanding at the end of the lesson.</td>
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*Component 5: Providing Guided Practice

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<tr>
<td>(1) Teacher typically checks work as students practice.</td>
<td>(2) Teacher occasionally checks work as students practice.</td>
<td>(3) Teacher does not provide practice for student.</td>
<td>(4) Teacher typically checks work as students practice.</td>
</tr>
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*Component 6: Providing Independent Practice

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<tbody>
<tr>
<td>(1) Teacher typically assigns independent practice that is appropriate for all students in length and difficulty.</td>
<td>(2) Teacher assigns independent practice that is appropriate for most students in length and difficulty.</td>
<td>(3) Teacher does not provide independent practice that is appropriate for a few students in length and difficulty.</td>
<td>(4) Teacher assigns independent practice that is appropriate for most students in length.</td>
</tr>
</tbody>
</table>

Figure 5b. Springdale effective teaching program checklist.

Hord, et al. (1987) developed the Concerns-Based Adoption Model which brings the vectors identified by Hord and Hall (1986) into a workable model (See Figure 6.) The most important concept in the Concerns-Based Adoption Model is that the people most affected by a change are the crucial factor. The innovation itself and the organization (e.g. district, school) are second to users of the innovation.

**Figure 6.** The Concerns-Based Adoption Model.

Summary

Although the findings vary, the research on implementation of innovations seems to agree on some key points in effecting change. In an attempt to summarize much of the research on implementation of innovations, Fullan (1982) identifies four main categories with defining factors under each:

1. **Innovation Characteristics**
   - Need and perceived importance of the change
   - Clarity
   - Extent of change
   - Quality and practicality of program

2. **District Level Characteristics**
   - The history of innovation attempts
   - Quality of the adoption process
   - Central administrative support and involvement
   - Staff development and participation
   - Time-line and information system
   - Board and community characteristics

3. **Site-level Characteristics**
   - Support of the principal
   - Teacher-teacher relations
   - Teacher characteristics and orientations

4. **External Characteristics**
   - Role of government
   - External assistance
According to Fullan (1982), the possibility of actual implementation of innovations increases if all the factors or points in the list are operating in support of the change. He stresses the need to remember that these factors interact and should not be considered in isolation. Among the listed points are support in terms of time and money, commitment from key personnel, clarity and ease of adopting or congruence with existing practice. This study looked at clarity, ease of adoption, congruence with existing practice, and support, although no unusual support was given the teachers in the study. District personnel and principals did little follow-up to see if implementation was occurring. The change model used was basically that of research, development, and diffusion (RD&D).

Staff Development for Effective Teaching

In this study, the terms staff development and inservice are used interchangeably. Briefly defined, staff development is the combined educational and personal experiences that develop an individual into a more competent and satisfied professional (Dale, 1982).

Loucks-Horsley and Hergert (1985) have identified some important considerations in the training of staff for innovations. First, how much and what kind of training is necessary? Some innovations require extensive training, others only a short session. The timing of staff development sessions can also make a
difference. After or during school sessions versus summer training needs to be weighed for maximum impact, practice, and budgetary considerations. The sessions need to be conducted by expert trainers well-versed in staff development theory. Finally, training may be more effective if done in increments with follow-up sessions planned. This includes the use of the same or equivalent trainers for all sessions.

Mohlman et al. (1982) suggest that implementation of new teaching practices is more likely to occur when inservices are designed with the following inclusions:

1. Easily understood, clearly stated recommendations.
2. A philosophy that is acceptable to the teachers.
3. Proof (as much as is possible) that the new recommendations will be worth the time and effort required in the improvement of student achievement.

Burello and Orbaugh (1982) have summarized a number of factors necessary for effective professional development programs. They include integration into and support by the larger organization (school, district, etc.); collaborative programs; close relationship to the needs of the participants and responsiveness to changing needs; accessibility of inservice education programs; evaluation over time; and compatibility with district philosophy.

Miller and Sellar (1985) see the need for staff development in two stages. Stage one would be immersion in an innovation with enough information and time for familiarity. This stage should
provide ample opportunity for teachers to interact with each other. Stage two should be conducted when the innovations are being used in the classroom. This session would contain problem-solving assistance, explanation, and support. This part of the program should be flexible enough to take into consideration the cultural environment of a school, the relationship of a school and its community, and the style of leadership of the principal of a school. Stage two would allow time for practice, feedback, and coaching.

These researchers also see that the type and duration of inservice programs may affect implementation of new ideas. For instance, personal contact may be beneficial, overall enthusiasm for the project may affect teacher perception of the practices, and strong rationales may result in more commitment on the part of the staff.

Sparks (1983b) suggests that teachers' characteristics and attitudes need to be studied prior to designing an inservice to ensure that the program will fit the thinking of the subjects. In the area of teachers' characteristics, much research has been done on intellectual development and maturity (Crawford et al., 1978; Showers, 1983; McKibbin & Joyce, 1980; and Wood & Thompson, 1980). Teachers' attitudes, especially as they pertain to staff development or perception of innovations, also have been researched (Doyle & Ponder, 1977a, 1977b; Mohlman et al., 1982; Sparks, 1983a).

In summarizing the research on staff development for
effective teaching, Sparks (1983b) has suggested the following for inservice sessions. All were used to design the staff development program presented to the teachers in this study.

1. Determine content using research-based behaviors which have been found to increase student achievement.
2. Develop an atmosphere of acceptance and support among all participants.
3. Include demonstration, practice, and feedback as integral parts of the presentation.
4. Provide time for small-group activities and discussions which encourage the sharing of ideas.
5. Provide research as the basis for the content covered in the program to develop a philosophical acceptance among participants.
6. Discuss applications of the content so teachers will feel more comfortable with the implementation and feel that the cost to themselves is lessened.
7. Lower anxiety on the part of the participants by encouraging use of only one or two ideas presented in the program rather than the entire package.

Some suggestions made by the researcher were not adaptable because they required a lengthy time period. The time designated for the staff development program on effective instruction was a variable over which this researcher had no control. Thus, Sparks' recommendations for conducting sessions several weeks apart,
allowing teachers to observe each other and discuss their experiences, were impossible to use in the designed staff development sessions.

Effective Teaching Practices

Recent research has found positive correlations between specific teacher behaviors and desirable student outcomes. Reviews of the literature on these teacher behaviors have been compiled by Brophy (1983) and Rosenshine (1983). Generally, these behaviors can be classified under several headings: environment, or a well-managed, orderly, business-like atmosphere which focuses on achievement, holds students accountable for progress, and rewards that progress (Berliner, 1984); student participation, or active involvement by the students with the material to be learned; and higher expectation on the part of the teacher. Aspy and Roebuck (1982) also identified the teacher's communication skills as having a positive correlation with student attitudes and learning. Along this same line of thinking, use of clarity, enthusiasm, variability, and task orientation, behaviors identified by Rosenshine and Furst (1971), would be found. Another aspect of effective instruction to include would be time-on-task or academic learning time (Brophy, 1979; Good, 1979; Rosenshine, 1979). Included in this group might be such variables as student attention, success, time spent on specific parts of the curriculum, and the pacing, or content covered.

Finally, a composite of teaching practices has been found
which results in higher student achievement scores in the teaching of basic skills to young students. Rosenshine (1979) labeled this composite direct instruction. A teacher using direct instruction would be characterized by the following behaviors:

1. Establishes a clear focus on academic objectives.
2. Structures activities and instructing students on how to accomplish the assigned task.
3. Promotes high levels of student involvement and content coverage.
4. Monitors student progress and providing academic feedback immediately.
5. Maintains a warm, supportive environment.
6. Holds students accountable for the work they accomplish.

Direct instruction also includes the use of whole group instruction, asking factual questions, giving ample opportunity for guided practice, and having high expectations for student achievement.

Much research has been done on the effects of the aforementioned teaching practices. Student achievement increased in studies done by such well-known researchers as Crawford et al. (1978), Tharp (1982), Stallings et al. (1979), and Evertson et al. (1978), to mention a few.

The specific behaviors denoted above were emphasized in the modules for effective instruction designed and presented in staff development sessions which served as the treatment for this study.
Methods

Rist (1975) defines qualitative research as direct observation of a person's activity and interaction in an ongoing, naturalistic setting. Rogers (1984) believes that qualitative researchers look at incidents as they really occur. As Bogdan and Biklen (1982) point out, qualitative research "attempts to understand the meaning of events and interactions to ordinary people in particular situations" (p. 31). Rogers (1984) has identified characteristics unique to qualitative researchers. They include the beliefs that:

1. The school is an enormously complex and subtle institution requiring the researcher to unravel these complexities before an accurate study can be done.

2. Only a continuous, longitudinal study can provide true understanding of a given phenomenon.

3. Holistic studies provide related phenomena, and, thus, are better than studies of isolated individuals or events.

4. Direct contact between the researcher and the individual or event is necessary as people often behave differently from what they lead the researcher to believe in reports or questionnaires.

5. The attitudes, values, and beliefs of the subject(s) must be taken into consideration by the researcher to understand behaviors and points of view.

6. "Thick description" (extensive and detailed) allows the researcher to study subtleties in behavior which might
otherwise have been missed. (This means that the process is as important as the product.)

7. Qualitative research uses the actual social setting or context as its laboratory so that no variables are altered or changes made to the phenomenon under study.

8. Research questions and outcomes are defined during the study and are not preconceived.

9. Theory is developed as the study progresses so that no preconceived theories may limit the study.

Everhart (1975) refers to qualitative researchers as interested in "how" instead of "how well," as quantitative researchers might be. Qualitative researchers are concerned with what Bogdan and Biklen (1982) refer to as the "multiple realities" of a phenomenon which can only be discerned as the study progresses.

Limitations on the qualitative researcher need also to be identified. Rogers (1984) found the following as drawbacks to this type of research:

1. The researcher's beliefs and preconceptions can distort the study. It is necessary to understand that this bias cannot be totally eliminated. (Najder, 1975, found that one's values act upon one's ability to determine what is important and what is not. Thus, we sort out data which may, in fact, be useful.)

2. Replication of the study is almost impossible due to the number of variables and subtleties of the events involved.
3. Observations and interviews cannot give the complete picture because something must always be lost.

4. Generalizations from studies of this sort are very difficult because qualitative research studies particular individuals or events limited in time and space.

5. Decisions must be made about who, when, and where the researcher will study. The choices made may or may not be the best that could have been made.

6. Field work in public schools is difficult for the researcher because he or she is not truly a part of the setting. An outsider's presence is likely to cause changes in behavior.

In summary, qualitative research studies are constantly evolving. The most important part of any qualitative study is the researcher himself because the quality of the decisions made is reflected throughout the study.

Glaser and Strauss (1967) identified an approach such as is used in this study as grounded theory, that is, theory developed from inductive analysis of data or from the bottom upward.

Bogdan and Biklen (1982) state that qualitative research is most often done in the natural setting; however, it is impossible to get away totally from the observer effect or the fact that people under study may behave differently from the way they normally do. Goetz and LeCompte (1984) warn that the observer effect may result in participants giving false or misleading information. Deutscher
(1973) states that the researcher must take this into account and, thus, interpret data in context.

The case study, a familiar type of qualitative research, allows the researcher to study a subject or series of subjects within the organizational context. It is a descriptive record of individuals inside a bounded system such as a classroom (Stake, 1978). This type of research lends itself to observations and interviews. However, the researcher must be aware of his or her effect on the subject and the classroom. Both are likely to be colored by the "halo effect" (Fine & Glassner, 1979).

Mohlman et al. (1982) stress the usefulness of interviews and observations with teachers. They suggest interviews with samples of teachers who would fit into the categories of low, medium, and high implementers so that differing perceptions may be obtained. Fullan and Pomfret (1977) stress specific questioning techniques (including open-ended questions) to assess teacher thinking about proposed innovations. Mohlman et al. (1982) suggest the measurement of teachers' attitudes prior to and immediately after the prescribed training. An extensive evaluation of the staff development sessions presented to the teachers in this study was done by each participant immediately after the sessions in an attempt to measure initial reactions, attitudes, and knowledge.

Triangulation was used to collect data for this study. This involves using three sources of information: interviews, an observation, and documents. The interviews conducted in this study
were similar in format to the Loucks et al. (1975) focused interview. In this type of interview, the researcher has a primary objective, uses specific questions to elicit needed information, but is free to follow up answers with probes and spontaneous questions. Borg and Hall (1979) identify this type of interview as a "semi-structured interview" because it is fairly objective but allows the researcher to gather important information by asking for additional information as is needed.

Patton (1980) offers some guidelines in the formulation of questions for interviewing: (a) pose questions in the language of the participant; (b) avoid leading questions which infer a correct or preferable answer; (c) use singular questions rather than dichotomous ones; (d) use "why" questions with caution as they are often ambiguous, assumptive, and abstract; and (e) include probing questions for clarification and further explanation. Patton also advises the interviewer to speak less than the respondent and to sequence questions so that the participant will feel free to elaborate. This structuring would then proceed from descriptive, present-oriented questions to more complex ones eliciting emotion, values, and explanation.

The researcher may use note taking and/or tape recording for collecting data in the interview format. Note taking has the disadvantage of disrupting the conversation between researcher and participant (Borg & Hall, 1979). For this reason, both methods were used by this researcher in interviewing the teachers involved in the
study. The tape recorder was used to record teacher responses while this researcher jotted brief notes and in-depth probing questions on the interview form.

In collecting data by observations, Goetz and LeCompte (1984) stress that the researcher be as much a part of the scene as possible, that he or she transcribe events as they occur, and that transcriptions be recorded in the language of the participant as much as possible. Interpretations and perceptions on the part of the observer can and should be noted on the observation for clarification. Wolcott (1982) sees the need for discrimination on the part of the researcher in what he or she records or does not record in an observation. He suggests that only data pertinent to the study need be noted.

Goetz and LeCompte (1984) identify observation as the primary method by which qualitative researchers, especially ethnographers, can acquire data. They state that "participant observation serves to elicit from subjects their definitions of reality and the organizing constructs of their world" (p. 390). They stress that observers must be familiar with "linguistic patterns" or "argots" used by subjects to fully understand the specific situation. In dealing with discrepancies between what the subject says and does, observations allow researchers to determine if the subject is doing what he or the observer thinks is being done.

Fieldnotes have two parts, descriptions and reflections. The descriptions should be accurate reconstructions of conversations
within the classroom, pictures (verbal or graphic) of the room and the subject and should be filled with quotations as far as is possible. The reflections should be subjective recordings of thoughts, feelings, or prejudices of the observer. The focus might be "analytic memos" (Glaser & Strauss, 1967) which look for themes, patterns, and connections between this datum and other pieces of data or ideas or reflections on the study procedures, such as personal feelings or problems encountered in the research experience, connections or clarifications, presumptions or preconceptions. Fieldnotes may produce data that are more flexible than that produced by mechanical means. They may be coded to help generate categories for further analysis (Goetz & LeCompte, 1984).

Once data have been collected (in this study from interviews, observations, and documents), the researcher must analyze them. According to Bogdan and Biklen (1982), data analysis involves "organizing it (data), breaking it into manageable units, synthesizing it, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell others" (p. 145). Data analysis requires theorizing. According to Goetz and LeCompte (1984), theorizing involves the tasks of "perceiving, comparing, contrasting, aggregating, and ordering; establishing linkages and relationships; and speculation" (p. 167). In a qualitative study of the sort described in this paper, all factors are assumed to have potential impact on the study. Rather than using a limited focus, such as a quantitative study might do, each aspect of a phenomenon
is treated as having possible significance. Analytic units are then sought to reduce raw data into manageable categories. Comparing, contrasting, aggregating and ordering are means of grouping and reducing data. Establishing linkages and relationships requires making inferences. Both inductive and deductive methods are used to pose and test hypotheses about relationships. Finally, speculation is "informed guesswork." Throughout a study, hypotheses are generated and tested to explain behaviors and attitudes of participants.

Sadler (1981) is concerned that naturalistic researchers could have hazards built into the process of data reduction and analysis because the human brain is the equipment used. He states that "... any inference drawn from data can be only as good as native cognitive mechanisms allow" (p. 26). The brain is selective in dealing with large amounts of data and is fallible in the process. Summers et al. (1970) found that where the brain was processing a large amount of data and many aspects were being considered at the same time, evaluations consisted of less information than the people involved thought. Poulton (1968), Wason (1968), and Tversky and Kahneman (1974) all found that first impressions may have an impact on the brain. This process was labeled anchoring by Tversky & Kahneman.

Wason (1968) also found that researchers tend to ignore information which does not fit with a selected hypothesis. Sadler (1981) identified this ignored information as negative instances.
Negative instances, he contends, are just not perceived at all because the brain is not looking for them. The converse is also likely to be true. If one is looking for evidence that disputes a theory, he or she is not likely to see positive instances.

Wyer (1970) found that redundant information was more likely to be discounted than information which was new. Novelty seemed to be impressive to evaluators of information. In turn, the amount of assessment given redundant information was found to be less than that for a new finding.

Kahneman and Tversky (1973) researched the reliability of sources and found the tendency to credit poor sources equally with more reliable sources. They found that it was difficult for some researchers to let go of information even when sources were discredited.

Several researchers (Einhorn & Hogarth, 1978; Oskamp, 1965; Tversky & Kahneman, 1974) have found that once a researcher assesses his or her data, the researcher develops a sureness and confidence in the decision made. This confidence seemed to be unshakeable even when evidence to the contrary was presented.

Glaser and Strauss (1967) describe a method of analyzing qualitative data known as constant comparison. The constant comparative method:

Is designed to aid the analyst who possesses these abilities [skills and sensitivity] in generating a theory that is integrated, consistent, plausible, close to the data--and at the same time, is in a form clear enough to
be readily, if only partially, operationalized for testing in quantitative research. The constant comparative method is not designed (as methods of quantitative analysis are) to guarantee that two analysts working independently with the same data will achieve the same results; it is designed to allow, with discipline, for some of the vagueness and flexibility that aid the creative generation of theory. (p. 103)

The constant comparative method can be applied to a variety of qualitative data such as interviews, observations, and documents. It consists of four steps:

1. **Comparison of incidents fitting each category**
   The researcher needs to code each incident in the collection of data into as many categories for analysis as possible. Coding can be any meaningful mark, such as letters, numbers, or colors. The more complex the study, the more different types of codes will be necessary. The cardinal rule for the coding is that "while coding an incident for a category, compare it with the previous incidents in the same and different groups coded in the same category" (p. 106). This should lead the researcher to eventually posit theoretical properties of the category as well as its relation to other categories. As this process continues, the researcher will find deviations in emphases of his or her thinking and will need to look at other possibilities for coding and comparing future incidents. Memo writing on fieldnotes is one way to organize this process.

2. **Integration of categories and properties**
As the researcher continues coding, he or she will begin comparing incidents to the properties of the category rather than comparing incidents to incidents. This should lead to the integration of the properties of a category into a unified whole.

3. Definition of theory

As the steps above are followed, some terminology and categories may be removed, thus allowing more time to compare incidents which clearly fit a small number of categories. As a category becomes saturated with suppositions, incidents which do not provide new insight may not be coded as they only add to the bulk and not to the theory.

4. Positing theory

When the researcher is rather certain that he or she has a well-developed theory, this may be communicated to others in the field. The coded data should be useful in illustrating points or locating gaps in the theory.

Glaser and Strauss (1967) believe this method of inductive theory development allows the researcher to form "ideas on a level of generality higher in conceptual abstraction than the qualitative material being analyzed" (p. 114).

Goetz and LeCompte (1984) state that "interpretation of data varies according to the purpose of the study, conceptual and theoretical frameworks, researcher experience and background, and
the nature of the data collected and analyzed" (p. 195). According to Goetz and LeCompte, researchers have difficulties with interpretation of data for three basic reasons: (a) they are too close to the study itself and need time for reflection; (b) they are required to commit to a position that sometimes goes beyond the data and makes them uncomfortable; and (c) they have difficulty shifting into divergent thinking rather than the convergent style used in collecting and analyzing data. Interpretation is at the inferential level of thinking. It requires the researcher to state what the data means in relation to the questions asked in the study. Also, the researcher must give some explanation of cause and effect. Finally, interpretation requires the researcher to integrate and relate categories and their attributes.

Goetz and LeCompte (1984) find that the next logical step in qualitative research is integration, or moving beyond the original study to relate the data to broader areas of interest. Effective research requires empirical, theoretical, and contextual policy application integration. Goetz and LeCompte posit that:

Theory generated from data is examined within the context of alternative theories and showed to be sufficiently compelling to challenge, if not to refute, the alternatives. Theory verified by data is likewise examined in its broader context. The nature of the theory also may suggest unanticipated empirical implications and policy applications. (p. 206)

Goetz and LeCompte (1984) find that effective theorizing helps the researcher interpret his or her data and integrate results into the
broad body of knowledge that exists in the subject.

The methodology used in this study was a triangulation of information from interviews, observation, and documents. The interviews were similar to the focused interview from Loucks' et al. (1975) Levels of Use. The observation reports contained "thick description" as well as the researcher's reflections. Documents were used to collaborate or refute information gleaned from the interviews and observation. Coding of information allowed the researcher to reduce the data into meaningful units necessary for analysis. Finally, relationships and patterns were established in the analysis of data in order to answer the research questions posed in this study.
CHAPTER III

PROCEDURES

For the last fifteen years, researchers have shown increased interest in why some teachers tend to implement new ideas in their classrooms while others do not. Several theories have been suggested for this use or nonuse. For example, Doyle and Ponder (1977a, 1977b) posited that teachers will use new ideas to the extent that they are practical, in that they resemble current practice; are clear, specific, and easily understood; and are not overly costly in terms of time and effort required. Loucks and Lieberman (1983) and others have stated that teachers are more likely to use new ideas if they have participated in the decision making and the development of the use of the innovations. Loucks (1983) suggested that teacher commitment is a crucial factor. Miles (1983), Huberman (1983), Ponder (1983), and Hord and Hall (1986) stressed support from key personnel as an important factor in determining whether ideas will truly be implemented to the point of becoming a natural part of the classroom behavior of a teacher (institutionalization).

This study specifically looked for the factors mentioned above in secondary classrooms in a large suburban school district. Much of the research on implementation has dealt with elementary rather
than secondary teachers. Lieberman and Miller (1984) found that secondary teachers traditionally are more resistant to change because of the ecological context in which they work. Secondary teachers see themselves as subject matter specialists rather than teachers of the whole child, as elementary teachers do. They must wrestle with a different hierarchy of power (male-dominated) and work with students who come in larger groups and have different problems (adolescence).

Since the purpose of this study was to describe factors affecting the use of instructional ideas by secondary teachers, qualitative research techniques were selected. Focused interviews on audiotapes, an observation with field notes, and documents to support findings from the interviews and observation were the means used to determine factors affecting the use of new ideas in secondary classrooms. This process of triangulation provided a way to control for possible researcher bias during the process of data collection.

Qualitative research has been criticized because reliability and validity are difficult to determine. Erickson (1979) and LeCompte and Goetz (1982) specifically point out difficulties in replication of studies as well as idiosyncratic behaviors on the part of those under study. Although precautions were taken to ensure anonymity, the researcher was known by the subjects as a district curriculum coordinator. However, most of the subjects for this study came from a variety of fields unrelated to the researcher's
position, and much care was given to reassure them that this was a research study to improve the quality of staff development sessions, not a study of individuals. Each was assigned a code number and a false name so that their real names were never used in collecting, analyzing, or reporting data.

The selection of subjects for this study was largely beyond the control of this researcher. When the district determined that it wished to train teachers in effective teaching techniques, principals from each school in the district were asked to select a teacher for this training. The only guideline given was that they be "good" teachers. Rather than choose only a few of the secondary teachers present, the researcher chose to use all of them, including teachers in grades six through twelve in middle school, high school, and senior high school. Thus, selection bias was reduced.

Another problem with the reliability of qualitative studies can occur in the collection and analysis of data (Rogers, 1984). Several techniques were used in this study to minimize bias in the collection of data. Three interviews were recorded on audio tape. An observation was done between the first and second interview to verify interview findings. Finally, with each interview, documents such as lesson plans, worksheets, and syllabi were collected to provide another source of information. These techniques are employed regularly by qualitative researchers. In the analysis of data, the grounded theory approach described by Glaser and Strauss (1967) was utilized. No preconceived beliefs were used to
determine categories for the reduction of data. Findings from the data emerged as the study progressed. The researcher tried not to let bias of what was important or not important affect either the collection or analysis of data in the study. Well-defined categories have been included for clarity and understanding.

The possible threat to validity caused by observer effects (Bogdan & Biklen, 1982) was minimized as much as possible. The subjects were told they would be observed, but the observations were not formally scheduled. The researcher arrived before class began and sat, as unobtrusively as possible, usually in the rear of the classroom. Only observed behaviors were carefully noted. Thoughts and feelings on the part of the observer were noted in the margin when it was deemed appropriate.

For the three interviews, the researcher tried to put the subjects at ease by beginning with friendly conversation and non-threatening questions. Before the tape recorder was turned on, the subjects were again reminded that the purpose of the study was to look at factors which make staff development sessions more effective. The interview questions were patterned after the Levels of Use interview schedule (Loucks et al., 1975). The questions were designed to be specific in their search for users and nonusers but to allow for follow-up questions the researcher thought necessary to probe for depth of understanding on the part of the subject. The documents were studied thoroughly and coded for evidence of use of effective teaching ideas from the staff development sessions.
The data collected from each of the participants in this study were compared and contrasted with the others in an effort to determine patterns of similarities and differences. Tentative explanations and hypotheses were then developed for the research questions in this study.

Procedures for Collection of Data

Treatment

Forty contact hours of staff development were presented in August, 1984, to the teachers in this study. The staff development sessions provided the latest research on effective teaching techniques. Chapter One contains a detailed description of the effective teaching sessions. The reader should refer to pages 14-15 for further information. The staff development modules presented to the teachers have been retained in their entirety for additional study, if necessary.

Instrumentation

The focused interview was the primary method used to collect data on factors affecting user efforts to implement ideas presented at staff development sessions on effective teaching. In this type of interview, the questions are structured to determine if the subject is an implementer or nonimplementer and to ascertain why. However, flexibility is provided so that the interviewer can probe with questions designed either to cue the subject or to determine
depth of understanding on the part of the subject.

The first interviews were conducted in January and February of 1985. The interviews contained questions which would determine which ideas from the effective teaching inservice were being used, how they were being used, and which factors affected user efforts at implementation. Also, the first interview contained questions of a more personal nature, such as "How many years have you been teaching?" "What is your educational background?" "What is your preferred style of teaching?" "Do you consider yourself creative?" and "What would you like to be doing in five to ten years?" The first collection of documents occurred after the first interview. The documents were analyzed for evidence of use of effective teaching techniques as presented in the staff development sessions. In March and April of 1985, each subject was observed to allow the researcher to collect data on the use or nonuse of the effective teaching techniques and to verify information from the interview. These observations were not formally scheduled so that the observer might see a typical day. The descriptions contained only observed behaviors with all researcher reactions located in the margin. (A sample observation is located in Appendix D.)

The second interview was conducted in late April or early May of 1985, and was designed to ascertain characteristics of the information which affected user efforts, for example, the practicality ethic (Doyle & Ponder, 1977a, 1977b). Additionally, questions to determine organizational context and outside pressure
on the subjects to use the new techniques were asked. The questions specifically asked for reactions of students, parents, principal, and district coordinator and their subsequent effect on the user. (See Appendix E.) Documents from the subjects were again collected and studied for evidence of use, and these data were added to the growing body of information on each participant in the study.

Finally, the third interview was conducted near the end of the school year (1985). This interview again concentrated on characteristics of the ideas but also focused on the support the implementer or nonimplementer felt (Huberman, 1983; Miles, 1983). Questions here concerned pressures felt and their effect as well as support from outside sources. Documents were collected for the last time during this interview. The data were again added to the subject's file for analysis.

For one additional source of data, an evaluation done by the participants in the staff development program was used. The evaluation was conducted immediately after the sessions and contained questions related to the practicality ethic (Doyle & Ponder, 1977a, 1977b). This information provided some important insights into the participants' attitudes and thoughts. (See Appendix F.)

All interviews were recorded on audiotape for accuracy and to allow the interviewer to concentrate on asking reactive questions when necessary. The complete recording of each interview was transcribed before coding and summarizing, and the validity of the
coding and summarizing was verified by a professor in the Education Department of a local university. The observations, field notes, and documents were similarly coded and analyzed. All tapes, transcripts, observation notes, field notes, and documents have been retained for further study or verification. (The three interview schedules are located in Appendix B.)

**Subjects**

Twelve secondary teachers originally were selected as the focus for this study. These teachers represented all of the secondary schools in a large suburban school district in North Texas. One of the subjects moved to another area in the state before the first interview could be conducted and thus was dropped from the study. Another participant who attended only thirteen of the forty hours was also dropped.

The remaining subjects in this study represented a variety of subject fields in grades six through eleven. The staff development sessions on effective teaching methods stressed application to all subject areas, so it was perhaps advantageous to have subjects from different disciplines within the secondary program. These teachers were selected by their respective principals to attend the Effective Teaching staff development program.

The school district selected for this study has twelve secondary schools incorporating students in grades six through twelve. The middle schools serve students in grades six through
eight, the high schools grades nine and ten, and the senior high schools grades eleven and twelve. There are six middle schools, four high schools, and two senior high schools. The one notable exception is a high school which contains grades seven through ten. The teacher representing this school taught mainly eighth grade, so six of the ten subjects were middle school teachers, two were high school teachers, and two were senior high school teachers.

Among the ten participants in this study, three were sixth grade teachers. All three taught six classes a day in a middle school setting. One of the three taught six sections of social studies; the other two taught interdisciplinary math and language arts, respectively. Another participant taught six sections of seventh grade science. Two others taught eighth grade. One of the two taught five sections of social studies, and the other taught six sections of math. The remaining four teachers taught five sections of English--one in the ninth grade, one in the tenth grade, and two in the eleventh grade.

Data Collection Procedures

This study was conducted during the spring semester of the 1985 school year. The treatment (staff development sessions) occurred in August, 1984. A period of five months elapsed between the treatment and the study. During this time, no unusual support from the researcher was given to the subjects. The variables studied were those characteristics of the information selected for
use in classroom practice. The characteristics and relative degree of influence of the several factors affecting the use of new ideas in the secondary classroom were also studied. Some of these factors have been well documented, for example, the practicality ethic (Doyle & Ponder, 1977a, 1977b); developmentalism, participation and support (Loucks & Lieberman, 1983); and administrative commitment, pressure, and support, in addition to environmental turbulence and career advancement (Huberman, 1983; Miles, 1983).

Data collection included audiotapes of the three focused interviews, an observation with field notes conducted between the first and second interview, and three collections of documents which included such data as lesson plans, worksheets, and class syllabi. Some data were also gleaned from the staff development evaluations conducted immediately after the sessions.

The interviews were conducted during the teachers' planning periods and were always prearranged. The tape recorder was used to allow the researcher to concentrate on follow-up questions as they were necessary. The subjects were always reminded that this was a study to help improve the quality of staff development sessions and that they were invaluable whether they used none, some, or all of the ideas. They also understood that this would likely result in a doctoral dissertation but that no names or places would ever be disclosed.

The first interviews were conducted in January and February of 1985. The last two were conducted in late April and May of 1985.
Documents were collected at the conclusion of the interviews. Between the first and second interview, each subject was observed to verify information from the first interview and collection of documents.

The observations were not formally scheduled, but all the participants understood that the researcher would be conducting an observation sometime in March or early April. For the observation, the researcher always arrived before the start of class and occupied a seat in the back. The observation notes were a combination of script and narrative but always contained only observed behaviors. If the researcher wished to comment for a future reference, this was done in the margin. The students noticed the researcher in the back of the room, but because she was busy writing on a notepad, they ignored her after a few minutes. When class began, the researcher described those events which were observed and recorded times when appropriate.

The documents collected were usually lesson plans. In a few cases worksheets and syllabi were collected, but the syllabi were found to be less valuable because they usually were an outline or scope and sequence of course content.

Procedures for Analysis of Data

The interviews used for this study were similar to the interview schedules used in the Levels of Use by Loucks, et al.
The questions were designed to determine the level of implementation as well as to look at characteristics of the effective teaching ideas which were being used or not used. Additionally, the interviews contained questions concerning pressures and support from key personnel to ascertain the relative degree of influence these had on the subject. All questions were approved in advance by a professor from the Department of Education of a large university.

All interviews were recorded on audiotape for accuracy. In most cases the transcripts of these tapes included each word stated by the subject except where there were transmission problems. These transmission difficulties are indicated in the transcripts by . . . (inaudible). Occasionally, long dialogues were summarized if the researcher deemed that no important information was lost. (A sample transcript is located in Appendix E.) Each tape was replayed numerous times to ensure the accuracy of the transcripts.

When the transcripts were finished, the tapes and transcripts were coded to identify the subject to the researcher and released to a professor in the Education Department of a local university for verification of accuracy. This was done by randomly selecting parts of the audiotapes and checking the transcripts against the tapes for exact wording.

The researcher had done many observations and was trained in both scripting and narrative note taking during an observation. The observations done in this study were a combination of scripting and
narrative summaries with observer reactions carefully noted in the margin.

After the data were collected, analysis began. The coding of interviews, observation, and documents proceeded, using certain categories from the review of literature. These categories were instrumentality, congruence, and cost from the practicality ethic (Doyle & Ponder, 1977a, 1977b); support (Ponder, 1983; Loucks & Lieberman, 1983); and administrative commitment, pressure, support, and assistance, and career advancement motivation (Huberman, 1983; Miles, 1983). These categories from the review of literature were used after iteration through the data warranted their inclusion. Others were dropped because they were not supported by the data. One of these was environmental turbulence. As this coding progressed, some categories evolved in order to aggregate data not covered by existing codes. They included the categories of teacher commitment, teacher understanding of the ideas (analytical ability), and outside pressures affecting use (legislative mandates and district policies). Also, some categories were combined, such as support from key personnel and administrative commitment, pressure, and support; and career advancement motivation and teacher commitment. The number of categories, including those evolving from the grounded theory approach (Glaser & Strauss, 1967), totaled seven. They are as follows:

1. Instrumentality
2. Congruence
3. Cost
4. Support from key personnel
5. Teacher commitment
6. Teacher understanding (analytical ability)
7. Outside pressures

Through iteration, each teacher's use or nonuse of the effective teaching ideas was determined along with those factors which seemed to affect their efforts at using the ideas. The teachers' reactions, observed behaviors, and documents were coded. This information was then added to other data so that the tallies in each category totalled the ten subjects in the study. This allowed the researcher to find some patterns in the collected data. Finally, the researcher posited explanations and tentative hypotheses to answer the research questions in this study. Those questions were:

1. What are the characteristics of information selected for use in classroom practice?
2. What appear to be the characteristics and relative degree of influence of the several factors affecting the use of ideas in classroom practice?

Summary

Following a series of staff development sessions on effective teaching techniques, twelve secondary teachers (all those attending) were selected for a study of their use of the effective teaching ideas in classroom practice. One teacher moved from the area and
another was dropped because she missed most of the staff development training.

A triangulation of information was used to determine factors affecting the use of the ideas. Three interviews, one observation, and three collections of documents provided most of the data for this study. An evaluation of the staff development sessions provided some additional data.

The data collected, and its subsequent analysis, allowed the researcher to present tentative explanations and hypotheses for the research questions in this study as well as to make inferences and generalizations for further study of those factors affecting implementation of new ideas by secondary teachers.
CHAPTER IV

ANALYSIS AND CONCLUSIONS

The main sources of data for this study were three interviews, an observation, and documents collected from each of ten subjects. An additional source of data was an evaluation of the inservice held immediately after a forty-hour staff development session on effective teaching practices. Analysis of the data utilized the grounded theory technique described by Glaser and Strauss (1967). Data from each of the ten case studies were compared in an attempt to define interpretive categories. Seven of these categories were continuously supported in each analysis of the subjects.

This chapter presents the results of the analysis of data from the ten case studies. The information is presented in four sections. The first section presents descriptions of the ten subjects in this study with emphasis on the factors which appeared to influence their use or nonuse of ideas from the staff development sessions. The second section defines the coding categories that developed from the analysis of data using the grounded theory approach. The third section contains comparative data related to the patterns of implementation versus nonimplementation. The final section is a summary of the findings from this study.
Case Descriptions

The ten teachers in this study were interviewed three times and observed once in order to provide the following detailed descriptions. Their lesson plans, syllabi, and other pertinent documents were analyzed to determine their level of use in planning and assessment of the effective teaching ideas presented to them in staff development sessions. The descriptions which follow have been placed in order from the highest implementers to nonusers.

Sarah, The Technician

Sarah is a sixth grade teacher in a middle school. Her course load consists of four math classes ranging from average to higher level students and two language arts classes, both low level. She has been teaching fourteen years. Sarah belongs to the National Education Association and its state and local affiliates and the National Council for Teachers of Mathematics. She subscribes to and reads the journals from all the above organizations as well as the journals Computer and Family Computing. In five to ten years, Sarah would like to hold a curriculum supervisor’s position in math.

Sarah believes that her greatest strengths as a teacher are her systematic approach to instruction and her consistency. She says she has "a way of doing things, not harum scarum." She prefers an activities-oriented classroom. She lectures some but, for elementary students, she would rather have activities and centers. Sarah considers herself creative and likes to try different approaches.
**Ideas Used**

Sarah implemented more of the ideas from the staff development sessions than any of the other participants in this study. She is quite precise in their use and thus is referred to as the technician.

When asked in the first interview which ideas from the staff development sessions she was using, she replied, "All of them."

Sarah then elaborated, saying:

*We're using the five-step lesson plan everyday. We go through it, we write it up, we go through everything--all the five steps everyday. And, also, on the types of questioning, we try to incorporate those into our questions.*

With further prompting, Sarah identified task analysis, behavioral objectives, and classroom management techniques as ideas she had incorporated into the classroom instruction. The interviewer then asked whether she was using motivation and retention techniques. Sarah said:

*Yes, we incorporate them, but they aren't our main thrust. We feel we are the best motivators. Our kids are motivated--very few lay back.*

In the second interview, Sarah again specified the five-step lesson design, saying:

*We use it everyday. For a substitute, we write them [five steps] up. We have all examples, questions, questioning skills and strategies, task analysis--everything.*

When asked if she used classroom management techniques from the
summer inservice sessions, she replied, "We use everything we were taught." Finally, the interviewer asked about active participation, and Sarah indicated that she used choral, signal, and individual participation devices.

In the third and final interview, Sarah again stated that she used all of the ideas from the summer sessions. She indicated that she had some difficulties with the concept of hemisphericity and perhaps didn't understand it. Otherwise, she used all of the new ideas and techniques.

In her evaluation of the staff development sessions done immediately after the forty-hour workshop, Sarah was very positive. She particularly praised the organization of the workshop, the teaching techniques and materials used, and their relevance to her needs. She believed the information to be practical, useful, and suitable. She ranked the inservice among the best she'd ever attended and stated she felt comfortable in implementing the ideas.

Sarah was most familiar with the module on objectives and the information on hemisphericity. She was least familiar, she said, with the modules on testing and higher level thinking. She stated she was unsure of concept development and the vocabulary of higher level thinking but believed that she'd feel more comfortable after some study. She definitely believed most of the ideas would make her job easier and help students learn. However, she felt a great deal of time might be necessary in preparing for the new ideas. She stated that she would feel fairly comfortable in presenting the ideas
to other teachers. Finally, Sarah felt that the modules on behavioral objectives, task analysis, lesson design, questioning strategies, and classroom management would most easily fit with her existing style in the classroom.

**Document Analysis**

In the analysis of lesson plans and in the observation, the researcher confirmed Sarah's self report. She did indeed use many of the ideas from the effective teaching sessions. For example, all of the lesson plans were written in the five-step format (see Appendix G), and a sample task analysis was included with the documents. Most of the lesson plans included the categories of focus with objective and transfer, instruction with modeling and checks for understanding, guided and independent practice, and closure. Figure 7, a lesson plan for multiplying fractions, is an example of Sarah's lesson planning.

**Observation**

In the observation which occurred between the first and second interview, the class began with an activity Sarah called a "brain teaser." The students were apparently familiar with the procedure as they immediately began to work on the problem with no prompting from the teacher. In a few minutes, the teacher went over the problem with the students checking to see that they remembered the properties involved.
Lesson Plan Format

Subject Area: Math

Unit Topic: Multiplication

Dates of Instruction: 12-10

Length of Lesson: 1 hour

Lesson Plan Format

check: P. 240 (1-30)

Anticipatory Set

Focus (Motivation): Mut of fractions, whole numbers

Purpose

Objective: EEI-G 7th Block 1st Obj

Transfer: You have learned how to cross divide, multiply.

Instruction

Provide Information

1. Change whole number to improper

2. Change over

3. Cross cancel, divide

4. Simplify if needed

model of means

multiply

Modeling or examples

\[
\frac{2}{3} \times \frac{3}{4} = \frac{6}{12} = \frac{1}{2} \\
\frac{3}{4} \times \frac{2}{3} = \frac{6}{12} = \frac{1}{2} \\
\frac{5}{6} \times \frac{2}{3} = \frac{10}{18} = \frac{5}{9} \\
\frac{7}{8} \times \frac{3}{10} = \frac{21}{80} = \frac{3}{16}
\]

Check for understanding

1. \(\frac{5}{6} \times \frac{2}{3} - \frac{1}{2}\)

2. \(\frac{3}{4} \times \frac{3}{8} - \frac{9}{32} - \frac{3}{8}\)

3. \(\frac{3}{4} \times \frac{3}{8} - \frac{9}{32} - \frac{3}{8}\)

Guided Practice

(Monitoring and Feedback)

1. \(\frac{2}{3} \times \frac{2}{3} = \frac{4}{9}\)

2. \(\frac{4}{9} \times \frac{9}{16} = \frac{3}{16}\)

3. \(\frac{5}{3} \times \frac{3}{4} = \frac{15}{12} = \frac{5}{4}\)

Closure: What is the meaning of "of"?

How do you multiply with a whole number?

Independent Practice

P. 241 (1-21)

Figure 7. Sarah’s lesson plans.
Next, students were asked to get out their homework and check it. Before beginning, Sarah related what they were doing to previous learning by saying, "Today we had a line graph. What others have we studied?" As answers were given, the teacher moved around the room checking students' work.

Students were then asked to pick up the "Map Reading" worksheet that Sarah had placed on the side of their desks. At this point, Sarah began instruction as another teacher in the room handed out cards to be used in the lesson. Sarah explained that the students would be using the note cards to make a scale. Next she discussed the importance of maps and made reference to an old "I Love Lucy" show for how maps are used. Sarah then worked a scale problem on the overhead projector, asking students questions about the operation involved. She worked several more orally, again asking students "what operation" was involved.

Next, Sarah assigned the worksheet to be begun in class and finished as homework. She wandered up and down rows answering questions. Most students appeared to understand the assignment, and many finished before the bell rang. Just before the bell rang, the teacher stopped the students and had them clean up the area.

In analyzing the field notes from the observation, the researcher found most of the five steps of the lesson plan readily apparent. Sarah included an anticipatory set or focus which contained the statement of the learning, purpose for the learning, and relevancy to the learner. In the instruction step, Sarah modeled
the new learning several times and asked questions to check for understanding. She provided guided and independent practice with a worksheet and monitored students as they worked. However, no formal closure was observed in this lesson.

Several classroom management techniques were observed, such as the opening sponge activity and smooth transitions between activities. Students seemed familiar with the progression of events in the classroom. Additionally, review and transfer to other learnings were observed.

**Patterns of Knowledge Utilization**

In the interviews, Sarah stated that she felt familiar with many of the ideas presented in the staff development sessions. She said:

At first, I felt hazy but as we moved along I could see the progression because I knew [the] stuff. I could understand due to prior schooling and reading I had done on my own and also from experience.

She believed that for the most part the instruction had been clear and understandable. However, some areas needed more breadth and time, she admitted. In the second interview, Sarah specified "right-brain stuff" as being less clear to her. In the final interview, Sarah stated she had felt very comfortable implementing the ideas from the inservice and that she was comfortable with the information the presenters had given her. She even felt comfortable in presenting the models to other teachers.
Sarah felt many of the ideas were similar to ideas and practices she was already using in her classroom, stating:

Mainly the five-step lesson plan, but it wasn't in such an organized fashion. Also, behavior management. We were using assertive discipline and we still do use that, but as far as working together, we do more of that.

She said she "always wrote the objectives and behavioral objectives." She felt she and her teammate had been using task analysis also, but not as formally as they now do. She stated that the inservice had brought these things more to the conscious level. In the second interview, Sarah felt she "carried over what I did last year into the modules." In the final interview, Sarah was asked about similarity to her existing style, and she responded that the lesson design was most like the style she had been using and that task analysis and classroom management were also very much like previous practices. She stated, "Some were additions and blendings. We just didn't have fancy names for them or labels."

Sarah was quite enthusiastic about what the new ideas and practices had done for her classes. Several times she remarked about how logical and structured her instruction had become and what a benefit this was to her students. Of her students she said:

They know what we're going to do, and how we're going to do it, and what we expect of them. They can't be passive. They're going to be an active participant. Even those who lay back, we give an opportunity to signal. If they signal, then they'll feel freer to participate, whereas before they just sat in their chair, and you didn't know they were there. Or, they never even had an idea.
When asked about strengths and weaknesses of the new ideas, Sarah said,

I wouldn't teach any other way. I'll always use this. I'm sold. The kids are amazing. We had a 3% failure rate, and we teach 75% of the kids.

The ideas had become "second nature" to her and had become easy to use, she believed.

Sarah felt the new ideas had eased her job as a teacher. She said:

Oh yes, I feel better about myself as a teacher. The kids are doing better—grades, participation in class, not afraid to ask questions. "I have a good rapport," the evaluator said. I feel real comfortable with them.

Sarah also believed that her use of the new ideas had made a better teacher of her teammate. In discussing her teammate's evaluation by the district auditor, she stated:

She's only been teaching two years; and she got as high a rating as I did, and I've been teaching fourteen years. I've gotten her to use the five steps. I was thrilled that someone from the outside could come in and see her progression. I've signed her up for effective teaching for her coursework.

When asked specifically if the innovations required much time on her part, she replied:

No, at the beginning it did. I had to pay my dues. It took longer to write up my lesson plans, etc. Now it is second nature.

Sarah did not believe that she had had to discard any other ideas of value in order to incorporate the new practices. In the final
interview when asked again about the time required, Sarah again specified more time at the beginning but not now. She said:

You'll see from my plans that they get briefer and briefer because they become more a part [of me]. I still write out some parts.

It was obvious from several remarks made by Sarah ("I wouldn't teach any other way," "I'm sold [on this style]," and "I feel better about myself as a teacher. The kids are doing better . . .") that she felt she and her students had gained much from her use of the ideas. Whatever time it cost her, she considered the time well spent.

When asked about the support she had received in using the new ideas, she specified her teammate, the students, and her principal as the main characters in her implementation. Several times she commented that her teammate "reacted wonderfully," saying such things as:

In her [teammate] first year of teaching, she'd just throw things at the kids and say 'do it.' For her benefit, it's been more valuable for her than me.

Sarah responded that her entire team had gained in that they were better than ever before at meeting objectives. One teacher from the English team remarked about the quality of her teaching, stating that the evaluators would be impressed. For her students, she truly believed they understood better than ever before. She responded:

One kid asked if I'd come in and teach his class. He said his teacher just didn't explain it like I do. [The teacher] gets my plans, but he doesn't have the background, for instance, questioning techniques or [the] part before where you build to it. Now, that's because of the model . . . . Kids
know there's something different here.

Sarah again said the only thing that was different from past years was the new methodology, and that her kids were scoring higher.

Sarah felt support from her principal. He had given her quite a good evaluation and remarked that "every step was in there [the lesson]" and that he had enjoyed it. She was disappointed that he had not followed through as she had hoped he would. After Sarah presented the five-step design to her staff, the principal had asked all teachers to try it. Many teachers apparently complained about the time required to do the lesson design. Sarah believed the principal had collapsed under the pressure. Sarah wasn't sure if anyone else in her building was really using the information, and this was a disappointment to her. Sarah had not had any reactions from parents of her students nor from the district coordinator for her subject.

Sarah seemed to have a clear, in-depth understanding of the new ideas from the inservice. She understood that the five-step design lends itself to developing skills. She said:

It is easier in math than in English . . . . We're better planners than they [English teachers] are because we use task analysis.

In another interview, she again pointed out task analysis as helping to keep her and her teammate on track. She felt it also helped them go back and correct things.

When asked about what pressures she had felt in using ideas from the staff development sessions, Sarah believed that House Bill
72 had brought this style of teaching to a more conscious level by "just telling us we need to shape up." She felt House Bill 72 promoted more consistency among educators around the state. She did not believe that the district's evaluation system had affected her, but she did state, "I think if we use the five-step like we're doing, we'll do fine." She had reviewed the instrument enough to feel secure in her teaching, so perhaps it was more of a factor in her use of new ideas than she realized.

**Summary and Interpretations**

Sarah is considered to be the highest implementer in this study. All of the lesson plans provided were done on the district's lesson design format, and the observation confirmed her use of the instructional techniques. In the three interviews, Sarah stated that she felt she was using everything she had learned in the inservice sessions. She had little difficulty in elaborating on any of the questions asked and occasionally provided analysis of her use, such as the statement about task analysis making her team better planners than another content area team. Initially, Sarah seemed to have a clear understanding of the ideas presented in the inservice as documented in her evaluation of the staff development sessions. In the interviews on the characteristics of the information provided, Sarah confirmed this understanding. She also believed some of the ideas were similar to her existing instructional style (the lesson design and classroom management). Although she admitted that the
ideas were time consuming at first, she seemed convinced that student achievement had improved as a result of her use of the ideas. When asked about other influences on her use of the new instructional ideas, Sarah felt her teammate, principal, and students had positively influenced her use. She believed also that House Bill 72 and the district evaluation system had had a positive effect. Finally, Sarah's personal characteristics may have affected her use. She seemed to be dedicated to her profession and subject as demonstrated by her membership in professional organizations and her subscription to related journals, and to her students, as reflected in her many remarks about their learning and achievement.

**Susan, The Inconsistent**

Susan has been teaching for ten years and currently teaches both honors and regular classes in ninth grade English. She belongs to the local, state, and national levels of the National Education Association as well as the local and state levels of the English teachers' association. She regularly reads the journals of all these organizations. In five to ten years, Susan would like to be teaching college classes, or perhaps stay with her current employer as a supervisor.

Susan feels her greatest strengths as a teacher are her ability to work with students as individuals and her organizational skills. Her preferred styles of instruction are teacher-led discussions and short lectures. She does not consider herself to be exceptionally
creative.

Idea Used

Susan is considered an implementer in this study. In the first interview, when asked if she were using any of the new ideas from the staff development sessions, she replied, "Yes, I am, but not as many as I'd like to." When asked specifically which and how, she said:

Active participation devices, and I have above my desk little red and black cards and various things and we've used hand signals and the students have responded well. I want to work at perfecting that though . . . the way it's most effective for me to use it. The five-step lesson plan . . . of course, we're required to use that now, but I am using that, and I have served as a resource person [for my building] . . . and I'm working on getting that down to where I can do it with a minimum effort for each of the lessons. Classroom management techniques, for example, my detentions. I think one of the techniques we learned was to make punishment punishment. I used to use that [detentions] to counsel with students. I don't do that anymore, I punish them, then I counsel. I learned that from classroom management. Questioning strategies--I do try to use, particularly in my honors class, all the higher level questioning skills . . . .

When asked if some of the ideas were like her present practices in class, Susan indicated that some of the material she learned in the staff development sessions was similar to her recent graduate education courses. Here she specified behavioral objectives and task analysis as additional practices she was using. In response to another question, she stated that most of the
information from the sessions "was at least familiar."

In the second interview, Susan said she was "working on including the steps from the lesson plan design" and again specified active participation and classroom management as ideas she was using. Also in that interview, Susan stated that she hoped to use more innovations in the future.

In the third and final interview, when asked about her current status on use of the new ideas, Susan responded that she was using the lesson plan design, classroom management techniques, and questioning strategies but that she had not been using active participation recently because she felt she needed to develop some new ideas for that. "I made up some new ones," she said, "but toward the end of the year, you know how it goes."

Susan's final comment concerned her feelings about the innovations. She said:

I felt positive about them. I'm real happy I've been teaching for eleven years, going to graduate school, taking all kinds of courses. But I still feel that sometimes that certain things are renewing, and I think that was [staff development sessions]. If you leave [an inservice session] and feel good and that your enthusiasm has been renewed, that you have a little better control . . .

Susan is labeled as "the inconsistent" because the collected data are inconsistent. As determined by the three interviews, she clearly believes herself to be an implementer of the new ideas, but Susan's lesson plans only partially support this. As reported later, some of the new ideas were observed while the researcher was in
the classroom, others were not. Thus, though considered an implementer in this study, she was not totally consistent.

Susan's evaluation of the staff development sessions which occurred at the conclusion of the forty-hour program may have been an indication that she would be an implementer. Susan gave high marks to such things as relevance, amount of knowledge gained, degree of practical help, use of workshop topics in your own setting, the techniques used, and the organization of the workshop. She believed that the teaching strategies presented would be effective in helping students learn, stating "better organized teachers equals better organized students." In another question, she said, "I have been consciously working on improvement each year." In terms of clarity, Susan felt that "some modules were more clear than others." And later, when asked about the time required to use the new ideas, she said, "Excellence and new strategies demand time. We must be willing to give it." She clearly believed that the new ideas would be helpful in making her job as a teacher easier although some modules were clearer to her than others. Susan felt the critical thinking module was least familiar, whereas the questioning strategies module was most familiar. She believed task analysis would be the most difficult to implement stating, "Time involved--cannot do thoroughly on every task." Susan stated that she felt comfortable implementing the new ideas and sharing some of them with other teachers.
Document Analysis

In the analysis of documents and the observation record, the decision was made to include Susan in the list of implementers. Susan had provided almost the entire semester's lesson plans. Most of these plans included the objective and the focus for the day's lesson, a brief description of the instruction, and student activity or practice. Closure was not noted. Also, there was no differentiation between guided and independent practice. For example, Figure 8 is a set of lesson plans for the week of February 7-13, 1985. In some plans, the focus was labeled as that; in others such as the one below, the label was left off. On one set of unit plans, the vocabulary words were attached. All had a set of essential elements from the state checked for inclusion.

Observation

In the observation which was done between the first and second interviews, some of the effective teaching techniques were noted; however, in the next personal interview, Susan told the interviewer that she had been sick on the observation day and should have been at home. The lesson observed was part of a unit on poetry. The teacher began the class with transfer to material studied the week before and a short review of work done the day before. Four poem titles were listed on the board. The teacher told the students they would be studying the theme of "joy" in poetry, and began by
Honors English 9
FIVE PARAGRAPH ESSAY UNIT

See attached Essential Elements.
See attached objectives.

February 7
1. opinion vs fact
   The student will learn what an essay consists of.
2. Read and discuss chapter 1, The Lively Art of Writing.
   Teacher will give examples of fact and opinion.
3. Assignment #5, p. 23.
4. Students will write topics.
5. Students will evaluate topics written.

Feb. 8
1. Focus on Tabs skills.
2. Review usage items with examples.
3. Students do examples.
4. Students do exercise independently and check.
5. Study usage.

Feb. 11
1. What makes a good opinion?
   Students will discern between an opinion and an arguable, defendable opinion.
2. Read and discuss chapters 2 and 3 of Lively Art.
3. Do assignments on p. 32 with active participation devices.
4. Name elements of a full thesis with a partner.

Feb. 12
1. Full thesis; example on overhead
   Students will identify elements of a full thesis.
2. Review elements together.
3. Students will create full thesis together.
4. Students will write a full thesis with a partner.
5. Students will exchange and evaluate.

Feb. 13
1. Introductions
   The student will be able to write a logical introduction.
2. Do assignment 1, p. 47 after reading chapter 4.
   Sample on overhead.
3. Class will write Steinbeck introduction opening sentences.
4. Student will write intro. with partner.
5. Student will write introduction for Antigone essay.

Figure 8. Susan's lesson plans.
discussing the first poem on the board with this theme, "I thank you, God." The teacher asked such questions as "What made the poetry unusual?" "Why capitalize God and not self?" "How is the tree described?" and "What is the controlling image of the poem?" Next, Susan discussed the poem "Music" by Emerson, asking such questions as, "What is the message?" "Where did he find songs?" and "What kind of attitude does the poet have?" Then, she discussed the term anafra (repetition of phrases in music) and asked students to look for this in the poem. A student found this quickly. The next poem was "If" by Kipling, and Susan asked the students to find anafra in this poem. A student did, and the teacher responded with "parallelism in phrases--yes." The fourth poem was the Twenty-third Psalm and again the students were asked to find the anafra. A student quickly found it, and Susan asked for examples of metaphors. As students found them, she asked them to explain further what they meant.

Susan then reviewed the requirements for student notebooks and told students they needed to find three more poems which conveyed "joy" and copy them in their notebooks. The teacher had brought in a cart of poetry books, so students were told the procedure to use in taking the books from the cart. Students then began the assignment while the teacher moved around the room monitoring. At this time, Susan checked the roll while students worked. Afterwards, she moved among students answering questions and getting students back on task. Several students were
off-task, including a group of boys reading riddles and two throwing airplanes. One student was belligerent when corrected, but the teacher quieted him. Some began working; others merely waited for her to move on. Near the end of the period, the teacher called for books to be returned to the cart, reminded students of the assignment that was due (three poems with "joy" theme), and informed them of the next day's assignment (writing a poem) and a quiz. (Several students were off-task again. The teacher asked one to see her after class.) Susan then dismissed the class.

The observed lesson contained several of the ideas from the staff development sessions. Susan had many students answering questions, so active participation was observed. Also, most of the lesson cycle was seen, including review, transfer, instruction, practice, and closure as were questioning strategies, higher level thinking, and some aspects of classroom management (checking the roll while the students worked). The exception to this was the off-task behavior noted during guided practice. The teacher's efforts were ineffective with several of these students.

Patterns of Knowledge Utilization

In analyzing Susan's responses to questions in the three interviews, the following appeared to be pertinent to her implementation of the new ideas.

Susan felt that the new ideas presented in the staff development sessions were, for the most part, familiar to her and
that "most of it was pretty clear." When asked if the five-step lesson design was similar to her instructional style, she said, "Sure, prior knowledge." She believed that the segments on task analysis and testing and evaluation were the most difficult for her. When asked why she replied:

They just require some thought. They're difficult concepts. They take time and thought. You can't hear them once and it sinks in. Some of the ideas you can see once or hear once, and you can understand it. It may also be because I was more familiar with some of the ideas . . . .

When asked to elaborate on ideas, Susan did appear to have a firm understanding of the ideas from the staff development sessions. For instance, she could explain how she was using active participation devices (red and black cards), as well as what she needed to do to continue using them (develop new techniques to excite her students). Susan also explained how the staff development sessions had cleared a misunderstanding of her own concerning punishment. She stated:

I think one of the techniques we learned was to make punishment punishment. I used to use that [detentions] to counsel with students. I don't do that anymore. I punish, then I counsel. I learned that from classroom management.

She believed that some parts of the lesson cycle were "second nature" to her.

When asked what she would redo about the inservice if she could, she recommended making the testing and evaluation module more concise. Then she admitted that that might be because she was
more familiar with that material. She felt she had adequate practice with the ideas during the sessions to ease her use of them. She believed that there was too much practice on the behavioral objective.

Susan felt that some of the ideas from the inservice sessions were similar to what she was already using in class. She specified questioning techniques saying:

I was already concerned with questioning strategies. I was already working on that, and it only reinforced what I was doing.

She felt that much of the staff development sessions served to reinforce information and ideas she had received in graduate education classes in recent years. In the second interview, Susan again said questioning strategies were similar to existing practice in her classroom and that district inservices had been focusing on testing and evaluation and that that module was "being checked on." In the third interview, Susan was again asked about similarity of the new ideas to her present style. Susan again indicated questioning strategies and testing and evaluation because her district coordinator was conducting inservices on that. (Testing and evaluation was a district focus in the spring of 1985, and this made Susan feel more comfortable than she had felt in the first interview where she identified testing and evaluation as difficult concepts.)

When asked if she had previously used parts of the five-step lesson design without calling them by the labels provided in the inservice, she replied, "Oh yes, I think so." Also, she identified
classroom management as being similar to existing practice. "Yes, it had some good ideas that I knew and had thought about, but it refreshed my mind."

In the first interview, Susan apparently thought the lesson plan design was time consuming. She stated that she was trying to get "it down to where I can do it with a minimum of effort for each of the lessons." In the second interview, she could see the value of the lesson design when she stated:

I put [it] on the board or on a chart, the steps we're going through in class, and the kids come in everyday and look for that and they know what we're going to do. I think it saves time. It really helps.

Concerning her use of active participation devices, she believed the students benefitted from these but she said that she:

Needed to devise some new ones and not stick with the same ones over and over. That becomes boring and repetitious for the kids. Probably, that's just not taking the time right now because I really do think that is a good idea.

When asked if any of the ideas eased her job in any way, she replied:

I think so, they've made me feel more organized. And, I think I go in every day thinking of what I'm going to do in steps. I think it helps the kids to know what's coming next as much as me. It gets them started everyday. It's a more specific plan . . . . We've gone through our tests to analyze how many questions are on what level--knowledge, comprehension, analysis. We've probably changed our tests a great deal. They needed changing, but we've focused more on what kinds of questions we're giving them. And I think our tests are improving because
of that.

When asked if any of the innovations required much time on her part, Susan said yes, "but everything you do requires time, so we're just spending our time on something different." She felt that implementing some new ideas had meant that she and her team had had to discard other ideas, but her students had done well, so perhaps, the old ideas weren't "essential."

Susan felt her principal "definitely encouraged" her use of the new ideas. She said she had discussed her use of the lesson plan design with her principal because she felt there might be pressure on him. The principal did leave it up to Susan and did not expect her to type up long lesson plan sheets every day. As seen in her lesson plan documents, her plans were not that specific. When asked if the principal's influence had affected her use of the ideas, she replied, "No." However, in the final interview she was asked if she had felt pressure to use the ideas, and if so, from whom. Susan indicated the lesson plan was required by her principal and that he wanted his teachers to use it every day. When asked if she would have used it anyway, she said:

Yes, but I might not have put it down in black and white. Maybe it [the principal's encouragement] kept my nose to the grindstone.

Though her answers varied, Susan obviously was encouraged to use the five-step design by her principal.

Susan felt her students also supported her use of the ideas saying:
[I have] heard them comment about always knowing what they're going to do. They like structure. They like knowing what they're going to do. They come in and get busy.

She did not believe her students' parents had reacted to her use of new ideas, nor did she feel her district coordinator was aware she was using the new ideas. Her team, however, had had a positive effect on her use of the innovations. She said that they were originally negative because of all the written work of the lesson design "until we all saw that getting it down this way was beneficial." In the final interview, Susan was asked specifically if her team had supported her efforts in using the new ideas. She said:

Some of the people on my team have tried some of the ideas as well as asked questions. Active participation devices--at least two of the teachers have incorporated that, and I think when two or three do, others follow. We plan and work as a group.

Susan felt that more assistance from the presenters might have been "helpful." She also wished that she could have met with some of the other teachers involved in the staff development sessions to exchange ideas.

Susan seemed to have an in-depth understanding of her use of the new ideas from the effective teaching sessions. In one interview, Susan was asked if she had needed to make any changes in any of the ideas to fit her style or benefit the students. She replied:

The five-step lesson plan will sometimes blend (like three, four, and five). This sometimes makes the principals nervous if you're not doing one, two, three, four, five. And you know, we may be on step two for . . .
[inaudible] but those days you'll have closure every day. You may not go through steps one to five everyday on your lesson, but I see now that you're going through one to five in your own way. You may be going through a lesson that takes all week and you're on steps one or two. You know what I mean. If I'm teaching about Charles Dickens, I may teach about him for three days, and I may have a day for guided practice or independent practice. So I see all kinds of breakdowns in it. I think it's really good. I think it offers a lot of structure for people who aren't real organized. [Also] I've found that active participation works better in some classes than others. Some kids are reluctant, but they just need more variety.

Susan felt comfortable enough with other ideas to make changes. She remarked that she needed to devise other active participation devices for her own style and to keep student interest. Also, she could see the value to herself and her students in displaying the lesson plan daily.

Susan's desire for peer group discussions among the teachers who were trained in the staff development sessions showed insight. That is an idea supported by some of the research on staff development cited in Chapter II.

Susan definitely felt that House Bill 72 had influenced her use of the new ideas. When asked how, she said:

Well, you have so many new things to consider. How does this part of my curriculum fit the essential elements and if you're putting that together and sending home forms to notify parents that kids have to come to tutoring and this, that, or the other, then you don't have time to spend developing new classroom ideas [and] strategies. It cuts your time down to do those things. And you realize you should be, but you can't always do it. Time is a problem.
When specifically asked if the district's evaluation system had influenced her she stated:

I think everyone is very aware that you need to be teaching by the five-step lesson plan, and sometimes, even teachers feel like a one period lesson [plan] every day ought to be all five steps, and I've seen a lot of the teachers feel very paranoid about that, and I've said, "Hey, you may be on step two for several days," and they breathe a sigh of relief because they do feel the pressure there. They know that's how they're going to be judged and it's come down over and over and sometimes all the administrators don't understand.

Susan was then asked if the district evaluators had affected her use of the new ideas. She replied that they had not been to her school yet, but that she and her team had been evaluated by the principal and his assistants who used the same evaluation form. She said:

Everyone does feel some pressure about that [evaluation system] because that is coming up and we've been reminded you know, "By the way, you need to be doing this or that in the five-step design."

When asked on the final interview if the district evaluator had reinforced her use of any of the new ideas, she replied, "Yes, I received a high mark on organization."

Summary and Interpretations

Susan is considered an implementer in this study primarily because of the three interviews. Her discussion of the ideas she believed she was using showed perception and insight. For instance, her quotations on the use of the lesson design, active participation
devices, and classroom management demonstrated internalization of the new ideas. Additionally, Susan's lesson plans contained some parts of the lesson design, and some of the new ideas were documented in the observation.

Certain characteristics of the information delivered in the staff development sessions appeared to affect Susan's use of the new ideas. Her evaluation of the staff development sessions showed a clear understanding of most of the information presented. Also, in her interviews, Susan remarked several times that the information in the staff development sessions was already familiar to her because of classes she had taken.

Susan felt some of the ideas were similar to her existing style in the classroom. She stated several times that questioning strategies were practices she was already working on and that the lesson design and classroom management were similar to existing practice.

Susan believed that some of the ideas, especially the five-step lesson design, were time-consuming. However, she saw the value to herself and her students in using it in such statements as:

... They've [the steps in the lesson design] made me feel more organized. And, I think I go in every day thinking of what I'm going to do in steps. I think it helps the kids to know what's coming next as much as me. It gets them started everyday. It's a more specific plan...

When asked about other influences on her use of the new instructional practices, Susan felt her principal, students, and team members had positively affected her efforts, as well as House Bill
Finally, Susan's personal characteristics may have influenced her use of the new ideas. She seemed to feel a strong commitment to her field as a continuing student and to the teachers she works with in such statements as:

... I go back and review my notebook, and I have shared it with other teachers in the department. If I don't have time to really talk to them, I'll say 'Look at this and we'll talk about it tomorrow.' Some of the suggestions are real good, especially for new teachers. It has been helpful. . . . I have an experienced teacher who was working on a course and asked if I had anything on it. I was able to pull that [notebook] out. She got some new ideas for her course and also her classes. I also work with teachers throughout the building as we haven't had much in-service.

Susan's commitment to her students was also apparent in several remarks, such as working on new ways to get students involved in her class and improving evaluation techniques.

**Sally, The District Loyalist**

Sally has been teaching for thirty years and is currently teaching math and language arts to sixth grade students. Her math classes contain accelerated students while her language arts classes contain primarily average students. She belongs to Phi Delta Kappa and reads *The Kappan* regularly, as well as other educational articles in *Newsweek* and the newspaper. In five to ten years, she plans to retire, but as she says, "I'm torn between reaching the age and wanting to."
Sally considers her greatest strengths as a teacher to be her experience, her background, and her ability to discuss any topic she wishes because she has traveled so much. Her preferred style of teaching is lecturing and directed activities. When asked if she considered herself creative, she felt she was average.

**Ideas Used**

Sally is considered an implementer in this study. In her first interview, she specified that she used the five-step lesson cycle and questioning techniques "all the time." When asked if she used the lesson plan everyday on all topics she stated:

No, mainly on skills--skills on the instructional design. Anything new like that will follow along. Higher level questioning I use particularly in reading discussions--interpretation of stories, what the author meant.

(Sally may not have understood how the lesson design worked with concept development and attainment. In the staff development sessions, it was clearly stated that the design was easiest to use on skill development and new material.) When asked if some of the effective teaching ideas were similar to what she was already doing, she pointed out classroom management and the lesson plan.

In the second interview, Sally stated that she used the lesson plan most of the time, questioning, classroom management, and task analysis. When asked if she was using virtually all of the information from the summer, Sally felt she was. When asked if she would continue to use the innovations, she replied:
Probably, yes. I like the lesson plan. It's set up so I can look down there, and once I get them for everything I teach, then I think they'll be a big help.

In another question on whether she intended to try other new ideas, Sally replied, "I probably will because I'm always looking for new things to do." Asked to be more specific, she first went back to questioning then pointed out hemisphericity as a possibility for future use.

In the final interview, Sally again specified the lesson plan and questioning techniques as ideas she was still using in her classroom. No further elaboration was provided even with a prompting question.

When asked about her feelings concerning the staff development sessions, she stated:

I thought it was done well. [The presenters] did an excellent job. It was something we teachers need to have brought before us every so often because it's hard to keep up. We tend to let things slide, because it's easier to do things this way, and I think you need that push and influence.

Sally also stated that she put pressure on herself to be better and that she tried a lot of new ideas so her staff would follow "because you can't tell them to do something and not do it yourself."

In a final interview question, she said she intended to take a new book home for the summer and do all her year's lesson plans in the five-step format.

Sally's evaluation of the staff development sessions immediately after their completion was very positive. The only
weakness she specified was not enough time. She gave the highest possible marks for clarity, relevancy, organization, degree of practical help, techniques used, suitability to teacher's needs, and motivation. She felt she had been most familiar with the modules on classroom management and higher level thinking and least familiar with task analysis. Sally felt learning theory would be difficult to implement stating:

[I was] not really aware of all the parts and probably the staff is a little insecure also.

She was concerned about the amount of time required to implement some of the ideas stating:

Many of the things we do now, but we are not aware of it. Others could be incorporated a few at a time.

She felt fairly comfortable explaining or teaching the ideas to others. She said:

Sometimes it is difficult to be real effective with your peers because you feel they may know as much or more than you do. [However] the material that we've been given to work with is so well organized that it should be easy to implement.

This very positiveness of her reaction may have been a clue that she would be an implementer.

Document Analysis

In analysis of the observation notes and lesson plans provided, it was determined that Sally was, indeed, an implementer. Each lesson plan was delineated step by step in the district format. For
instance, the five main steps were outlined with detailed description. (See Figure 9). There was a focus, an instruction with modeling and a check for understanding, guided practice, closure, and independent practice. Some of the plans were done on a form provided during the inservice, others on a self-made form, but all were in the basic format. As discussed later, some errors in thinking were denoted in her lesson plans.

Observation

In the observation, Sally began the math class by asking when the students might use per cent. Then she stated that today the students would find a number when the per cent was given. Next, she modeled a problem from the textbook on the overhead projector and had a student help her set up a proportional equation. Students were then asked to set up some problems on their own papers. The teacher helped them, then worked a second problem on the overhead projector. Next, a student asked her to work out a problem from the book. She read the problem and asked another student to set up the proportion and work the problem. Sally pointed out a problem which in this case was a way a mistake could easily be made in percentage problems. She next showed the students how to work story problems. She discussed the need to label a story problem, then assigned guided practice which would become independent practice if not finished in class. She explained that she would help them the next day if they had difficulties. The teacher monitored student
UNIT I - Lesson 2 Subjects and Predicates

1. Anticipatory Set
   a. Focus
      On the board draw a picture of a fierce-looking dragon marching toward a castle. Show fire coming from the dragon's mouth. Ask volunteers to describe what they see. Encourage detail. Record two or three sentences on the board. (You may use a picture of your choice)
   b. Objectives
      Today we are going to identify the simple and complete subject of a sentence, identify the simple and complete predicate of a sentence, and supply subjects and predicates to make complete sentences.
   c. Purpose
      Later on you are going to learn how to diagram sentences and this will be a big help to you.

2. Instruction
   a. Provide Information
      - Explanation Follow page 11 in text and teacher's manual.

3. Guided Practice
   a. Activity
      Finish the above two parts of parts A and B. Monitor the work and check for understanding.
   b. Overt response
      Students will underline the simple subject with one line and the simple predicate with two lines in part A. Student will draw a vertical between the complete subject and the complete predicate in part B.

4. Closure
   a. Final Assessment
      Written Practice on page 13.
   b. Perform behavior alone
      Students will do the "Final Assessment" independently.

5. Independent Practice
   For students who did the closure exercises correctly, assign one or more of the following:
   - Workbook - page 2 (average and below students)
   - Practice Master - page 2 (above average students)
   - Review pp 22-35
   - Maintain pp 62-69
   - More Practice, Enrichment, pp 360-361

Figure 9. Sally's lesson plans.
work for the remainder of the class, the bell sounded, and the students were dismissed.

In analyzing the field notes from the observation, Sally clearly implemented the five-step lesson design using a purpose and objective, modeling and checking for understanding, a critical attribute of the learning (where a mistake could easily be made), and guided and independent practice with monitoring. Formal closure was the only part omitted. The class operated smoothly in the observation. It was obvious that the teacher had set up a clear discipline plan with the students in advance. This was a part of the classroom management module. Although no specific techniques of classroom management were observed, none were needed.

Patterns of Knowledge Utilization

In the interviews, Sally felt she had a clear understanding of the new techniques from the inservice. She felt the inservice was well done, clear, and easy to understand, with ample practice which helped her implement the ideas. When asked if some of the new ideas were ones she was already using in her classroom, she replied:

Some of them, yes . . . . Higher level questioning I use because a few years ago I took the courses for gifted and what we had last summer was frosting on the cake really.

She felt that about half of the material presented was new to her.

Sally could sometimes elaborate for the interviewer on the innovations she was using. For example, she said she made changes
in the lesson design by not doing all the parts everyday and by skipping parts that weren't applicable. She seemed to understand that that is the way the plan should work in everyday use. Sally also elaborated on higher level questions by defining some, for example, what the author means in a specific piece of literature.

In the last interview, Sally again specified the lesson design and questioning techniques as similar to her style in the classroom. The lesson plan design seemed to fit with her preferred style of instruction, lecturing and directed activities.

Sally did not feel that the new ideas required much time in the first interview. She did say that the lesson plan design required some time but she said:

I think once you do them and can fall back on them and you can make some modifications or something, then you'll be all right.

In another question concerning the reaction of her team, Sally said:

Well, they do not like all the written work of the lesson plan, but they're doing it. I think that's the biggest problem. Even though we've cut down the lesson plan, it's still time consuming.

When asked if she would continue to use the new ideas, she stated:

I like the lesson plan. It's set up so I can look down there and once I get them for everything I teach, then I think they'll be a big help.

In the last interview, she stated that the lesson plan required time the first time used, but that it would probably require less in the
future. Sally obviously felt that the innovations required time but were worth it. When asked about whether the lesson plan was beneficial to her or her students, she said, "To all of us." At this point, she said she would take home the new math book in the summer and develop the five-step plans for it.

Sally felt that her principal was aware of some of the effective teaching techniques but that he had neither encouraged nor discouraged her use of them. She did not believe that her district coordinators were aware of her use of the techniques. Neither parents nor students had reacted to her use of the ideas. As stated previously, her team disliked all the written work of the five-step lesson plan, so this may have been a negative influence though she continued her use. In the final interview, she was asked if she felt she had received adequate support in her efforts at using the new ideas. She replied, "I think so, uh huh." When asked who from, she specified two of the presenters. When asked this time if she felt support from the principal, she said yes. When asked again whose support had affected her use of the innovations, she felt the presenters made her wish to try the ideas. They had motivated her.

The researcher believed that Sally had not internalized the new ideas. Sally could see more use for the lesson plan with skills and new learnings. Although the inservice specified that the design was more readily adaptable to skills and new learnings, concepts were specifically covered in a model lesson. She did understand how to apply higher level questioning techniques as she said she used...
them "particularly in reading discussions, interpretations of stories, what the author meant." In a later question on the lesson plan, she could see that she had probably been using parts of the lesson plan before the inservice without having labels for them. As she stated, "... you get so involved that you don't stop to think of the pieces." Also, Sally could see that the lesson plan was not designed to be a daily plan only, that a lesson could last for days.

Many of Sally's answers were a repeat of information provided in the inservice. She showed some confusion at one point about hemisphericity, saying, "I'm left-handed and so many of my students are too that I want to get to that." When the interviewer cued her back to left-brain, right-brain, Sally felt that math should lend itself to teaching like that. No further elaboration was provided.

Sally definitely felt that House Bill 72 had influenced her use of the new techniques because of its emphasis on the district evaluation system. She said "... we're going to have to follow HB 72--our evaluation will tell us if we're following it or not." Sally perceived that both the House Bill and district evaluation were after a more effective way of teaching and that the lesson plan and questioning techniques would provide that. She did not feel pressure from any other source except herself.

Summary and Interpretations

Sally is considered an implementer in this study based on her lesson plans and observation. In her interviews, the researcher
often felt Sally was saying what she thought the interviewer wanted to hear; however, she is still among the higher implementers.

Although Sally stated several times that she clearly understood the information from the staff development sessions, the researcher found inconsistencies. First, her difficulty with concepts on the lesson design, then her confusion on hemisphericity led the researcher to believe she had some misunderstanding. In analyzing her lesson plans, Sally clearly did not understand transfer, writing, "[It] will help increase vocabulary." In other documents, she confused transfer with the lesson objective and seemed to misunderstand "overt responses."

Sally believed that the lesson design and questioning were most like her existing style in the classroom, and she was using these and classroom management in the observation.

When asked about the time required, Sally seemed to feel that implementing some of the ideas was time consuming. However, the benefits to her were worth the cost in time.

Concerning other influences, Sally had not felt strong support from anyone except two of the presenters. Her principal was aware of what she was doing, she believed, but had not really supported her. Her teammates had reacted negatively. Sally did not believe the students or their parents had reacted at all. Finally, she did believe that House Bill 72 and the district evaluation had positively influenced her use of the new ideas.
Sally's personal characteristics may have affected her use. The answers she gave to interview questions gave the researcher the impression that Sally would be willing to try anything her school district supported. She appreciated the new ideas presented to her and stated that teachers should be updated and motivated to try different techniques. She used the lesson design and tried to encourage her team to use it. The researcher believed that Sally was implementing many of the new ideas because of her loyalty. She did not fully understand all the information as was evident in some of her statements and documents, however.

**Jayne, The Pragmatist**

Jayne teaches three sections of tenth grade English, two honors classes and one regular class, and one section of Humanities, which is a course for gifted students. She has been teaching fourteen years and holds a Master of Arts in Teaching. Jayne belongs to the N.E.A. and its affiliates and the local and state councils for English teachers. She regularly reads the *English Journal* and the journal of the Texas State Teachers Association. In five to ten years, she would still like to be teaching some classes but also training new teachers, especially in classroom management and teaching techniques.

Jayne thinks her strengths as a teacher are in diagnosing student needs, especially in writing or composition, and helping students correct problems. She also believes she is a "strong"
literature teacher and enjoys teaching literature as an approach to problem solving. One other strength she has is rapport with students. She believes she "gets along with kids." Jayne prefers to lecture in the classroom but lectures so that she promotes discussion among students. She does not see herself as creative. Jayne thinks of herself as a task master, stating:

I would like to reward creativity, but I would like to reward productivity more. I work with many creative students who do not produce, and they need to understand that if they don't produce no one will ever consider them anything.

Ideas Used

Jayne is considered an implementer in this study. She used the new ideas in her classes and team planning because they eased her job. Jayne is labeled the pragmatist because of her practicality. She used whole or parts of the teaching strategies from the summer workshop as she saw a direct benefit from them.

When asked specifically which ideas she was using from the inservice, Jayne stated she was using some of the classroom management ideas and the lesson plan design. She said:

The thing I enjoyed most about the summer program was the practical advice. I have been working with the faculty since I went into this to try to get them to understand the difference between instruction and guided practice because I think that's where most of us fall down. And that's what I'm working on—is to try to make sure I am instructing and not doing guided practice.

When asked if she was attempting to use the steps in the lesson
design even though they weren't always written out, she replied:

Right, in the back of my mind I'm saying "Yes, I've done that correctly, now I need to go on to the next step."

With prompting from the interviewer, she stated that she also used questioning techniques, task analysis, motivation and retention techniques, overt responses, and behavioral objectives. As she said, "I've picked up lots of bits and pieces we [team] use." Specifically with task analysis, she said:

Yes. It helped clarify for me that many times, especially teaching something in the humanities, we don't know what the task is. We know what the information is, and the children should know because . . . [unintelligible] and I've tried to break these things down for people to show them what the task is--if we are actually going to our objective, and if we analyze our tests and things like this to make sure we're going after what it is we say we want. My team has become more aware of how to set up things--to set things up as tasks so they know what kids have to do.

In later interviews, Jayne said she was using "more of the ideas on motivation," the lesson plan "more consciously now," classroom management, statistics and testing, questioning, and behavioral objectives, though this style of objective was not new.

Jayne's evaluation of the summer workshop on effective teaching was highly favorable. She stated that organization and flexibility were great strengths of the workshop and highly praised relevance, suitability of knowledge, stimulation, use of topics in her own setting, and the amount of knowledge gained. She believed the information presented was clear and useful. Jayne thought she was
most familiar with questioning strategies and that the lesson design would most easily fit with her existing style in the classroom. She believed the testing module would be most difficult to implement, stating, "I am not familiar with certain kinds of standardized tests and effective use of results." Jayne felt confident in explaining the new ideas to others. One inconsistency which must be noted was a statement in which she said that she had been least familiar with classroom management techniques. In her interviews, she said classroom management was similar to her existing style. In this evaluation she stated that she thought the ideas might be time consuming but that the ideas would make her job as a teacher easier. Her high marks may have predicted that Jayne would be an implementer of the innovations in the effective teaching sessions.

**Document Analysis**

Jayne's lesson plans were not in the lesson plan design taught in the workshop. Instead, the objectives were delineated on a front sheet, with a day-by-day summary of activities attached. On the first set of plans, she had marked certain activities with the following initials: A.S. (anticipatory set), I. (instruction), I.P. (independent practice). (See Figure 10.) The other two sets of plans had no markings. Some of the large parts of the lesson plan design were easily discernable, however. Several assignments were included, and these often reflected use of higher levels of thinking.
SUBJECT - TEAM
Regular English II

DATE  1-22-85

UNIT TITLE
Julius Caesar

TEACHING DATES.
Jan 21 -- Feb.15, 1985
* READING/Writing IN CONTENT AREA.
* SP. ED./ MODIFIED

UNIT OBJECTIVES
The student will:
1. Increase his knowledge of the genre of drama.
2. Review elements of Shakespeare's life and his work in the theater.
3. Increase his knowledge of the life of Julius Caesar and of the political structure of Rome during the rule of Julius Caesar.
4. Identify the major types of figurative language (simile, metaphor, personification, hyperbole, apostrophe) in the play.
5. Recognize the humor in the play and analyze its significance.
6. Demonstrate knowledge of how character, setting, plot, and theme are developed in a dramatic mode.
7. Increase his understanding of such universal literary themes as revenge and the tragic hero.
8. Increase his emotional and intellectual enjoyment of literature, particularly drama.

SKILLS
vocabulary
composition
literary analysis

ENRICHMENT ACTIVITIES.
films: "Introduction to Julius Caesar"
The Taming of the Shrew

LESSON PLANS
THE TRAGEDY OF JULIUS CAESAR
ENGLISH II
Mon., Jan. 21
A.S. (LG) READERS' THEATER (5 students)
Introduce the Shakespeare play and the unit- -unit objectives, quizzes, study questions, char. list, notes, and multi-topic graph paper.

1. Begin reading aloud as a group Plutarch's essay from Lives, "The Life of Caesar" (text--231-238)

2.P. HOMEWORK: finish reading essay if necessary complete worksheet on the essay

Figure 10. Jayne's lesson plans.
Observation

In the observation done between the first and second interview, some of the ideas taught in the staff development sessions were in use. At the beginning of class, the teacher reminded students they had a test the next day and explained that today the students would contribute something to the study of Asher Lev (a novel). She said she'd assign each student a partner and give them a card to determine their assignment. She said she wanted the students' thinking, not hers. Then, she handed out cards to students, said they'd have ten minutes to answer the question on the card, and had the students begin the assignment. The groups began working, looking through books for the answers. Fifteen minutes later, most students seemed to be finished. Some were off-task and chatting. The teacher asked them to review their questions because they'd have to present to the class. Then, she asked for the cards to be returned.

Next, the students presented information to the class. The teacher instructed the groups to come to the front when their number was called out. After answering the question, other students might ask them questions, she said. She proceeded calling out numbers, and the students answered their questions for the class. Several students asked questions of the presenters. The teacher conducted a discussion between presentations. The rapport between teacher and students was quite good. It was obvious that they were fond of each other with such remarks from students as "we love
you," and "show us your sense of humor." Also, the questions and answers from both students and teacher reflected analytical thinking. For instance, the teacher asked the students if other groups existed today with a strong religious leader. Several students gave examples of such groups. The teacher said, "There are no right or wrong answers to some questions, only unsubstantiated ones. (Some student answers to questions showed higher level thinking while some were very poor. All students seemed comfortable commenting freely.) The final discussion from the teacher inspired some students to make analogies. The bell rang, and the teacher told students "to think good thoughts." The students then left the classroom.

The observation showed use of some of the techniques from the summer staff development sessions. The higher level questioning was immediately obvious. Also, classroom management techniques in the readiness of materials and smooth transfers. Positive reinforcement made all students feel free to participate, and many students were actively involved in the discussion. However, Jayne was so relaxed and funny with the class that occasionally students took advantage. She did not seem bothered by this or the noise. Some steps of the lesson design were readily apparent. Jayne set the purpose for the class and instructed using the students' answers to stimulate the discussion. No practice or closure were observed in this lesson.
Patterns of Knowledge Utilization

In analyzing Jayne's answers to interview questions, the following information appeared to affect her use or nonuse of new ideas.

Jayne seemed to have a clear understanding of the ideas from the summer inservice. In the first interview she said she liked the practical advice and had been trying to help the other teachers see the difference between instruction and guided practice. In the final interview, she stated that she had received sufficient assistance and practice during the workshop and had more information than she could use. Initially, she felt that the testing and evaluation module was not as clear as other segments, and she was not using that module. Later in her interviews, Jayne remarked that she had been using information from that module.

Jayne found some of the information from the summer inservice familiar, but much of it was new too. She said:

Many [ideas] were new to me. I would say I learned more in it than I would say I sat through things I'd heard before.

Jayne did feel that some presenters had done a better job than others.

In two separate interviews she specified behavioral objectives, questioning strategies, and the lesson plan design as ideas she was already using with her classes. She did not have the labels for the lesson design, but she believed she used most parts of it before the teaching strategies workshop. Although she had used
many of the classroom management techniques before, she felt the inservice may have made her go back and “fine tune” her strategies. Jayne stated that she had had no real training in questioning techniques previously but that they fit her style of teaching, so they were easy to incorporate.

When asked if the use of the ideas was time consuming, Jayne replied that they were difficult at first but easier now. She apparently didn’t object to the time because the ideas were “useful and practical.” She believed that task analysis helped her team stay on the objective, that positive and negative reinforcement helped motivate her students, and that hand signals were a quiet and effective way of involving students. She said:

It [the ideas] has eased my job as a department head in that I’m able to more easily diagnose a problem for a teacher and suggest ways to handle it.

Jayne saw benefits to her team in using the lesson plan because “we can go back to the lesson plan when it [instruction] doesn’t work and see where we went wrong.” She also believed it helped them teach their subject instead of teaching about their subject. When asked what changes she had had to make or other ideas discarded in order to implement the new ideas, she said:

Well, it goes back to instruction in English. We expect an awful lot from the students from the beginning because they speak English and so forth . . . What we change are those ideas that don’t lead to definite instruction. For instance, composition—we use instruction and modeling to be sure they understand the process rather than assigning it. And I think we’ve done much better on that
this year because we're more aware of it.

When asked if the summer staff development sessions had caused this awareness, she replied they had, that it "focused" her.

Additionally, she saw benefits to her students stating, "They learn more quickly, and it stays with them longer." This could have been an important factor with "practical" Jayne.

Jayne's principal has supported her use of the new ideas. She said:

No pressure. [The principal] basically ... the philosophy is use what you can. We already turn in lesson plans that are keyed to objectives and that's basically what he wants us to work on. And eventually we have to key them to essential elements. So, when he does evaluations of us, he mentions the five-step lesson plan, and he tells us to keep that in mind .... On occasion, we do key our plans to the five steps. We might put down that it's anticipatory set if it's not clear from the plans. But, I don't think we do that on a general basis. It's not something he felt we needed to change our entire outlook and just start going after those things. It's just another tool.

The principal had even taught segments of the modules to the staff. The faculty, and especially her team, had supported Jayne in her use of the innovations. As far as the students were concerned, none had commented on her new techniques though she felt the innovations eased learning. When asked about parent reaction, she couldn't remember a specific reaction, but, she said:

... not much negative response from parents this year and we have in the past had some questioning of what we're doing.
Jayne did not know if her district coordinator was aware of her use of the new ideas.

Jayne seems to be an analytical thinker. She took back from the inservice that which was practical to her and redesigned it for her staff. She had thought about the modeling of instruction and applied it to literature. She said:

We usually do compare and contrast with stuff in their [students'] lives. The student does more modeling.

This statement required an in-depth understanding of modeling.

When asked if House Bill 72 affected her use of new ideas, Jayne said it had not. She elaborated:

I don't feel as intimidated by it as I should. I've been around a long time. I will use things to be a better teacher. I may use the five-step [design] to go back and check my lesson plan to find out if I have all guided practice and not instruction.

Her reaction to the effect of the district evaluation system was:

Well, I think yes, it affects everyone. The day of evaluation, you'll be sure to use all parts. But, I was already using it because you have to justify to the kids everything [you] do--why we're doing what we're doing. What we were doing already fit the plan.

As to outside pressures, Jayne seems less affected by external factors than internal ones.

Summary and Interpretations

Jayne is considered an implementer in this study on the weight of her answers to interview questions, her lesson plans, and the
observation. She seemed comfortable with the new ideas and didn't mind making changing that helped her or her team be better instructors. The researcher believed that practicality ruled Jayne's use of any ideas. If they helped her or the students, then they were worth implementing.

Concerning the characteristics of the new ideas that affected Jayne in her attempts at implementation, she appeared to clearly understand the new ideas from the staff development sessions. Her evaluation of the sessions done immediately after their conclusion reinforced this. Jayne could elaborate in such depth that the researcher believed she had internalized many of the ideas. For instance, her quotations on task analysis and the steps in the lesson design showed insight.

Jayne believed behavioral objectives, questioning strategies, and the lesson plan were most like her existing style in the classroom though she did not use the labels for the different parts prior to the inservice. Classroom management techniques, too, were already familiar to her.

Although the new ideas were time consuming to implement, Jayne obviously saw the benefits to her, the students, and her peers. She was willing to commit some time though it should be noted that Jayne was not writing out each step. Perhaps, this would have required too much time.

Jayne felt strong support, but not pressure, from her principal. The team she worked with had positively influenced her also.
Although House Bill 72 had had negligible influence, Jayne believed the district evaluation system had been a positive influence.

Finally, Jayne's personal characteristics may have influenced her use of the effective teaching ideas. Her answers to interview questions showed a deep commitment to her students. She was willing to make changes that helped them learn, as demonstrated by comments on modeling and teaching composition. Jayne seemed to enjoy working with other teachers and said in her final reaction that she intended to do more inservices for her staff. Also, in the future, she'd like to work with new teachers on instructional techniques.

Belinda. The Unintentional Implementor

Belinda teaches eighth grade math. Her classes include on-level eighth grade math (3 periods), Introduction to Algebra (2 periods), and algebra (1 period). She has been teaching eight years and holds a B.S. in elementary education with a minor in math. Belinda is currently working on a masters in counseling. She does not belong to any professional organizations but subscribes to and reads the Mathematics Teacher. In five to ten years, she would like to be a counselor at the middle school level.

Belinda considers her greatest strengths as a teacher to be her organization and her understanding of the child who is a behavior problem in the classroom. Belinda prefers to use a guided practice approach in the classroom rather than lecture because she believes
lecture usually ends up on the teacher’s level rather than the pupil’s.

She said:

I like guided practice. I like to get the kids’ attention on something first . . . and get it on their level. Lecture is sometimes real interesting to me but usually ends up being on my level.

When asked if she considers herself creative, Belinda believed she was haphazardly creative. She stated she does like to try new ideas. In a description of herself, she said:

Haphazard is a good word. I like to try new things, change horses in the middle of the stream. I like to start off new and different every year and try something really new and really different every year.

Ideas Used

Belinda is considered a moderate implementer in this study. The researcher found her using some of the ideas from the staff development sessions, but Belinda did not feel she was using many of the ideas. In the first interview, she stated:

I'm not using the lesson plan format. Yes, I'm using guided practice. I feel like I have done that . . . . I use that now more than I ever have before--setting up [the] reason why we need to do this and . . . [unintelligible]. Also, not being so quick to grade or judge based on one time evaluation . . . . The workshop this summer taught me that.

And later, concerning the lesson plan, Belinda felt it was an impractical amount of work for her. She said:

. . . It’s a good idea to think all that through and to hear what all needs to be done, but then I think a person who
is real organized doesn't need it . . . . There's not enough
time.

When asked about her use of the classroom management module, she
said:

Classroom management is wonderful. In fact, I gave an
inservice to our entire faculty on that. I found that to be
the most beneficial . . . .

In later interviews, she again specified parts of the lesson design,
classroom management, questioning, and modeling as ideas she was
using in her classroom. However, she said:

I found a lot of it [new teaching practices] sounded good,
but when I got down to it, I wasn't using them. I try to
ask easy, medium, and difficult questions, not just on
tests--different levels of questions.

Also, Belinda said she had tried hand signals, but they didn't work
for her. It was the researcher's judgment that because Belinda was
not writing the five-step lesson plan to guide planning and
instruction, Belinda felt she was not using the inservice ideas.
Nevertheless, Belinda is labeled as the unintentional implementer
because she did not think of herself as an implementer.

When asked if she intended to try any of the other ideas, she
replied, "I don't think so, or I would be using them now." When
asked to summarize her thoughts and feelings about the new ideas or
innovations, Belinda said this had been her best year of teaching.
She felt this was directly related to her organization and classroom
management. Her attitude toward the ideas she had used seemed
very positive at this point, and she expressed a desire to work on her
test writing abilities, specifically the inclusion of easy, medium,
and difficult questions.

When Belinda's evaluation of the staff development sessions was analyzed, a very important factor emerged. She had been present only twenty-one of the forty hours involved in the workshop. This may account for the misunderstanding of some of the ideas presented later in this description. Otherwise, her reactions toward the workshop were extremely positive. She felt the information was clear, relevant, well organized, and practical. She ranked the presentation as excellent. She believed she had gained knowledge suitable for her classroom and felt comfortable implementing the new strategies. She believed that the information on behavioral objectives, the lesson design, and time-on-task was most familiar, the classroom management module the most like her present style, and the lesson design difficult to implement and time consuming but valuable enough to be worth the time. As she said:

Writing it out takes lots of time, but now I believe worth it. So, we'll work on this next year.

She was least familiar with task analysis, and the researcher found no evidence that she used it. Finally, she believed the ideas would help her students to learn because of the organization but that she did not now spend that much time on objectives and lesson plans. She stated she would feel comfortable teaching others what she had learned. Her evaluation seems to be a predictor as far as the selection of ideas she implemented.
Document Analysis

In studying the lesson plans provided by Belinda, the researcher found only two-or three-word statements of what was to take place on a given day plus text page numbers. None were in the lesson plan design. However, on a separate team planning sheet, Belinda mentioned identifying remedial objectives, maintaining skills, identifying methodology, and classwork/homework assignments. None of this was reflected in the lesson plans, however. Figure 11 is an example of Belinda's planning sheet and lesson plans.

Observation

In the observation which was done between the first and second interview, the researcher found Belinda using more of the ideas than she had specified. The class began with an assignment on the overhead projector. Belinda then introduced the observer to the class and checked the roll. She then explained why an assignment wasn't graded and promised to have it graded by the next day. Next, Belinda checked the problems on the overhead and questioned students about how they got their answers. Students then graded each others homework papers while the teacher put the answers on the overhead projector. The teacher and students worked those problems that someone designated as difficult with Belinda asking students what steps were involved in working the problems. For some of the homework problems, Belinda just gave
Each weekly lesson plan should include:

1. **Overview of the week** - will cover drills, holidays, guest speakers, film, other natural disaster interference.

2. **Maintaining skills to be used**
   1. Repeat a skill from prior lesson
   2. Word problem on lesson concept
   3. Critical reading of today's lesson

3. **Identify essential elements**
   1. These elements will be tested
   2. How will other elements be taught? (Integrated within the lesson, give as extra credit, etc.)

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**Jan. 21-25, 1985**

- Go over Section 8
- Go over Semester Exam
- Word phrases P. 260 (1-18)
- Word phrases W.S. #95 1-33

*Figure 11. Belinda's lesson plans.*
the answers then collected the papers. To begin the day's lesson, the teacher explained that this was the second day of "foils" and reviewed the lesson from the day before, explaining that she would add a double distributive property to what they knew. The teacher then demonstrated a problem on the board and had a student demonstrate one. The student did this with no difficulty. Then, she modeled a more difficult one and had a student work a similar one. Again, the student had no difficulties. The teacher had the student identify what was different in today's problems from those of the day before. A student answered and the teacher confirmed that there were variables in every term today. Finally, the teacher put up two more problems and challenged the class to try them. Belinda said, "Anyone who can work these will be doing a good job." The students seemed to have no difficulty.

Belinda then assigned a worksheet for practice, instructed students to show their work, and walked around monitoring. Many students finished, but no other assignment was made. The students left when the bell rang.

Several classroom management techniques were observed in this lesson. For instance, the beginning activity functioned as a sponge activity (part of the classroom management module). Also, the teacher seemed to have a fine rapport with her students. No off-task behaviors were noted in the observation.

Several parts of the lesson design were apparent in the observation. Belinda provided a focus which included review (this
might also function as a transfer) and the day's objective. In the instruction, she told students the "critical attributes" of the new learning and modeled several problems. She challenged the students to show her they could work the problems. The worksheet functioned as guided and independent practice, and Belinda monitored students as they worked. All of these practices were part of the summer staff development sessions. No closure was noted in the observation, however. Belinda did provide some "wait time" on her questions and had many students participating in the lesson.

**Patterns of Knowledge Utilization**

In analyzing Belinda's interviews, several factors appeared to affect her use and nonuse of the effective teaching innovations. Belinda seemed to have a fairly clear understanding of the methods and ideas from the summer workshop. She stated several times that the information was clear, and she felt comfortable with it. Many of the ideas were already familiar to her. Specifically, she felt her discipline was similar to that presented in the classroom management module. She stated that that "is probably why I'm still doing it." She admitted that there was a great deal of information presented in the sessions, but she felt it was necessary and that the organization and time and practice allotted were adequate for understanding. She found the presentation of information clear. However, she said:
I found a lot [of it] sounded good, but when I got down to it, I found I wasn't using it. I try to ask better questions [different levels of questions].

Concerning the questioning module, Belinda had a problem with "wait time." She said, "The kids hate to wait. They start to squirm." Belinda believed she was using part of the lesson design but that it was impractical to write out each step. She felt she rarely thought out each step, yet she provided the objective, purpose, modeling, and practice for the students. The observation substantiated this statement from Belinda.

Belinda stated several times that the five-step lesson plan was too time consuming to be practical for her. She didn't feel she needed to write out each step though she used some parts of it. She said:

I would never write down all five steps of the lesson plan, but as far as adapting it, it was so organized [that it was] not time consuming.

Otherwise, she did not feel the innovations she was using were too time consuming. She believed the anticipatory set had "made life easier" as the kids understood what was to take place that day. She had not discarded any of her usual procedures in order to incorporate the new ideas. However, time was apparently a factor in Belinda's use of the new ideas.

The principal had been supportive of Belinda in her use of the new ideas. Although he did not require her to use the innovations, he encouraged her and the rest of his staff to be positive towards them. Nevertheless, Belinda did not believe he was a factor in her
use of the effective teaching ideas.

Although Belinda teaches in a single classroom, she plans with other math teachers. When asked about their reaction, she said:

We have seen the ideas and gone over [the five-step design] and we've talked about if you're doing these things, then you're going to get the most out of your lesson . . . . [But, the team] thought it was way too much [work]. Very negative [attitude].

She had seen no reaction from the students, parents, or district coordinator, so none of these affected her use of the ideas she believed. However, in another context she stated that the anticipatory set from the lesson design helped her students better understand the day's instruction, so perhaps the students had affected her without her being aware of it at the time these questions were asked. When asked in the final interview if she had felt supported in her efforts to implement the ideas she said, "yes." Her principal and a few staff members had supported her.

The researcher was concerned by some of Belinda's statements about the innovations. Belinda believed that she didn't need to think about or write down the five-step lesson design in order to use it. In the inservice, the point was stressed that although good teachers use much of the design already, the real value of it lay in the fact that it made one consciously plan for each step. In the observation, parts of the lesson design were missing. Belinda may not grasp the importance of this. Additionally, she felt that "wait time" made the students squirm. That is what it is supposed to do for covert involvement. Again, Belinda may not have understood the purpose of
When asked if House Bill 72 had affected her use of the new ideas, Belinda said that it had caused her not to use them. She felt it had hurt her use of the five-step design and other ideas because it had added more time to her day with remediation sessions and "covering tracks with parents." Specifically, she said:

The remediation sessions that we do take a tremendous amount of time. Contact with parents [though] we did that before, but making sure your tracks are covered so that when you contact a parent you can tell them everything as to when their child comes to remediation and why they didn't do the work . . . .

Additionally, she did not believe the district evaluation system had affected her use of new ideas because she had not even seen it.

**Summary and Interpretations**

Belinda is an implementer of some of the ideas from the summer staff development sessions. The researcher felt she had adopted some of the ideas from the classroom management module, the lesson design module, and the questioning strategies module. She is labeled as the unintentional implementer because she did not consciously try to implement the new practices. She was unwilling to commit the time she felt would be needed to implement some of the effective teaching ideas.

Certain characteristics of the information did affect Belinda in her efforts to use the new ideas. She expressed in her evaluation and interviews that the information was clear and easy to
understand. For the most part, the researcher felt she did understand the new ideas though a couple of exceptions were noted, for instance, wait time and conscious use of the five steps in the lesson plan format. The ideas most similar to her existing style in the classroom were from the classroom management module and the lesson design module. Although Belinda stated that these were easy to incorporate into her classroom, time was clearly a factor. Several times she said she would not be willing to write out the steps in the lesson plan format. Thus, the researcher believed her use of the five steps was casual and not usually planned.

Belinda seemed to feel no unusual support from her principal, team, students, parents, or district support personnel. In fact, her team had reacted negatively to all of the paperwork involved, especially the five-step lesson design. However, the staff in her school seemed to have been positive about a session she held on classroom management, so perhaps this helped her use some of those ideas.

She believed that House Bill 72 had negatively affected her use because of the extra time she spends in conforming to its policies. The district evaluation had not affected her at all because she had no knowledge of it. She believed she used ideas because they helped her in instructing her students.

Belinda's personal characteristics may have affected her use of the new ideas, also. She seemed genuinely dedicated to her students and their learning. She stated that she liked to work with
the kids that other teachers found difficult. She also stated that in the future, she'd like to work with teachers at the middle school level. She wished to change her teaching field and become a counselor in the next five to ten years.

Denise, The Enigma

Denise teaches sixth grade social studies. She teaches six classes a day, all of which are heterogeneously grouped. She has been teaching six years and received her bachelor's degree in American Studies from a west coast university. Her certification is in the elementary area. Denise belongs to N.E.A., T.S.T.A. and its local affiliate, as well as the Texas Council for Social Studies, but holds no offices in any of these organizations. She regularly reads The Smithsonian and National Geographic. In five to ten years, Denise would like to be teaching an interdisciplinary approach to world history at the secondary level or perhaps, open a school in an inner city for educational enrichment. She might consider a curriculum or administrative position, but she does not want to be separated from the students.

When asked what strengths she felt she had as a teacher, Denise said she enjoyed teaching concepts, was flexible, and had a good rapport with students. Denise's preferred style of teaching is lecturing and story telling to make history come alive. She also likes to "stimulate conversation" among the students. Concerning stimulated conversation, she said:
It has a tendency—it can get off the track, but I'd rather see enthusiasm for the subject than, perhaps, whether we've covered every single fact . . . . So that the children realize that social studies is a real and an integral part of their everyday lives. Everything they do is connected with it in one way or another.

She believes that in the classroom she is a creative teacher.

**Ideas Used**

Denise is labeled "the enigma" because she could discuss the new teaching ideas in great depth and believed herself to be an implementer. However, few of the new teaching practices could be identified in her lesson plans or in the observation.

When asked which ideas from the summer workshop she was using, Denise felt she had incorporated the five-step lesson design in her teaching. She stated:

> I may not label them on my lesson plans, but I have become really conscious of checking to make sure the kids are really following you before you leave for the day, making sure you wrapped up the situation. I might have been doing this before, but at least now I'm aware of it . . . . Making sure they know where I'm trying to go with them so that they can follow along with me . . . . Having a good focus and making sure they understand—closing it out. I feel really good about it [instruction]. I don't have to think about them (five steps) . . . .

Denise also identified questioning strategies and classroom management as ideas she was using. About classroom management she said:

> As far as management is concerned, a lot of the concepts that were brought out in the program were concepts that I had been exposed to before, and I feel like I've already been doing just a whole lot of them although I'm much
more careful of room arrangement and reinforcing the rules [along the way] ... so you don't have to worry about it come April . . . .

In the second interview, Denise stated that she was using classroom management, the lesson plan (focus, instruction, and closure), and consistent level of expectation. She felt she couldn't use task analysis because it was not content oriented and her subject was. She said she enjoyed the part on questioning though she wasn't sure she was using it. She said:

... I really love all the different things on questioning. I've been told I [am a good questioner]. Whether or not I really am, I don't know. I like to get kids to the point where they will take over and discuss things . . . .

In the final interview, she restated that she was mainly using classroom management, the lesson plan design, and one other module of which she could not remember the name. In a final question on her thoughts and feelings concerning the innovations, she said:

I felt it was a valuable program even as an observer . . . so that we could see them [ideas] implemented effortlessly. Like, 'Maybe, I can do this in the classroom.' You rekindled my prior exposure to ideas that slipped by the wayside in the haste to get everything done, and you encouraged all of us to [begin implementing] this. You [teachers] don't want to become stale [and] ineffective and burn out because you can't communicate ideas to the class . . . . [There's] no way I'll start a school year without reviewing classroom management so that kids know what's expected right up to June 1!

In analyzing Denise's evaluation of the inservice done immediately upon completion of the sessions, some interesting data came to light. Denise had only been present twenty-five of the
forty hours. Her team leader had attended the first ten hours. The continuity was surely broken. She was generally positive toward the information, its relevance and usefulness. She was less sure of the relevance of the handouts. She believed more time was needed to help with implementation. Denise thought the presentation was clear, with testing and evaluation the most familiar module. The least familiar information concerned learning theories. She believed that the module most like her existing style of instruction was classroom management. She stated:

Most especially concerning classroom management, I was pleased to see that research supports some of the techniques I use.

The most difficult for Denise to implement was the module on task analysis. (Denise had missed the instruction on this module as it was one of the first in the staff development sessions.) She did not believe the "cost" in terms of time would be great in implementing the new ideas, stating:

The greatest problem would be to get them [teachers] to stop procrastinating and begin to implement--then they would realize how little time it takes.

Denise felt comfortable, she said, in communicating the lesson plan and classroom management modules to other teachers.

Document Analysis

Denise's lesson plans had few of the effective teaching ideas from the summer workshop. The essential elements for the lessons
were provided, but only activities were listed. No other labels were provided, nor were worksheets or tests to determine levels of thinking required. (See Figure 12 for an example of Denise's lesson plans.)

**Observation**

An observation was done between the first and second interviews. On the board was the following information:

**Daily Topic**

History of Africa South of the Sahara

**Schedule - Reg. Study**

1. Roll
2. Continue reading to p. 345
3. Check-up questions p. 343
4. Review questions and key facts p. 346
5. Activity p. 346
6. Filmstrip

The teacher called the roll while the students worked on the assignments on the board. Then two other classes came into the room for a filmstrip entitled "Religion and Culture in Africa." Denise monitored the group to be sure they were watching, then picked up a newspaper, sat down at her desk, and began looking through it. In a few minutes, she cut out an article.
**Week Beginning**

<table>
<thead>
<tr>
<th>Subject, Class or Section</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lab activity p. 221</td>
<td>1. Lab activity p. 221</td>
<td>1. Lab activity p. 221</td>
<td></td>
</tr>
<tr>
<td>2. Lab activity p. 221</td>
<td>2. Lab activity p. 221</td>
<td>2. Lab activity p. 221</td>
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<tr>
<td>5. Lab activity p. 221</td>
<td>5. Lab activity p. 221</td>
<td>5. Lab activity p. 221</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 12.** Denise's lesson plans.
The filmstrip took approximately eight minutes, and then the other classes returned to their rooms. Denise began talking about The Portuguese in Africa and told the students they would next study the Dutch influence. Students read aloud from the text about the Dutch. Denise walked around the room while students read. After each finished, the teacher explained what the student had read giving more in-depth information. Next, she had the students read silently the section on the British in South Africa. (Some students were slow to begin this assignment.) When finished, she questioned them over the reading. Then, she used the same procedure on the section of the text on Zulus. Afterwards, Denise asked students to read data from a map in the text. Again, she asked questions of the students concerning the map.

Next, the teacher went over the assignments on the board and pointed out two difficult questions on the countries in Africa. She asked other questions to help students get the answers to the two on the board. Then, she had students turn to page 346 in the text. Denise asked the students to go over the key facts and be ready to explain these to her. Next, she had them look at a section entitled "Comparing Physical and Political Maps." Denise asked what each type of map shows. A student answered the question with no difficulty. Finally, Denise told students she'd take a grade on this the next day and warned them she might give a pop quiz on this information.
The students began the assignments on the board, and the teacher walked up and down the rows of desks. After a few minutes, she added one more section of the text to the students' assignments. Two students raised their hands for help, and the teacher moved to them. For the remainder of the class period, the students worked, and the teacher moved among them answering questions. Some students chatted quietly with their neighbors, and Denise seemed to ignore them. Ten minutes after they had begun on the assignment, the bell rang and the teacher dismissed the students.

In analyzing the field notes from the observation, some of the new teaching practices were observed. From the classroom management module, the idea of providing a daily schedule was observed along with the idea of providing an opening activity (sponge) for students while the teacher checked the roll and got the class going. Finally, Denise monitored students as they worked and kept most of them on task. She and the class seemed very comfortable with each other.

Some aspects of the lesson plan were also observed. For instance, Denise focused the students by telling them they would be studying the Dutch influence in Africa. She instructed after each student read a section in the text, and she provided practice in the activities on the board. However, for the filmstrip, no objective, purpose, context, or discussion was given the students. And, no closure was observed in this lesson.
Denise asked numerous questions and kept the students involved; however, only one question was noted by the researcher as above the knowledge or comprehension level.

Finally, the researcher felt Denise had not fully planned the period of instruction. She seemed to be "stretching" the time she spent explaining the assignments on the board. The assignments seemed self-explanatory.

Patterns of Knowledge Utilization

In analyzing Denise's answers to interview questions, the following appeared to affect her use or nonuse of the effective teaching ideas.

Denise felt she was already familiar with most of the ideas presented in the workshop. She was trained on the west coast in Madeline Hunter's ideas and concepts and finds her "a good friend and a good name to hang on to." She stated:

... I was real familiar with a lot of Madeline Hunter's work ... . It was nice to be reexposed to those kinds of concrete ideas that help in the classroom.

She felt that the lesson plan module was the best in the workshop as it gave kids an understanding and purpose for the instruction. She believed that the inservice had provided adequate information and practice for transition to the classroom but that assistance from the presenters might have been useful. However, she felt confident with the information as much of it was "common sense." She stated:
You rekindled my prior exposure to ideas that slipped by the wayside in the haste to get everything done and encouraged us to start implementing them.

Also, Denise seemed to feel that the classroom management module and the questioning module had given her useful information.

The classroom management module was particularly like her existing style in the classroom. She felt that she had been using many of the ideas but that she was now “more aware of classroom arrangement and enforcing rules throughout the year so you don’t have to worry about it come April.” Denise also believed that she used some of the questioning techniques before the inservice because she had been told that she was a good questioner. As she said, “I like to get the kids to the point where they will take over and discuss things on their own . . . .”

Denise stated several times that the new ideas did not seem to be terribly time consuming, that they were second nature to her. She said that she had not had to change her style to incorporate any of the innovations. And she did believe the ideas were valuable. Denise said:

... [They] clarified what it is to communicate information for that hour period of time you have those kids. They have taken the mystery out of what might be involved in teaching and made it seem more feasible for a person to expect to do a good job and also [provided] a tool where you can realize when you have not done a good job, where you can analyze yourself as you go along, and see where you aren’t doing a good job so you can monitor yourself.

Denise works individually, not as a part of a team and thus, had
not felt that sort of support in her efforts to implement the innovations. She was not sure whether this was just an unusually good group of students or whether her teaching style had made the difference, but she believed the students were understanding the instruction better. She said:

[The kids] seem to be understanding better, passing the subject matter more ably . . . , but I don't know if it's just the kids or the teaching technique. But, I'm suspicious that it might be [the teaching technique]. I really think when they [students] have become accustomed to certain kinds of management--certain expectations . . . [it] has helped them not to be afraid of the subject matter--I think. Maybe not. It could just be good kids.

She had seen no reaction from the parents, however. Her principal had been a positive influence but had not pressured her to use any of the ideas. She did not believe he had affected her use of the innovations. She did believe her district coordinator had been positive and helpful in the process, but she said she used the ideas because they worked for her.

Denise seems to have analyzed the information from the inservices. She may have so internalized the ideas that it was difficult for the researcher to separate and sort them. For instance, Denise felt the ideas had given her a sense of direction and feeling for where instruction was supposed to go. She said:

[The inservice made me want] to sit down with my curriculum and figure out if there is a way to reorganize the curriculum so that you are building on acquired skills or threads before you go on . . . .
Denise felt most of the inservice was common sense which may show a deep understanding of many of the ideas.

When asked if House Bill 72 was responsible for her using any of the ideas, Denise responded that it had not, that her motivation was internal. She did believe that the district evaluation had made her aware of using the information but had not caused her use.

**Summary and Interpretation**

Denise is considered an implementer in this study on the basis of her interviews and some aspects of her observation by the researcher. Denise seemed to have a clear understanding and appreciation of the new teaching practices, referring several times to her prior background in Madeline Hunter's research. Yet, her lesson plans provided little evidence of her implementation, and the observation only partially supported her efforts as a user. Thus, Denise is labeled "the enigma" because the researcher is unsure of her placement among the implementers. Her knowledge of the new practices would place her nearer the higher implementers, but the evidence from lesson plans and the observation would place her much lower.

Several characteristics of the ideas seemed to affect Denise's efforts as an implementer. Denise had had previous experience with much of the new information and thus, had a strong understanding. She seemed to have internalized most of the new information and could elaborate easily. The classroom management module was most
like her existing style in the classroom with portions of the lesson plan and questioning strategies also bearing some similarity. Denise was the only one of the case studies who believed time was not a factor. She believed the ideas were valuable to the students and easy for her to use.

Denise felt no unusual support from any source in her efforts to implement the new ideas. Though her principal and district coordinator were aware of her use, no pressure was applied to use any of the ideas. Denise believed her motivation was internal. House Bill 72 and the district evaluation may have heightened her awareness of the new practices, but Denise believed their influence on her use was minimal.

Finally, Denise's personal characteristics may have identified her as an implementor. She seemed to be a dedicated teacher as evidenced by her desire to expand her horizons intellectually and open a school for disadvantaged children. Her future plans indicate an unwillingness to leave the field of education or the children in the classroom.

Jill. The "Bare-Bones" Implementor

Jill is the department chairman for a team of science teachers at the middle school level. She teaches five sections of seventh grade Life Science in addition to her duties as department chairman. Jill's college work has been done at a nearby university. She holds a
B.S. degree in Secondary Education and is a few hours short of a master's degree in Biomedical Science. She has been teaching eleven years. Jill is a member of N.E.A. and its affiliates and the National Science Teachers' Association but holds no offices in these organizations. She receives and reads their publications as well as *The Gifted and Talented Child* and *Science Teacher*. In five to ten years, she would perhaps like to change positions, but, as she says:

I like being in charge. I would want to be in a position, not necessarily administrative because I don't want to leave the kids, but if there's something there [in the future] so I can stay in contact with the kids but can work with teachers showing them how to do things and how to teach and work with the kids--more in modeling or supervision--but remain in the school.

Jill believes her main strengths are her ability to work with people and her organization and communication skills. In her classroom, she likes a variety of activities, but she prefers teacher-led discussions with class participation. She believes she is "somewhat" creative.

**Ideas Used**

Jill is considered a limited implementer in this study. Some of the ideas from the summer workshop were found in her classroom, lesson plans, and interviews. However, her efforts at implementation seemed to be minimal, thus, the title "bare-bones" implementer.

When asked which ideas from the effective teaching workshop she was using, Jill specified portions of the five-step lesson plan,
classroom management, and the higher level thinking skills modules.

Concerning the lesson plan, she said:

[I use] the five-step lesson plan--maybe not for every part of it, but I use a lot of guided practice and also using anticipatory set and getting focus. Those two more so than anything else. The other parts may be just a normal part of my teaching. I'm not consciously aware of using it as a step. I don't put my lesson plans in that format. I just designate [certain] parts such as this is guided practice . . . .

In the second and third interviews, she again mentioned parts of the lesson plan and classroom management as ideas she was implementing but did not again mention thinking skills.

Jill's evaluation of the staff development sessions was very positive. She gave very good to superior marks to organization, clarity, usefulness and relevance, suitability of knowledge, and degree of practical help, yet she believed:

[There was] not any time to practice these [ideas] with help from a professional who really knows all the modules well in the 'real' world of the classroom.

She stated she definitely felt comfortable implementing the new strategies, however, and believed she could internalize them with a little more study. As she said:

I could do pretty well with a little more study on my own, but that's no one's fault but my own due to the fact I have to sit and concentrate about things awhile before I internalize.

Jill felt she was most familiar with the levels of thinking and least familiar with thinking strategies. The researcher is unsure of how
to interpret this because they were similar modules. Jill may have been thinking of a model lesson on hemisphericity as a thinking strategy because she confused this lesson with a module in her interviews.

Jill identified classroom management and the lesson design as most like her current style of teaching. She said, "I used a lot of the items, but it was not always a conscious decision or a deliberate one." She stated that she would feel comfortable teaching these ideas to others and felt they would be effective in helping students learn.

**Document Analysis**

In analyzing the lesson plans Jill provided, some portions of the five-step lesson design were obvious. The objective was given for the lessons, a check for understanding was listed a few times, and some guided practice, independent practice, and closures were labeled. Active participation on a check for understanding, a note about grouping, and direct instruction were also mentioned. However, the lesson plans were not in the five-step design. Most days had about four activities listed, such as:

1. Vocabulary test
2. Introduce difference between living/nonliving/dead
3. Check for understanding

Other than the objective, no parts of the anticipatory set were seen. Some parts of instruction were provided but not modeling. Guided
and independent practice were occasionally labeled as was closure. Some of the labeling appeared to be nothing more than name calling, for example, closure test and restate objective (review). There was evidence of the use of overt signals. There was little evidence in the notes and tests provided of questioning above the comprehension level. Figures 13 and 14 are examples of lesson plans and questions.

**Observation**

Jill was observed in her classroom between the first and second interviews. The room was a double lab classroom with twenty-four students and two teachers. The assignments for the day were listed on the board. The assignments included the mention of a test and two worksheets for the day. The homework was a wish for a nice weekend. On the side it read, "Study for test right now. Thank you." When the bell rang, one teacher asked students to get out their review sheets and study them. She then walked around the room monitoring to see if they were studying. Some students were off-task before and after she passed them.

Six minutes after the bell, the teachers collected the review sheets, and one gave instructions for the test. She explained that when finished, they should begin the worksheet. Tests were then passed out, and students began to work. Several students had questions, so the teacher explained a part to the whole class. (The observer was given a copy of the test which was almost identical to
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<th>Day</th>
<th>Grade or Class</th>
<th>Objectives</th>
</tr>
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<tbody>
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<td>Monday</td>
<td>Life Science</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>In the SW be able to name, define, and identify the 4 major life functions. (Nutrition, respiration, growth, reproduction)</td>
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<td>Tuesday</td>
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*Figure 13. Jill's lesson plans.*
Life Functions - Check for Understanding

yes - hold pencil up
no - turn pencil sideways
don't know - no pencil visible

1. Life functions are jobs an organism must carry out to be considered alive.
2. The reaction to a stimulus is called a response.
3. Metabolism is the process of getting bigger. [Growth is process] (Emphasize the correct answer here!)
4. Taking in food, getting energy from food, and using energy to build and repair is called metabolism.
5. Reproduction provides new living things to replace old ones that die.

Life Functions - Check for Understanding

Indicate if your answer is #1, 2, 3, 4

1. The tennis shoes you wore last year are too small this year.
2. My plant looks lopsided. all the leaves are facing the window.
3. Daniel jumped when Mrs. Presley slammed the book on the table.
4. Frogs must return to the water to lay their eggs.
5. The scratch on my arm is almost gone.
6. You can plant flower seeds in empty milk cartons and grow them inside.
7. The pizza we ate for dinner was delicious. I don't feel hungry anymore.

1. metabolism
2. growth
3. responsiveness
4. reproduction

Figure 14. Jill's worksheet.
the review sheet.) After a few more minutes, some kids were finished. They turned in their tests and began a worksheet entitled “Fish Worksheet.” The teachers monitored by walking up and down the aisles. After another fifteen minutes, many were finished and the room became noisier. Some students were definitely off-task as the teacher moved away from them. A few minutes before the bell, one teacher announced that anyone not finished with the worksheet needed to turn it in at that time and finish it Monday. The students began to talk among themselves and continued until the bell rang. At that time, one teacher asked them to pick up paper around them and then dismissed them.

Some aspects of classroom management were observed, that is, the assignment on the board and monitoring. However, there was off-task behavior observed several times, and the teachers were ineffective in redirecting students. The only segment of the lesson plan observed was guided practice (the worksheet). The researcher had copies of the worksheet and test. No evidence of challenging thinking activities or questions was observed in these activities.

**Patterns of Knowledge Utilization**

In analyzing the answers to interview questions, the following appeared to affect use or nonuse of ideas by Jill.

Jill seemed to have some difficulty understanding some of the ideas from the staff development sessions. She stated on the one
hand that the information from the sessions was very clear, well implemented, and familiar to her, and on the other hand that she didn’t see "how things fit into the classroom." Specifically, she said:

Most of it was generally familiar to me. [I was] two thirds of the way along toward familiarity. There was a lot of it I'd heard but . . . [not in the same way]. It [staff development sessions] was well implemented as far as understanding how things were supposed to flow. The only thing lacking was classroom implementation--when and how does this fit in and how is it best used.

She said that the lesson plan module "doesn't lend itself to everything you teach." Also, task analysis was difficult for Jill to implement. She said, "I started on it, but it was very difficult to implement." She also had some difficulty understanding a modeled lesson on hemisphericity and in a question on what strengths and weaknesses she’d found in the modules, she specified hemisphericity as a difficult "module." When asked how she might redo the inservice, she responded that the ideas were useful but needed refinements. She believed she would have a better understanding if the context for the ideas had been the science curriculum. The researcher believed much of the information may have been too theoretical for Jill without subject-specific modeling. On ideas new to her, she felt she needed more practice and more time. In the final interview, she stated that she needed more time and information on "testing and helping the kids to think better." She perhaps would have liked more assistance from the presenters, but
in her final response, she stated that she "felt very good about most of it [the innovations]." Still, the researcher believed Jill was uncomfortable with implementing some of the new ideas.

When asked which of the ideas were most like her present style in the classroom, Jill identified higher level thinking skills (because of twelve hours of gifted education) and classroom management during the first interview and the lesson plan and classroom management during the second and third interviews. Concerning classroom management, she stated:

[I use] classroom management because a lot of what was done there is the way I conduct my classroom. . .

She admitted that she omitted portions of the lesson plan and some of the information from classroom management dealing with "consequences." She didn't feel that it was difficult to implement either the lesson design or classroom management modules, however. She said:

It takes very little change to implement them. You're more likely to use [them] . . . [unintelligible].

The researcher believed that Jill felt the new ideas were too time consuming, though on the second and third interviews, Jill said they were at first but not as she stayed with them. She stated she didn't write out the lesson plan, and the lesson plans provided showed this to be true. She did see benefits to her students and herself in using the new practices.

Jill works as part of a team and felt support from them in her use of the new ideas. She believed that "they were wonderful." She
had seen no reaction from students or parents, she said. However, in another context, she believed that guided practice was important and had eased her job as a teacher. Perhaps she had seen some effects on her students. Jill knew her principal was aware of her use of the innovations. However, she did not think he had affected her use of the new ideas or pushed her to use them. Jill thought her district coordinator was aware of her use of the innovations and that his reaction had been favorable. She believed he was using some of the information in his inservice presentations.

From the evidence provided, Jill had not internalized many of the innovations from the staff development sessions. She used pieces of the lesson design rather than the whole, which may show a lack of understanding of how it is meant to work for the student. Several times she mentioned use of higher level thinking skills, yet there was little evidence of planning for these, and most of the material used was knowledge level. She admitted that she didn't "see how things fit in the classroom." Several times she stated, "If I work with it just a little longer, it might be better."

When asked if she had felt pressure from House Bill 72 to use any of the innovations, Jill stated:

I feel HB 72 had an effect somewhat in an adverse way because I had so much paperwork. I haven't had time to go back over my notes from the workshop. Career ladder and the district evaluation system may have affected her use of the ideas because she was aware that many of the same things were looked for on the evaluation form. Jill believed she
was more conscious of the new ideas because of the state emphasis. Finally, one district coordinator was mentioned as being a positive influence on her use. However, in her final interview, Jill did not believe anyone had affected her use of the new ideas.

Summary and Interpretations

Jill is considered a limited implementer in this study because she was using portions of some of the teaching techniques. For instance, she used guided practice, an anticipatory set that included the objective, and perhaps overt participation devices from the lesson design module. She was observed using some classroom management techniques, for example, the daily plan posted on the board and monitoring. She may or may not have used the higher level thinking module. She clearly believed she did, but the researcher found little to support this.

Certain characteristics of the ideas affected Jill's efforts at implementation. Jill had several misconceptions and several times mentioned a failure to see how some of the ideas could be implemented in her classroom. She appeared to be using those ideas she felt were similar to her existing style in the classroom. She admitted that she had modified these somewhat to fit her style. Though she gave varying answers, time was obviously a factor in Jill's efforts to implement the new ideas. She did not take the time to write out steps in the lesson design, she said. She did not implement the ideas fully; however, she did see benefits to their
use.

Jill felt only minimal support from anyone in her efforts to use the new teaching practices. Her team and some district personnel may have provided the only real support she felt. House Bill 72, the career ladder, and the district evaluation system did affect Jill's effort. She felt a negative effect from House Bill 72 because of the increased paper work.

Jill's personal characteristics may also have affected her use of new ideas. She appeared to be well educated in her field and stated she wished to continue working with teachers and students. She did not want any job that removed her from a school site.

**Bobbye, The Skeptic**

Bobbye teaches five heterogeneously grouped classes of U.S. History. Four are eighth grade, and one is ninth grade. U.S. History is divided into two years. The first year is the beginning to 1877; the second year is 1877 to the present. In addition, Bobbye serves as the team leader for eighth and ninth grade social studies teachers in her school. She has been teaching nine years and holds a B.A. and M.A. in History and Secondary Education from a private college. Bobbye does not belong to any professional organizations. She reads quite a few journals regularly, among them *Civil War Times, National Geographic, Texas Highways, American West Illustrated, Time*, and *Newsweek*. In five to ten years she would still like to be in the classroom teaching history.
Bobbye considers her greatest strength as a teacher to be her ability to lecture, and she instructs her classes with a combination of lecture and discussion. She considers herself "somewhat" creative in the classroom.

**Ideas Used**

Bobbye is considered a very limited implementer in this study and is labeled "the skeptic" because the data did not indicate that Bobbye tries many new ideas. She seems to be a very independent teacher and does not see the need for changes in style or presentation. She has expressed on several occasions, and in the evaluation which follows, a negative attitude toward inservice in general.

In all three interviews, Bobbye identified the lesson design as the only innovation she had implemented. She stated:

I use the five-step lesson plan in looking at each unit and in reviewing each unit. [I] mainly use it in reviewing the class for [an] exam.

When asked if she wrote her lesson plans in the five-step format, she replied:

Not the ones that I turn in, but when a unit's over, and I have time, I sit down and review what I did. I'll see if I have used all the five steps.

When asked if she had used any of the other information from the staff development sessions, she said:

Just the five step[s]. That's the one I've concentrated on. I guess that's because I had about thirty minutes to
present it to the faculty . . . .

In the second interview, Bobbye said she felt its value to her was as an outline to "introduce and to stay organized, and to sum up. It's a good outline . . . ." When asked if she had had to make any changes in the lesson plan to help her or her students, Bobbye replied:

Yes, I know I don't do all of each part of all the steps . . . . I have probably combined some guided practice and independent--uh--instruction--where they do it on their own. I try to introduce exactly what we are going to do and [the reason] why.

Finally, she stated she would probably not try any of the other ideas but would continue to use the five-step design for planning. She believed the staff development sessions had been worth her time for this innovation.

Bobbye's evaluation of the staff development sessions was fairly negative. She believed that it was too technical with too much information and that the organization, clarity, relevance, suitability, and degree of practical help were just average. The teaching techniques and stimulation of intellectual curiosity were also average. She did believe the strategies might help students learn and that the ideas were "good suggestions . . . good organization. It helps to compare what I do and this." Although some were not practical, Bobbye thought they might help ease her job by organizing her thoughts.

She believed the higher level thinking module was the "hardest to grasp [though] this type of thing needs to be used," she said. She thought the classroom management module contained information
with which she was most familiar and the higher level thinking module information that was the least familiar.

Bobbye believed she would be moderately comfortable teaching the new ideas to others and that the district could help by providing "the tools or basics, such as small classes, plenty of room and materials, less interruptions, etc." Bobbye missed a day of instruction, or five of the forty hours. She may have been hurt by the lack of continuity this would cause. Bobbye's negative evaluation may have predicted she would not be a strong implementer of the effective teaching ideas.

Document Analysis

As she stated, Bobbye's lesson plans were not in the lesson plan format. She gave the researcher a separate sheet of objectives for one unit; otherwise, all lesson plans were two or three-word statements of the activity, for instance "Bunker Hill lecture, pt. 2." She also supplied two worksheets and test for one unit. There appeared to be a few higher level thinking questions on the worksheets, but few, if any, on the test. (Figure 15 is an example of one of Bobbye's worksheets.)

Observation

The researcher observed Bobbye between the first and second interviews. When the bell rang, the teacher warned that students out of their seats would be considered tardy. The students quickly
LARGE GROUP--CHAPTER 5

I. Obtain the "Major Battles of the Revolutionary War" chart and answer the ten questions in complete sentences on your own paper. Do not take the chart home as there is only a classroom set available.

II. Identify the following battles of the Revolutionary War. Include as much information as possible on each battle (who won, commanders, etc.). Write in complete sentences.

1. Lexington
2. Concord
3. Breed's Hill
4. Pt. Ticonderoga
5. Quebec
6. New York
7. Trenton
8. Princeton
9. Saratoga
10. Philadelphia
11. Monmouth Court House, New Jersey
12. Charleston, South Carolina
13. Camden, South Carolina
14. Guilford, North Carolina
15. Yorktown

III. Identify the following using complete sentences.

1. Green Mountain Boys
2. Ethan Allen
3. Benédict Arnold
4. Thomas Paine
5. Richard Henry Lee
6. Thomas Jefferson
7. secular
8. emancipation
9. mercenaries
10. Hessians
11. Valley Forge
12. Baron von Steuben
13. Cornwallis
14. Burgoyne
15. Joseph Brandt
16. Thaddeus Kosciusko
17. La Fayette & Casimir Pulaski
18. Horatio Gates
19. Continentals
20. Nathaniel Green

IV. Answer the following questions in complete sentences.

1. List the advantages and disadvantages of the British and the Americans in the American Revolution.
2. Describe the scene in Lexington, Massachusetts on April 19, 1775.
3. Why was the distance of Britain from the American colonies a disadvantage for the British?
4. Why did John Adams think George Washington would be a good choice to command the Continental Army?
5. How many Americans died at Lexington?
6. Compare the two pictures of the Battle of Lexington on page 101. Which one do you think is more accurate and why?
7. What kind of problems did Washington face immediately after he took command of the army?
8. Why were many soldiers and officers dissatisfied with the army?
9. What might be some reasons that would discourage men from joining the Continental Army?
10. What was Ethan Allen supposed to have said to the British commander at Fort Ticonderoga?
11. Describe the American invasion of Canada, the strategy, and outcome.
12. Who was the American General?
13. Why did the British have to evacuate Boston?
14. What did the pamphlet Common Sense say?

Figure 15. Bobbye's worksheet.
sat down and quieted. The teacher then told students that they would continue talking about the Mexican War, and they should open their notebooks. The students did so with little waste of time. The teacher said, "We left off with the Battle of San Jacinto in the Texas Revolution." Before the instruction began, the teacher asked questions about the former lesson. The students had no difficulty answering them.

Bobbye spent approximately onehalf hour lecturing and questioning students on the geography of Texas as it related to the Mexican War and the Mexican War in general. The teacher either sat on her desk or moved to the sides of the room as she lectured and asked questions. The anecdotes and stories kept the attention of the students, but some questions had to be answered by the teacher. At one point, a student begged for more stories. The teacher then summarized the information on the Mexican War for the students. The students then were told to spend the next twenty-five minutes on their projects. The researcher was unsure whether or not this was a worksheet because it had been begun prior to this class. Though some students were slow starting and the teacher had to tell them not to waste time, they worked on their projects until the bell rang and then left the classroom.

Bobbye seemed to have included several aspects of the lesson plan design. A focus with the statement of learning, transfer, and review was noted. Instruction with questions to check for understanding was observed, though the questions seemed to the
researcher to be on the knowledge and comprehension level. And the summary by the teacher could function as closure. The researcher was unsure whether the "project" was practice on the Mexican War. It should also be noted that Bobbye handled the class with ease and great rapport, so classroom management techniques might have been in use though no specifics were identified in this observation.

Patterns of Knowledge Utilization

In analyzing Bobbye’s interviews, several factors appeared to affect her use or nonuse of the ideas from the effective teaching inservice.

Bobbye said she understood the ideas from the summer inservice, saying at one point that the inservice should be shorter, that there was too much instruction. She believed most of the information was already familiar to her. However, she said:

The ideas were clear, but I may not have been as certain as to how to put them into practice. But I understood what we were talking about.

She believed she could have used more assistance from the presenters with the lesson plan. From her remarks, the researcher believed Bobbye did not clearly understand many of the ideas presented in the summer workshop.

The lesson plan was most like Bobbye’s style in the classroom, she said. She believed her method of instruction used it “but not quite as clear as was presented in the inservice.” When asked to describe how the new ideas matched her style, she said, “It’s hard to
be specific." Even with probing, Bobbye could not describe further for the researcher.

Bobbye seemed to think that the lesson design was a worthy innovation to implement. Several times she said it organized and clarified things for her and may also have done the same thing for the students. She admitted that it took time, but:

... It is more or less common sense. Most teachers do it anyway. I also think it is a good way to stay organized.

However, she said it was hard to use all the steps in each lesson and that it would be too time consuming to write out lessons in that design. Therefore, she only used the outline as a reminder. The researcher believes Bobbye was unwilling to commit the time necessary for proper implementation.

When asked if she worked individually or as part of a team, Bobbye replied that she did both. She was the only eighth grade social studies teacher but was part of a team at the ninth grade level. She said she had introduced some of the new ideas to her team and other faculty members and their reactions had been "apathetic." She didn't believe her students or parents were aware of her use of the lesson design and thus, had not reacted. Though at another point Bobbye had said the lesson design might organize her students, the researcher believed Bobbye did not feel sufficient support from the students to affect implementation. Her principal's reaction had been favorable, but Bobbye did not believe he had affected her use of the new ideas, that she "would of used it
anyway." She said:

... he's just been supportive of anything I do. Which is
the reason I came to [this school] . . . . He's left the
running of the program up to me.

She also said her district coordinator had favorably reacted to the
use of the innovations.

Bobbye provided little in the way of insight or analysis of the
new ideas from the effective teaching inservice. She said, at one
point, that she "mainly used it [lesson design] in reviewing the class
for an exam and at the beginning and end of units." The researcher
believed that Bobbye misunderstood the lesson design's real use as a
daily reminder of how best to organize direct instruction.

Bobbye didn't believe House Bill 72, the district evaluation, or
career ladder had influenced her to use any of the new ideas from
the summer workshop. When asked about influences on use or
nonuse, she said:

Newness of the school and the House Bill has made me
use them less simply because this was the primary
concern--what we need to be doing, what we are
supposed to be doing as far as the guidelines from the
state. Just as far as concentrating on that and not
thinking so much about what we did this summer.

Summary and Interpretations

Bobbye is placed as one of the lowest of the implementers in
this study. The researcher believed she only used those ideas which
were already part of her style of instruction. She made few, if any,
changes to incorporate the new ideas. Bobbye is labeled as "the
skeptic" because of the negativism she expressed about the usefulness of inservices in general, and this one in particular.

Certain characteristics of the ideas appeared to affect Bobbye's efforts as an implementer. Bobbye did not seem to have a very clear understanding of the new ideas, though she believed she did. She did not rank clarity very highly in her evaluation of the staff development sessions. Additionally, Bobbye provided the least elaboration on the ideas of any of the implementers. Probing questions rarely brought more information. As she said:

The ideas were clear, but I may not have been as certain as to how to put them into practice. But I understood what we were talking about.

Bobbye felt the lesson plan was most like her existing style in the classroom. She said, "It has really just fit in." The researcher believed Bobbye did use some of the ideas from the lesson design because they were similar to what she was already doing. Time was definitely a factor in Bobbye's efforts to use the new ideas. She saw benefits in using the ideas because they organized her and her students. The researcher believed Bobbye was unwilling to commit the time necessary to truly implement the new practices, however.

Bobbye received no unusual support from any source. Although the principal and the district coordinator had reacted favorably, Bobbye did not believe they had affected her efforts. She said she would have used the ideas anyway.

As far as outside pressures are concerned, House Bill 72 and the district evaluation had no positive effect on Bobbye, and House
Bill 72 may have had a negative effect because it directed her attention away from the new ideas.

Finally, Bobbye's personal characteristics may have affected her efforts to use the new ideas. Bobbye obviously has a style of instruction which she believes is effective. Her students certainly reacted positively during the observation. Both teacher and students seemed to like each other and the subject matter. The researcher believed that Bobbye only used those ideas which "fit in" with her style and which required little change on her part.

Mary Ann, The Uncomfortable Implementor

Mary Ann teaches five sections of regular English to juniors. As English is leveled with correlated and honors classes, these students might be labeled "average." She has been teaching twelve years and holds a B.A. in music and a master's in secondary education. English is a minor in both degrees. She belongs to both the state and local organizations for English teachers but holds no offices in either. She reads The Kappan and her English journals regularly. Her department sometimes reviews articles from the English journals in scheduled meetings. In five to ten years, Mary Ann isn't sure what she will be doing. She'd like to take some time off with her children while they're young but believes that with career ladder, she'll lose her chance at placement. She is not interested in an administrative position.

When asked what her strengths as a teacher are, Mary Ann replied:
I have some strengths in organization, and I think that lecture is one of my best areas. And, I work well with others, and I have a reputation for being willing to try anything.

She prefers her classes to have a combination of lecture and discussion, "each separately." Mary Ann believes that she is a creative teacher.

**Ideas Used**

Mary Ann is considered a very limited implementer in this study. Few of the techniques or new ideas were evident in the lesson plans or observation. The researcher believes that some of those that were found had been stressed by her district coordinator in inservice presentations rather than the summer workshop on effective teaching. She is labeled the "uncomfortable implementer" because she was unsure of how to use some of the new ideas.

Mary Ann believed herself to be an implementer. When asked in the first interview if she was using any of the ideas from the summer inservice, she said:

Occasionally, yes. Especially the lesson plan and many of the other things we had done in other inservices especially in the English area . . . . The five-step lesson plan and critical thinking we had used before . . . . We use behavioral objectives, and we use questioning strategies . . . . although some of those things we were using before.

In the second interview, Mary Ann definitely believed she was using the lesson design, questioning and thinking strategies, and classroom management and organization. She stated:

I am definitely using the lesson plan although not as much as I would like. Mainly that's because of lack of
time. We did the questioning things. I had had that before, and I used that quite a bit, so that has been useful. Some of the things on organization—the management thing—I had used that.

She stated she definitely was not using task analysis nor when asked, evaluation techniques.

In the evaluation of the summer inservice done immediately afterwards, Mary Ann was very positive about the knowledge gained and its relevance and suitability, as well as organization, clarity, and techniques used. She did state, however, that she felt she was "given too much material too fast [and] not given time to apply [it] to [the] subject area." Thus, she ranked degree of practical help only average. She believed she was most familiar with behavioral objectives and questioning strategies and least familiar with higher level thinking/problem solving. In her interview, this was one of the modules that Mary Ann stated she was using. She stated that classroom management and the lesson design were most like her current style of teaching, but that the "practices use more reteaching." She believed it would take a great deal of time to implement the strategies, stating, "Need time to review and apply to curriculum for a full year." She believed higher level thinking would be most difficult to implement because of "lack of practice, unfamiliarity with information." When asked if the ideas would ultimately make her job easier, she thought they probably would.

Mary Ann missed five hours of the inservice, and the researcher is unsure where the time was missed. It seems obvious from her statements that Mary Ann was less than comfortable with
implementing the new ideas, however.

Document Analysis

Mary Ann's lesson plans showed little use of the effective teaching techniques and were definitely not in the lesson plan design. Although objectives were provided in a list at the top of the page, each day consisted only of the activities. For instance, Figure 16 is a sample plan.

Observation

Mary Ann was observed in the classroom between the first and second interviews. The room was a double room with a dividing curtain pushed to the rear. There were two teachers with two classes, but only one instructed. The class began with Mary Ann asking students to get out their vocabulary sheets. The students were noisy and slow to settle down. The teacher then put a root word, "homo," on the overhead projector. She defined it and added words beginning with "homo." As she did, she used each word in a sentence. (The researcher believed every day must begin similarly from studying Mary Ann's lesson plans.) Many of the students were talking throughout the vocabulary lesson, and no action was taken by the teacher.

Next, she had students define the three words while she checked the roll. Mary Ann then told students they could have ten minutes to finish an assignment they had begun previously. The
OBJECTIVES: The student will...
1. learn the Greek roots—path, morph, peri
2. recognize various modern poets and their works, including Robinson, Frost, Sandburg, Stevens, MacLeish, Cullen and Cummings.
3. continue study of poetic devices.
4. analyze structure of selected poems which exemplify free verse, blank verse and the sonnet.
5. will read the play "Our Town".
6. gain insight into modern experimental theatre.
7. make an oral presentation before the class related to the play.
8. review for the district exam.

ACTIVITIES:

Monday, May 13, 1985
1. vocabulary—anthropomorphic, dimorphous, endormorphic
2. notes on Sandburg
3. Read and discuss "Chicago", P. 627 and "The Harbor", p. 628

Tuesday, May 14, 1985
1. vocabulary—periphery, periphrastic, peristyle
2. read and discuss Wallace Stevens' "Domination of Black" and "Disillusionment of 10 O'Clock" pp. 648-649

Wednesday, May 15, 1985
1. vocabulary—apathy, antipathy, empathy
2. MacLeish, "Eleven", p. 662
3. divide into groups to discuss and answer questions on poem.
4. read "Sonnet" and Any Human to Another" by Countee Cullen, p. 665

Thursday, May 16, 1985
1. vocabulary—pathos
2. continue discussion of Cullen
3. discuss e.e. cummings "since feeling is first"

Friday, May 17, 1985
1. vocabulary quiz
2. poetry test

Figure 16. Mary Ann’s lesson plans.
students worked in small groups and much chatter was heard which couldn't have been on the subject; however, the teacher made no real attempts to get them back on task although she moved around the room.

Sixteen minutes into the class, Mary Ann turned on the overhead and told students she'd like to talk about the conclusion of an essay. She instructed students to get out paper for notes. Mary Ann gave the students the three things a conclusion should do. These were shown on an overhead transparency also. Then, she handed out an essay to the students and had them read the conclusion. The teacher talked about conclusions for a few minutes saying students sometimes fail to restate the thesis in different words and warned students against too much wordiness at this point in the essay. Then she asked two questions that the researcher believed were higher level—how to expand the thesis to a broader scope and were all the requirements for a conclusion in the essay she had given the students. Both questions were answered correctly by students, and the teacher discussed the answers. Most students were attentive during the discussion but became noisy as the teacher asked them to pass up the essay.

Mary Ann then told the students that she expected a five paragraph paper with a thesis statement, outline, rough draft, and final copy in two weeks. This was to be a classification essay. She used the example of a tomato to explain classification and had students identify other examples. (The class became noisy and the
Then, using an outline on the overhead projector, Mary Ann modeled a classification paper on school rules as a comparison and read the class a classification paper done by a student at a previous time.

Mary Ann then put up a list of possible topics including (1) gum chewers, (2) children, (3) desks, and (4) luggage and told students to select one and that they would work on the thesis the next day. Mary Ann told the students what part of the essay they'd work on each day.

About six minutes before the bell rang, the teacher put away her materials, and the students began to talk in small groups. The bell rang and the students left.

The researcher found some of the steps in the lesson design in operation in Mary Ann's class. There was a statement of the learning at the beginning of the lesson. Then, there was instruction with modeling. (The modeling of composition instruction is common practice in the English inservices done by the district coordinator, so it is unclear whether any of this can be attributed to the workshop on effective teaching.) Closure and practice were not observed. The assignment given was not practice of the day's instruction.

Few classroom management techniques from the inservice were observed. Mary Ann walked around the class but did not try to redirect off-task behavior. However, the opening assignment
functioned as a "sponge" activity while Mary Ann called roll. This was a technique from the classroom management module. Two higher level questions were observed in the lesson. Again, this may be something she picked up elsewhere as she said she was already using questioning techniques.

Patterns of Knowledge Utilization

In analyzing the interviews with Mary Ann, the following appeared to be pertinent to her use or nonuse of the new ideas.

Mary Ann may not have clearly understood all the modules. Although she stated that she found the information clear and practical and found no real weaknesses in the modules, she made several statements that made the researcher question this. For instance, she wished for more time and practice with classroom management and the lesson plan. In several instances she made statements such as the following:

... I would really like to see a department of teachers who teach together ... let them work on those ideas in their curriculum and give them time, more than two weeks, give them time to work through these things with their own subject matter and with the teachers they work with. I think it would be a real asset if it could be handled that way ... . These are good ideas, but we [teachers] don't feel we have time to implement them. It's very hard to explain it to the other people we work with.

She also said she found one of the lessons from the summer which modeled the five-step design confusing. She said:
The only difficulty was the part with the brain [sample lesson]. I had a problem with that—just seeing how it fit the lesson plan and being able to follow that. I need steps, but with grammar and even some literature, that's very easy to see how that fits.

On the one hand, Mary Ann said she thought she had adequate information after the inservice while on the other she wished for more practical examples of how to use them in her lesson planning.

Mary Ann said she had been using some of the ideas beforehand in her classroom. In the three interviews, she identified questioning, behavioral objectives, the lesson design, critical thinking, and classroom management as ideas similar to her existing style in the classroom. She said:

... We did the questioning things. I had had that before, and I used that quite a bit. So that has been useful. Some of the things on organization... management thing—I had used that.

And in another interview question on ideas she was using in her classroom, Mary Ann replied:

... The five-step plan and critical thinking—we had used before... We use behavioral objectives, and we use questioning strategies... although some of those things we were using before.

She believed she was already familiar with about half of the material presented in the summer inservice. When asked specifically what parts of the lesson design were similar to her existing style in the classroom, Mary Ann said, "Well, I use a lot of those things, but I didn't call them those names." No further elaboration was provided.
In several instances, Mary Ann mentioned a lack of time for implementation. Specifically, she believed that lesson planning for literature was more time consuming while planning for grammar was easier. When asked if she had had to make any changes in any of the ideas to fit her style, she thought she'd changed classroom management though she wasn't sure how. She stated:

If I changed anything it would be in the classroom management area . . . . Maybe group some of them together. Can't think of anything specific.

As far as benefits to herself or her students, she replied, "They've given me suggestions for dealing with things better, yes." When asked how, Mary Ann said:

[The lesson plan]--that's helped and just seeing, especially classroom management. Seeing that organized [me]. "Here's a check list. Have I done this?" That's been useful. [You] find things you haven't thought of. "Okay, I forgot that."

In another question she said the ideas helped her "find things I haven't done, areas I'm not strong in." Also, in another context, she said she believed the students had a better grasp of the material as a result of her use of the ideas on compound and complex sentences. The researcher believed that Mary Ann could see value in the ideas but perhaps was not willing to commit the time for proper implementation.

When asked about the support she had received during her efforts at implementing, Mary Ann specified her team and her principal as major supports. Concerning her team, she said:
They're generally positive about it [new ideas]. Their only negative reaction would be the fear that we would be expected to do that with everything. Other than that, they've been generally positive.

The researcher believed this meant that the team would not have supported using the lesson design with all their plans. She also felt good about her students' reactions stating:

... I saw more interest when I used it [lesson plan] with compound and complex sentences. They [students] had a better grasp.

She had seen no reaction from parents nor her district coordinator. Although her principal had been complimentary and had asked her to do a presentation to the rest of the staff, she believed the principal's influence had not pushed her into using the new ideas. She said she would have used them anyway. Specifically, she said:

... [She] was very complimentary of my use of it. But that's all and that was basically at the beginning of the year .... She hasn't affected me ....

Mary Ann did not provide much elaboration or insight into the innovations. In several instances, she commented on ideas she didn't understand very well, for example, task analysis and a modeled lesson. Also, she could not specify what changes she had made in classroom management. Her observation showed little analysis of classroom management or the lesson design. Mary Ann did not seem to have internalized the new ideas and practices.

As far as outside pressures, Mary Ann believed her principal had influenced her use of the ideas most, stating:
I did the inservice on it [lesson plan] at the beginning of school, and she has mentioned it when she's done our evaluations—that she expects us to use it.

The district evaluation and career ladder had also had some effect. So, House Bill 72 may have been an influence on Mary Ann.

**Summary and Interpretations**

It was difficult for the researcher to classify Mary Ann. While Mary Ann believed herself to be an implementer, her lesson plans did not provide evidence of this, and the observation only partially supported her use. Also, in several statements in her interviews, Mary Ann said some of the information she used came from inservices done by her district coordinator. The decision was made to place her with the limited implementers because some parts of the lesson plan and classroom management modules were noted during the observation.

Several characteristics of the new teaching practices appeared to affect her efforts as an implementer. Mary Ann seemed uncomfortable with the new ideas. Her answers to interview questions showed uncertainty and a lack of understanding of some of the new practices. She could not elaborate on some ideas, for instance, the changes she felt she needed to make in classroom management. Also, she wished for more practice with her team of teachers. The practices she believed she was using were ones she was already familiar with or currently using in her classroom—questioning, behavioral objectives, parts of the five-step lesson
design, critical thinking, and classroom management. Finally, Mary Ann stated several times that she did not have enough time to fully implement the new ideas. She could see benefits in the use of the ideas, but the researcher believed she was unwilling to commit the time necessary for full implementation.

Mary Ann felt support from her principal, the team of teachers she works with, her students, and possibly her district coordinator. She believed that the district evaluation and career ladder had encouraged her use, so House Bill 72 was a factor. However, she believed she would have used the ideas without the support or pressures she felt.

Finally, Mary Ann's personal characteristics may explain her placement as a limited implementer. From her interviews, she seemed committed to her profession and her students. She belongs to professional organizations and reads journals for her subject. However, she admitted being torn between teaching and being home with her young children. She was afraid her career ladder placement would be jeopardized by taking some years off, however.

**Margaret, The Short-Timer**

Margaret has eight years teaching experience. She teaches English five periods a day to eleventh-grade students. She does not belong to any professional organizations, nor does she read any professional journals on a regular basis. In five to ten years, she hopes to be out of the teaching field and, perhaps, pursuing a career
in advertising.

Margaret considers her greatest strengths as a teacher to be her "ability to communicate verbally and in writing," and the "ability to deal with a wide range of students." Her preferred style of teaching is "as leader of discussion with quite a bit of interaction among students, both with teacher and with each other." She also considers herself to be creative.

Ideas Used

Margaret is classified as a nonimplementer even though she appeared to be using bits and pieces of some of the ideas she heard in the staff development sessions. She is labeled "the short-timer" because she intends to leave the educational field as soon as she is financially able to do so. In three separate interviews, Margaret stated that she felt she was implementing ideas from the sessions. For instance, Margaret stated in the first interview:

I think I use the five-step lesson plan, but I think we all use that even though we don't know what we're doing to a certain extent.

When asked if she found herself consciously looking to the five steps as she taught a lesson, she said:

No, I do not consciously plan to do it that way. It's more that after I do it, I think "Oh, that's part of the five-step lesson plan." I think it has become second nature, but I think about it more after I've done it that that's what I was doing . . . .

Margaret also thought that the staff development sessions had
had some influence on the fact that she and the team she plans with were hoping to do some more ability grouping in their classes. When the interviewer asked if she were using ideas from the classroom management module, she answered:

I may be using some of the classroom management. A lot of that I sort of did anyway, so it's hard to tell which I'm doing because I learned this summer and which I was already doing.

When asked if she were using any other ideas, such as Bloom's taxonomy, motivation theory, retention techniques, or task analysis, she stated that she was not.

In the second interview which was held a few months later, Margaret was again asked which ideas she was using from the staff development sessions. She stated:

Gee, that was almost a year ago. I use the five-step lesson plan, I guess, not really consciously, but like transference. I'd like to be using some of the discipline methods, but I haven't had time to. I shared some of these things with my team at the beginning of the school year, but then you get into the year, and things start piling up and you don't have time to go back and look at them.

In the second interview, Margaret was asked if any of the ideas had eased her job in any way. She specified that she thought she was more effective because she tried to remember to give students a purpose for the learning about to take place and transfer to a prior learning.

Finally, in this second interview, she was asked if she would try any of the other ideas from the staff development sessions. She
stated that she hadn't used the classroom management techniques but would like to in the future. Specifically, she said:

The things I haven't used, like classroom management and some of the organizational things for the start of school and stuff, are things I wanted to use this year and just didn't have time to implement. There just wasn't time.

This contradicted information from the first interview. In the classroom observation following the first interview, Margaret did not seem to have a management or discipline plan. Few of the techniques specified in the classroom management module were observed in that classroom.

In the third and final interview, when asked about the current status on use of the effective teaching techniques, Margaret again pointed out "the five-step lesson plan. Maybe some of the discipline." She also said that she might be using questioning techniques without realizing she was using them. In a later question on which ideas were similar to what she was already doing in the classroom, she specified transference and stating the objective to the student as ideas she became more aware of in the staff development sessions.

In the evaluation of the staff development sessions held immediately after the program, Margaret may have predicted that she would be a nonimplementer. She said:

Some ideas were complex. Some ideas seemed so idealistic. I really would rather have slighted something other than classroom management. Too much material in too little time. Hard to assimilate.
The lowest scores on a scale of 1-5 were given to relevance to her needs, degree of practical help, and use of the workshop topics in her own setting. Margaret believed the information was fairly clear but was unsure about how comfortable she was with implementing the new strategies or teaching others about them. She stated that behavioral objectives and Bloom's taxonomy were most familiar, whereas thinking strategies was least familiar. She believed the lesson design was most like her existing style. She felt the modules on questioning and higher level thinking would be difficult to implement and were less relevant. She did seem to think there was a good possibility that the ideas would be helpful in making her job easier. When asked if she felt that the teaching strategies would be helpful for student learning, she replied:

[I] will have to make a conscious effort to really implement these things. Also, there are always those students who don't want to learn.

Her final comment was that the cost in terms of time for the teacher was a great deal.

**Document Analysis**

In analyzing the lesson plans and syllabi provided by Margaret, there was no evidence that she was implementing the new practices she thought she was. None of the lesson plan documents provided were in the five-step format. The objectives for the unit were stated at the top; however, the plans were only a statement of what was to take place. (See Figure 17) The syllabi were in calendar and
OBJECTIVES:

1. The student will identify the characteristics of Realism and Naturalism and cite examples from the stories read.
2. The student will identify the characteristics of Local Color and give an example of it from the story read.
3. The student will analyze the short stories according to the following: plot, characterization, conflict setting, theme, symbol, style, and point of view.

SCHEDULE:

Mon. April 8
Introduce the unit. Hand out characteristic sheet.
Read "The Outcasts Of Poker Flats" by Bret Harte as an example of local color. Quiz Tuesday. Page 340

Tue. April 9
Quiz "The Outcasts of Poker Flats." Discussion of story and local color.

Wed. April 10
In class reading of "Flight" as an example of Naturalism. Page 576. Possible quiz tomorrow. John Steinbeck

Thurs. April 11
Possible quiz on "Flight." Discussion of "Flight" as an example of Naturalism. Introduce Stephen Crane

Fri. April 12
View movie of Crane short story "The Blue Hotel" as an example of Naturalism. If you are absent for the movie, you will have to read a LONG short story.

Mon. April 15
Discuss "The Blue Hotel." Read "The Sculptor's Funeral" Page 491 as an example of Realism. Willa Cather

Tue. April 16
Discuss "The Sculptor’s Funeral" OR see Hemingway film. Quiz

Wed. April 17
In class reading of "The Killers" by Hemingway. Discuss.

Thurs. April 18
In class reading of "A Rose for Emily."

Fri. April 19
Discussion of "A Rose for Emily." Quiz Ernest

Mon. April 22
Discussion → View the movie of Fitzgerald's short story "Bernice Bobs Her Hair." If you miss the movie, you will have to come in at lunch or before school to read the story.

Tue. April 23
Discuss "Bernice Bobs her Hair." Read "A Worn Path" by Eudora Welty page 605.

Wed. April 24
Discuss "A Worn Path." Read "The Jilting of Granny Weatherall" by Katherine Anne Porter page 559.

Thurs. April 25

Fri. April 26
Major test over the short story unit.

Popquizzes may be given at any time. You will need to know BIOGRAPHICAL information for the test.

Figure 17. Margaret's lesson plans.
listing format and usually consisted of pages and poems required to be read by a certain date, quiz dates, film dates, and review times. Interestingly, Margaret gave the researcher the same lesson plans in the first two document collections. Both sets were identical and covered the time period from February 11-22.

Observation

One of Margaret's classes was observed between the first and second interviews. Two minutes before the final bell rang, a warning bell was heard. At this time the teacher came in from the hallway and moved to a podium in the front of the room. Several students surrounded the podium. When the bell sounded, the kids paid little attention and talked in groups. Margaret called the roll and then handed out quizzes from the day before. The classroom was still noisy. Next, Margaret handed out another quiz and gave students instructions on how to complete it. The quiz consisted of fifteen true/false questions and one definition, all of which appeared to be knowledge level. Within ten minutes, most of the students were finished. Margaret complimented one student for taking time and doing better in class. She called him "a model student."

Margaret then had students get into small groups to fill in a chart and answer questions from the board. She explained that tomorrow's test (covering the work they were doing today) would be a major grade. She discussed how she would score it and told
students they must know biographical data, characteristics of realism and naturalism, color, etc. They would also need to know themes and symbols of the stories they had read. She directed their attention to the chart for information. She said she would give extra points on the test to students who turned in well-organized notes. She again directed students to begin working in small groups on the chart and the questions on the board. As students worked, Margaret moved around among the groups. The talking from the students seemed mostly on the subject. Margaret left the area for about thirty seconds and then returned. For the next twenty-five minutes, the students worked in groups while Margaret monitored.

About ten minutes before the bell rang, Margaret asked students to get their desks in order and turn in their work. She then began to review one of the stories. She asked such questions as "What is the irony in the story?" "What shaped the life of the individual?" and "What does the author mean by . . . ?" A student then asked her what the conflicts in the story were. (This was a question from the chart.) A second student asked another question from the assignment, and the teacher answered both questions. Several more questions from the assignment were asked and answered by the teacher until a student asked about a previous story. The teacher refused to answer it. The student became belligerent. At this time, the bell rang and the students left.

Few classroom management techniques were evident. There was no "sponge" activity to get the students to work at the beginning
or end of the period, no clear set of procedures either for the class or in case of a violation of rules. Twice, positive reinforcement was noted, but the observer remarked in field notes that the rapport between teacher and students didn't seem to be positive. This conclusion was based on the belligerent reaction of a student and Margaret's action to tear up a student's quiz in front of the class while she remarked, "Too bad, no name."

The questions on the board and some the teacher asked indicated that higher level questions were asked, for example, "What is the irony in this story?" "What does the author mean by . . . ?" It's difficult to determine whether she was implementing ideas from the staff development sessions or not because she had stated that she didn't think she was using the questioning techniques module. Most of the steps of the lesson design were missing. There was no focus (purpose, objective, or transfer), little instruction, and no closure. There was guided practice in the chart and questions.

In summary, though Margaret thought she was using some of the techniques from the staff development sessions, few were observed.

Patterns of Knowledge Utilization

Careful analysis of Margaret's three interviews were enlightening as far as her attitudes and feelings. Margaret felt that the in-service information was clearly presented and that she had been allowed adequate practice, in some cases too much. She stated:

I think what I needed was not more information but more
time to assimilate it--to just sit and think about it.

Additionally, she said:

Yes, it was clear. Yes, there was sufficient practice, maybe in some cases too much practice. I do think that a lot of the ideas are idealistic. Grouping, for instance--something we all know we should be doing, but with as many students and as much material as we have to cover, it's impractical to do that.

She also believed that she was fairly familiar with the information before it was presented in the sessions. However, Margaret had difficulty elaborating on some of the ideas. For instance, when asked if she had had to make any changes in any of the ideas to fit her style or to benefit the students, she stated:

Well, I think there are certain things you have to modify--literature, since it's not a skill. I think sometimes the lesson plan is more readily adaptable to a skill--grammar, for instance.

At this point, the interviewer asked, "So you've had to modify the lesson plan?" Margaret replied, "Um, I know you're going to ask me how, and I don't know what to tell you." The interviewer then tried to prompt her by asking, "Have you combined parts or left out parts?" She said:

I don't know. Nothing so drastic that I can think of it now. Some days you leave out parts, some days [you] combine parts.

Margaret thought that both the five-step lesson plan and classroom management were similar to her existing practice in the classroom. When asked specifically about the five-step lesson plan being similar, she said:
Yes, but now I'm more aware of it, and so I take the time to do it, like transference or giving objectives, etc.

When asked if she were already using the classroom management techniques, she said, "Yes, I was trying." Neither the observation nor the documents supported the implementation of the two new practices stated above.

Margaret definitely felt that time was a problem to her in using new ideas in her classroom. She stated:

When you have a curriculum guide to follow and you know you have to get through certain amounts of material, it's hard to implement some of these things [new ideas].

She said in another interview when asked if the innovation required much time:

No, because I don't sit and consciously do it . . . I don't sit down when I'm doing lesson plans and say "okay, this is this step."

Margaret felt that the lesson plan and classroom management had strengths, not weaknesses, and that she was more effective as a result of them. However, she said, "I do think that a lot of the ideas are idealistic." She did not know if any of the ideas has eased her job as a teacher. In the third interview, when asked again about the time required to implement the ideas, she did not feel the ideas were very time consuming. The researcher believes that though Margaret could see there might be benefits, the cost in time was too great for her.

Margaret did not feel that she had received support from district coordinators, parents, or students. She was ambivalent
about the principal. She "guessed" he had provided support but she said:

I haven't had pressure from my principal to do that, but we know that people are going to be looking for it [lesson plan] so we implement it.

She did believe that the reaction of her team had been positive, especially toward the five-step lesson plan. Margaret thought that having one of the presenters of the staff development sessions come out to answer questions soon afterwards might have been helpful.

Margaret replied twice that she didn't consciously use the steps in the lesson plan design, that she thought afterwards, "oh, that's part of the five-step lesson plan." One of the most important aspects of the design is to bring the parts to a conscious level. This was stated several times in the staff development sessions.

Margaret also felt that the five-step design would be more difficult to use with literature than with skills. Both types of lessons were modeled and practiced in the sessions. Finally, when asked about improvements she would like to see in the inservice, she said:

... I would put classroom management earlier and higher levels of thinking last because that has less practical value on a day-to-day basis.

These comments along with several others made the reviewer believe that Margaret had not internalized the new ideas.

Margaret felt that the district evaluation system had been a factor in her use of the lesson plan. She said:

... That [the lesson plan] is the thing most people talk about because it's the easiest to implement, and it's part
of the district evaluation so people are interested in
learning about it.

When asked if that caused her to use it, she said:

Yes. We talked about the fact that it was going to be
used as part of the evaluation system . . . . People in my
department came to see me before the evaluators came
to get the five-step plan. They wanted to follow the
steps, so yes, I think we do that . . . . We know that people
are going to be looking for it, so we implement it.

Margaret did not feel she had been affected by House Bill 72 or
the career ladder in her efforts to implement new practices in her
classroom. She said, "House Bill 72 has affected all of us but not my
specific use of ideas."

Summary and Interpretations

Margaret is considered a nonimplementer in this study.
Although she believed she was using the lesson design and classroom
management, the researcher found little evidence to support this.
Some of her statements, especially concerning her use of classroom
management, contradicted each other. Also, she stated that she used
the lesson plan at the conclusion of a lesson rather than to guide
planning. Finally, concerning the lesson design, she said:

I think I use the five-step lesson plan, but I think we all
use that even though we don't know what we're doing to a
certain extent.

Certain characteristics of the new teaching practices may
have affected Margaret's efforts to use them. She seemed not to
clearly understand how to use the new ideas. For instance, the real
value of the lesson design, as stated in the staff development
sessions, is as a guide to planning a lesson. Margaret stated she
used it only at the end of a lesson. Additionally, Margaret said many
of the ideas were idealistic and impractical. She believed that the
modules on questioning and higher level thinking were less relevant
to her needs in the classroom. Finally, Margaret had difficulty
elaborating on her use of the ideas for the researcher. Margaret
seemed not to have analyzed or internalized many of the new
instructional practices.

Margaret stated that the five-step lesson plan and classroom
management modules were most like her existing style in the
classroom. Thus, she believed these were the new practices from
the summer inservice sessions which she was using. The researcher
found little evidence to support this.

Time was definitely a factor in Margaret's efforts to imple-
ment the new ideas. Although she saw value in some of the ideas,
there was no evidence that she committed the time necessary to
correctly implement them.

Concerning outside support or pressure to use the new ideas,
Margaret had felt no unusual support from any source though her
team had reacted positively. She did believe that the district eval-
uation system had encouraged her use of some of the new ideas. She
felt no particular effects from House Bill 72 or the career ladder.

Margaret's personal characteristics may have affected her
efforts to use the new practices. Because she wished to leave
teaching, she may have lacked commitment to her profession. Margaret did not belong to any professional organizations, nor did she read journals related to her field. She stated that she had not reviewed any of the information presented in the summer staff development sessions, although she did wish to do that the next summer. The researcher believed that time was a commodity Margaret would not commit, and, thus, she was a nonimplementer of the new instructional practices.

Coding Categories

The coding categories that evolved during the analysis of data from the ten subjects are described below. While the conceptual categories evolved during the analysis of data, the descriptions of these categories confirmed the labels used in extant literature on implementation. Consequently, these labels have been retained for this study in the interest of clarity.

1. Instrumentality—the depth of understanding the teacher has of the specific innovation or idea. This category includes the variables of clarity of information for the potential user, initial understanding of the new idea, and the ability to see how the new idea could be useful in the classroom or other implementation setting.

Example: "There were one or two of the segments [from the staff development sessions] in which I found myself struggling. I think they dealt with task analysis, and I
believe, the segment on testing and evaluation... They just require some thought. They're difficult concepts. They take time and thought. You can't hear them once and it sinks in. Some of the ideas you can see once or hear once, and you can understand it. It may also be because I was more familiar with some of the ideas..." (from Susan's transcript)

2. **Congruence**--the degree to which an innovation or idea matches a teacher's perceived preferred style of instruction in the classroom. This category includes the difficulty or ease of fitting the ideas into a teacher's daily classroom practice.

Example: "I like lecturing and directed activities. I do not care for packets." (from Sally's transcript)

3. **Cost**--the ease with which an innovation can be implemented and the potential value to the teacher and student in the classroom. This category includes the variables of the amount of time necessary for the teacher to integrate the new ideas into the classroom and the perceived value or benefit the new ideas will have for the instructor and/or the students.

Example: "I'd like to be using some of the discipline methods, but I haven't had time to. I shared some of these things with my team at the beginning of the school year, but then you get into the year and things start piling up and you don't have time to go back and look at them..." (from Margaret's transcript)

4. **Support**--the help the teacher perceives he or she has received in the attempt to implement new ideas. This category includes encouragement as well as assistance from such people as the principal, the district coordinators, the team leader, and other teachers. It may also include parents and students.
Example: "I have heard them [students] comment about always knowing what they're going to do. They like structure. They like knowing what they're going to do. They come in and get busy . . . ." (from Susan's transcript)

5. **Teacher commitment**--the degree to which the teacher is committed to the profession, the school district, and the students in the classroom. The variables for this category could include commitment, or lack thereof, to the teaching profession, to the students, to the subject matter, and to the district which employs her. Indicators for this category include the following questions: Does the teacher think she will always be a teacher or is the person biding time until something else comes along? Is student growth and learning most important to this teacher? Is the teacher dedicated to teaching the subject matter and looking for new and better ways to accomplish this? Is the teacher so loyal to the principal or school district that she would try any new ideas that she felt were supported by the employer?

Example: "...I like to see enthusiasm for the subject rather than make sure we have covered every single fact so that the children realize that social studies are a real and integral part of everyday life." (from Denise's transcript)

6. **Teacher understanding/analytical ability**--the teacher's ability to apply new learning to her specific situation. The variables for this category would be the knowledge utilization pattern on the part of the teacher and her basic cognitive skills.

Example: "I think I use the five-step lesson plan, but I think we all use that even though we don't know what we're doing to a certain extent . . . ." (from Margaret's
7. **External pressures**--the extent to which a teacher feels pressure to use the ideas. Sources of pressure might be House Bill 72, the district evaluation procedure, or the career ladder.

Example: "[HB 72 was] not a factor. I don't feel as intimidated by it. I will use things to be a better teacher. I may use the five steps to go back and check my lesson plan and find out I have all guided practice and not instruction." (from Jayne's transcript).

8. **Intrinsic motivation**--the desire to use new ideas because they are perceived by the user to make her more effective as a classroom instructor. This category emerged in the iteration of the data. While it did not apply to all the case studies, it appeared to have a strong influence on some. Thus, it seemed to be an important pattern of utilization.

Example: "Just wanting to be sure for the students because that's who we are here for and to make sure that we present in such a way that they master it because it is mastery teaching. Put a star by this [as a reason for using the new ideas.]" (from Sarah's transcript)

**Patterns of Knowledge Utilization**

The researcher ranked the teachers in this study as high, moderate, or limited implementers or as nonimplementers. In order of their level of implementation, they are: high implementers--Sarah, Susan and Sally; moderate implementers--Jayne and Belinda; limited implementers--Denise, Jill, Bobbye and Mary Ann; and non-implementer--Margaret.
A comparison of each individual across each coding category reveals similarities as well as differences. One exception which should be noted is that Denise is often more similar to higher implementers than lower. Denise was difficult to categorize. Thus, in categorizing her as a limited implementer, the observation and lesson plans took precedence over the interview remarks. It is possible Denise may have integrated the new ideas into her instructional practice to such an extent that the researcher found it difficult to distinguish them.

**Instrumentality**

The first category concerned instrumentality, or the teacher’s understanding of the ideas and the clarity of the information on the innovations.

The high and moderate implementers, along with Denise from the limited implementers, seemed to have a clear and in-depth understanding of the effective teaching practices when the sessions were completed. The exception in this group was Sally, who had several misconceptions but was determined to try the ideas because she believed the school district supported them. Some had had much of the information in previous course work, and Denise had been schooled in Madeline Hunter’s research at a West Coast university. Almost all could discuss the ideas with such elaboration that their level of understanding was obvious.

The limited implementers and the nonimplementer, along with Sally, were less sure of how to use the new ideas, making such
comments as "needed more practice and examples" or "can't see how things fit in the classroom." Regarding this category, the teachers in the study, with the exception of Denise, seemed to agree with the theory of the practicality ethic (Doyle & Ponder, 1977a, 1977b). However, while instrumentality was a relatively strong predictor of classroom usage, the teacher's level of understanding of the ideas seemed to be influenced to a considerable degree by congruence with existing teaching style. There appeared to be interaction between the two categories because frequently the depth of understanding depended on the mental set or schema of the participant, and this schema was often influenced by existing preferred style of instruction. For instance, Susan felt she clearly understood the questioning strategies module saying:

I was already concerned with questioning strategies. I was already working on that, and it only reinforced what I was doing.

Congruence

The second category is labeled congruence, that is, how closely the new ideas fit with the existing practice of the teacher. At some point in the interviews, all of the participants in this study stated that some of the new ideas were similar to their instructional style. This was fairly easy to discern among the high and moderate implementers but less discernible among the limited implementers and the nonimplementer.
The category of congruence may be affected by instrumentality, or the level of understanding. The converse may also be true. For instance, Sarah, the top implementer, seemed to have little difficulty putting the ideas into practice in her classroom. As she said, she "carried over what she was doing into the modules." Another high implementer said the modules reinforced what she was doing. Belinda, a moderate implementer, said that the discipline plan (classroom management) was similar to her existing style and "that's why I'm still using it." The high and moderate implementers were fairly specific on which modules were more like their instructional techniques. Again, Denise, too, could pinpoint specific ideas or modules which were most like her style of presentation, so with regard to this category, she did not seem to fit with the limited implementers. The limited implementers were less specific on ideas or modules, and the observation and analysis of lesson plans gave little insight on this. As an example, Bobbye said the lesson design "has really just fit in." Bobbye's style is lecture with some discussion. Other than adding a clear beginning and ending, the researcher doubted that Bobbye had adapted any of the other parts of the lesson cycle to her style. So few of the ideas were observed in the classroom or in the lesson plans that the researcher could find little similarity to her existing style.

The categories of instrumentality and congruence may blend. One category may rely on the other as one's clear understanding of the new ideas may depend on the mental schema one has. Those
ideas most like an existing style are therefore, clearer and more easily implemented.

Cost

The third category concerned the perceived costs to the individual implementing the new ideas. The variables in this category were the amount of time and effort required to put the innovations into practice and whether the benefits for either teacher or student were perceived as worth that effort. Most of the ten teachers in this study found the new ideas time consuming to implement. Denise alone said the ideas were not time consuming, that they were common sense. However, none of her lesson plans showed evidence of the full use of the new ideas. Sarah, the top implementer, stated that the innovations required time at first but not later. She said that now the ideas were easy to use and second nature to her. Susan, the second highest implementer, found the ideas time consuming but, she said, "Everything you do requires time." She and her team had discarded other ideas to bring these in, but she believed this was for the better. Belinda, Jill, Bobbye, Mary Ann, and Margaret all found the ideas too costly in time to fully implement. They made such comments as "I would never write down all five steps" and the "ideas are too idealistic."

Interestingly, all of the teachers in the study felt the innovations were beneficial to the students and/or themselves. Most thought they organized and clarified instruction for both
teachers and students making statements such as, "instruction became logical and structured for students," "kids do better," and "the ideas take the mystery out of learning."

The time, effort, and benefits variables in the cost category seemed to be fairly consistent predictors of implementation. Though almost all teachers felt time was involved in implementing the new ideas, the highest implementers made time less of an issue, saying that the time and effort were offset by the values to the teacher and/or the students. (See the Cost matrix, Figure 18.)

Support

The next category concerned the degree of support felt from the principal, peers, students, parents, and district coordinators. The top two implementers, Sarah and Susan, and two limited implementers, Denise and Mary Ann, felt support from at least three sources. They all felt their principals supported their use of the innovations and that students had reacted favorably. Then, they were either supported by their peers or their district coordinators. Sally, who is labeled as a high implementer, was an interesting case because she felt no support from anyone and even had negative reactions from the team of teachers with whom she worked. Still, she used many of the ideas and stated that she intended to continue using them. The rest of the teachers felt support from at least one or two sources. No one source of support seemed to have more influence than another in the analysis of data. Even the support of
<table>
<thead>
<tr>
<th>Teachers</th>
<th>Time/Effort</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarah</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>*At first, yes. Now ideas are easy to use. Second nature.</td>
<td>*Instruction became logical and structured for students. Kids did better.</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Susan</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>*Yes, but everything you do requires time. Discarded some practices to incorporate these.</td>
<td>*Helps students with organization.</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Sally</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>*Yes, but worth the time. Peers have complained of time and effort.</td>
<td>*Benefits both teacher and student</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Jayne</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>*Difficult at first</td>
<td>*Ideas useful and practical.</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Belinda</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td><strong>&quot;I would never write down all five steps.</strong></td>
<td>*Organization helpful Valuable to kids.</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Denise</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>*Not time consuming. Common sense.</td>
<td>*Ideas take the mystery out of teaching.</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Jill</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>*At first, now it has become easier.</td>
<td>*Eased her job.</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Bobbye</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>*Too much time to write out lesson plans. Too much effort.</td>
<td>*Ideas organized and clarified things.</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Mary Ann</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>*Lack of time to implement.</td>
<td>*Ideas organized like a check list. Students have a better grasp.</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Margaret</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>*Too time consuming. Ideas too idealistic.</td>
<td>*Ideas make her more effective.</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Figure 18. Cost matrix.
the principal, the authority in each building, was not definitive.

The support category in this study was an inconsistent predictor of implementation. Many researchers, Huberman and Miles (1984) among them, have found a strong external support system as necessary for continued implementation. In the year following the effective teaching staff development sessions, support, or the lack thereof, was not a sufficient predictor of implementation in this study.

**Professionalism**

In the category concerned with professionalism, only the most limited implementer and the nonimplementer expressed the wish to be doing something outside the field of education in the future. All of the rest wished to continue working as a teacher or administrator. Additionally, all the implementers expressed a dedication to the students and the subject they taught. Many belonged to professional organizations, with the exceptions being Belinda, a moderate implementer, Bobbye, a limited implementer, and Margaret, the nonimplementer.

Professionalism may be considered a fair indicator of nonimplementation when participants in the study were not dedicated to their chosen profession. In other areas of professionalism, the data were inconclusive. This study agrees with Hahn's (1974) earlier findings of little correlation between innovativeness and age of the teacher, sex, years of experience, and academic background.
Analytical Thinking

In the sixth category, the teachers were fairly predictable on their ability to interpret and internalize the new ideas. The top implementers, except Sally, discussed the ideas in more depth and felt freer to make changes to fit their individual styles. Again, the researcher is unsure of Denise's level of internalization. However, those ranked below Belinda seemed to have some misunderstandings and misconceptions. They generally misunderstood the value and purpose of the lesson design. For instance, one used it only for review of a unit of study, and another couldn't see its application to her subject area. Sally was interesting again in that the researcher felt much of what she said was a restatement of information from the staff development sessions. Generally, the highest implementers seemed to have the greatest understanding of the new ideas and the limited and nonimplementer the least.

This category again may be closely related to the categories of instrumentality, or clarity of understanding and congruence with preferred style of instruction.

External Pressures

Concerning outside or external pressures, the data were mixed. When asked about the influence of House Bill 72, Sarah, the highest implementer, felt she had been affected, stating, "[It] brought this style of teaching to a more conscious level." She felt it and the district evaluation system reinforced her efforts. The next in line,
Susan, believed House Bill 75's influence to be negative. However, the district evaluation system made her more aware of the need for the lesson cycle. Sally felt that both the House Bill and the evaluation system had encouraged her use of the innovations. Jayne was "not intimidated" by either and did not believe either had really affected her as an implementer. Belinda also believed neither were important in her use of new ideas but that the House Bill might have prevented her from using more of the innovations because of the time required for tutoring and communicating with parents. Denise felt no pressure from the House Bill or the evaluation system. Jill felt a negative effect from House Bill 72 but a positive effect from the evaluation system. She did believe some district coordinators had affected her use of innovations in a positive manner. Bobbye believed House Bill 72 had an adverse effect on her use while the district evaluation system and career ladder had no effect. Mary Ann believed that the House Bill, the evaluation system, and the career ladder had encouraged her use. Interestingly, she's labeled a very limited implementer. Lastly, Margaret felt the House Bill and the career ladder had not affected her use, but the district evaluation had made her and the team she worked with use the five-step lesson design. The researcher found no evidence of her use of this.

Perhaps the most important pressure is intrinsic. The highest implementers along with Bobbye and Mary Ann all seemed to be self-motivated. The rest of the teachers in this study did not seem to have this factor. Thus, an eighth category was added.
Additional Category--Intrinsic Motivation

As the researcher was analyzing the data, an eighth category seemed to arise. The six highest implementers, plus Bobbye and Mary Ann, were self-motivated to use the new ideas. When questioned about the support and pressures on them to use the new ideas, these implementers contravened the interview clues and volunteered statements which were fairly consistent from case to case about their desire to be better teachers. They said such things as, "I would have used them anyway," "Just a desire for the kids to get more from us," "It [lesson plan] helps the kids to know what's coming next as much as me. It gets them started every day," or "More than House Bill 72 . . . just wanting to be sure for the students." Most of the higher implementers believed no particular pressure or support had influenced them, that their motivation to use new practices came from within.

Summary

The ten participants in this study were interviewed and observed in the classroom setting. Lesson plans, tests, worksheets, and syllabi were studied to determine users and nonusers of the new ideas on effective teaching. As a result of this analysis, three were determined to be high implementers because of the extent of their use of new ideas, two were determined to be moderate implementers because some ideas seemed to be in use, four were determined to be
limited implementers because few ideas could be identified in their classrooms or lesson plans, and one was labeled as a nonimplementer because little, if anything, observed in the classroom or lesson plans resembled any of the new ideas from the staff development sessions.

In comparing and contrasting the ten case studies, certain patterns emerged. As they were supported by the literature on implementation, these patterns became coding categories. Seven categories were initially defined, and an eighth category developed from these.

The first category was instrumentality, which was found to be a fairly strong predictor of use or nonuse of the new ideas. Most of the highest implementers clearly understood the new ideas and seemed to have few misconceptions. The limited implementers and nonimplementer lacked a clear enough understanding to feel comfortable in their efforts to use the effective teaching ideas.

The second category was congruence with the teacher's style in the classroom. This category was found to be closely related to the level of understanding of the new ideas and thus, in combination with the first category, was a predictor of implementation.

The third category was cost and concerned time and effort required to implement new ideas as well as whether the time and effort were perceived as worth the benefits to the teacher and/or students. The highest implementers seemed to believe that the benefits were well worth the time, whereas the limited imple-
menters and the nonimplementer felt that the time and effort were too much to commit for the benefits they might obtain.

The fourth category described the support the teachers felt in their efforts to implement the new ideas. In this study, support was an inconsistent predictor, for one of the higher implementers felt no real support from any source, whereas a limited implementer was fairly strongly supported. Also, no one source of support seemed to outweigh the others.

The fifth category was labeled professionalism and was a fair predictor of implementation to the extent that the most limited implementer and the nonimplementer wished to leave the classroom in the future. All of the rest of the teachers in this study wished to remain in the field of education.

The sixth category, analytical thinking, or the teacher’s depth of understanding and internalization of the new ideas, was a fairly strong predictor; the higher implementers could adapt the ideas as necessary and felt comfortable making these changes. The limited implementers and nonimplementer were uncomfortable with the new ideas. Again, this category may be closely related to instrumentality and congruence.

The seventh category concerning external pressures was an inconsistent predictor. Many of the teachers in this study felt either a positive or negative effect from House Bill 72 and the district’s evaluation and career ladder. No one believed these pressures had determined their use or nonuse of the new ideas.
Finally, an eighth category labeled intrinsic motivation evolved. The higher implementers and two limited implementers expressed an internal desire to do a better job in the classroom. This was found to be consistent and was a strong indicator of implementation.
CHAPTER V

Conclusions and Implications

This study examined factors that influence the use of instructional ideas. Ten secondary teachers served as case studies and were interviewed and observed in the classroom setting. Documents from each teacher--lesson plans, worksheets, syllabi, and tests--were also examined for evidence of the extent of the use of the new instructional practices. Much of the existing research has dealt with elementary rather than secondary teachers (Anderson, Evertson & Brophy, 1979; Crawford et al., 1978; Good & Grouws, 1979). The present study describes the characteristics and relative degree of influence of several factors affecting the use of ideas in secondary classrooms.

Qualitative research techniques were used to collect the data. Focused interviews, an observation with field notes, and documents to support findings from the interviews and observation were the primary means used to address the research questions in this study.

Three interviews were conducted with each of the ten participants in this study. The interviews were structured to determine which ideas from the staff development sessions on effective teaching were being used, how they were being used, and which factors affected the user's efforts at implementation. Audio tape recordings were made of each of the interviews. Each teacher
was observed between the first and second interviews to obtain data on the use or nonuse of the effective teaching techniques and to verify information from the first interview. The observation notes contained descriptions of observed behaviors with the researcher's interpretations located in the margin. (See example in Appendix D.) Finally, documents collected from each participant were analyzed to determine the extent of use of the new instructional practices. One additional source of information for analysis was provided by an evaluation done at the end of the staff development sessions.

Data analysis began with the grounded theory approach (Glaser & Strauss, 1967). By comparing and contrasting data in an iterative process, seven initial categories evolved which seemed to confirm much of the previous research in the field of implementation of innovations. The interviews, observation, and documents of the participants were then coded for the seven categories to determine patterns within each category. At this point, an eighth category, intrinsic motivation, developed. Several of the categories were found to be fairly strong predictors of implementation versus nonimplementation by the participants in the study.

The greatest predictors were three categories that related to the teacher's level of understanding of or familiarity with the new instructional practices. These categories were labeled as instrumentality, congruence, and analytical thinking. Most of the participants labeled as higher implementers clearly understood the new practices, more easily adapted them to their existing style in
the classroom, saw their value in instructing students, and adapted them as needed. Another strong predictor was a category labeled cost. The higher implementers among the participants believed that the time required to use the new instructional ideas was more than offset by the value to teacher and/or students. Another category, professionalism, was a predictor of implementation to a significant but lesser extent.

The categories labeled support and external pressures were found to be inconsistent predictors of implementation. Also, no one source of support seemed more important than another. One of the highest implementers felt little support from her principal and none from the team of teachers with whom she worked while a limited implementer felt fairly strong support from both sources. Only a few of the participants believed that any outside pressures, such as House Bill 72 or the district evaluation system, had affected their efforts at implementing any of the new practices.

An eighth category emerged during the analysis of data which did seem to be a fairly strong predictor of implementation. The researcher labeled this category intrinsic motivation. All of the higher implementers and two limited implementers believed they used the new instructional practices because they wished to be better instructors. These participants believed they would have used the new ideas without support or pressure from anyone.

In summary, five factors seemed to influence the use of innovative instructional practices more than the others in this
study. They were clarity and depth of understanding, congruence with existing style, cost in terms of time or effort versus benefits, professionalism, and intrinsic motivation.

Discussion

Two research questions were addressed by this study: (1) what are the characteristics of information selected for use in classroom practice, and (2) what appear to be the characteristics and relative degree of influence of the several factors affecting the use of ideas in classroom practice.

Characteristics of Information Selected for Use

The analysis of data provided several characteristics of the information selected for use by the secondary teachers in this study. This study tended to support the research of Doyle and Ponder (1977a, 1977b) who found that three factors, instrumentality, congruence, and cost, influenced the selection of instructional practices by teachers. These three characteristics are what Doyle and Ponder label the practicality ethic.

In this study, teachers tended to implement those practices which they most clearly understood. Three of the coding categories dealt with this depth of understanding. The first coding category was labeled instrumentality (the name from the original research of
Doyle & Ponder, 1977a, 1977b). The data collected from interviews and an evaluation of the staff development sessions showed a difference in the original clarity of understanding of the new instructional practices among the higher implementers, the limited implementers, and the nonimplementer. Some of the higher implementers were already familiar with much of the information on effective teaching practices. None felt this was the first encounter with many of the ideas. For instance, Sarah and Susan, the highest implementers, stated that if a continuum of familiarity were used, they would place themselves on the more familiar end. Sally, the next highest implementer, would have placed herself in the center of the continuum. The limited implementers, excluding Denise, and the nonimplementer were less clear, stating that they needed more practical examples or that they failed to see how some of the ideas fit into the classroom.

The second category dealing with understanding was labeled congruence. This title also comes from the practicality ethic. The researcher found this category to be closely related to instrumentality. Almost all of the participants in this study stated that they felt their existing style in the classroom was similar to the new instructional practices. However, the limited implementers and the nonimplementer could provide little insight on how they fit together. Most of the higher implementers were specific about how their styles meshed with the new ideas, with one stating that classroom management was similar to what she was already doing, and that's
why she was still using it. Lack of clarity of understanding was evident in statements made by the participants that they all believed their existing styles were similar to the new ideas from the staff development sessions. Their understandings seemed limited by their mental schemas for the ideas, and these mental schemas seemed to be related to what the teachers were currently doing in the classroom.

The third category related to understanding was labeled analytical thinking. This category concerned the depth of the teacher's understanding and ability to interpret the new ideas for individual use. The elaboration on ideas, the ability to take an idea a step further than the staff development sessions, and the adaptation of the new ideas to fit one's style in the classroom were clues to the relative presence or absence of what the researcher termed analytical thinking. The higher implementers had a depth of understanding that lower implementers and the nonimplementer lacked. For instance, the highest implementer stated that she was a better planner than others on her team because she used task analysis. She continued explaining how this increased her effectiveness. Another high implementer discussed adaptations of overt responses from students. The limited implementers and the nonimplementer lacked this internalization of the new ideas. Their knowledge was superficial and sometimes incorrect. For instance, one limited implementer stated that she used the lesson plan only for review of her students. Misconceptions of this sort were found among many of the
limited implementers and the nonimplementer.

The other category dealing with characteristics of the information was labeled cost. It concerned the time and effort required to implement new ideas versus the perceived benefits to teacher or students. Almost all of the participants felt that the ideas were time consuming; however, the higher implementers viewed the required time as well spent for the benefit of the students. The highest implementer, Sarah, was convinced that the ideas and practices had lowered her failure rate. The second highest implementer believed that the new practices from the lesson plan module had helped her students to be more organized. The limited implementers and the nonimplementer felt the ideas were too time consuming to be very practical. Even though they saw benefits, the time required was too much of a commitment.

Characteristics and Relative Degree of Influence of the Factors Affecting the Use of Ideas in Classroom Practice

Certain factors in this study seemed to have a greater effect on the users' efforts to implement the new instructional ideas from staff development sessions. Those factors dealing with characteristics of the information presented seemed to be the best predictors of implementation. They are instrumentality, congruence, and cost from the practicality ethic (Doyle & Ponder, 1977a, 1977b) and analytical thinking on the part of the participants in this study.
These factors were more thoroughly discussed under the first research question.

The next most powerful factor in distinguishing implementers was one which emerged after the coding of the original categories. This factor was labeled intrinsic motivation and concerned a teacher's desire to be a better instructor. All but two of the teachers in the study noted either increased understanding on the part of the students or the desire to be better instructors as major reasons for using the new instructional practices. These implementers seemed to believe this was reason enough to continue using the new ideas. They also stated, whether or not they had received outside support, that they would have used the ideas despite the presence or absence of certain external factors, for example, support of the principal or other staff members or outside factors such as House Bill 72.

The last factor which seemed to influence the user's efforts at implementing new ideas was labeled professionalism. Professionalism consists of several components. Participants were asked how many years they had been teaching, what professional organizations they belonged to, what journals they read regularly, and what they hoped to be doing in five to ten years. All of the components except the one concerning what they wished to be doing in five to ten years were inconclusive. For instance, most of the implementers, excluding Belinda and Bobbye, belonged to several organizations and regularly read journals from these organizations. However, a very
limited implementer not only belonged to her professional organizations but also stated that articles from her professional journal were sometimes reviewed in team meetings. Also, years of experience offered no insight as to user versus nonuser of ideas. All of the teachers in the study had been teaching for a minimum of five years. The only factor which seemed to be a predictor of user versus nonuser dealt with commitment to the field of education. The most limited implementer and the nonimplementer saw themselves in some position outside the field of education in the near future. This may be a better indicator of commitment than professionalism, however. To this extent professionalism was a predictor of implementation of new instructional ideas.

This study found two coding categories too inconsistent to be of value in predicting whether teachers would use new ideas from staff development sessions. Those categories or factors are labeled support and external pressures. Much research (Huberman, 1983; Loucks, 1983; and Miles, 1983) has found support from key personnel as a critical element in implementation. Perhaps because the teachers in this study received no extraordinary support for the first few months after the staff development sessions, support played an inconclusive role in this study. One of the higher implementers felt no support during her efforts to implement the new instructional practices, whereas a limited implementer felt fairly strong support from several sources. Additionally, no one source of support, principal, students, peers, or district personnel, seemed to
outweigh others in this study. External pressures, House Bill 72, the career ladder, and the district evaluation system, had both positive and negative effects on the users in this study, with several participants stating that House Bill 72 had prevented their using more of the new instructional practices from the staff development sessions. Some participants believed House Bill 72 and the district evaluation systems had reaffirmed their use of the new ideas. There seemed to be no pattern regarding the effects of external pressures; thus, the researcher found this category to be a weak predictor of implementation.

Implications and Recommendations

The analysis of data from this study led to several implications and recommendations that may be considered by other researchers in the area of implementation.

This study suggested that certain predictors may be consistent in determining who will implement new instructional ideas and practices from staff development sessions. Other researchers may wish to see if the same categories emerge from their analysis of data. Additionally, the following implications will require further research before they may be considered valid.
Research

Modifications of the Practicality Ethic

This study suggested interaction between two categories in the practicality ethic (Doyle & Ponder, 1977a, 1977b). Should the practicality ethic be refined? Instrumentality and congruence seemed to be closely related to each other in the iteration of the data in this study. Instrumentality may include congruence because one's depth of understanding may be related to one's experience. The more new practices resemble existing practices, the better one understands them. Perhaps the practicality ethic could be reorganized to include only two factors--instrumentality, including congruence, and cost. A future researcher may wish to design a study to determine if one's understanding is limited by one's mental schema and if this schema is greatly influenced by one's practical experience. Participants might be selected on the basis of their existing classroom practice with two clearly different styles represented. New material that fits one of the styles could be introduced to all participants with some means (test, interview, or practical application) to gauge the depth of understanding between the groups.

Other Research Implications

A second research question might be, is internal motivation a consistent predictor of users versus nonusers? This category arose after the original coding of categories. A future researcher may
wish to devise a study which can pinpoint certain personality factors in participants (skepticism, district loyalty, or desire for excellence). Intrinsic motivation was a fairly strong predictor in this study. Is it in others? Another question might be, are the factors that affect secondary teachers the same as those affecting elementary teachers who attempt to implement new ideas? Although this study dealt strictly with secondary teachers, it might be interesting to see if such factors as support have a stronger influence on elementary teachers. Much more research needs to be done in the field of implementation of new ideas before any generalizations can be made concerning factors affecting secondary teachers' efforts at implementing new instructional practices.

Preservice Teacher Education

The area of preservice teacher education may require more research. Should more curriculum time be given to data-based or research concepts in the field of effective teaching practices? In this study, teachers with some previous experience with the new instructional ideas had a greater depth of understanding of the practices. They were clearer as to how to implement the ideas and more comfortable in doing so. Also, would more efforts at teaching preservice teachers to be analytical thinkers and problem solvers be valuable? A future researcher may wish to see if problem solving using case studies could significantly improve levels of thinking. Perhaps the use of videocassettes of real classroom problems would
allow preservice teachers opportunities for analytical thinking. The findings in this study support the need for application and analysis levels of thinking among teachers who would be implementers of new ideas. Further research might isolate subskills which would develop such levels of thinking.

**Staff Development**

The role of staff development is increasingly important in the total education of a teacher. Recent findings in research have shown that staff development sessions are critical in communicating new information. This study may provide some insight into the development of inservice programs and the selection of participants for these programs. Because clarity and depth of understanding were major predictors of implementation in this study, more modeling and practice may be essential in staff development. Those participants who left the sessions with misconceptions and misunderstandings were limited in their ability to implement the new instructional practices. Perhaps a two-stage model of staff development would be worthwhile to pursue. The first stage might present new practices in a generic fashion. The second stage might need to be more subject specific. Some participants in this study had difficulty transferring the new ideas to their subject. Perhaps this approach would solve that problem.

In the selection of participants for staff development sessions, more research could lead to a method of preassessing
participants for certain factors. These factors might include previous knowledge, willingness to commit time to changing or adapting old methods to newer ones, intrinsic motivation, and commitment to the profession, the subject, and the students. Such a preassessment would allow school districts wishing to implement certain ideas to identify teachers who will be more likely to implement those new ideas and practices as well as provide baseline data on levels of knowledge and existing practice before delivery of an inservice. A preassessment might be invaluable in determining a core of teachers who train other teachers.

Conclusion

Much research is currently being done in the field of implementation of innovations. Factors affecting the user's efforts at implementation are of interest to those involved with innovations and staff development. Many studies have been conducted on these factors, but few have dealt with secondary teachers. This study and its findings may contribute to the body of research on factors affecting the user's efforts at implementation of new instructional ideas and practices.
APPENDIX A
DISTRICT EVALUATION FORM
Figure 19. District evaluation form.
<table>
<thead>
<tr>
<th>Additional College Courses Since Last Evaluation:</th>
<th></th>
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<tbody>
<tr>
<td>Conducted</td>
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<td>Educational Seminars/Workshops:</td>
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<td>Professional Association Activities/Activities:</td>
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<td>Professional and Organizational Activities (2-10)</td>
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<td>A. Teacher/Student Communications</td>
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<td>A. Classroom Management</td>
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<td>A. Teaching Techniques</td>
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<td>A. Planning (Inferred)</td>
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<td>A. Knowledge of Subject Matter</td>
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<td>Observation Criteria</td>
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<td>I. Initial Evaluation Summary</td>
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<td>Teacher's Signature</td>
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APPENDIX B
INTERVIEW SCHEDULES
INTERVIEW #1
(Interview format partially adapted from Loucks et al., 1975)

1. Will you describe your teaching assignment for me (e.g., grade level, subjects, periods taught, etc.)?
2. Where did you go to college?
3. What degrees have you attained and in which fields?
4. How many years have you been teaching?
5. What professional organizations do you belong to?
6. Do you hold any offices in these organizations?
7. What educational publications do you subscribe to?
8. Which do you read regularly?
9. What strengths do you think you have as a teacher?
10. What is your preferred style of teaching? Do you like to lecture, use directed activities, use packets or contracts, etc?
11. Would you describe yourself as creative?
12. Are you using any of the ideas/practices from the inservices? Which? How?
13. Did you find that some of the ideas/practices were ones you already were using in the classroom? Will you describe?
14. Which of the following best describes your views of the staff development sessions?
   a. Were the clarifications of ideas new to you?
   b. Were the clarifications of ideas familiar to you?
   On which end of the continuum would you place yourself? Will you elaborate? Was the presentation clear and easily understandable?

Figure 20. Interview schedules.
15. What kind of things have influenced you to use these ideas? Has HB 72 with its emphasis on the career ladder affected your use or nonuse of the ideas? District evaluation? Other? How?

16. What are your future plans in relation to your teaching career? (Where do you see yourself in 5-10 years?)
INTERVIEW #2

1. Will you describe your use of the ideas from the summer staff development sessions for me?

2. What specific strengths and weaknesses have you found?

3. Have you needed to make any changes to fit your style or for the benefit of the students? Will you describe what changes and how they have helped?

4. Have the ideas used eased your job in any way? How?

5. Does the innovation require much time on your part?

6. Have you had to discard other ideas in favor of these?

7. Do you work individually or as part of a team?

8. If team, how has your team reacted to the ideas you brought back from the inservice?

9. How have the students reacted?

10. Have any of the parents of your students reacted to the new ideas?

11. Have you involved your principal in the use of the innovation(s)?

12. How has he/she reacted?

13. Has this affected your use of the innovation? How?

14. Is the district coordinator for your subject aware of your use of the innovation?

15. Will you describe his/her reaction?

16. Will you continue to use the innovation? Why?

17. Will you try any of the other ideas from the inservice? If so, which and why?
INTERVIEW #3

1. What is your current status on use of the modules from the staff development session?

2. Do you see any of the ideas from the inservice being similar to your present style in the classroom?

3. Is the use of the ideas very time consuming?

4. If the inservice was redone, what changes would you make?

5. Have you felt any pressure to use the ideas from the inservices? From whom? How has this affected your usage?

6. Have you received adequate support in your efforts at using the ideas from the inservice? From whom?

7. Do you feel you have enough information to implement the ideas? Would more assistance from the presenters have helped you?

8. Will you summarize for me your involvement with the innovations -- feelings, thoughts, actions, future intent?
APPENDIX C
TRIGGER TERMS
LESSON PLANNING SEQUENCE

Objectives - Module I

Specific content
Perceivable Behavior

Task Analysis - Module II

Diagnosis
Prescription

Lesson Design - Module III

1. set
2. Instruction (providing information, modeling, checking for understanding)
3. guided practice
4. closure
5. independent practice

Reinforcement

Motivation

level of concern
feeling tone
interest
success
knowledge of result
reward

QUESTIONING STRATEGIES

Taxonomy - Module V

knowledge
comprehension
application
analysis
synthesis
evaluation

Formative Evaluation
Summative Evaluation
Norm-referenced tests
Criterion-referenced tests
Mastery Learning

TESTING/EVALUATION - CLASSROOM MANAGEMENT -

Module VII
Module VIII

Management System
Rules and Procedures
Student Accountability
Instructional Clarity
Time on Task

Critical Thinking Strategies - Module VI

Micro-processes
Broad-processes
Combination-processes
Thinker vs. Thinking Strategist

Figure 21. Trigger terms.
APPENDIX D
SAMPLE OBSERVATION
1:25 Bell Rang (A few stragglers)
Teacher reminded students they had a test the next day. She told
students they would contribute something today to the study of
Asher Lev. Teacher said she'd give each student a partner, then give
them a card to determine assignment. Test tomorrow would be 7-8
discussion questions, designed to take entire period - broad
questions. Teacher reminded them she wanted their thoughts, not
hers. Teacher began handing out cards to students. Teacher
instructed students they'd have 10 minutes to answer question on
card. Students moved to partners and began assignment. (Students
noisy) Each group working and looking through books for answers.
1:40 Students finishing - some just talking. Teacher asked ones
finished to review question because they'd have to present to the
class.
1:42 Teacher asked cards to be returned. Teacher instructed
students to come to front when # was called out. After answering
question, students could ask questions of presenters - "nicely."
Teacher began calling #s and questions. After 1st presenter, several
students asked questions. Then 2nd presenter (fun exchanges
between student and teacher). Teacher had to remind students to be
quiet several times. Told them they were being rude. One student
said the class loved her. Another asked her to show her sense of

Figure 22. Sample observation.
humor. She remarked she'd lost it. Presentations continued.

1:50 Teacher and student interchange continued - very informal class. Teacher asked if any other group existed today with a strong religious leader? Students gave several examples (some good, some poor). (Teacher's instruction after questions was interesting.)

Teacher asked students to please understand there are no right or wrong answers to some questions - only unsubstantiated ones.

2:02 (Students asked some deliberately "dumb" questions.) Presentations continued.

2:12 Presentations continued. (Some answers showed good analytic thinking.) (Teacher usually at back of class during the presentations - at front to continue discussion) (Discussion from teacher inspired students to some analogies.)

2:17 Students listened to all presentations and commented freely.

2:25 Bell Rang. Teacher told students to think good thoughts.
APPENDIX E
SAMPLE INTERVIEW
INTERVIEW #2

1. Will you describe your use of the ideas from the summer staff development sessions for me?

   I use the l.p. most of the time--uh . . .
   Q. Behavioral objectives, questioning?
   A. Oh, yes, questioning--I use that all the time.
   Q. Classroom management?
   A. Right.
   Q. Task Analysis?
   A. Yes--task analysis.
   Q. So you're using virtually all the info from the summer?
   A. Yes--you get so involved that you don't stop to think of the pieces.

2. What specific strengths and weaknesses have you found?

   Alright--the lesson plans are good because you have it down pat what you want to teach; and the questioning is good because I teach higher level students and they like that type of questioning. Um . . . Classroom management is very necessary especially this year for control.
   Q. Have you found any weaknesses?
   A. No, I don't think so.

3. Have you needed to make any changes to fit your style or for the benefit of the students? Will you describe what changes and how they have helped?

   Alright, I make changes in the l.p.
   Q. Such as?
   A. Many times I'll just carry on the first part of that maybe a day or two before you get to the other parts.

Figure 23. Sample interview
Q. So you don't do all the parts every day?
A. No and sometimes there are parts in the lesson plan that aren't applicable so I skip those, but basically I use the format.

Q. Any other changes in any of the other modules?
A. No, I don't think so.

4. Have the ideas used eased your job in any way? How?

I think the ideas do. Now it's more work to get them ready, but once they're ready teaching is easier.

Q. Do you think the I.p. is beneficial to you? to your students?
A. To all of us. In fact, I'm going to take the new math book home this summer and do them this summer. I've got the whole summer to do [lesson plans] and I thought I'd just do it.

5. Does the innovation require much time on your part?

No, just that one (I.p.) and I think once you do them and can fall back on them and you can make some modifications or something, then you'll be alright.

6. Have you had to discard other ideas in favor of these?

No, modified but not thrown out.

7. Do you work individually or as part of a team?

Team, but individual within the team because... well, I guess I do both. Becky and I work as a team [two in a room]. The teaching is individual but the organization is team.

Q. You plan as a team?
A. Yes.
Q. But you teach both ways?
A. That's right.

8. If team, how has your team reacted to the ideas you brought back from the inservice?
Well, they do not like all the written work of the l.p., but they're doing it. I think that's the biggest problem—even though we've cut down the l.p.—it's still time consuming.

9. How have the students reacted?
   No, because they had [not had] anything [like this] before.
   Q And they just don't know?
   A No.

10. Have any of the parents of your students reacted to the new ideas?
    No . . . they're not aware of what we're doing.

11. Have you involved your principal in the use of the innovation(s)?
    I think he is. I think he's aware of the difference in the l.p. and stuff of this sort.

12. How has he/she reacted?
    He hasn't said anything.
    Q So, no reaction.
    A No.
    Q He doesn't encourage your use?
    A Or discourage.
    Q So this hasn't been a factor in your use of the l.p.?
    A No.

13. Has this affected your use of the innovation?
    No.

14. Is the district coordinator for your subject aware of your use of the innovation?
15. Can I say then that they have had no reaction?

Right, because they're not out here enough. I haven't seen [them] very much this year.

16. Will you continue to use the innovation? Why?

Probably, yes.

Q Why?

A. I like the lesson plan. It's set up so I can look down there and once I get them for everything I teach, then I think they'll be a big help.

17. Will you try any of the other ideas from the inservice? If so, which and why?

I probably will because I'm always looking for new things to do.

Q Can you think of any specific ideas [modules] you'll use?

A. Uh . . . questioning . . but I'm already doing that. I've been wanting to do something with hemisphericity, but I don't know when I'll get to it, but I'm left-handed and so many of my students are too that I want to get to that. (Questioner cued her back to left-brain, right-brain.) With math, it should be easy.
APPENDIX F
SAMPLE WORKSHOP EVALUATION FORM
WORKSHOP EVALUATION FORM

1. What were the principal strengths of the workshop?
   1. Material/Background
   2. Models/Activities

2. What were the principal weaknesses of the workshop?
   1. Amount of Knowledge/Topics
   2. Time

3. Rate each of the following from 1 to 5 (use "1" for poor and "5" for superior):
   5. (A) The way the workshop was organized.
   5. (B) The teaching techniques used.
   5. (C) Relevance to your needs as a (principal, teacher, coordinator).
   4. (D) Suitability of knowledge gained.
   4. (E) Amount of knowledge gained.
   4. (F) Degree of "practical" help.
   4. (G) Use of workshop topics in your own setting.
   4. (H) Relevance of handouts.
   4. (I) Use of visuals.
   1. (J) Instructor's ability to stimulate intellectual curiosity.

Figure 24. Sample workshop evaluation form.
EVALUATION FORM

1. How would you rate this workshop compared with others you've attended?
   Poor  Average  Excellent
   1  2  3  4  5  6  7  8  9  10

2. How would you rate the topics or modules presented in this workshop in relation to their usefulness to you?
   Poor  Average  Excellent
   1  2  3  4  5  6  7  8  9  10

3. As compared to other types of inservice workshops, I would rate workshops which present new ideas on teaching strategies as
   The Worst  About the Same Benefit as Other Workshops  The Best
   1  2  3  4  5  6  7  8  9  10

4. In terms of clarity, I would rate the presentation of material in this workshop as
   Confusing  Moderately Clear  Very Clear
   1  2  3  4  5  6  7  8  9  10

5. With which content presented in the modules were you most familiar?
   Objectives, hemisphericity

6. Which module(s) contained material with which you were least familiar?
   Testing - evaluation, higher level thinking

7. Do you feel comfortable implementing new strategies such as those presented in the workshop in your classroom?
   Absolutely  Unsure  Definitely
   Not  1  2  3  4  5  6  7  8  9  10
8. Which of the modules covered in this workshop would be most easily adaptable with your current style of teaching?

- Beh. Obj. Test Analy Plp. Plan
- Questioning Strategies Class. Manage.

9. Which module(s) would you find most difficult to implement? Why?

- Higher level thinking concepts vocab
- Self assessment

10. Would you feel comfortable teaching others the strategies you've learned in this workshop?

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11. What is the most useful thing the district could do to help you use the information from this workshop in your classroom?

- Evaluation follow up

12. Ultimately, do you see the ideas presented in this workshop as helpful in making your job as a teacher easier?

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EVALUATION FORM

1. If you were asked to tell other teachers in your building the important points about effective teaching as presented in this workshop, how well could you tell them in easily understood terms?

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<tr>
<th>Poorly</th>
<th>Moderately</th>
<th>Very Well</th>
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Why or why not? Preparation of modules

2. How well do you feel that you could describe to other teachers specific procedures to try in their own classrooms?

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<tr>
<th>Poorly</th>
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Why or why not? I need to practice also!!

3. Do you believe that the teaching strategies presented will be effective in helping your students learn?

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<thead>
<tr>
<th>Not At All</th>
<th>Moderately</th>
<th>Very Well</th>
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Why or why not? Based on research and class observation

4. How closely do you believe the practices presented in the workshop match your way of teaching?

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<thead>
<tr>
<th>Not At All</th>
<th>Somewhat Similar</th>
<th>Very Closely</th>
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Why or why not? This is the method I try to use

5. How much do you believe that it would "cost" a teacher in terms of time and effort to implement the strategies presented in the workshop in the classroom?

<table>
<thead>
<tr>
<th>Very Little</th>
<th>A Moderate Amount</th>
<th>A Great Deal</th>
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Why or why not? Need to plan better in writing
Objective:

1. **ANTICIPATORY SET**
   - Focus students
   - State objective
   - Establish purpose
   - Establish transfer (if possible)

2. **INSTRUCTION**
   a. Provide information
      - Explain concept
      - State definitions*
      - Identify critical attributes*
      - Provide examples*
      - Model
   b. Check for Understanding
      - Pose key questions
      - Ask students to explain concept, definitions, attributes in their own words*
      - Have students discriminate between examples and non-examples*
      - Encourage students to generate their own examples*
      - Use active participation devices

3. **GUIDED PRACTICE**
   - Initiate practice activities which are under direct teacher supervision
   - Elicit overt response that demonstrates behavior in objective
   - Continue to check for understanding
   - Provide specific knowledge of results

* Figure 25. Lesson plan format.
4. CLOSURE
   ___ Make final assessment to determine if students have met objective
   ___ Have each student perform behavior on his own

5. INDEPENDENT PRACTICE
   ___ Have students continue to practice on their own
   ___ Provide knowledge of results

* These items are particularly critical when teaching an abstract concept, e.g. democracy. They may not be relevant/appropriate when teaching a practice-oriented concept, e.g. capital letters.

   IT IS ASSUMED THAT PRE-TESTING HAS BEEN DONE PRIOR TO THE BEGINNING OF THIS LESSON.
References


Hord, S., & Hall, G. (1986). *Institutionalization of innovations: Knowing when you have it and when you don't* (R&D Report #3220). Austin: Research and Development Center for Teacher Education, The University of Texas at Austin.


