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**Integrated Thematic Instruction: A descriptive case study of its
adaptation and implementation**

Gaikwad, Premalatha, Ph.D.

Andrews University, 1992

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Andrews University
School of Education

INTEGRATED THEMATIC INSTRUCTION: A DESCRIPTIVE
CASE STUDY OF ITS ADAPTATION AND
IMPLEMENTATION

A Dissertation
Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

by
Premalatha Gaikwad

December 1991

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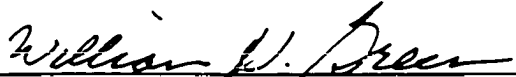
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ABSTRACT

INTEGRATED THEMATIC INSTRUCTION: A DESCRIPTIVE
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IMPLEMENTATION

by

Premalatha Gaikwad

Chair: William H. Green

ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Andrews University

School of Education

Title: INTEGRATED THEMATIC INSTRUCTION: A DESCRIPTIVE CASE
STUDY OF ITS ADAPTATION AND IMPLEMENTATION

Name of researcher: Premalatha Gaikwad

Name and degree of faculty chair: William H. Green, Ph.D.

Date completed: December 1991

The purpose of the study was to describe the operational form of the innovation--Integrated Thematic Instruction within the context of its implementation.

An embedded single case study design was used to carry out this qualitative study, with Integrated Thematic Instruction (ITI) as the unit of the case study. The questions that guided the study were: What does ITI look like when implemented by the teacher? What are the contextual elements of implementation of this program? What variations are found in the implementation of this innovation by different teachers?

A review of related literature revealed the historical, philosophical, and theoretical underpinnings of ITI.

Several innovative educational practices were compared with ITI and parallels were drawn between them and ITI.

Since this was the first descriptive research study of ITI, an Innovation Configuration of the program was developed. Interviews of the program developer, local program coordinators, as well as users (teachers), and observation of classroom implementation of ITI, helped in delineating its critical components; the ideal, acceptable, and unacceptable variations of its components were identified. The implementation context of ITI and the variations in teacher use of the components of the program were also studied.

The case study was conducted at two different schools using ITI. The description of its context included school demography, the support systems, students, and selected psychological characteristics of the teachers. Implementation of the program is described first in general, and then in detail, focusing on its use by two teachers at each school.

A brief analysis was made of the use of ITI at the two different sites. Several implications derived out of the study; these include those for further research, for staff developers and change facilitators, for principals, and for teachers using or intending to use ITI.

DEDICATION

To my parents,
Pr. Stanley Hutton and Mrs. Jane Beatrice Hutton,
whose encouragement and prayers
helped me through it all

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CHAPTER 1

INTRODUCTION

Background of the Problem

Instructional Practices and Student Learning

Research studies over the past two decades have shown that teachers and schools can make a difference in student learning (Brookover, 1981; Good, Biddle, & Brophy, 1975; Hopkins, 1990). There have been numerous summaries of studies on effective instructional practices such as, What Works: Research About Teaching and Learning (U. S. Department of Education, 1986), and research on models of teaching (Rolheiser-Bennett, 1986; Joyce & Showers, 1988). Yet, according to some studies, instruction in most classrooms has not changed substantially (Goodlad, 1984, 1988; Sarason, 1983).

After observing over a thousand classrooms, Goodlad reported in A Place Called School: "No matter what the observational perspective, the picture emerges. The two activities, involving the most students, were being lectured to and working on written assignments" (1984, p. 230). In a similar vein Honig commented, "While the world around them has changed dramatically, children are still tediously

working on page after page of arithmetic problems, fitting in answers in the same way as their grandparents did" (1987, p. 9). The report of the National Assessment of Educational Progress (1990), based on twenty years of data on student performance, stated that classroom learning is still dominated by passive learning.

The structural characteristics of schooling, the learning environment, and activities are other areas of concern. The conditions of schooling are such that it can be counted as good or at least acceptable if the classroom is orderly. This order-keeping function, according to Kliebard (1988), is threatened by reforms such as those advocated by leaders of the child-centered movement. Kliebard further asserted that, "The most single reason I can adduce for the persistence of the recitation as the predominant mode of teaching is that it is a reasonably effective way of keeping order" (1988, p. 150). Jackson (1968) described how students' experiences in typical classrooms are shaped by "crowds," "praise," and "power." Because classrooms are crowded places, students have little control over what they do, over when they do things, and over their movement about the classroom; students learn to wait and to deny desire. Because evaluation in traditional classrooms is constant, formal, and very public, students are labeled.

Irrelevancy of schooling to the larger world is another concern in education, which may even be traced as the main cause for school drop-outs. Students fail to understand the usefulness of instruction based on textbooks which are isolated from real life applications. As Hart said, "Mountains of evidences, as well as daily observation, show that students do not often emerge from 12 years of schooling well prepared for work, training, or higher education" (1985, p. 3).

The fragmented curriculum with separate, randomly arranged subjects like reading, math, social studies, science, art, music, and physical education exhibit little relationship to each other. For many students learning tends to be weak, superficial, and temporary--much of it soon forgotten. The fragmented school day does not reflect the reality of the real world or how students best learn.

Delving into the dismal realities from research of what students learn in the areas of language use, math, science and technology, social studies as well as in other areas of studies such as health, business and law, reveals that instruction carried on in most classrooms is ineffective to an appalling degree (Hart, 1985). There is a need to show students how different subject areas influence their lives, and to present the curriculum as an integrated, meaningful whole.

Taken positively, these findings are encouraging as it indicates large possibilities for improving student learning. This perspective, in turn, calls for introduction of new approaches which have potential for student achievement.

The "medium" for most teaching procedures, as Rosenshine (1976) stated, is the instructional program or curriculum being taught. The success or failure of an educational program rests in part on two considerations: the adequacy of the program's design and the adequacy of the program's implementation (i.e., the extent to which teacher behavior conforms to program specifications). Ideally, the first concern should determine whether or not the second is relevant (Zoref, 1981). This implies that the design of the program needs to be well-defined before carrying out evaluations on teacher implementation of the program.

It is also important for staff developers to understand the innovation fully. According to Brandt (1986), researchers have found that generally sponsors of innovations are not fully aware of the assumptions on which it is based, and may not have convincing evidence of its effectiveness. Therefore, it is important to describe the innovation in totality, as much as possible.

Educational Programs that Make a Difference

Although the prospects for reforming schooling in substantial ways are not encouraging, efforts to make

instruction more effective continue. Educators seem to carry out the suggestion given by Tom Peters and Nancy Austin in their popular book, A Passion for Excellence: "The only way to proceed is by *constant experimentation*: 'Don't just stand there, do something'" (1985, p. 136). Improved staff development programs such as those advocated by Guskey (1985), and Joyce and Showers (1988) are being conducted to train teachers in the use of effective teaching practices.

For the past few years, interest in and need for curriculum integration have increased and this renewed trend in schools toward interdisciplinarity, as Jacobs said, "will help students better integrate strategies from their studies into the larger world" (1989, p. 6). Increasingly, reforms in effective instruction include strategies that integrate content areas with the needs of teachers and learners.

The model, Integrated Thematic Instruction (ITI), developed by Susan Kovalik, is such a program. According to Kovalik (1989), the ITI model "is a way of conceptualizing the orchestration of a teaching/learning environment that is brain compatible--an environment which creates quantum leaps in student achievement and instills a life-long love of learning" (p. 7). Is it possible that a program such as ITI will follow suit like many other innovations and not be shown to be effectively implemented or institutionalized?

It need not be so, if one were to learn from the lessons (identified later) of the past "experiments".

Blunting of Change

Just as difficult as it is to change the status quo, it is also difficult to succeed in sustaining innovations and improved practices. As Knoll commented in the foreword to Taking Charge of Change (Hord, Rutherford, Huling-Austin & Hall, 1987), "Innovations with instructional strategies and curriculum have usually failed." Why is this so?

Sarason (1971, 1983) has pointed out there is a distinct structure that governs roles and interrelationships within the school setting. Change implies the ability to generate alternative structures, and the capacity to evaluate each alternative dispassionately in terms of the stated purposes of the setting. This poses an extraordinarily difficult problem. This involves necessity of change in thinking, change in actions, and change in the overall structure of the setting.

In general, implementation of a program was taken for granted if materials for the new program and training in their use were provided. If evaluations of achievement usually showed no improvement, the program was labelled ineffective and a new program was brought in.

The answers to the questions whether these innovations failed because the conceptions and processes were wrong or weak, or because they were not implemented well (Charters &

Jones, 1973), may not be clear. But it is plain that evaluation of the innovations were not authentic and were focused on their effectiveness largely in terms of student scores on normative tests, without examining how the innovations were implemented.

Among the factors identified for the unexpected or unintended outcomes was lack of clarity of the nature, scope, and expectations of the innovation (Berman & McLaughlin, 1978). Thus, failure to sustain or "institutionalize" innovations, as Hord and Hall (1986) called it, was partly due to the development of programs that were rarely well-defined or clearly communicated to users.

A Solution

One promising response to this problem of unexpected curriculum outcome is the Concerns-Based Adoption Model (CBAM) developed by Hall, Wallace, and Dossette (1973). Among one of its subsystems is the procedure for an accurate description of the innovation being implemented. This system, as Leary (1983) recommended, "provides the basis for the design of targeted or focused staff development as the means of facilitating curriculum implementation by reducing slippage" (p. 3).

Therefore, before assessing the results of an innovation, it is important to define exactly what the innovation is. This pertains to the identification and

defining of the operational components of the program as well as analyzing the patterns of use of the components by teachers.

There are several advantages to this approach. First of all, once implementation is under way, it will be possible to identify what specific teachers are doing with the program in order to determine how best to assist them. Secondly, parents, school board members, and others may be given detailed information about how the program is implemented. Finally, there is no risk of measuring "non-events" (Charters & Jones, 1973) while considering student outcome data in answering how the program works as there is a way to monitor its use.

The Study of an Innovation

Integrated Thematic Instruction, an instructional program that is fairly recently "packaged" together, appeared to be a significant educational approach worthy of serious study in that it puts together a variety of research-based practices such as brain-compatible learning, cooperative learning, inclusive learning, higher-order thinking skills as well as integrated curriculum, parent-school involvement, and whole language. Such a blend of theory-based propositions within a single educational innovation might be uncommon, and was worth studying.

In this study of ITI's implementation, it was important to focus on what the innovation was like even as it was

being implemented. This, in a way, facilitated an "evaluability assessment," a term used by Patton (1987, p. 37). An evaluability assessment, according to Patton, involves identifying the program "treatment," making sure it is consistent, and establishing that the outcomes are clear, specific, and measurable. Such a study which helps to make sure that the program that is well described in operational terms becomes robust enough for studies of effectiveness and systematic evaluation. Although this study did not deal with the effectiveness of the program, future studies of its effectiveness may be more easily conducted, based on the findings of this study.

The Setting of the Study

There are several schools where ITI is being implemented. Over 20,000 (as indicated in the brochure for the 1991 summer workshop by Susan Kovalik and Associates) teachers from North America and Canada have been trained each year by the firm Susan Kovalik and Associates and are practicing ITI's principles in various levels of implementation.

Being interested in the area of improving instruction and staff development, I was curious to find out how ITI is implemented in classrooms. Schools selected for the study were those where ITI, in a locally adapted form, was being implemented. For the sake of retaining the anonymity of

schools and personnel involved in the study, all names are replaced by pseudonyms.

Several schools in a county in the Midwest were implementing ITI, with some adaptation to fit the local needs. The adapted version of ITI had similar basic components as that of ITI. Since the local program was used as a vehicle for inclusive learning as well as for reading improvement, the components of mainstreaming, co-teaching of regular, chapter I, and special education teachers, and literature and whole language-based learning were also its features. Carol Weber, the director of the intermediate (county) school district staff development, was the director of the local program. She was assisted by Laura Bascom, the director of special education of one of the local districts.

The study was conducted at two sites--Salisbury Elementary School and Hutchins Elementary School. These schools belonged to two different public school systems which implemented the ITI program. Salisbury Elementary School was in its first year (1990-91) of ITI, while Hutchins Elementary School was in its second year of implementing ITI; Hutchins happened to be a pilot site for ITI during the 1989-90 school year.

Summary of the Background of the Problem

Research findings have shown that classroom instruction as well as student achievement have not improved substantially over the years despite the availability of new

programs that show promise of increased student learning. One problem may be a lack of clear understanding of the innovation by practitioners. It is important to describe an innovation in clear operational terms during its implementation.

Statement of the Problem

While it is important to study the specific ways in which teachers put an innovation into practice, it is first necessary to describe what the program looks like in actual practice in classrooms (Hord, Rutherford, Huling-Austin, & Austin, 1987), particularly when such documentation is not available. Thus, not only does the question "How is the program implemented?" but also the question "What is the program?" needs to be addressed.

In describing an educational innovation, it is essential that its context be described as well; it is impossible to separate the two. What is the total school environment in which the program is being implemented? What are the characteristics of teachers using the program?

Purpose of the Study

The study focused on three aspects of ITI namely, (1) identification of the components of ITI, (2) the implementation of ITI in classrooms, and (3) the context of its implementation. The purpose of the study was three-fold: (1) the study defined and described ITI as practiced

by teachers, (2) the study described the context--internal (teacher characteristics) and external (physical, and social)--in which the implementation of the program took place, and (3) the study examined and analyzed the process teachers go through when implementing the innovation.

Since ITI is a comprehensive, multi-faceted innovation, the different teacher-approaches to its implementation was worthy of study. It was fascinating to find out the variations of emphasis and de-emphasis of the components of ITI by teachers as they implemented it. Such a description would be especially useful for practioners and staff developers of the program.

Research Questions

This study attempted to answer the following questions:

1. What does the Integrated Thematic Instruction look like when implemented by the teacher? What are its essential operational components? How is the local adapted version of ITI different from Kovalik's version of ITI?
2. What are the contextual elements on the execution of change? What type of administrative, collegial, and parental support exist? What are the personal and psychological characteristics of the teachers?
3. What variations are found in implementation of the program by different teachers?

Rationale for the Study

The field of education is characterized by an ever-expanding plethora of innovations designed to improve instruction. Some of these approaches are based upon solid theory and others less so. ITI appears to represent one way to package a number of attractive, research-based ideas. A study of this kind will contribute valuable information to the knowledge base in education as the components of program seem to have been selected carefully and also seem compatible--theoretically and philosophically.

Another reason for the study has to do with the need for documentation of the implementation of ITI. Since its conception over a decade ago, ITI has been used in many classrooms by teachers. Although Kovalik has described the attributes, goals, and implementation requirements, it is important to describe ITI in clear, operational terms so that teachers and educators in general can benefit from it. So far, no documented research has been done on ITI to describe it, to say what it looks like in practice, and the context in which it operates. The contribution of this research will be toward the building of a description of ITI.

A description of the program's implementation components along with the context will help teachers and administrators understand the implementation process and

help sustain the program. It perhaps may help scholars and practitioners to understand implementations in general.

A description of what ITI looks like in actual practice in the classroom is imperative before questions of student achievement can be addressed. Otherwise, it may be an assessment of a "non-event" (Charters & Jones, 1973), (i.e., the ITI classroom may be no different from any other classroom), so the critical components of ITI need to be described so as to portray its uniqueness.

A study of ITI may be useful in terms of its use in multi-graded schools, which is an educational concern (Amodeo, L., 1983; Johnson, D. W., 1985; Surwill, B., 1980). Multi-graded classes allow for flexibility in progress and allow students of various age-levels to interact more like in actual life. Similar benefits are also found for rural schools. The structure of ITI makes it a practical model to meet several multi-grade and rural school needs.

The components of ITI, such as mainstreaming and co-teaching may be significant in themselves. Myriads of methods have been attempted to mainstream students, with varying results. In the context of ITI, co-teaching--by teams consisting of a regular class teacher, a special education teacher, and a reading (chapter I) teacher--is linked with mainstreaming. Implementation of mainstreaming in the context of ITI would be an area of interest to concerned educators.

Perhaps one of the most important uses of the study of the process of change in relation to the implementation of an innovation is its implications for staff development and inservice training. Information on areas of training needing improvement, and the types of support system needed at various stages of implementation, could help staff development personnel to carry out effective inservice training not only in ITI but in other innovations as well.

The studies conducted by Bassett (1991) on the implementation of cooperative learning, S. Gaikwad (1991) on staff development, and Freed (1991) on teacher change are related to this study. The present study attempted to bring together relevant research findings on areas related to educational change and endeavored to draw connections between them.

At the onset it is necessary to delineate the scope of the study. The present study conducted at sites implementing ITI during the initial (first or second) years did not deal with aspects of its installation or institutionalization. Neither the effectiveness of ITI in terms of student outcomes, nor its organizational aspects were direct concerns of the study.

The proceeding chapters are as follows: chapter 2 presents an overview of the review of related literature on change, innovation, and implementation; chapter 3 describes the methodology used in the study with a brief review of

literature on qualitative and case study research. The case study of ITI is provided in chapters 4 through 7: chapter 4 presents the historical, philosophical, and theoretical background of ITI; chapter 5 outlines the innovation configuration of ITI; chapters 6 and 7 describe the implementation and context of ITI; and chapter 8 presents the summary of analysis and recommendations.

The next chapter reviews the related literature on topics related to the study. The focus of the review is essentially on three related aspects: change, innovation, and implementation.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Introduction

This chapter contains a review of literature related to educational change, innovation, and implementation. To begin with, it may be useful to distinguish these inter-related terms, as used in the context of this study.

Definitions of Change, Innovation, and Implementation

The term change or educational change refers to the process that either schools or teachers go through in altering the current educational practices. Change may be imposed or voluntarily pursued, but "represents a serious personal and collective experience characterized by ambivalence and uncertainty, and if the change works out, it can result in a sense of mastery, accomplishment and professional growth" (Fullan, 1991, p. 32).

In the context of the present study, the term innovation is used to mean a new educational program involving classroom curriculum and instruction. I like to think of the term as having one or more presupposed qualitative criteria. Miles (1964, p. 14) provides this

description of an innovation: "Generally speaking it seems useful to define innovation as a deliberate, novel, specific change, which is thought to be more efficacious in accomplishing the goals of a system."

Implementation refers to the use of innovation with reference to classroom practice. Fullan (1991, p. 37) identified the three dimensions of implementations as: (1) the possible use of new or revised materials, (2) the possible use of new teaching approaches, and (3) the possible alteration of beliefs. He added, "It is clear that any individual may implement none, one, two, or all three dimensions" (1991, p. 37).

Studies based on the above themes are voluminous and it is impossible to discuss every one of them. But what I have attempted to do is to pull out significant studies of change, innovation, or implementation which are relevant to the present study and highlight them.

The first part of this chapter deals with these topics in general, while the latter part of the chapter deals in some detail with specific historically important studies related to these topics. These studies include: (1) the Concerns-Based Adoption Model (CBAM) and (2) studies of Dissemination Efforts Supporting School Improvement (DESSI).

Change in Education

The process of planned educational change is portrayed as complex (Fullan, 1991, p. 16). It is, therefore, important to understand the nature of change.

Types of Change

Bennis (1966) identified these three types of change:

1. Planned change. People involved in the change process follow precise procedures for dealing with the activity at hand. Planned change is the ideal.
 2. Coercion. One group determines the goals and intentionally excludes other from participating.
 3. Interaction change. Few procedures are carefully developed. People are more or less left on their own.
- Change can also be considered according to complexity.

Those involved in investigating the change process have identified five kinds of change using complexity as the organizer (McNeil, 1985).

1. Substitution. For example, the substitution of one textbook for another. By far, this is the easiest and most common type of change.
2. Alteration. Introducing into existing materials and programs new content, items, materials, or procedures that appear to be only minor and thus are likely to be adopted readily.
3. Perturbations. These changes could at first disrupt a program, but can then be purposefully adjusted by the

curriculum leader to the ongoing program within a short time span. An example of a perturbation is the principal's adjusting class schedules, which would affect the time allowed for teaching a particular subject.

4. Restructuring. Modification of the system itself, such as introducing new concepts of teaching roles, differentiated staffing, or team teaching.
5. Value-orientation changes. Shifts in the participants' fundamental philosophies or curriculum orientations. Major participants in the curriculum must accept and strive for this level of change in order for it to occur.

Although it is difficult to classify changes that occur in the schools into distinct categories, these types do exist and planned change is the ideal (Hunkins & Ornstein, 1989). Change need not be synonymous with improvement and often has not been.

A great deal of study has been done since 1970 after what Goodlad and Klein (1970) observed to be the blunting of change or the lack of congruence between the intended and actual outcomes of curricular innovation. These studies have helped in identifying some of the factors in the dismal failure of implementations of innovative programs (Leary, 1983). Let me briefly list these factors:

failure of implementations of innovative programs (Leary, 1983). Let me briefly list these factors:

1. The lack of clarity of the nature, scope, and expectations of the innovation (Berman & McLaughlin, 1978, p. 34; Fullan & Pomfret, 1976, pp. 48-51; Goodlad, 1975, pp. 45-71).
2. The lack of recognition of the importance and effect of school context in implementation (Berman & McLaughlin, 1978, p. 34; Fullan & Pomfret, 1976, pp. 68-73; Goodlad, 1975, pp. 45,71).
3. The lack of conceptualization of change as a process (Hall & Loucks, 1979, p. 37).
4. The inadequate attention paid to staff concerns relative to the innovation and staff development during program implementation (Berman & McLaughlin, 1978, p. 34; Fullan & Pomfret, 1976, p. 82; Goodlad, 1975, pp. 167, 177-184).

Studies of Gross, Giacquinta, and Berstein (1971) had found similar factors for failure of implementation of programs.

Educational changes and innovations are incessant and whether they are positive or negative, often depend on one's point of view (Smith, 1991). Slavin (1989), for example, referred to this faddism in education:

Educational innovation is famous for its cycle of early enthusiasm, widespread dissemination, subsequent disappointment, and eventual decline--the classic swing of the pendulum. (p. 752)

Characteristics of Effective Innovations

As implied in the definition stated earlier, the term innovation suggests that it is something better than what it replaces. Then the question arises, "Better for whom?" It may be possible to imagine innovations that are better for everybody, that every individual or group will benefit from the innovation process.

Harrison and Glaubman (1990) refer to an "ultimate innovation" as those that produce "self-renewal". A school which develops self-renewal qualities will enhance the effectiveness of the key organizational subsystems. Then the question arises regarding the innovations more likely to lead to this type of innovation. To answer this question, Harrison and Glaubman identified the two characteristics that distinguish innovations--their initial focus and their degree of radicalness.

Educational innovations may be classified according to their initial focus as administrative (focused on change in the task or power system) or technological (focused on change in the educational program). These innovations follow different innovation processes and it is found that technological innovations, rather than administrative innovations, would be more likely to lead to a reorientation of the school (Daft & Becker, 1978). The research study of Cohen and Bredo (1975) supports this hypothesis. They found that the implementation of a complex innovation was

associated with the introduction of changes in the traditional program of the elementary school.

The impact of the innovation depends also on the radicalness of the innovation, the extent to which it entails fundamental changes in the subsystems of the organization (McLaughlin, 1976; Nord & Tucker, 1987). The study of Nord and Tucker (1987) of the implementation of radical and routine innovations showed that to some degree the more radical the innovation the more likely it is that the individual in the organization will learn. They also found in radical innovations the organization as a whole developed wider competencies. However, Nord and Tucker pointed out, radicalness does not always produce more organizational change. The nature of the implementation process affects the organizational change. The impact of the radical innovation also depends on the internal features of the innovation itself. As Harrison and Glaubman (1990, p. 22) pointed out:

Innovations that are internally contradictory, e.g., entailing changes in the task organization that do not fit changes in the instructional system, may be more quickly discarded by adopters than ones that are internally compatible.

The literature on organizational sociology (Galbraith, 1977) indicates that the more suitable the fit of different components of a radical innovation, the more subsequent innovation will be generated.

Nature of Implementation

According to Hunkins and Ornstein, "Implementation means getting educators to shift from the current program to the new program, a modification that can be met with great resistance" (1989, p. 105). Fullan and Pomfret (1977) had come to a similar conclusion after a study of several innovative projects. They pointed out that effective implementation of innovations requires time, personal interaction and contacts, inservice training, and other forms of people-based support; this implied that changes must be made in the behaviors of all affected for implementation to occur. They also pointed out that teachers must be clear about the purpose, the nature, and the benefits of the innovation.

Successful implementation of curricula results from careful planning, according to Hunkins and Ornstein (1989). They identified three factors that planning should focus on: people, programs, and organizations. Although these factors are inseparable, some individuals consider that dealing primarily with only one factor will facilitate implementation. For example, some feel that implementation should focus on people; others consider that the program should be the primary focus. Still others think that attention should center on the organization within which the people work. The stand taken by Hoy and Miskel (1982) is that if the environment is reorganized, people will adjust

in the directions necessary for successful implementation. Although a leader may wish to stress one factor more than another, no one factor in implementing a program should be ignored (Hunkins & Ornstein, 1989).

Hunkins and Ornstein (1989, pp. 107, 108) further identified factors for successful implementation as:

1. Incrementalism. Implementation does not occur all at once with all teachers. Loucks and Lieberman (1983) have found that teachers' use of the new curriculum is mechanical at first. Teachers can handle new programs if the change in their attitudes, behaviors, and knowledge are to be attained in manageable increments.
2. Communication. Frequent discussion about a new program among teachers, principals, and curriculum workers is a key to successful implementation.
3. Cooperation. Cooperation between all persons involved with program implementation must occur if change is to be successful and become institutionalized. Bamberg (1989), in a study of school improvement, found that when staff realized they were to be significant actors in the implementation process, their morale rose--an important factor for successful implementation.
4. Support. Administrative support and financial support are crucial for successful implementation of the program. According to Ornstein (1986), the principal

is a key guarantor of successful innovation and implementation.

Other findings on schools engaged in implementing innovations specified similar ingredients that are critical to successful change, such as: (1) a well-defined, "classroom-friendly," effective innovation; (2) ample, appropriate, and continuous help for teachers from a variety of players; (3) clear direction from administrators; and (4) attention to institutionalization (Loucks & Zacchei, 1983).

Concerns-Based Adoption Model (CBAM)

The Concerns-Based Adoption Model is a change model developed by Hall, Wallace, and Dossett (1973) of the Research and Development Center for Teacher Education of the University of Texas at Austin. This model includes the process that educational institutions and individuals go through when implementing innovations.

The CBAM consists of three systems: a User System, a Resource System, and a Change Facilitator System (Hall, Wallace, & Dossett, 1973, p. 4). The User System is characterized by specific behaviors and attitudes relative to a particular innovation. These specific behaviors and attitudes are reflected in the Levels of Use (LoU) and Stages of Concern (SoC) components, respectively. The various forms the innovation has acquired within the User System as a result of user adaptation of the innovation to local circumstances is described in terms of Innovation

Configuration (IC). The Change Facilitator's role is to probe the User System to determine and monitor user and innovation characteristics, then link the User System with a Resource System through planned intervention. These probing functions are comprised of the LoU, SoC, and IC components within the User Systems. The Intervention Taxonomy, consisting of six categories of interventions, (1) developing supportive organizational arrangement, (2) training, (3) consultation and reinforcement, (4) monitoring, (5) external communication, and (6) dissemination, is used in the staff development activities and are targeted by the SoC, LoU and IC information.

Assumptions of CBAM

CBAM studies are based on a number of assumptions and were verified by several studies (Hord, Rutherford, Huling-Austin, & Hall, 1987, pp. 5,6). They listed six of these assumptions:

1. Change is a process, not an event. Change is a process occurring over time, usually a period of several years.
2. Change is accomplished by individuals. Individuals must be the focus of attention in implementing a new program. Only when every (or almost every) individual in the school has absorbed the improved practice can we say that the school has changed.

3. Change is a highly personal experience. Each individual reacts differently to a change, and sufficient account of these differences must be taken.
4. Change involves developmental growth. Studies of change have shown that the individuals involved appear to express or demonstrate growth in terms of their feelings and skills. "Individuals involved in change go through stages in their perceptions and feelings about the innovation, as well as in their skill and sophistication in using the innovation" (Hall & Loucks, 1979, p. 38).
5. Change is best understood in operational terms. Teachers, and others, will naturally relate to change or improvement in terms of what it will mean to them or how it will affect their current classroom practice.
6. The focus of facilitation should be on individuals, innovations, and the context. The real meaning of any change lies in its human, not its material, component. Effective change facilitators work with people in adaptive ways.

As summary, the findings of studies using CBAM have provided new insights and understandings of school change. It has also provided new meaning of the roles people and personnel need to play in the process.

Studies of Dissemination Efforts
Supporting School Improvement

Funded by the US Department of Education in 1978, the study--Dissemination Efforts Supporting School Improvement (DESSI) was a three-year effort. It examined the effects of strategies the government used to encourage school improvement, primarily by the dissemination of new practices that had been developed with federal support. The study traced 61 different innovations from their federal sponsors to 146 districts and schools, and over 400 classrooms in 10 states.

The DESSI study took some different perspectives on change compared to studies by Goodlad (1984) and the Rand Change Agent Studies (Armor et al., 1976) which yielded discouraging results (Loucks, 1983). These perspectives are:

1. They looked at schools that had made a commitment to improvement and had done so by implementing a new curriculum or instructional practice.
2. They looked at schools supported by federal and state programs that had either evolved better ways of helping schools improve or used strategies different from those examined by Rand.

The study resulted in identifying four ingredients that are critical to successful change (Loucks, 1983, p. 5; Loucks & Zacchei, 1983, p. 28). These are:

1. A well-defined, "classroom-friendly," effective innovation.
2. Ample, appropriate, and continuous help for teachers from a variety of players; these include teachers, principals, district staff, and external trainers.
3. Clear direction from administrators.
4. Attention to institutionalization (ensuring that the new practice remained), including line items on budgets, orienting new or reassigned staff, and writing the new program into curriculum guidelines.

Other studies of school change include those of Fullan and Pomfret (1977), Havelock (1971), Joyce and Showers (1988), Rand (1973), and a host of others. Some of these studies are summarized by Freed (1991) and details may be obtained directly from the above mentioned sources.

CHAPTER 3

METHODOLOGY

Introduction

In chapter 2, I gave a description of the review of related literature on topics related to the research study. This chapter presents a brief literature review on qualitative research with special reference to case study, the particular strategy I used for the research. The chapter also deals with the research design utilized in the study and discusses the procedures and decisions that went on throughout the course of the research to bring it to fruition. Finally, I present the data-gathering and data-analysis techniques employed in the study.

It is to be specially noted, as mentioned earlier, that since anonymity was assured for all the participants in the study, pseudonyms were used for the names of places, schools, and people. Any other identifying details have been altered for the same reason.

The focus of the study was Integrated Thematic Instruction (ITI), a complex program of instruction originally compiled and developed by Kovalik (1989). A description of its components, and its implementation at two

elementary schools was made in the context of implementation. Being a descriptive study, a qualitative case study methodology was employed, with ITI as the unit of study.

It is observed that qualitative research in education "has grown rapidly in popularity during the past 15 years" (Bassett, 1991, p. 31). My review of literature on qualitative research revealed several interesting facts, a few of which need to be shared. I feel that describing this brief background information on qualitative research will be helpful in understanding the present study.

Qualitative Research

History of Qualitative Research in Education

Tesch (1990) claims that qualitative research is as old as social science itself--well over a hundred years. The beginning year of sociology is considered as 1842 with Auguste Comte as its founder; but education as a discipline or field of study did not emerge as a discipline until the twentieth century. Thus, these early qualitative studies concerning education were rooted in several disciplines in social science, such as anthropology and sociology.

In 1913, Maria Montessori brought education and anthropology together in her work Pedagogical Anthropology (Montessori, 1913). Many anthropologists studied children and matters of education in the first half of the century.

In the 1950s, however, educators themselves began to study education from an anthropologist's point of view using anthropological tools (Tesch, 1988). In 1955, George Spindler published a work compiling studies of school life, and during the 1960s more narrative accounts of what was going on in schools and classrooms appeared on the scene. For example, Life in the Classroom (Jackson, 1968) and Becoming a Teacher (Eddy, 1969) are two famous works from this time. Even American federal research projects became more qualitative and used interviews and participant observation (Bogdan & Biklen, 1982, p. 19) as legitimate research techniques.

In the field of education, just as in many other fields, tension existed between scholars who believed in 'objective' results derived from natural sciences, and those who felt that 'human' sciences needed a different approach because of their complexity and the existence of a phenomenon unknown in the mechanical world: consciousness. Eventually, in 1964, Fred Kerlinger established the canon of methods for the social sciences. He established that only through the construction and testing of hypotheses can one arrive at general laws or explanations. Later he wrote:

Scientists are not and cannot be concerned with the individual case. . . . The unit of speech in science is always the set, the group . . . the existential individual, the core of individuality, forever escapes the scientist. He is chained to group data, statistical prediction, and probabilistic estimates. (Kerlinger, 1979, pp. 270, 275)

Despite the dominance of positivistic methods, a few researchers in the social sciences continued to conduct non-positivistic studies. They observed, described, listened, analyzed, and interpreted, and some even published accounts of their methods (Webb & Webb, 1932).

Qualitative methods were seen as alternatives to conventional methods in the field of educational evaluation with the works of Parlett and Hamilton (1972) in Britain, as well as the work of Stake (1975) in the US. Other important qualitative publications in education in the 1970s were that of Erickson (1973), Smith (1974), Wolcott (1975), Rist (1975), Patton (1975), and Tesch (1976). Then came the publications of Guba (1978), Spradley (1980), and Qualitative Evaluation Methods of Patton (1980). The cause of qualitative evaluation was advanced in 1984 by the publication of Ethnography in Educational Evaluation (Fetterman) and Qualitative Data Analysis (Miles & Huberman).

Several other thorough books on qualitative methods have appeared within the past 10 years (Bogdan & Bicklen, 1982; Dobbert, 1982, Goetz & LeCompte, 1984; Lincoln & Guba, 1985; Merriam, 1988; Miles & Huberman, 1984; Yin, 1989). The American Educational Research Association (AERA), since 1986, has featured large numbers of articles on qualitative research, including training workshops. The first educational journal exclusively for qualitative research,

The International Journal for Qualitative Studies in Education, was published in 1988.

The Assumptions of Qualitative Research

In the past, attempts have been made to address those aspects of human conditions that need not just counting, but understanding. The qualitative dimension of research attempts to appreciate human meaning. It is distinguished from quantitative research in that quantitative research is concerned with frequency while qualitative research is concerned with abstract characteristics of events.

Qualitative researchers maintain, according to Kincheloe (1991), that many natural properties cannot be expressed in quantitative terms and that knowledge of human beings involves the understanding of qualities which cannot be described through the exclusive use of numbers.

Compared to quantitative research based on the assumptions of a single, objective reality, qualitative research assumes that there are multiple realities. Philosophers of research have found the attempt to describe the universal concerns of qualitative research to be quite difficult (Kincheloe, 1991).

Quantitative and qualitative modes of inquiry addresses different types of questions. To answer a question such as the one used by Shulman "What is the underlying or explicit system of rules by which [a] complex activity is accomplished?" (1981, p. 7) requires the methods associated

with qualitative inquiry. As Peshkin (1988) stated, "Qualitative inquiry finds its ultimate strength in the vast opportunity that the holism of being there makes possible" (p. 418). Understanding the complex program of ITI needs this type of approach. This is the reason why the present study utilized a qualitative methodology.

Characteristics of Qualitative Research

Recognizing the diversity of qualitative culture, Sherman, Webb, and Andrews (1984) set out to identify the general characteristics of qualitative research. They concluded that certain characteristics can be identified in most qualitative research. These are described below.

1. Concern with context. Human experience is shaped in particular contexts and cannot be understood if removed from those contexts. Thus, qualitative research attempts to be as naturalistic as possible, meaning that contexts must not be constructed or modified.
2. Views experience holistically. As researchers explore human situations, they must attend to a variety of factors which shaped them. The connections which tie experiences together and often provide their significance in human affairs are essential features of holistic qualitative research.
3. Belief that methods of inquiry must be appropriate to the aims of inquiry. Qualitative researchers are typically eclecticists. The research methods that they

typically eclecticists. The research methods that they employ may be diverse, but they will be consistent with the general aims of qualitative inquiry. Instead of intervening in experience by removing it from its natural setting or by structuring the 'important' aspects of the experience quantitatively, qualitative research looks for social and cultural patterns of experience, or relationships among various occurrences, or the significance of such events as they affect specific human purposes.

4. Concern with experience as it is 'lived,' 'felt,' or 'undergone.' Qualitative thinking involves the feeling and appreciation dimension of human activity.
5. Making judgments. The purpose of this assessing aspect of qualitative research is to describe the essential qualities of events, to interpret the meanings and relationships among those events, and to appraise the significance of these events in the larger picture of social and educational concerns.

Besides these characteristics, Lincoln and Guba (1985) identified additional characteristics of qualitative research such as natural setting, use of the human instrument, purposive sampling, inductive data analysis, tentative application and special criteria for trustworthiness. According to Eisner (1981), research methods could resemble those used in artistic

connoisseurship. Just as is the artist, the researcher is interested in the particular, not the general, "because of the belief that the general resides in the particular" (Eisner, 1981, p. 7). He stated that the artistically oriented researcher tries to "imaginatively project himself into the life of another" (1981, p. 6), and rather than seeking truth, the researcher seeks to create "images that people will find meaningful and from which their fallible and tentative views of the world can be altered, rejected, or made more secure" (1981, p. 9).

Qualitative Case Study

The term "case study," though commonly associated with medicine, social work, plant pathology, belongs to the field of education as well. It is used as a research method organized around a conceptual structure, just as all research methodologies are. Different case study researchers use very different kinds of conceptual structure (viz., hypotheses, theories) for it.

Definitions

Several definitions of case study exist and "there is little precision in the use of the term *case study*" (Merriam, 1988, p. xii). But let me give several definitions given by the experts.

Smith (1978) defined it as the study of a bounded system. The importance of having some conception of the

unity or totality of a system with some kind of outlines or boundaries is obtained from this definition.

According to Merriam (1988), qualitative case study is an intensive, holistic description and analysis of a bounded phenomenon such as a program, an institution, a person, a process or a social unit (p. xiv).

In the foreword to Yin's book, Case Study Research: Design and Methods, Campbell referred to case study as a "research method for attempting valid inferences from events outside the laboratory, while at the same time retaining the goals of knowledge shared with laboratory science" (1984, p. 7). Yin provides a more "technical" definition which not only helps in understanding case studies, but also in distinguishing them from the other research strategies:

A case study is an empirical inquiry that:

1. investigates a contemporary phenomenon within its real-life context; when
2. the boundaries between phenomenon and context are not clearly evident; and in which
3. multiple sources of evidence are used (p. 23).

Good and Hatt (1952) defined case study as: a way of organizing social data so as to preserve the unitary character of the social object being studied (p. 331).

Advantages and Disadvantages

Case study in education has become increasingly popular in education since the last decade. Referring to case study

as a doubly effective research style in education, Skilbeck (1983) said:

Taken in one direction, it leads us to the perfection of observation and documentation; in another, it is a key factor in the revitalization and democratization of educational practice and education knowledge. (p. 18)

Merriam (1988) referred to qualitative case study as a particularly suitable methodology for dealing with critical problems of practice and extending the knowledge base of various aspects of education.

However, the methods employed by the case study researcher may raise a number of particular issues and problems (Burgess, 1985). For example, the use of observation and unstructured interviewing can lead to a close liaison between those being studied and an involvement in the events or issues being researched. If used as evaluation, anonymity can often be a 'non-solution' because if it is impenetrable the research does not provide feedback to those who are the subject of investigation (Adelman, Jenkins, & Kemmis, 1980). These issues and others concerned with gaining access, negotiating entry to classrooms, interviewing, and questions concerning the ethics of research may pose numerous problems for the researcher.

Case Studies of Elementary School Curriculum

While a number of studies have focused upon secondary schools (Ball, 1981; Burgess, 1983; Hargreaves, 1967; Lacey, 1970), few in-depth case studies have been conducted in

primary schools. However, the works of Gross, Giacquinta, and Bernstein (1971), Sharp and Green (1975), King (1978), Pollard (1979), Burgess (1983), and Green (1985) are examples of the latter. However, most of these case studies highlight particular aspects of primary education. For example, Smith and Pollard presented the teaching and learning system in an arithmetic class using computers; Sharp and Green were concerned with the way in which education is used as a form of social control; King (1978) wished to interpret the meanings which teachers of infants assigned to their actions; and Pollard (1979) has studied the procedures of everyday life in the primary classroom and the way in which pupils and teachers learn to accommodate each other. Thus, the focus of these studies is not specifically upon the curriculum. The study of Burgess (1983) filled this gap by examining the mathematics curriculum through a detailed case of a primary school.

More recently, case studies conducted by Bassett (1991), Freed (1991), and S. Gaikwad (1991) have helped focus on teachers' implementation of cooperative learning, direct instruction reading approach, and Models of Teaching, respectively, in elementary schools. The present study, in a similar manner, explored the curricular program ITI, a complex innovation in its initial stages, as implemented at two elementary schools.

The Research Setting

My study focused upon the implementation of ITI with special reference to a description of the program in operational terms. The description of the program also included the context of the program, (viz., school demography, school climate, support systems, training, and teacher and student characteristics).

The process teachers used to implement ITI was examined through a case study of the program at two elementary schools--Salisbury and Hutchins. Classroom observation, semi-structured and unstructured interviews, survey measures, and documentary evidence were the main methods of investigation, while the focus of the study was an operational description of ITI.

The Research Design

To provide a starting point for the research, several questions were posed: What does ITI look like when implemented by classroom teachers? What variations are found in its implementation by different teachers, and different schools? What are influences of contextual elements on the implementation of ITI?

One of the first considerations was to find a research approach that was appropriate to answer these questions. The case study method seemed the fitting methodology. Then the unit of analysis or the "case" became an issue. At

first, it looked as though I was doing a multiple-case study of two schools. But as I did the initial observations, interviews, and analysis, I realized that the unit of analysis--the focus of my study--should really be the ITI program; schools and teachers became subunits of this main unit. Thus, the design of my study was a single-case (embedded) design, one of the four research designs that Yin (1984) describes. Figure 1, taken from this book (p. 46) illustrates the design with respect to the other case-study designs.

The rationale for choosing a single case boils down to what Yin terms as the case being "unique" as well as "revelatory" (1984, pp., 47, 48). It was unique since the program was one its kind--a distinctive adaptation of ITI; it was revelatory as this was the first opportunity for an investigator to observe and analyze ITI or its adapted version.

	Single-Case Designs	Multiple-Case Designs
Holistic (single unit of analysis)	TYPE 1	TYPE 3
Embedded (multiple units analysis)	TYPE 2	TYPE 4

Figure 1. Basic types of design for case studies

Since the case study involved a unit and subunits, it had an embedded case study design. The advantage of this design was that it helped in focusing the inquiry. The over-all study was that of ITI, but analysis of data included the context of two schools, and the individual teachers within the schools. Figure 2 summarizes kinds and methods of data collection for each of these units. In this study a type 2--single embedded design was used.

Choosing the Audience and the Report Format

Two important considerations needed to be addressed at the onset of the case study: the audience and the report format. I understood from reading that "Case studies have a more diverse set of possible audiences than do most other types of research" (Yin, 1984, p. 128). Therefore early on in my study, I identified the audience for my study: Other than the dissertation committee, the audience consists of participants in the study, other colleagues in the field of education including classroom teachers implementing ITI or are interested in ITI, teacher educators, staff developers and curriculum developers, and other thesis or dissertation students.

To report the case study, I chose to use the "descriptive" (Merriam, 1988, p. 7) format. She suggests that:

They are useful, though, in presenting basic information about areas of education where little research has been conducted. Innovative programs and practices are often the focus of descriptive case studies in education. Such studies often form a data base for future comparison and theory building (1988, p. 27).

Unit	Kinds of Data	Method of Collecting Data
ITI	Historical, philosophical & theoretical framework; configuration	Review of literature, interviews, observations
School	Demography, climate, support systems, & student and teacher characteristics	Archival records, interviews, observations, measures
Teacher	Implementation	Observations, interviews

Figure 2. Data collection for units

Getting Started

Gaining access to schools implementing ITI was my initial concern. Two elementary schools, Salisbury, and Hutchins were selected for several reasons: (1) They utilized the ITI program, (2) these were primary schools, thus facilitating the study involving children ages 5-12, the age group I was especially interested in, and (3) these two schools represented several criteria of schools implementing ITI. For example, Salisbury school was in its

first year of implementation, but the whole school was implementing it, while Hutchins school was in its second year of implementation (though for several teachers this was the first year), and the whole school did not use the program.

Access to the schools was initially granted by the County School District office. Negotiations were made with the school principals and permission to do the study was granted by both the principals. I explained my research in detail to teachers to negotiate entry to their classrooms as well as for their individual interviews, and for administering surveys. A copy of the proposal was submitted for consideration in each of the above instances.

In the case of Salisbury Elementary School, all 11 teachers agreed to be involved in the research. But at Hutchins school, the total number of teachers (22), was a little too large for practical purposes of observation and interviews within the allotted time, and it was important to reduce the number to something that could be handled within the time available. For this purpose, teacher-volunteers were called upon to sign up for the study. This resulted in 15 volunteer teachers, which seemed a number somewhat more suitable and practical for the study.

Techniques for Data Collection

Using Multiple Sources of Evidence

One of the major strengths of case study data collection is the opportunity to use many different sources of evidence (Merriam, 1988; Yin, 1989). The advantage of using multiple sources of evidence, according to Mathison (1988), is facilitation of triangulation--relying on other sources of evidence to enhance the validity of the findings. Although the idea of using multiple methods was introduced by Campbell and Fiske (1959), it was Webb, Campbell, Schwartz, and Sechrest (1966) who coined the term "triangulation" for this technique and Denzin (1978) who provided detailed information as to how to triangulate.

Using multiple sources of evidence I was also able to address construct validity as this was same as providing "multiple measures of the same phenomenon" (Yin, 1989, p. 97). Triangulation also was used to reduce bias.

The sources for data collection included direct observation, interviews, survey measures, and archival records. I will briefly describe each of these strategies in the context of my study.

Direct Observation

Direct observation was part of the entire field visitation, though the major part of the observation was of classroom interactions. Observation also included staff

meetings, hallway, play-ground, cafeteria activities, and closures (children's opportunity to display what is learned at the end of a major unit). I was able to observe teachers during the interviews as another evidence. A total of over 123 hours of observations were used in the study.

At times, I was able to take photographs of important activities such as group activities and closures, with permission from teachers. These photographs helped in describing the situation more fully, and helped me see details I would have missed during observations.

I was also able to have, during the initial stages of observation, information from other observers. Information from two other observers--the chair of my research committee and a colleague--helped increase the reliability of the observational evidence, especially during these initial periods of uncertainty.

The observation format that I used was the one recommended by Spradley (1980, p. 73). He placed observations in the following sequential order: (1) descriptive observations, (2) focused observations, and (3) selective observations. The idea was to start looking at the situation in general, then trying to look more in-depth and finally, choosing selected units for study. These types of observations helped in doing purposive sampling, and helped me select two teachers from each of the schools for selective observations. These teachers were chosen because

(1) they were good examples of users of the program, (2) they were recommended by the program director, and (3) they were easily communicable.

The observations (and interviews) were recorded in field diaries using paper and pen, and included the dates, times, interactions, and contents of the lessons observed. Field notes were later expanded and typed using a computer. These notes (observations and interviews) evolved into two separate volumes--Volume I (140 singled-spaced, typed pages), involving Salisbury school field notes, and Volume II (161 single-spaced, typed pages), involving Hutchins school field notes. The number of classroom observations I made for each teacher is summarized in Table 1. The duration of observation varied but was of minimum one period (40 minutes).

Interview

Two kinds of interviews--semi-structured and unstructured--were conducted of teachers. These were valuable sources of information for the study. Though much of the observations and interview timings overlapped, I was able to spend close to 50 hours on scheduled, or pre-arranged, semi-structured interviews.

Table 1

Teacher observations

School	Teacher	No. of Observations
Salisbury Elementary School	Lillian Weiss	3
	Daffney Fisher	3
	Sarah Kelley	3
	*Irene Hamil	13
	*Rose Bower	12
	Bonnie Freeman	2
	Rick Adams	4
	Nina Harris	5
	Stacy Jay	3
	Jackie Cook	2
Janice Howe	2	
Hutchins Elementary School	Joyce Stern	4
	Millie Reed	2
	Norma Hood	2
	Nancy Press	2
	Helen Sands	3
	*Jenny Powell	14
	Rita Hancock	2
	Beth White	3
	*Pat Cooper	14
	John Summers	3
	Wendy Pratt	3
	Kim Good	3
	Lin Ashburn	5
Dixie Milton	5	
Ann Moss	2	

*Person selected by purposive sampling

A semi-structured interview was conducted initially for all teachers involved in the study, using the format of Growth States Interview (McKibbin & Joyce, 1980). This interview also helped to find teachers' reactions on the use of ITI. These were individual interviews conducted on a pre-arranged schedule, and the school arranged for substitutes for teachers during the interviews. Each interview lasted from a half-hour to one and one-half hours. I took only outline notes while interviewing in order to keep the interview moving. Most interviews were tape-recorded (when not taped, I took more elaborate notes) and transcribed later, and these transcriptions were included as part of the field notes. Of the 26 interviews, 4 were not taped due to my forgetfulness in bringing the tape recorder during the visit; all the teachers were cooperative and allowed the taping, without exception.

This initial interview served more than one purpose: (1) since they were conducted informally, they helped in rapport-building; and (2) I was able to personally answer any questions teachers had about the research at this time which helped reduce any inhibitions teachers felt in being involved in the study. The major part of the interview was to assess the growth states (involvement in professional or personal growth activities) of the teachers.

Growth States interviews. The Growth States interview (see the Appendix for the outline) helped in finding the

dynamics of individual interaction within the environment. Used originally in studies by Joyce, Bush, and McKibbin (1982), the framework helps in obtaining a detailed picture of the use of opportunities for growth experienced by teachers from their school setting, the district, universities, intermediate agencies, and other settings. Participation in new programs is likely to be related to the states of growth of the individuals. Although it is not possible to categorize the orientations toward growth into distinct categories, the following prototypes are identified: (1) Gourmet Omnivores or Initiators who are likely to participate in more programs and be active, and to increase the overall energy of the school, (2) Passive Consumers who are somewhat less active (compared to Gourmet Omnivores) are quite engaged with aspects of their environment; their degree of activity depends on who they are with, and (3) Reticent Consumers who expend energy actually pushing away opportunities for growth.

The unstructured interviews were done as time permitted and were not scheduled. These took place in the classroom (when students went away for recess, or library, music, etc.), hallways, library, playground, or lunchrooms. Often teachers themselves initiated the conversation, describing what they did and what worked well or did not work well, and why it worked or did not work. For example, after my observation of a lesson which used a particular reading

strategy involving construction of sentences using content-related words and which involved cooperative learning, the teacher turned to me and said, "I think next time, I will give fewer words, maybe 6 instead of 12" (Vol. I, p. 57). Teachers felt free to express their feelings of what happened in the class, as I had assumed the role of a learner (of what the program looks like) rather than that of a researcher, and even less so of an evaluator.

I was also able to have several useful telephone conversations with the principals, secretaries, and teachers. Though these conversations were not written down verbatim, a summary including the main thoughts of the conversation was added to the field notes each time. These conversations were mainly based on questions of clarification. For example, I had observed the reading teacher coming into a certain class and had observed the teaching, but I did not know how many times a week the reading teacher came into that particular class. Telephoning both the regular classroom teacher and the special education teacher quickly gave me the needed information, and I was able to plan the next observation based on this information.

Measures/Questionnaires

In this study, teacher characteristics, one of the contexts of implementation of ITI, needed to be described.

Three sets of measures or questionnaires were used for this purpose: (1) learning style (Gregorc, 1982a), (2) conceptual level (Hunt, Butler, Noy & Rosser, 1978), and (3) efficacy (Berman & McLaughlin, 1978) measures were given to teachers collectively and administered according to the directions given to administer the instruments. These measures were used to characterize teachers.

Gregorc Style Delineator. Anthony Gregorc, through the use of the research method phenomenology--the study of overt behavior and probable underlying causes--developed the Gregorc Style Delineator (Gregorc, 1982a). Used as a self-analysis tool, the instrument is designed to show two types of mediation abilities: perception and ordering. These two abilities, in turn, branch into other qualities. Perception abilities--means through which one grasps information--emerge as two qualities: abstractness and concreteness; whereas ordering abilities--the ways in which one authoritatively arranges, systematizes, references, and disposes of information--emerges as two qualities: sequence and randomness (Gregorc, 1982a).

Gregorc's study revealed that human beings exhibited evidence of both abstract/concrete perceptual abilities and sequential/random ordering abilities. He says,

Although each and every one of us is equipped, so to speak, with all four qualities, most individuals are predisposed strongly toward one, two, or even three channels. Few individuals are equally strong in all four channels. (1982a, p. 6)

Four distinct transaction ability channels emerge as these qualities couple: (1) concrete/sequential (CS), (2) abstract/sequential (AS), (3) abstract/random (AR), and (4) concrete/random (CR).

It is also interesting to note that Gregorc's study revealed that the environment places demands upon individuals to adjust to it by modifying their natural mediation abilities. In other words, individual needs accommodate to the immediate and surrounding environment.

The instrument consists of 10 different sets of descriptive words which are scored by the respondent as 4--most descriptive of you, to 1--least descriptive of you. The recommended time for word ranking is four minutes. The combined total scores of CS, AB, AR, and CR is then calculated and graphed to represent the dominant (27-40 points), intermediate (16-26 points), and low (10-15 points) styles. Gregorc gives a detailed description of the construct validity and reliability for the instrument in the administration manual (Gregorc, 1982b).

Paragraph Completion Method. The Paragraph Completion Method (PCM) is a semi-projective method to measure Conceptual Level (CL). Responses are thought samples of how a person thinks. Studies have shown that objective measures have been successful. It was found that a thought sample is required to assess how a person thinks, according to Hunt,

Butler, Noy, and Rosser (1978), the developers of the instrument.

The instrument consists of five 2-minute timed responses (see Appendix) to topics such as, "When I am told what to do . . ." Respondents are encouraged to write at least three sentences on each topic.

Obtaining the CL score is done by assigning a score from 0-3 to each of the responses and aggregating these separate scores into a total CL score. The standard ranges of scores are defined as follows: low CL--0-1.1, moderate CL--1.2-1.9, and high CL 2.0+. The assumption is that a low CL person is dependent on external standards and incapable of generating concepts, while a high CL person is capable of generating new concepts and holding internal standards.

For the purpose of this study, scoring of CL was done by a professional rater. Facts regarding construct validity and reliability of the instrument may be found in Hunt et al. (1978).

One of the important uses of the instrument is the correlation of its findings to other measures such as ability/achievement and learning style. It has been noted that persons very low in ability/achievement are almost always also low in CL; however, high ability/achievement persons vary enormously in CL (Hunt et al., 1978). The assumption is that a low CL person should profit more from a highly structured approach while a high CL person should

either profit more from low structure, or be less affected by variations in structure (Hunt, 1975).

Efficacy. Bandura (1977) has defined efficacy as "the conviction that one can successfully execute the behavior required to produce the outcome" (p. 193). Studies have identified teacher efficacy as a means of differentiating more effective from less effective teachers, especially in terms of students' achievements (Greenwood, Olenjnik, & Parkay, 1990; Rose & Medway, 1981).

In this study I had used the two-item measure (see Appendix) developed by the Rand Corporation (Armor, Conry-Osequera, Cox, Kin, McDonnel, Pascal, Pauly, & Zellman, 1976; Berman, McLaughlin, Bass, Pauly, & Zelman, 1977). The first item consisted of beliefs regarding the extent to which teachers in general can motivate students to achieve, and the second of the teacher's beliefs about his or her personal ability to influence student performance (Ashton, 1984; Berman et al., 1977).

Four patterns of beliefs may be derived from the two items: (1) teachers, in general, cannot motivate students and I am no exception to this rule; (2) teachers, in general, can motivate students but I personally cannot; (3) teachers, in general, can motivate students and I am no exception to this rule; and (4) teachers, in general, cannot motivate students but I personally can if I try hard.

The patterns of efficacy determined were as follows:

(1) Pattern 1 (teachers can't; I can't) had a combined score of 2-4 points, (2) Pattern 2 (teachers can; I can't) a combined score of 5-7 points, with the first item equal to 4 or 5 points, (3) Pattern 3 (teachers can; I can) a combined score of 8-10 points, and (4) Pattern 4 (teachers can't; I can) a combined score of 5-7 points, with the first item equal to 1 or 2 points.

Archival Records

Several school-related and program-related (ITI) records were useful in this study. These included: staff rosters, telephone and address listings of teachers, annual school reports, parent survey data, school maps, personal lesson plan outlines of teachers, and the ITI project proposal. These records were useful in providing both quantitative data where needed (e.g., the years of teaching experience of teachers), but also were helpful in conjunction with other sources of information mentioned earlier.

Leaving the Field

Classroom observations were carried out during the school year starting in October. So when the time to close (in June) came near, I began to panic with fears that I had not collected all the necessary data. I visited the schools more often. I found that most of the data now were repeating

themselves. But then, there was always something new happening. I realized that I had gathered sufficient data to begin the final analysis. Finally the door to data collection was shut with the closing of school in June. Bidding farewell came naturally.

Validity and Reliability in Case Study

The three important concerns that need to be addressed in a qualitative case study are: (1) internal validity, (2) reliability, and (3) external validity. This section briefly discusses these and suggests strategies for dealing with them.

Internal Validity

Internal validity, as Merriam states, involves the questions of how one's findings match reality (1988, p. 166). Based on the assumption that reality is holistic, multidimensional, and ever-changing, a qualitative case study researcher is interested in perspective rather than truth per se.

The strategies used to ensure internal validity are summarized below:

1. Triangulation--using multiple investigators, multiple sources of data, or multiple methods to confirm the findings.

2. Member checks--taking data and interpretations back to the people from whom they were derived and asking them if the results are plausible.
3. Long-term observation at the research site or repeated observations of the same phenomenon--gathering data over a period of time in order to increase the validity of the findings.
4. Peer examination--asking colleagues to comment on the findings as they emerge.
5. Participatory modes of research--involving participants and others in all phases of research from conceptualizing the study to writing up the findings.
6. Researcher's biases--clarifying the researcher's assumptions, world-view, and theoretical orientation at the outset of the study (Merriam, 1988, pp. 169-170).

Reliability

The extent to which one's findings can be replicated independently is what is termed as reliability. Qualitative research seeks to describe and explain what is happening: "Several interpretations of the same data can be made, and all stand until directly contradicted by new evidence" (Merriam, 1988, p. 172). Lincoln and Guba (1985, p. 288) would rather think of "dependability" or "consistency" of the results, than reliability. The ways to make results dependable suggested by Goetz and LeCompte (1984), Guba and Lincoln (1981) and Merriam (1988) are:

1. The investigator's position: The investigator should explain the assumptions and theory behind the study, his or her position vis-a-vis the group being studied, the basis for selecting informants and a description of them, and the social context from which data were collected.
2. Triangulation: Especially in terms of using multiple methods of data collection and analysis, triangulation strengthens reliability as well as internal validity.
3. Audit trail: In order for an audit to take place, the investigator must describe in detail how data were collected, how categories were derived, and how decisions were made throughout the inquiry.

External Validity

External validity deals with the issue of the extent to which the findings of one's study can be applied to other situations. Several perspectives of looking at this issue are described by Merriam (1988, pp. 173-177). In summary, she suggests that a case study's generalizing possibility is increased when the researcher provides a detailed description of the study's context. Lincoln and Guba (1985) also implied the same thought when they said, "The description must specify everything that a reader may need to know in order to understand [and apply] the findings" (p. 125) to the reader's comparable situation in mind.

The strategies to improve generalizability are:

1. Providing a rich, thick description.
2. Establishing the typicality of the case--describing how typical the program, event, or individual is compared with others in the same class, so that users can make comparisons with their own situations.
3. Conduct a cross-site or cross-case analysis (Merriam, 1988, p. 177).

The issues of internal validity, reliability, and external validity were addressed in the presented study by various means as shown in Figure 3.

Concern	Case-Study Strategy
Internal validity	Triangulation Member checks Long-term observation
Reliability	Triangulation The investigator's position Audit trail
External validity	Providing a rich, thick description

Figure 3. Strategies for dealing with research concerns

Techniques of Data Analysis

One of the distinguishing features of qualitative research is that data collection and analysis should be a simultaneous process, according to Merriam (1988). She further explained that analysis is not finished when all the

data have been collected, but rather, "analysis becomes more intensive once all the data are in" (p. 123). Analysis took the form of content analysis and I will describe this procedure that I used in analyzing the data.

Content Analysis

At the conclusion of data gathering came the process of content analysis. The constant reviewing of field notes and the refocusing on what to look for during subsequent observations had given me some idea as to how I will analyze the data. Content analysis consisted of coding and the formation of categories using an inductive strategy. These categories were selected from the field notes using the criteria that Holsti (cited by Merriam, 1988, p. 136) suggested. These criteria were:

1. The categories should reflect the purpose of the research.
2. The categories should be exhaustive--that is, all relevant items in the sample of documents under study must be capable of being placed into a category.
3. The categories should be mutually exclusive--no single unit of material should be placed in more than one category.
4. The categories should be independent in that assignment of any datum into a category will not affect the classification of other data.

5. All categories should derive from a single classification principle.

Berg (1989) also gives similar conditions for assigning categories.

One of the decisions that I needed to make early on in the analysis of the data was deciding on "units of information" that would help in defining the categories. Merriam states that "A unit can be a phrase, a sentence, a paragraph" (1988, p. 132). I selected the unit of a sentence using the criteria that Lincoln and Guba (1985) suggests. It should be heuristic--that is, the unit should reveal information relevant to the study and stimulate the reader to think beyond the particular bit of information; it should be "the smallest piece of information about something that can stand by itself" (p. 345).

The two simultaneous phases of data analysis were categorizing and coding which are the major processes used in content analysis. Using inductive categorization, I was able to classify the several coded categories under two broad themes: program implementation and context. The strategy used for organizing the data was one of the modified forms of the one that Merriam (1988) described as the "file folder" strategy. To do this, I copied the entire data base or field notes and working page by page, I wrote the codes in the margins of sentences/paragraphs.

While analyzing the data, I was able to identify the categories and describe them by browsing through the coded pages and marking off the ones used in the analysis. I made a deliberate attempt to make use of as much of the data that was coded as possible in the analysis. These categories were later used to organize the case study description found in chapters 6 and 7.

Peer Support Group

Peer debriefing is suggested as one technique for maintaining credibility by Lincoln and Guba (1985). In my experience the support group consisting of fellow researchers and a professor. We met once a week. I was able to obtain feedback and fresh perspectives during these sessions.

Member-Checking

Checking my interpretations with the people I studied was another aspect of being credible. Lincoln and Guba (1985) call this member-checking. Toward the end of the data analysis I obtained feedback about the analysis from the chief participants of the study including the principals and the four teachers I had focused on. This procedure deepened and substantiated data gathered in other ways.

Role of the Researcher

Being a qualitative research, I--the researcher was the instrument for data collection and analysis. I looked upon

this role as an adventure into the unknown. I am justified in calling my role thus as I was not acquainted with the two school sites, nor any person in the schools. I had not seen an ITI classroom before and had only a bare theoretical knowledge of it from reading.

Such a role was both helpful as well as difficult. It was helpful as I did not anticipate a typical type of classroom set-up or people. I found myself taking a neutral position with regard to most of what I observed. This was possible, in a way, due to the "learner's" role I had assumed during the research. But at times, while observing the classes, the "teacher" (I have been a classroom teacher for 13 years) in me took effect and I would imagine myself in the place of the teacher I was observing. Most often, this phenomena was useful in understanding the teacher's point of view of use of the program. I was also able to ask appropriate questions during the informal interviews because of this. To guard against bias, later during my analysis I asked for feedback on my analysis from the main participants of the study.

At the beginning stages of the observations, I had to make deliberate attempts to explain to teachers that I was not evaluating their teaching, but rather, I was a learner, trying to observe what ITI looked like in classrooms. This role as a learner help me observe more keenly and the interactions in the classrooms easily caught my attention.

My curiosity and questioning seemed to have convinced the teachers that I was indeed a learner of the program rather than an evaluator and soon they seemed less threatened by my presence in the classrooms.

Summary

The research method used in the study was qualitative and the research design was a single embedded case study design. To describe what ITI looks like in classroom, to help define its operational components, and to portray its context, two schools implementing ITI were studied. Observations and interviews--the chief strategies used--were conducted for a period of nine months. Part of the analysis of data took place simultaneously during this time, but the final analysis of the data was undertaken after the data collection. The results of the data analysis has resulted in a description of ITI in its implementation context.

CHAPTER 4

HISTORICAL, PHILOSOPHICAL, AND THEORETICAL BACKGROUND OF INTEGRATED THEMATIC INSTRUCTION

Introduction

This chapter describes the background of Integrated Thematic Instruction (ITI) in terms of historical, philosophical, and theoretical frameworks. Although it is not possible to describe fully all possible connections of ITI--a complex educational program involving several research-based components--to other educational practices, what I have attempted to do is to present the juxtaposition of ITI in relation to other educational practices. Therefore, I do not consider this description as an exhaustive review, but rather a first attempt for ITI. This deducement was generated by my own review of literature and may represent just one of the ways of looking at it. I will first present the historical and philosophical underpinnings of ITI, as succinctly as possible, and then describe the theoretical structures that are consolidated within the framework of ITI.

Historical Background

The historical antecedents of ITI may be traced back to several educational reforms. These include the Experiential Learning recommended by Dewey, the Project Method of William Kilpatrick, the Montessori method, the Open Classroom, Schools Without Failure, Unit Teaching, and the Interdisciplinary approaches. I will briefly describe each of these programs and identify the common elements that ITI shares with these educational practices.

John Dewey and the Experiential Learning

Dewey's child-centered approach of "learning by doing" was formulated at the turn of this century. He compared his concept to the Copernican theory by comparing the child to the sun, the center of the solar system. Dewey bitterly condemned "the old school" for the passivity of its methods and the uniformity of its curriculum. The educational center of gravity had too long been "in the teacher, the text-book, anywhere and everywhere you please except in the immediate instincts and activities of the child himself" (Dewey, 1915, p. 51). The essence of the new education, Dewey observed, was to shift this center of gravity back to the child. His natural impulses to conversation, to inquiry, to construction, and to expression were now seen as natural resources, as "the uninvested capital" of the educative process.

Active learning involves proper access of knowledge by exposing the learner to various learning by doing techniques. This was the type of schooling that Dewey (1938) proposed. Called the "Laboratory School" to emphasize its experimental character, the new institution was designed specifically to test Dewey's theories. Beginning in 1896 with 16 pupils and two teachers, it grew by 1902 to an enterprise involving 140 children, 23 instructors, and 10 assistants. By 1904, the school had become the most interesting experimental venture in American education.

The purpose of the Laboratory School, in Dewey's words, was "to discover in administration, selection of subject-matter, methods of learning, teaching, and discipline, and how a school could become a cooperative community while developing in individuals their own capacities and satisfying their own needs" (Mayhew & Edwards, 1936, pp. 15, 16). The Laboratory School was to develop a new curriculum to take the place of the old--a new body of subject matter, better ordered and better designed, that would begin with the experience of the learners and culminate with the organized subjects that represented the cumulative experience of the race. Dewey envisioned schools as microcosms of society and, just as in society democracy is actualized through the participation on equal terms of all

its members, schools need to reflect this participatory nature (Dewey, 1916).

As Powell (1989) pointed out, the keys to participatory democracy are ownership and empowerment. Empowerment is the foundation of the democratic school. Thus, Dewey's educational thoughts imply both student and teacher empowerment. Students receive empowerment through active learning. Teachers need empowerment for their active voice and sense of ownership. In the empowerment of teachers may lie some of the cures for educational ills. It is quite possible, as Sizer (1985) pointed out, that teachers have answers for student achievement and self-esteem, but lack the power and ownership that would lead to such a reform.

William Kilpatrick and the Project Method

An ardent follower of Dewey, Kilpatrick stated his view of the "Project Method" in the September 1918 issue of Teachers College Record (Ausdal, 1988). His conviction that individual interest is the starting point in all education became a byword: We learn what we live. He brought Dewey's philosophical ideas down to a practical level, translating them into the language of common experience and embodying them in a challenging educational outlook and program (Childs, 1951). He believed that the best preparation for later life is practice in living now (Kilpatrick, 1918, 1925).

Rather than using a fixed-in-advance curriculum with youngsters, Kilpatrick insisted the child's own needs and interests should dictate activities as much as possible. Projects may vary--some would promote aesthetic enjoyment; others, problem-solving or obtaining a skill. But in each of the projects, purposing, planning, executing, and judging would be vital steps. Thus, the essence of the Project Method, according to Ausdal (1988), was found in such wholehearted, purposeful activities.

The Project Method implied a special kind of teaching; no longer could the teacher be the authoritarian dispenser of knowledge. The philosophical background of his method lay in the reform movement of progressive education. Central to its definition in the 20s were: the freedom of the child, the child's interest as the motive for work, the teacher as guide, cooperation between school and home, and attention to physical development.

The force of Kilpatrick's ideas had been most evident in elementary education. The autocratic classroom of earlier days began to give way to an environment in which "children had a share in selecting projects, planning their study, selecting materials and evaluating progress" (Gans, 1957, p. 58). By the middle of this century, schools had become more child-centered. Most teachers were aware of individual differences, of the importance of interest, and of learning by doing; and projects had begun to rival

recitations as the standard pedagogical method (Woodring, 1975). In addition, the project method's emphasis upon the independent activity of the learner opened a range of new ways to organize subject matters. In the opinion of some, its influence upon the design of the elementary school curriculum was profound (Foshay, 1973; Wesley, 1957).

The historical importance of "The Project Method" has scarcely diminished with the passage of time. As recently as 1981, it was counted "the most influential single piece of philosophical writing on teaching in this century" (Soltis, 1981, p. 60).

While comparing the educational ideas of Dewey and Kilpatrick, some similarities as well as differences may be noted. Cremin (1964) gave a brief description of these. Both Dewey and Kilpatrick talked about problem-solving as central to education and were concerned with the interests and purposes of children. Dewey believed in having subject matter "fixed-in-advance"; on the other hand Kilpatrick believed that school would have to teach children how to think, not what to think. Hence the subject matter of the curriculum could never be set in advance; it would have to be that knowledge called to the fore by the students in pursuing the activities they themselves had purposed and planned.

The Montessori Method

Maria Montessori, an educational theorist of the early 20th century, stands to be respected for her educational and social contributions (Standing, 1962). Her thinking (Kramer 1976), was influenced to a great extent by the ideas of educators Froebel (kindergarten philosophy), Pestalozzi (training through the senses) and Rousseau (civilization corrupts child).

The diversified educational background (engineering, biology, medicine, etc.), personal experiences, and the influential figures in her life helped Montessori to develop a profound sensitivity to the importance of intense observation of and consideration for the individual. As a result of such observation, Maria Montessori discovered that children have different and higher qualities than those usually attributed to them. Some of these include: (1) amazing mental concentration, (2) love of repetition, (3) love for order, (4) freedom of choice, (5) preference for work to play, (6) no need for rewards and punishment, (7) lovers of silence, (8) sense of personal dignity and (9) spontaneous self-discipline (Kramer, 1976).

Montessori is also known for her Law of Development. She indicated that a child would most successfully flourish in a "prepared environment in which the child, set free from undue adult intervention, can live its life according to the laws of development" (Standing, 1962, p. 118). According to

Montessori (1967a), periods of a child's growth are characterized by what she refers to as "sensitive periods of development." She maintained that conditions in a particular sensitivity period are "ripe" for specified kinds of learning--attempts at teaching specific concepts at a later period of development may prove to be either ineffective or unfavorable (1983).

Many think that Montessori's most valuable contribution to education is this doctrine of sensitive periods because of the practical results (Standing, 1966). She indicated that when education is organized in relation to sensitive periods, children work with sustained enthusiasm and effort. Children many learn in a few week's time what might have taken months, learned at the tempo of ordinary class teaching. What distinguishes Montessori's method from other activity methods is her emphasis on precision, order, discipline, impersonal nature of criticism (Ellicott, 1989; Montessori, 1973).

Another distinction of the Montessori method is that of a child-centered, holistic approach to learning--involvement of physical, mental, and moral aspects (Standing, 1962). Since success encourages learning, the child, according to Montessori, must move at his own pace, gaining confidence through competence. To achieve the latter she emphasized the importance of the "prepared environment," a system not too dissimilar to programmed learning (Standing, 1962;

Montessori, 1967b). The central theme of Montessori's philosophy was the child's feeling of ownership, empowerment, and personal investment.

Montessori's ideas relevant to reading development and writing (mechanical act as well as form of expression) can be seen today not only in Montessori schools but in other nursery schools and public schools as well (Fowler & McCandless, 1970). The influence can be seen beyond the classroom; her methodology, or at least adaptations of it, is incorporated in special education practices as well. Her holistic multisensory approach to language learning, integrating reading, speaking, and writing, has only recently been re-discovered (Montessori, 1983).

Another important Montessori concept is "Learning how to learn." This implies giving the learning the proper disposition, skills and attention necessary to be a life-long learner (Powell, 1989). Benjamin Bloom (1981), a believer in this concept, tells that when the child "learns how to learn" he/she can be notably motivated by finding pleasure in learning.

Though there are several criticisms of her method, the influence of her method continues to prevail both horizontally and vertically (Montessori, Jr., 1976). Horizontally, Montessori schools and training institutions are found throughout the world. Her books have been translated into 22 languages. Her approach is followed in

homes, in child care centers, in work in hospitals, in schools for the maladjusted, in teaching the socially deprived and mentally retarded, and in education of the blind. Vertically, the application of her ideas may be seen from the upbringing of infants to young adults of college age (Montessori, Jr., 1976).

White's True Education

Ellen White, a Christian writer, philosopher, and educator of the late 1800s, maintained that education needed a broader scope and a higher aim. Though not necessarily based on research findings, she envisioned True Education as having a broad scope. She viewed it as being both wholistic and holistic (spiritual) and defined it as "the harmonious development of the physical, the mental, and the spiritual powers" (1952, p. 13). The principles of cooperation and experiential learning were considered as important components of this type of education. She implored that the power of the mind to think needs to be developed: "It is the work of true education to develop this power, to train the youth to be thinkers, and not mere reflectors of other men's thoughts" (1952, p. 17).

The Open Classroom

The concept of "open classrooms" was brought to the American society in the 1960s from England. A brief history of its origin is discussed here.

The English infant (elementary) schools and their use of "informal education" and the "integrated day" had been evolving for a long time in England. But their development was quickened due to the unique problem after World War II of having students of the same age who had widely varying amounts of schooling and levels of achievement. These variations were clearly due to differences in educational opportunity.

The English educators approached this problem by organizing the class that would allow learning of students of diverse achievement levels in the same classroom. They also created classroom environments closer to natural patterns. According to Jacobs (1989), time was structured according to the needs of the students, and the needs of the curriculum were planned around them. Rather than having to break down the day into isolated periods, they set up the integrated day when topics in math, social studies, reading, etc. were consolidated together.

During the upheaval of the educational practices in the States during the 1960s, the adapted form of the British infant school, now called the "open classroom", was received with open arms as an alternative to traditional education which had come under much criticism. Several educators praised and described open classrooms (Barth, 1972; Kohl, 1969; Silberman, 1973, Weber, 1971).

Though there were several approaches to teaching in an open classroom--from being in a building without walls separating classrooms, to individualized activities in learning centers--the basic philosophy underlying it is that education should be child centered. This philosophy entails that schooling should take into account children's natural patterns of cognitive, emotional, and physical development (Rothenberg, 1989).

The Learning Approach

Topics or themes are used to relate various subjects. Students must be exposed to a wide variety of ideas and materials. As much as possible, such information needs to be connected to students' experiences and concerns. The wider community is used as a resource. Students learn through techniques designed to encourage active exploration and discovery. Much of the work is individualized, and students work at different rates.

The classroom is divided into learning areas, each with its own topic or subject. Students spend much of their time working individually or in small groups. They have a high degree of choice as to what they will do and when they will do it. Direct, individual feedback about the quality of their work is given to students. Student's achievement and performance are not gauged relative to those of other students but only in relation to the student.

The Teacher's Roles

There are three major roles that a teacher takes in an open classroom: director, instructor, and record keeper.

Director. The teacher organizes the environment to meet the needs of the students, creates learning centers and instructs students on their use, and helps students plan their activities. The teacher is the manager and helps students effectively utilize the material and resources available.

Instructor. The teacher spends much time during the school day working with individuals and small groups, teaching and answering questions. The teacher leads discussions for small and large groups and occasionally teaches lessons to a large group.

Record Keeper. The teacher keeps records of what the students do and makes sure that they spend an adequate amount of time working on different subjects.

Decline and Fall of Open Classrooms

By the end of the 1970s, the open classroom era was over. Many factors, such as research findings indicating insignificant gains in student achievement, and lack of quality of implementation, led to the decline in the use of open classrooms. Another problem has been one of definition. Studies failed to make clear what was meant by "open" and to determine the degree to which various aspects

of "openness" actually have been implemented (Marshall, 1981).

Schools Without Failure

This humanistic approach to education was proposed by William Glasser, who developed "reality therapy." Glasser maintained that there are two kinds of human failure-- "failure to love and failure to achieve self-worth" (1969, p. 12). Schools have traditionally failed, according to Glasser, because they have not established warm interpersonal relationships through which the students' need for love and a sense of self-worth have been satisfied.

Glasser recommended that "Education for social responsibility should be a part of every school program" (1969, p. 14). He also emphasized the role of thinking skills and problem solving. But he said, "No one can learn social responsibility, thinking, or problem solving when he is failing" (1969, p. 76). In Schools Without Failure he suggested ways to prevent failure. Teaching relevant issues, use of heterogeneous classes--classes in which the students are grouped only by age, not by achievement levels, abolishing A-B-C-D-F grades, and the adoption of the pass-superior system that does not contain failure.

He introduced the idea of classroom meetings, meetings in which the teacher leads a whole class in a non-judgmental discussion about what is important and relevant to them. The three types of classroom meetings were: (1) the social-

problem solving meeting, concerned with the student' social behavior in school; (2) the open-ended meeting, concerned with intellectually important subjects; and (3) the educational-diagnostic meeting, concerned with how well the students understand the concepts of the curriculum.

A similar opinion on the affective dimension of education is held by Combs (1982). He points out that "concern for student attitudes, feelings, and emotions are important facets of the learning process and must be included in educational planning and practice" (1982, p. 495). This implies that the role of the school should be to provide a warm and non-threatening environment in which these needs can be met (Knight, 1980). Such an atmosphere will prove an effective context for learning.

Unit Teaching

Unit teaching first came into educational discussion in 1926 when Morrison wrote about it. Early units were formal in nature and often followed the traditional five steps of Herbart: (1) preparation, (2) presentation, (3) comparison, (4) generalization, and (5) application. These units were teacher dominated and students assumed a passive role (Berry, 1983).

By the 1950s problem solving or reflective thinking became the heart and core of all unit teaching. Since then, the widespread use of the unit in elementary school has created a "species" of units such as action units,

experience units, problem units, and subject units. In brief, the unit method is not uniform. The meaning of the method lies in operational definitions and the way the teacher uses it.

The strongest argument for the use of a unit approach, according to Kniep (1983), is that "it provides the teacher with a powerful tool for making decisions about what is to be included in the curriculum and how it is to be dealt with" (p. 137). He advocated the use of "thematic units." All learning and teaching activities were organized around and held together by a theme. The thematic unit could last several days or weeks.

In the thematic model, four organizers of the disciplines--concepts, processes, phenomena, and persistent problems--become the sources for selection of themes for study. The process themes can contribute to learners' ability to make decisions, solve problems, and generate their own knowledge. Units organized around concepts are designed to provide the mental structure that will enable the learners to understand and describe the world in which they live, while units focusing on phenomena will actually enable the learners to do it. Thematic units that use persistent problems will allow learners to apply what they know and to find possible solutions for the problems.

The Interdisciplinary Curriculum Model

In this design, periodic units or courses of study deliberately bring together the full range of disciplines in the school's curriculum: language arts, math, social studies, and science; and the arts, music, and physical education (Jacobs, 1989). The units are of specific duration: a few days, a few weeks, or a semester.

The central aim of the interdisciplinary model is to bring together the discipline perspectives and focus them on the investigation of a target theme, issue, or problem. It is titled the Interdisciplinary Concept Model (Jacobs & Borland, 1986) because the hope is to encourage an understanding of the concept of interdisciplinarity as well. Students need to be conscious of the relationships among disciplines as they investigate the subject matter.

Making Connections

The philosophical and theoretical basis of the above-discussed educational practices, to some extent, form a nexus with that of Integrated Thematic Instruction. The emphasis of learning by doing of Dewey's Experiential Learning, as well as the importance of participating in projects chosen by the students, as recommended by the Project Method, have similarities with the provision of "first-hand experiences" and use of manipulatives, and giving of individual and group projects as advocated in the Integrated Thematic Instruction as well.

The empowerment of students and teachers emphasized by Dewey and Montessori is consolidated in ITI. Kovalik points out that the areas of curriculum, instruction, and how students learn are dynamically brought together in ITI, empowering both students and teachers (1989). The "Learning how to learn" concept of Montessori and Bloom is important to ITI. This is evidenced in Kovalik's defining statement of ITI that it (ITI) "instills a life-long love of learning" (1989, p. 7).

The humanistic, child-centered approaches of Montessori, Glasser, and Open Classrooms are parallel to the holistic learning advocated in ITI. The multisensory approaches of Montessori and Glasser's affective education aligns well with the brain-compatible learning emphasized in ITI. The concept of using a yearly theme can be seen as an extension of the integrated day of the Open Classrooms. The concept of themes used in Interdisciplinary Model as well as unit teaching, though not necessarily of the same duration as a yearly theme, has the same intent of helping to connect subjects learned and to make learning more meaningful.

The wholistic view of education of White's True Education runs in a similar vein to the wholistic-type of learning advocated in ITI. The emphasis on experiential learning is common for both.

Summary of the Historical Background

In summary, several historically important educational practices were described and were compared to ITI. The educational practices described were: (1) Dewey's Experiential Learning, (2) Kilpatrick's Project Method, (3) The Montessori Method, (4) White's True Education, (5) The Open Classroom, (6) Schools Without Failure, (7) Unit Teaching, and (8) Inter-Disciplinary Curriculum Model. It was seen that several essential elements of ITI are directly or indirectly derived from, or have similarities to, these practices. Now I will briefly describe the philosophical position of ITI.

Philosophical Background

The philosophical underpinnings of ITI seem to lie in pragmatism. The emphasis on the learner and his environment is the convincing evidence of this stand.

Pragmatism in Relation to Education

Knowledge, according to the pragmatist, is based on experience. Dewey (1938), the philosopher and educator, wrote extensively on pragmatic principles of learning. The concepts of ITI seem to fit well within this philosophical thought. In condensing the pragmatic view of education, the following areas are considered: the student, the teacher, the curriculum, and the methodology.

For the pragmatist, the student learns as he acts upon his environment and is, in turn, acted upon by that environment as he undergoes the consequences of his actions. The school experience is a part of life rather than a preparation for life. As such, the way a person learns in school is not qualitatively different from the way he learns in other aspects of his life (Knight, 1980).

The teacher is viewed as a fellow traveler, though more experienced, who guides student activities arising out of student needs. As Kovalik put it, the teacher is "a guide by the side rather than a sage on the stage" (audio-cassette tape, The How and Why of Integrated Thematic Instruction). The subject matter should be chosen with the needs of the student in mind rather than the teacher's needs. The curriculum should not be divided into restrictive and unnatural subject-matter areas. It should rather be built around natural units which grow out of the pressing questions and experiences of the learners. The curriculum model of ITI is based on this wholistic approach of pragmatic philosophy as described in detail by Kovalik (1989).

Methodology for the pragmatist centers around giving the student a great deal of freedom of choice in seeking out the experiential situations that will be the most meaningful to him (Knight, 1980). Field trips, note the pragmatists, have distinct advantages in giving students a chance to

participate in first-hand interaction with the environment. Kovalik (1989) emphasizes the need to have "outreach" activities for the students. She defines "outreach" activity as "the purposeful connection of classroom activity to someone or something outside the classroom--a way of applying lessons to reality" (p. 56). She adds, "The earlier we encourage students to look beyond the classroom, the better prepared they will be to be productive adults" (p. 56). It is evident that experiential learning that is meaningful to the learner is what ITI provides or must provide.

Progressivism and Humanism

There are basically two educational theories that are derived from pragmatism which are related to the principles of ITI: progressivism and humanism. According to Ornstein (1977), progressivists condemn the following educational practices: (1) the authoritarian teacher, (2) heavy reliance on textbooks or bookish methods of instruction, (3) passive learning by memorization of information and factual data, (4) the four-walls approach to education that sought to isolate education from social reality, and (5) the use of fear or physical punishment as a form of discipline (p. 204).

The educational principles of progressivism (Knight, 1980) can be summarized as follows:

1. The process of education finds its genesis and purpose in the child.
2. Pupils are active rather than passive.
3. The teacher's role is that of advisor, guide, and fellow traveler rather than that of authoritarian and classroom director.
4. The school is a microcosm of the larger society.
5. Classroom activity should focus on problem solving rather than on artificial methods of teaching subject matter.
6. The social atmosphere of the school should be cooperative and democratic.

Humanistic principles of education are similar to that of progressivism. Humanism, however, has emphasized the uniqueness of the individual learner in a greater way than progressivism. Describing the nature of man in this humanistic view Holt (1972) wrote that:

Children are by nature smart, energetic, curious, eager to learn, and good at learning; that they do not need to be bribed and bullied to learn; that they learn best when they are happy, active, involved, and interested in what they are doing; that they learn least, or not at all, when they are bored, threatened, humiliated, frightened. (p. 10)

The essential principle of humanism is to provide learning environments "free from intense competition, harsh discipline, and the fear of failure" (Knight, 1980, p. 99). The purpose of education is self-actualization rather than a mastery of knowledge as an end in itself. This implies that

openness and experimentation are encouraged while standardized testing and mass teaching are discouraged.

The educational principles of ITI parallels to these principles mentioned above. The emphasis on cooperative learning, experimentation, and the chance to be successful are a few of the parallels between the principles of progressivism and humanism, and that of ITI.

Summary of the Philosophical Background

The child-centered approaches and the emphasis on learning by experiencing aspects of ITI places its educational philosophy in pragmatism. The educational principles of progressivism and humanism, that are derived from this philosophy, are closest to ITI's educational principles. I will now describe the theoretical structure on which ITI is founded.

The Theoretical Framework of ITI

Introduction

Theory is generally seen as a vague or dreamlike concept, unproved, or the antonym of "practical, realistic." However, Dictionary of Education describes theory as:

An assigned system of related conceptions found through experience to be in agreement with known properties or behaviors and stated so as to guide in the search for properties or behaviors hitherto unknown. (Good, 1973, p. 606)

Good theory, that which is precise in statement, according to Hart (1985), helps us see whether application brings the

outcome. The prime function of a theory (Neve, Hart, & Thomas, 1986), is to draw together and organize into a coherent whole that which has been observed in the real world. Though all theories are tentative, if it is based on the best knowledge that is currently available and seems to "work" well in the real, practical world, it can be extremely valuable, even if at some later time it is displaced by a newer theory.

Apart from education, most modern activities rely heavily on theory, and as the famous saying goes, "There is nothing as practical as a good theory." Its usefulness is seen, for example, in the use of computers and space technology.

As mentioned in chapter 1, ITI is a fairly complex paradigm that consolidates a number of educational theories. These include theories based on brain research such as (1) the triune brain theory, (2) the Proster theory, and (3) the theory of multiple intelligence. Other theories included are (1) the cooperative learning theory, (2) the theory of whole language approach and, (3) the theory of inclusion or mainstreaming. Briefly discussed below are these theories and their relationship to ITI.

Theories Based on Brain-Research

For generations, teachers have been using approaches based on behaviorist theories, which are usually fragmentary (Neve, Hart & Thomas, 1986). Behaviorists ignored the brain

purposely, mainly because not much was known then. But over the past 30 years enormous progress has been made in understanding the main, holistic functioning of the brain, "the organ for learning." Advances in the areas of neurobiology, neuropsychology, anthropology, and ethology have enabled the study of what the brain is "for," its main architecture, its natural ways of functioning, and how (holistically) it learns and stores learning (Hart, 1986).

Three major brain theories are part of ITI. These are the triune brain theory of Paul MacLean, the Proster theory of Leslie Hart, and the theory of multiple intelligence of Howard Gardner. It is quite possible that these theories, may change and that some educators may not agree with these theories.

The Triune Brain Theory

MacLean's theory, called the "triune brain theory", is based on evolution and the brain's evolutionary development. He suggests that the human brain is actually three brains in one: these are the reptilian system or R-complex, the limbic system, and the neocortex. Though each layer is geared toward separate functions, all three layers interact substantially. A description of these parts and their functions as Caine and Caine (1991) presents, is summarized below.

The reptilian brain (or R-complex) consists largely of the brain stem. Its purpose is closely related to actual

physical survival and overall maintenance of the body. Digestion, reproduction, circulation, breathing, and the execution of the "fight or flight" response in stress are all primarily located in this system. Because the reptilian brain is basically concerned with physical survival, the behaviors it governs have much in common with the survival behaviors of animals.

The limbic system, the second brain to evolve, houses the primary center of emotion. It also plays a significant role in remembering new information and organizing events.

The neocortex constitutes five-sixths of the human brain. It makes language, including speech and writing, possible; in that sense, it is different from the other two "brains." Much of the processing of sensory data occurs in the neocortex. It renders logical and formal operational things possible and allows us to see ahead and plan for the future.

There are several implications of MacLean's theory for education. A non-threatening environment will enable the neocortex to function most efficiently. In a threatening situation the neocortex, "downshifts", as Hart (1983) calls it, to the limbic level. Downshifting appears to affect many high-order cognitive functions of the brain which thus can prevent us from learning and generating solutions for new problems. It also appears to reduce the ability to see the interconnectedness by the thought processes.

Downshifting, in large part, is the reason students fail to apply the higher levels of Blooms' Taxonomy. Making maximum connections in the brain requires a state Caine and Caine (1991) call "relaxed alertness." This is a combination of low threat and high challenge.

Brain-based teaching considers the protection of feelings to be a top priority. It allows for questioning, open discussion, and communication strategies (e.g. active listening).

The Proster Theory

Over 30 years of research on the brain and its functions has helped to understand it better. The theory developed by Lesley Hart, called the Proster Theory, seems to be one of the holistic approaches (Neve, 1985) to understand how learning takes place.

According to the Proster Theory, the brain is much like a complex, powerful analog computer, able to move simultaneously down a hundred paths. The theory emphasizes the key role of patterns and programs. The brain, by nature, extracts patterns from confusion if provided with enough input. Programs--or sequences of steps to reach a foreseen goal--are built by each individual by the thousands, and learning is defined as the acquisition of useful programs (Neve, 1985). Thus, the most effective learning, according to this theory, occurs when external sensory input challenges the student's brain to (1) "call

up" the greatest number of appropriate programs, (2) expand an already existing program, and (3) develop new programs (Nummela & Rosengren, 1986).

The Proster theory emphasizes that instruction must be compatible with the nature of the brain, not brain-antagonistic like most conventional classroom teaching. The hypothesis is that brain-compatible instruction, in a non-threatening setting that permits uninhibited use of the splendid neocortex or "neo-brain," will result in far better learning, climate, and behavior.

The first truly brain-based project, according to Hart (1986), at East Windsor, New Jersey, appeared to strongly support that hypothesis. It also demonstrates, even if on a small scale, that teachers can readily absorb the Proster Theory, and learn to work from it surprisingly quickly (Neve, 1985). A substantial theoretical structure of ITI is based on the Proster Theory.

The Theory of Multiple Intelligence

Howard Gardner, in his book Frames of Mind, argues that the definition of intelligence should be "the ability to solve problems or to create products which are valued in one or more cultural settings" (1983, p. x). Calling it the multiple intelligence (MI) theory, he suggests that there are at least seven intelligences, and that competence in any one does not predict competence in any of the others.

Gardner was disturbed by the nearly exclusive stress in school on two forms of symbol-use: linguistic and logical-mathematical. Although these two forms are obviously important in a scholastic setting, other varieties of symbol-use also are prominent in human cognitive activity within and, especially, outside of school (Gardner & Hatch, 1989).

Gardner was particularly appalled by the overwhelming emphasis on linguistic and logical capacities in the construction of items on intelligence, aptitude, and achievement tests. He realized that if different kinds of items were used, or different kinds of assessment instruments devised, a quite different view of the human intellect might issue forth.

These and other factors led Gardner to a conceptualization of human intellect that was more capacious. Gardner's provisional list includes seven intelligences, each with its own component processes and subtypes (See Figure 4).

MI theory postulates that although all humans exhibit a range of intelligences, individuals differ--presumably for both hereditary and environmental reasons--in their current profile of intelligences. Moreover, there is no necessary correlation between any two intelligences (Gardner & Hatch, 1989).

Intelligence	End-States	Core Components
Logical-mathematical	Scientist Mathematician	Sensitivity to, and capacity to discern, logical or numerical patterns; ability to handle long chains of reasoning.
Linguistic	Poet Journalist	Sensitivity to the sounds, rhythms, and meanings of words, sensitivity to the different functions of language.
Musical	Composer Violinist	Abilities to produce and appreciate rhythm, pitch, and timbre; appreciation of the forms of musical expressiveness.
Spatial	Navigator Sculptor	Capacities to perceive the visual-spatial world accurately and to perform transformations on one's initial perceptions.
Bodily-kinesthetic	Dancer Athlete	Abilities to control one's body movements and to handle objects skillfully.
Interpersonal	Therapist Salesman	Capacities to discern and respond appropriately to the moods, temperaments, motivations, and desires of other people.
Intrapersonal	Person with detailed, accurate self-knowledge	Access to one's own feelings and the ability to discriminate among them and draw upon them to guide behavior; knowledge of one's own strength, weaknesses, desires, and intelligences.

Figure 4. Gardner's multiple intelligences

Implications to ITI

ITI provides an easy and powerful vehicle for addressing the seven intelligences on a continuing basis, according to Kovalik (1989). Teachers should be aware of the different learning styles of the students. She says,

"We believe that knowing the descriptors of the seven intelligences will facilitate teachers in providing curriculum choices that empower all children to succeed" (p. 94).

Cooperative Learning Theory

John Dewey, one of the influential philosophers and educators, had suggested that improvement of schooling involved the necessity of moving away from competitiveness among students toward cooperative activities (Noll, 1991). In more recent years, this suggestion has found its way in the educational arena in the form of Cooperative Learning (CL).

Several structures for CL have been described by its proponents, but the basic organizing of classroom instruction is arranged so that students work and learn in groups of two to five students (Bassett, 1991).

The present popularity of CL might be attributed to the work of Slavin (1983) through his book Cooperative Learning which presented a curriculum-specific approach. The version of CL developed by Johnson and Johnson (1983) emphasized social skill building. Other models of CL with specific strategies also exist: (1) jigsaw method developed by Aronson (1978), (2) the coop/coop strategy developed by Kagan (1985), (3) the group project method developed by Sharon and Sharon (1976), and (4) tribes developed by Gibbs (1987).

One perspective on the theoretical structure of CL is summarized by Bassett (1991). He stated that CL is based on theories related to four areas: (1) motivation (Lewin, 1935), (2) development (Piaget, 1926; Vygotsky, 1978), (3) intergroup contact (Allport, 1954), and (4) meeting basic human needs (Glasser, 1985). The integrated theoretical framework of CL could be summarized as:

1. Two or five students working together form a CL structure.
2. The structure of CL enhances the motivation of all members of the group.
3. The structure of CL enhances learning.
4. Through work based on equal status to attain common goals, CL enhances intergroup relations.
5. The ability to meet the basic needs for power and belonging is enhanced through group work in CL.

Implications to ITI

The cooperative learning component is based on the same theoretical framework of CL mentioned above. Besides that, ITI has given another perspective for CL as being part of a "brain compatible learning" (described later) classroom instructional strategy (Kovalik, 1989). According to her, "it is not important which model is used, but rather that you hold the philosophy that group cooperation toward mastery is more valuable than the bell curve" (p. 46). She further stated that the model of CL that best supports her

beliefs is the one developed by Gibbs, published in her book Tribes (1987).

The Theory of Whole Language

Whole language learning is described in myriad ways:

(1) it is a perspective on language learning (Goodman, 1986; Smith, 1982), (2) it is a belief system, a way of understanding learning, and a view of instructional processes (Heald-Taylor, 1989); and (3) it is a philosophy (Heald-Taylor, 1989). I would like to present a theoretical basis for whole language, consolidating all these different perspectives.

In whole language it is believed that reading and writing can be learned in the same natural way as children learn oral language. It is "meaning driven rather than skills driven, and the instructional materials, teaching methodology, and learning activities are consequently planned to encourage understanding of literature" (Heald-Taylor, 1989, pp. 8, 9). Thus, in whole language it is believed that children "acquire" language rather than learn through direct teaching.

Whole language is child-centered, not teacher-dominated. This philosophy calls for both student and teacher initiation, and encourages active involvement by students and teachers. The aim of whole language is to meet the needs and interests of individual children while allowing each to progress at his or her own rate.

Language is integrated rather than fragmented in this approach. Heald-Taylor (1989) stated:

In whole language classrooms students experience the complex language process as they engage in real language events that integrate and interrelate listening, speaking, reading, writing, visual arts, and drama, as well as other content areas in the curriculum (science, social studies, mathematics, music, etc.). (p. 16)

Children learn by engaging in experiences such as talking, doing, using of literature and writing in whole language classrooms. Whole language fosters talk to facilitate thinking and writing when youngsters dictate personal stories; they learn cooperatively through discussions.

Implications to ITI

The principles and philosophy of the whole language approach matches those of ITI: The idea of learning holistically, thus integrating learning experiences to make it meaningful, and the concept of learning through experiencing are the essential principles of ITI. In general, the philosophy of child-centered learning permeates the whole structure of both whole language as well as ITI.

The Theory of Mainstreaming

Mainstreaming has evolved as an alternate to pull-out approaches whereby low achievers could be provided greater opportunity for involvement, learning, and success in mainstream classes. This approach has been recommended by

Goodlad (1984). Mainstreaming is based on the assumption that placing heterogenous students (in terms of handicapping conditions) in the same school and classroom will facilitate positive relationships and attitudes among the students (Johnson & Johnson, 1986).

The theoretical foundation for mainstreaming is provided by Hawkins and Weiss (1985) based on the social development model. This social development model hypothesizes the importance of social bonding in inhibiting delinquency. The social development model postulates three conditions that promote the development of social bonding to school: (1) availability of opportunities for conventional involvement, (2) the skills needed for such activities, and (3) reinforcement for successful involvement.

A meta-analysis of research studies of the relationship between handicapped and non-handicapped students in cooperative, competitive, and individualistic learning revealed some important issues (Johnson, Johnson, & Maruyama, 1983). It was found that physical proximity alone does not change the negative attitudes toward handicapped students. The structure of classroom learning affects the relationship between handicapped and non-handicapped students.

It was found that when learning situations are arranged cooperatively, and handicapped and non-handicapped students work together in the same learning groups, then they: (1)

interact in positive ways, (2) feel supported and encouraged to achieve, (3) gain an understanding of each other's perspective, (4) accept themselves as their peers accept them, (5) feel academically successful, and (6) develop a positive relationship with each other. In addition to all this, cooperative learning experiences promote a number of instructional outcomes such as achievement and motivation.

Implications to ITI

ITI model promotes inclusive learning. Earlier, it was pointed out that cooperative learning is an important classroom strategy used in ITI classrooms. Putting these two together, ITI seems to have the kind of packaging of instruction that brings about effective learning, as revealed in the meta-analysis of studies on mainstreaming and cooperative learning.

The ITI Model

ITI, according to Kovalik (1989), is a "teacher-developed model designed to bring the magic of learning into the classroom" (p.3). It is a "way of conceptualizing the orchestration of a teaching/learning environment that is brain-compatible--an environment which creates quantum leaps in student achievement and instills a life-long love of learning" (p. 7).

The ITI model is based on three overlapping areas: brain research, instructional strategies, and curriculum development.

Brain Research: How Students Learn

Knowledge from brain research has enabled teachers to create a brain-compatible environment, a classroom where trust, meaningful content, choices, adequate time, and enriched environment are major factors in the planning and implementation of instruction. Trust is built when expectations of performance are clearly stated and consistently upheld. Each member of the groups feels a sense of inclusion, influence, and affection in such an environment.

Curriculum becomes meaningful when it is presented in an integrated manner enabling the learner to see the purpose and connection between them and real life experiences. Based mainly on the personal learning modalities of the learner, choices of learning activities are made by the learner. Sufficient time is provided to accomplish mastery and understanding--the clock is not the determiner of the end to learning. The classroom is immersed with materials and real-life experiences where success for the students is insured.

Instructional Strategies

Called the "discovery process," the framework for the presentation of a lesson may consist of several of the following steps:

1. Standards and expectations. Called the "Standards to Live By," the expectations that apply to all, inside or outside the classroom are: no put downs, active listening, trust, truth, personal best and the right to pass. The book Tribes (Gibbs, 1987) gives an expanded view of some of these principles.

Also included among the standards are "Megaskills," (Rich, 1988) which are, (a) confidence--feeling able to do it; (b) motivation--wanting to do it; (c) effort--being willing to work hard; (d) responsibility--doing what's right; (e) initiative--moving into action; (f) perseverance--completing what you start; (g) caring--showing concern for others; (h) teamwork--working with others; (i) common sense--using good judgment; and (j) problem solving--putting what you know and what you can do into action.

2. Cooperative learning. Whichever cooperative model is followed, the outcomes include: (a) inclusion--an individual's sense of belonging and being expected to participate on a regular basis in a safe environment; (b) influence--being able to voice opinions in small groups which allows each student the opportunity to

influence and be influenced on a daily basis; and (c) affection--a small group allows for personal interaction, a support network, a trusting environment for growth, and building a basic communication network that will forever assist the students in working with others.

3. Effective direct instruction. Limited to 11-16 minutes an hour, direct instruction is the teacher's opportunity to develop the concept or skill which students will be mastering. The student's responsibility during this time is to mind-map the information. Teachers can choose to mind-map the key points as they present them or have them already on the board. Then, teachers may freely move from group to group to obtain feedback on how individual students are doing.
4. Outreach and political action. Outreach is the purposeful connection of classroom activity to someone or something outside the classroom--a way of applying lessons to reality. Outreach can be planned by contacting a resource person, or it can be spontaneous when the students suggest a course of action or a visit. If an activity has generated feelings of indignation, outrage or personal interest, it is time for political action, a time to write letters to the editor, school board, planning commission, local

businesses, Wildlife Federation, etc. Political action gives the content area a sense of importance.

5. Assessment. Two types of assessments are made: Factual and emotional. Factual assessment can be done through group mind-maps, quizzes, dioramas, skits, etc. A written evaluation is preferable to a letter grade. The focus is on mastery and the criteria for assessing student work are: (a) Comprehensive--Has the student addressed the topic and used the material as thoroughly as possible? (b) Correct--Is the response true? Are both sides of an issue covered or just one? Is there a recourse to back up the statements made? (c) Complete--Was the assignment completed as stated? Does it reflect pride in workmanship? Has the work been copied over and/or edited as needed?

Emotional assessment is also important as the attitudes gained continually influence students. One way to facilitate this is to have the students keep daily journals--records of how they respond to the class, the teacher, their peers and the curriculum. The teacher responds to the entries of the same subject and equal length.

Curriculum Development

The three steps in creating the curriculum are: (1) creating a year-long theme, (2) identifying key points which all students are to learn, and (3) developing inquiries and

activities which support and extend the key points. There are certain criteria and functions that yearly themes have. The theme should inspire enthusiasm and must be something that the teacher has "passion" for, at the same time realistic and "age appropriate."

Integrating all subjects during the first year may be overwhelming to most teachers, therefore Kovalik advises to begin slowly. It usually takes three to five years to fully integrate all subjects.

The rationale for having a yearly theme is, that it is designed to provide students depth of knowledge. If information is to be meaningful and have flow, it must have continuity and depth; a unifying focus with a purposeful plan is essential to capture the students' attention and propel them into life-long learning.

Once the theme is identified, monthly components and weekly topics are selected. Monthly components may be selected from the categories of past, present, future, art, music, literature, drama, careers, famous people, and political action. These are then expanded into weekly topics which help explore the component more fully.

While planning the yearly curriculum, it is important to make it consistent with district goals and objectives. It is also important to align it with district curriculum and school plans.

After the theme, monthly components and weekly topics are selected, the next step is to identify "key points". Key points are what students should know when the unit is complete. These are based on a sound knowledge base with the help of multiple resources. The number of key points and the details of it will be determined by the subject and the grade level. Key points are presented during instruction in a direction instruction format.

Inquiries, often referred to as activities, are designed to support and expand key points. The two frameworks around which inquiries are made are: Bloom's Taxonomy and Gardner's Seven Intelligences. Considering the levels of thinking such as knowledge, comprehension, application, analysis, evaluation or synthesis and the varied intelligences present such as linguistic, logical, spatial, musical, kinesthetic, interpersonal or intrapersonal, several inquiries are written for the key points. Figure 5 shows a chart that was created by Robert Ellingsen that helps to integrate both Bloom's Taxonomy and the seven intelligences (Multiple Intelligence) while writing inquiries.

Thus, the ITI model is based on three overlapping areas: brain research, instructional strategies, and curriculum development. Through the methods based on how students best learn, derived from brain research, the

ultimate goal of ITI is to inculcate in students a love for learning and lay the foundations for life-long learning.

Intelligences	Knowledge	Comprehension	Application	Analysis	Evaluation	Synthesis
Linguistic						
Logical						
Spatial						
Musical						
Kinesthetic						
Interpersonal						
Intrapersonal						

Figure 5. The inquiry planning grid

Summary

In summary, this chapter dealt with the historical, philosophical, and theoretical framework of ITI. ITI was identified with the following educational programs: Dewey's Experiential Learning, Kilpatrick's Project Method, Montessori Method, White's True Education, The Open Classroom, Schools Without Failure, Unit Teaching, and the Inter-Disciplinary Curriculum Model. The philosophical background of ITI was traced to progressivism and its educational principles to those of progressivism and humanism. The theoretical framework of ITI was built on several theories, such as, those based on brain research, cooperative learning, the theory of whole language, and the theory of mainstreaming. Finally, a brief description of the ITI model as provided by Kovalik is presented.

CHAPTER 5

PROGRAM DESCRIPTION OF INTEGRATED THEMATIC INSTRUCTION

Introduction

This chapter deals with the operational definitions and descriptions of ITI. In a way, it is possible to say that while the previous chapter dealt with the background and ideals of ITI, this chapter connects the ideals and the realities of ITI and tries to display its components in tangible and observable ways.

Understanding what happens to an innovation is important to those who implement a new program as well as to those who assist, evaluate, and make policies and recommendations about the innovation. Innovation Configurations (IC), one of the dimensions of the Concerns-Based Adoption Model (CBAM), represent the operational patterns of the innovation that result from implementation by different individuals in different contexts. I found this a convenient procedure to describe what ITI looks like in actual practice in the classrooms.

In the next section I will present the conceptual basis of IC (Hall and Loucks, 1981). Later, the evolvement of IC from research studies of change is described.

The Conceptual Basis

Educational reforms of the last two decades have adopted a simplistic view and equated change with the presence of the innovative materials in the classroom and the completion of inservice training. Because typical implementation activities seldom supported the innovation users sufficiently, the implementation phase was often declared a non-event. However, according to Hord and Hall (1986), in successful change, implementation is a vital part of the change and improvement process. They recommend that implementation be supported by a set of activities for putting the innovation into practice.

Fullan and Pomfret (1977) brought new insights to the understanding of curriculum implementation. They pointed out that the user was an important unit of investigation and that despite organizational factors, how each individual was working with the innovation was an essential variable to take into account.

Later, additional work described by Hall and Loucks focused on the parts of the innovation that the user was implementing and adapting as they put the innovation into use in their own classroom. This concept, Innovation Configuration, made it possible to identify and describe operationally what the innovation looked like as it was implemented.

Emergence of the Concept of Innovation Configuration

It was through the field research experiences of Hall and Loucks (1978) that the concept of IC emerged. In an earlier study (1977) conducted to distinguish users and nonusers of an innovation, it was observed that persons who claimed not to be using an innovation were actually doing many of the same things that persons who claimed to be users were doing. Further, many different persons who claimed to be users were not. Thus, all were "users," but not users of the same operational form of the innovation. Similar findings were revealed in other studies showing variations not only between campuses, but even within the same campus.

These findings led to the setting up of what was initially called the "minimum criteria" for being a user. These criteria would specify the minimum parts or components of the innovation which a person would have to be using in order to be classified as a user. Out of this definition of minimum use, emerged the concept of IC.

The next step was to ask "What is the innovation or treatment that is being used?" This helped focus on the behavioral and structured characteristics of innovations. Writing about innovations usually lacked concrete descriptions of what users do when implementing them (Heck, Stiegelbauer, Hall & Loucks, 1981). An attempt at breaking the innovation into discrete parts which could be operationally described was made. Components which were

critical for acceptable implementation of the innovation were identified as well as variations of use as individuals used the parts in different ways. The focus was on what people were actually doing, and with what materials, behaviors, and processes as they implemented an innovation.

Researchers, as Hord (1986) pointed out, found variations in the ways teachers implemented innovations in their classrooms. The concept of IC was developed as a means to understand and describe the differing forms that innovations took with individual users. While the other subsystems of the CBAM, such as Stages of Concern and Levels of Use address the concerns and behaviors of individual teachers during the change process, IC specifically addresses what the innovation is or should be.

Applications of Innovation Configuration

A number of uses of IC may be identified. Studies have shown IC to be applicable to many types of activities including dissemination, staff development, evaluation, and research (Heck, Stiegelbauer, Hall, & Loucks, 1981). Let me briefly describe its uses in these contexts.

Dissemination Context

In a dissemination context, knowledge about IC can provide concrete information about a new program or practice to people who will actually be using the innovation or whose lives might be affected in some way by the innovation. As

IC describes the operational patterns of the innovation, information about components or the basic elements of the innovation can complement understanding of the philosophy behind the program, thus allowing teachers to envision what will be expected of them.

Staff Development Context

In terms of staff development activities, IC provides a record of what teachers actually do, thereby providing clues as to how inservices might be planned to modify, complement, or change their current practices. With the knowledge obtained from IC, typical problem areas may be identified and a workshop could be planned to provide practice with the system, to explain its purpose, and to resolve what obstacles might be restricting its use.

Evaluation Context

In an evaluation context, information about IC can be used to answer questions such as whether the innovation has been fully implemented, what the innovation looks like one or more years after adoption, and what relationship the innovation has to student or other intended outcomes. Such information may provide a baseline for assessing further needs, for determining bottlenecks to broader implementation, for responding to funding sources, and for developing inservice or other staff development activities.

Using IC may cause a shift in the frame of reference for viewing student achievement (Hall & Loucks, 1981). Usually, teachers are the focus for explaining differences in achievement between classrooms. When the concept of IC is used, the focus is on the innovation and its operational form used by each teacher. The teacher is no longer the target. Rather, the target becomes how the innovation is being operationalized. If blame is necessary, it should be placed on the IC that has been employed, not directly on the teachers who employed these configurations. Thus, this shift in perspective in itself can have useful and positive consequences.

Research Context

In a research context, information about innovation components and configurations can be used to determine the constancy of treatment across individuals in the treatment group and to assess the extent to which the treatment is truly absent from the control group. Specification of the treatment and its placement in the study context is a crucial first step in determining its relative influence.

In summary, IC answers the questions "What is the innovation?" and "How is it being used?" The concept of IC allows the emphasis to be placed upon the concrete and more tangible operational form of the innovation thereby increasing the possibility of having reliable and valid information about use of the innovation.

Procedure for Constructing Innovation
Configuration Checklist

Before describing the procedure, a brief definition of the terms which are frequently associated with IC is presented. Most of these definitions are those used by Heck, Stiegelbauer, Hall, and Loucks (1981).

Terms and Definitions

Implementation Requirements

The training, support services, and materials needed by individual users to implement an innovation. These would have to be in place for use of the innovation to proceed.

Components

The major features of an innovation. Components are usually either teacher behaviors, student activities, or how materials are used.

Critical components are those which must be used if the innovation is to be considered implemented.

Related Components are those which are not required or critical.

Which components are designated critical and related depends on who is doing the defining: the developer, a change facilitator, user, or evaluator.

Dimensions

These are various aspects of a component. Dimensions may be combined or used alone to make component variations. A dimension is one aspect along which a component may vary.

Variations

The different ways in which the components can be operationalized; for example, ways in which users are actually using parts of the innovation--program materials, ways of grouping, approach to content. Components may be present or absent.

Checklist

The components of the innovation are listed along with the variations most likely to be present when each component is in place.

Innovation Configuration

The operational patterns of the innovation that result from the selection and the use of different innovation component variations.

The Procedure

The basic procedure to identify IC has to do with the development of a checklist of components and variations. The description of it here is taken from several sources (Heck, Stiegelbauer, Hall & Loucks, 1981; Hord, 1986; Hord & Hall, 1986; Leary, 1983). The general procedures for

developing a configuration checklist are represented in a flow chart (Hord, 1986) in Figure 6.

Step 1: Identifying Innovation Components

The identification of the operational components is done by first reading as much descriptive material about the program as is available. Then the developer and/or program facilitator are interviewed. The following questions help to delineate components:

1. Would you describe your innovation to me?
2. What does the innovation look like when implemented?
What do teachers do? What do students do? What would I see in a classroom where the innovation was in use?
3. What are the most essential components of the innovation?

The result from Step 1 is a tentative list of components and a few variations for each.

Step 2: Identifying Additional Components and Variations

Next, the observation of the innovation in use and the interviewing of some users are done. The sample should represent a wide range of users so that many variations will be noted. The questions asked are similar to the questions asked in the previous step.

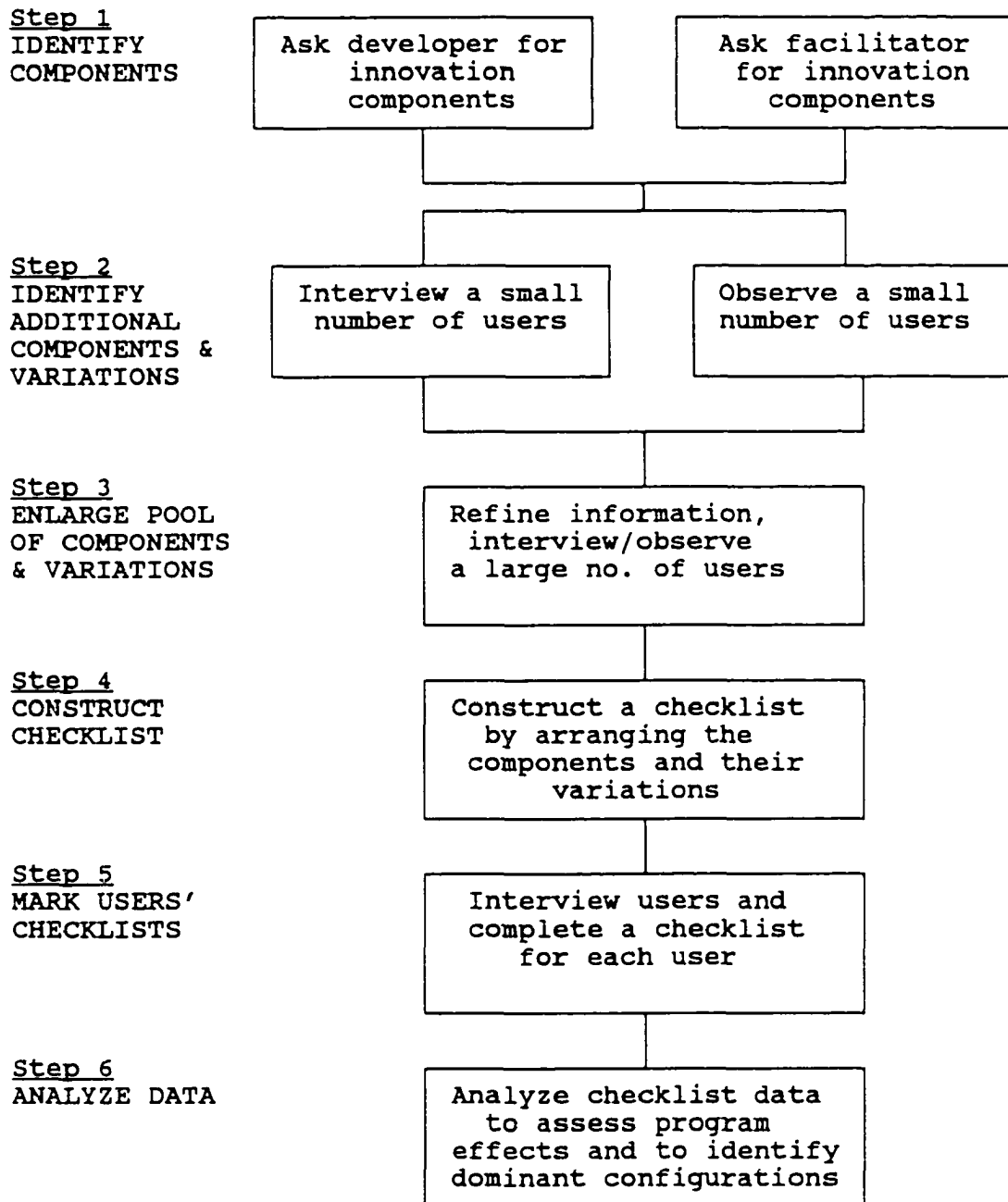


Figure 6. Procedure for identifying innovation configurations

Step 3: Major Data Collection

A larger sample of users are interviewed and observed. This step produces a data base for use in analysis of components and delineation of configurations. It also helps in identifying a number of additional component variations.

Step 4: Checklist Construction

It is now possible to construct an Innovation Configuration component checklist using the components and variations identified in Steps 1 through 3. In its final form, this checklist could be completed by teachers without the presence of an interviewer or observer.

Step 4 results in a checklist and a rating of each teacher in the sample according to his or her use of particular variations within each component. By tallying the frequency of each variation across teachers, one may profile how each component is used by teachers within a team, grade level, school, or district. Individual teacher data can also be useful for describing present use of the program and for diagnostic purposes in planning future inservice sessions.

Step 5: Identifying Configurations

In many cases, it is useful to know which configurations are more frequently found in a sample. This may be done by using computer pattern analysis techniques, or by hand analysis of the checklist data.

To do this, each variation is given an identifying letter or number and each teacher's checklist is characterized by a number with as many digits as there are components. It is then possible to cluster these multiple digit codes. For example, in an Innovation Configuration of six components, teacher A and B may be identified as A (312211), B (121131), etc. It is then possible to cluster these multiple digit codes to identify the configurations that are most typical or dominant.

Though these procedures look simple, each step raises issues that need to be considered and clarifies choices that must be made. This cannot be done alone and requires the interaction of several individuals.

Summary of the Concept and Procedures of Innovation Configuration--CBAM

The concept of Innovation Configurations and the assessment procedures can be used in planning a change, monitoring implementation, assessing institutionalization, and diagnosing renewal activities. The major components are first identified. Then the possible variations of each component are identified. These components and component variations are then placed in a checklist.

Developing Innovation Configuration for ITI

Though the procedures used in this study were similar to that of the standard procedures for developing IC as described earlier, the working research circumstances caused

overlapping of certain steps. Let me briefly describe the procedures that I found myself using.

Step 1 : Identifying the Components

An extensive review of the program elements and concepts was made by reading books, listening to tapes, and watching videos related to ITI. Books read included Teachers Make the Difference (Kovalik, 1989), Human Brain and Human Learning (Hart, 1983), Insult to Intelligence (Smith, 1986), and Frames of Mind (Gardner, 1983). I also used the audio tapes--The How and Why of Integrated Thematic Instruction (a three-tape series) and the video tape Orchestrating Learning by Kovalik to gain more insights on the program. At the same time I did a few observations of classrooms implementing ITI which helped me understand some of the aspects of the program in more concrete form.

During these initial stages of getting acquainted with ITI, I interviewed the program originator Kovalik and the local project director who gave their description of the program. The checklist that emerged, identifying the components as a result of this, is shown in Figure 7. A list of definition of terms found in the ITI checklist is also provided.

Step 2: Identifying Additional Components and Variations

A number of teachers using the program were interviewed and observed. These included teachers in schools which were

not part of the study. Additional components and variations in use of the program began to emerge.

Step 3: Checklist Construction

A checklist with the major components (not variations) of the program were given to a number of teachers using the program. These teachers were from the schools where I observed as well as from out of state schools where I did not observe. They were asked to reflect on their own teaching and write down beside each component any changes (if needed to be made at all) that they made with the components.

Step 4: Construction of Innovation Configuration Checklist

Further observations and interviews to clarify the observations helped to make the Innovation Configuration Checklist (see Figure 8) including variations observed and possible, acceptable and not acceptable of the program. The checklist was reviewed by both Susan Kovalik and the local program director Carol Weber. Their feedback helped in refining the checklist to the form presented here. A list of definitions of terms used in the checklist precedes the Innovation Configuration.

Component 1. Curriculum

Teacher uses yearly theme and integrates all subjects; aligns curriculum material with state, district and school curriculum requirements.

Component 2. Instructional materials and immersion in theme

Teacher uses multiple resources, based on the need of content and students; includes a variety of books; textbooks used as one of the resources, as applicable; no dittos at all; closures at least three time a year after major units.

Component 3. Physical set-up of the classroom

Immersion in the theme is evidenced by theme displays, daily agenda, first-hand and hands-on theme materials in the room; healing environment including appropriate lighting, heat, music, potpourri, plants; desks arranged for small group work and not in rows.

Component 4. Grouping

Class consists of small cooperative, heterogeneous groups (including special ed and chapter I students) of two to six students, who may also work on individual assignments as needed.

Component 5. Social skills

Social skills (MegaSkills) and classroom rules (standards to live by) are made part of teaching and behavior; teachable moments are used to internalize the principles.

Component 6. Teacher's Role

Teacher is a guide by the side rather than a sage on the stage, is a facilitator of learning, directs instruction for maximum 15 minutes/hour; co-plans (monthly/weekly/daily) and co-teaches (regular, special education and chapter I teachers).

Figure 7. Initially identified components of integrated thematic instruction

Component 7. Assessment of Pupil Learning

Assessment is made for mastery using the selected criteria: comprehensive, correct, complete; qualitative evaluation rather than letter grade; individual and group assessments are made for the differentiated abilities of students.

Component 8. Outreach and political action

Regular field-trips, parent and other resource person involvement; sharing of student projects, expressing oneself through letters, etc., opinions and concerns.

Component 9. Choices and Adequate Time

Students choose from assignment/projects based on Bloom's Taxonomy and multiple intelligence (Gardner's); adequate time is given for mastery; teacher chooses own theme, teaching team chooses outreach and theme components. Students also develop own research projects/assignments.

Component 10. Use of Instructional Thinking and Learning Strategies

Teacher uses a variety of strategies to stimulate thinking before, during and after lessons; probing, questioning to stimulate analysis, synthesis, and evaluation, prediction, strategies of brainstorming, categorization, problem solving, K-W-L, DRTA, SQ3R, student teacher conferencing, anticipation guides, imagery, memory devices, and reflection are used.

Component 11. Inclusion of all Students

Regular, gifted, special education, and chapter I students work together all day.

Component 12. Use of Relaxation and Reflection Techniques

Relaxation and reflection techniques are regularly used while making a transition from a high energy activity to a contemplative activity.

Figure 7 continued

Definitions of Terms Used in IC

1. Anticipation guide--A reading strategy whereby students choose to agree or disagree with information provided prior to reading the text. Then they read to verify their questions.
2. Chapter I students--Students who have reading problems mainly due to physical, emotional, or socio-economic disadvantages.
3. Closure--Opportunity for children to show off the newly acquired skills at the end of a unit.
4. DRTA--Direct Reading-Thinking Activity focuses on engaging students in comprehension monitoring through open-ended teacher questions. The selected reading material is divided into logical segments and teacher directs the thinking of the students after they read each segment.
5. K-W-L--A reading strategy, called Know-Want to Know-Learned based on building on the prior knowledge of the reader.
6. Political action--Students identify a problem and take steps necessary to work for a solution.
7. Potpourri--a mixture of spices heated in a pot of water to give out a sweet aroma.
8. Special education students--Students who differ significantly from the norm.

9. SQ3R--Survey Question Read Reflect and Review--a reading strategy with these five steps as the name reflects.

Summary of the IC Procedures

With the concept of IC the major operational components of an innovation are identified and the ways that each of the components can vary are described. These descriptions are summarized on an Innovation Configuration Component Checklist.

The IC checklist, being innovation specific, can be used to record in what ways each potential user is using the various parts of the innovation. This process makes it possible to : (1) compare the amount of innovation implementation of a user across varying points in time, (2) compare one user against other users, and (3) compare one school against other school units, and against other innovations.

Component 1. Curriculum

- ___ a. Teacher uses yearly theme and integrates all subjects and skills; aligns curriculum material with state, district and school curriculum requirements.
-
- ___ b. Teacher uses yearly theme and integrates two, three, etc. (not all) subjects.
-
- ___ c. Teacher uses unit themes only.
- ___ d. Teacher uses no theme.

Component 2. Instructional materials and immersion in theme

- ___ a. Teacher uses multiple resources, based on the need of content and students; includes a variety of books; textbooks used as one of the resources, as applicable; an occasional worksheet when appropriate; at least three closures during the year after the major units.
-
- ___ b. A variety of books on theme used as main sources and other supplementary materials used; textbooks used in subjects not integrated; dittos may be used in limited ways as seen fit; atleast one closure per year.
-
- ___ c. Ready-made theme packages, books and dittos are used; no closures.
- ___ d. Used mainly textbook; dittos used on a regular basis; no closures.

Component 3. Physical set-up of the classroom

- ___ a. Immersion in the theme is evidenced by theme displays, daily agenda, first-hand and hands-on theme materials in the room; healing environment including appropriate lighting, heat, music, potpourri, plants, colors; desks arranged for small group work and not in rows.
-

- *Component variations above interrupted line are ideal.
 *Component variations between solid and interrupted lines are acceptable.
 *Component variations below solid lines are unacceptable.

Figure 8. Integrated Thematic Instruction Innovation Configuration Checklist

___ b. Materials on display are mostly on theme context; have at least one closure during the year; room arrangements are appropriate enough but not particularly set up to create a healing environment; desks arranged in groups.

___ c. Conventional classroom displays; desks/chairs arranged in rows.

Component 4. Grouping

___ a. Class consists of small cooperative, heterogeneous groups (including special ed and chapter I students) of two to five students, who may also work on individual assignments as needed.

___ b. Larger cooperative heterogeneous groups of more than six members working as groups as well as individuals.

___ c. Whole class working on individual basis, with occasional group work.

___ d. Non-interactive group work planned.

Component 5. Social and personal skills

___ a. Social and personal skills (Megaskills) and classroom rules (standards to live by) are made part of teaching and behavior; teachable moments are used to internalize the principles.

___ b. Social skills are deliberately taught, though not on a regular basis.

___ c. Social skills are not taught deliberately, but when occasion calls for.

Component 6. Teacher's Role

___ a. Teacher orchestrates curriculum, is a facilitator of learning, provides immediate feedback during learning process; direct instruction provided for maximum 15 minutes/hour; co-plans (monthly/weekly/daily) and co-teaches (regular, special education and chapter I teachers).

Figure 8 continued

- ___ b. Teacher uses direct instruction but gives students time for interactions and investigations; co-plans and co-teaches with team members.
-
- ___ c. Teacher mainly uses direct instruction with a little time for student interactions and investigation; co-plans and co-teaches once in a while.
- ___ d. Teacher mainly uses direct instruction, no co-planning or co-teaching.

Component 7. Assessment of Pupil Learning

- ___ a. Assessment is made for mastery using the selected criteria: comprehensive, correct, complete; qualitative evaluation rather than letter grade; individual and group assessments are made for the differentiated abilities of students.
-
- ___ b. A combination of traditional and qualitative assessment are made; letter grades are also given.
-
- ___ c. Test results are the major means for assessment; only letter grades are given.

Component 8. Outreach and political action

- ___ a. Regular field-trips, parent and other resource person involvement; sharing of student projects, expressing oneself through letters, etc., opinions and concerns; real action taken where appropriate.
-
- ___ b. Occasional outreach activities
-
- ___ c. No particular outreach activities

Component 9. Choices and Adequate Time

- ___ a. Students choose from assignment/projects; choices are based on Bloom's Taxonomy and Gardner's Multiple Intelligence; adequate time is given for mastery; time decided by learning and not the clock. Teacher chooses theme, theme components and key points.
-

Figure 8 continued

- ___ b. Students are given choices of assignments in a limited way; teacher-generated themes and theme materials are used.
-
- ___ c. No choices are given to students on assignments; teacher uses ready-made theme and theme materials.

Component 10. Use of Instructional Thinking and Learning Strategies

- ___ a. Teacher uses a variety of strategies to stimulate thinking before, during and after lessons; strategies of prediction brainstorming, categorization, problem solving, K-W-L, SQ3R, student teacher conferencing, anticipation guides, imagery, memory devices, and reflection are used.
-
- ___ b. Teacher uses a limited amount of instructional strategies. Lesson and questioning are mainly for the knowledge/comprehension levels.
-
- ___ c. Little use, if any, is made of higher level thinking skills, conventional end of chapter questions.
- ___ d. There is no evidence of higher level thinking skills.

Component 11. Inclusion of Students

- ___ a. Regular, gifted, special education, and chapter I students work together all day.
-
- ___ b. Students work together most of the day. Slow learners are pulled out for a short time for individual help.
-
- ___ c. Students work together part of the day. Slow learners are taught separately by the resource room teacher most of the day.

Component 12. Use of Relaxation and Reflection Techniques

- ___ a. Relaxation and reflection techniques are regularly used while making a transition from a high energy activity to a contemplative activity.
-
- ___ b. Relaxation and reflection techniques are used once in a while.
-

Figure 8 continued

___ c. No relaxation and reflection techniques are used.

Component 13. Discussion of Brain Research

___ a. Teacher discusses the aspects of brain research including Triune Brain, Multiple Intelligence and Proctor Theory in the class.

___ b. Teacher does not discuss brain research in the class.

Figure 8 continued

CHAPTER 6

IMPLEMENTATION OF INTEGRATED THEMATIC INSTRUCTION AT SALISBURY ELEMENTARY SCHOOL

Introduction

In the previous chapter I defined and described Integrated Thematic Instruction (ITI) in operational terms. This description was intended to help portray the "what" of ITI--its observable components and the variations of use of these components that teachers practiced in their classrooms. Data for the description were derived mainly from observation and interviews.

This chapter and the following chapter will describe the "how" of ITI--how implementation of ITI was carried out in two different schools by teachers, in reference to the -context of implementation. The context here included the school demography and climate, support systems, student attributes, and teacher characteristics. Briefly described is also how schools first got in contact with the program.

I feel that a description of the context of ITI is essential to see its application in real-life and to agree with Joyce and Showers in that implementation of programs is heavily influenced by its context (1988). Understanding of the implementation process requires attention to the

complexity of organizational life surrounding it. The information for this description was obtained through several sources, such as archival records of schools, documents as well as grand proposals connected with the project, interviews, anecdotal evidence and direct observations of teachers.

To describe the actual implementation of ITI, I have first presented a general overview of its implementation in the schools and then focused on two teachers in each school and their implementation of the program. The reasons for selecting these two schools and the particular teachers from each school have been explained in chapter 3.

The School--Salisbury Elementary School

Demography

Salisbury Elementary School is a small, rural public school in the Midwest. Situated in a quiet place, the school seemed an ideal resort for learning. Being located in a lake-front area, its surrounding areas are frequented by visitors and tourists especially during the summer days.

The school was first established in 1957 and was a K-8 system. In 1965 the school merged with two other elementary schools and a high school to form a larger district school system. Now the school houses grades Developmental Kindergarten (DKG) through grade five. The school district has a population of approximately 1,400 students. Being

part of a large school district of about 80 square miles, most students are bused to and from school.

A recent influx of city people to the locality has caused a sky-rocketing of property values. Many of these owners have summer residences here, but live out in cities mostly out of state much of the year; about 60% of the houses and property around the neighborhood of the school are owned by out-of-state-owners. Many of the original residents, obviously, have moved away, selling their properties. This trend has taken its toll in the decrease of school enrollment from over 300 in 1989-90 to 204 in the 1990-91 school year.

The school population is predominantly white and of average socioeconomic status. The economic status of the society has been steadily increasing which is evidenced by a 35% free or reduced student lunches in the 1970s to only 10% in recent years.

The school building is a single-storied brick building with two wings. The main wing contains the gymnasium, reading room, office, classrooms for grades five, four, three, two, and one of the two first grades. There are also the principal's office, counselor's office, library, teachers' lounge, resource room, music room, art room, and rest rooms in this wing. The other, smaller wing has another first grade, Kindergarten and Developmental

Kindergarten rooms, as well as the speech therapist's and boiler rooms.

The physical environment is enhanced by a staff of 25 persons. These are: one full time principal, one secretary, eight classroom teachers, two reading teachers, one special ed teacher, one speech therapist, a music teacher, a gym teacher, an art teacher, two custodians, three teacher assistants, two cooks and one library assistant.

As I first walked into the building, the bold, colorfully written words on the high glass windows of the office walls caught my attention. These, I realized, were the standards to live by: no put downs, personal best, active listening, trust, truth, right to pass--classroom standards advocated in ITI. I began to feel then that this school meant seriously what they were doing with ITI. Though this was only my first impression, it was proved right during subsequent visits.

By the door of the office, I found the mission statement of the school which read:

The staff of Salisbury Elementary School is dedicated to providing a learning environment where all students will achieve to their maximum potential. We have high expectations that we will effectively nurture the intellectual, emotional, physical, and social growth of each child. Through better communication between home and school, we will further our goal of educational excellence.

To aim for high expectations, nurturing of growth of students, and better communication are lofty ideals for a school.

It was rare to see the main hallway empty at any time. Besides the usual traffic created by boys and girls moving in and out of classrooms in the morning and afternoon, there was frequent movement in and out of the music room, art room, library, gym/cafeteria, office, playground and washrooms. School began daily at 9:00 a.m. and ended at 3:15 p.m. Ten-thirty signalled the morning recess time for all grades. Lunch periods were staggered, to accommodate different grades in the cafeteria. The dismissal time at 3:15 was usually the "rush hour" when children lined up to go in the buses, and a few parents coming in to get their children.

School Climate

One of the first things that a visitor might notice in the building was the warmth and friendliness of the people, all the way from the principal, and staff, to the students and even parents whom one might meet in the hall way. As I walked into the school for the first time to meet with the staff and to make a "grand tour" of the school, I saw evidences of support and friendliness. Let me describe, as an example, the staff meeting that I attended that first day.

Besides the principal, Ralph Olson, and 14 teachers, there were the project director and the district superintendent in attendance for the weekly Wednesday staff meeting. The meeting had started at 8:00 in the morning and was held in the library.

Though the meeting was formal, there was an air of ease and cheerfulness. After we (I was accompanied by a professor and a fellow researcher) introduced ourselves, the principal requested the teachers to introduce themselves. We, then, gave an overview of the project and its purpose and scope. The tentative research proposal was given to each one.

During the meeting, teachers talked freely about their feelings about the project from their experience of using it so far. There were evidences of support of each other's comments in the subsequent comments and body language, and the principal supported the feelings of the teachers through his remarks. For instance, when a teacher commented (with a typical tinge of anxiety over classroom observations that, almost all, teachers have), "This is my first year [of teaching ITI]. I am changing a lot." Olson supportively added that teachers were going to be "slightly ill-at-ease, even after 15 or 17 years of experience" (Vol. I, p. 36). One of the first things that needed to be arranged was an individual interview--the Growth State Interview of teachers. In an instant, one of the teachers made a list of

teachers and the interview schedule. Teachers mentioned the planning sessions they had scheduled for the coming months when they would meet at a library in another township. When I expressed my desire to be there, one of the teachers drew a map of the place where they were meeting so that I could go to observe them. The help and cooperation of teachers that I received that day remained with me throughout the project.

The principal was very cordial. He showed us around the whole building. His friendly, yet business-like dealings with the teachers surely added to the mood of the place. He was seen giving a friendly pat on the back of students as he met them in the hall way.

I am not alone in my judgment of what I saw that first day. The professor and other colleague who accompanied me shared the same positive feelings. During the subsequent visitations, I learned from the teachers that they too felt that their school was special. As one teacher put it, "We are like a family here" (Vol. I, p. 79). Another teacher commented "Teachers here care more for kids . . . We like [to treat] kids here as people" (Vol. I, p. 79) trying to point out the attention and care teachers bestow on children.

As I walked through the hallways into the classrooms, I saw displays of student and teacher creativity: bulletin boards, student projects. Order and cleanliness were

evident inside and outside the classrooms. Somehow, the feeling remained with me that this building was not only a comfortable place, but a pleasant place as well, to live, work, and study.

Rick, the only male teacher in the building taught the fourth grade and was a favorite with the children. I had seen the previous year's students (currently, the fifth grade) visiting his room during breaks. "I encourage them to come in," Rick said, and they regularly played baseball during recess (Vol. I, p. 46). As I watched them play, they all seemed to have so much fun together.

Two bulletin boards in the main hallway, as well as a bulletin board in each classroom, portrayed "the student of the week." The display of photographs of each student, mounted on gold-colored stars had descriptions of their hobbies, likes, and favorite color attached to it. The student of the week got a special pencil, "Look What I Learned At Salisbury School" magnet, and lunch with the principal on Friday at a specially designated table. Students were chosen at random with no particular criteria with the idea to have each child so honored by the end of the year. I was impressed with the idea. It created a sense of recognition for each student, whatever abilities he or she possessed.

Getting in Touch with ITI

The superintendent of the district was the first one to have contact with the project. He brought a brochure for the summer (1990) training workshop to show the principal and asked if teachers would be interested in trying out the program. The principal asked the teachers to consider it and decide for themselves. Eventually, two teachers were sent to observe classes in another school which was already implementing the project; their positive feedback encouraged other teachers. Subsequently, all teachers had a chance to visit the school implementing the program, to see for themselves and make their decision about its quality, as well as appropriateness for themselves and their students.

The school board gave the approval to go ahead with the program. The board sanctioned the implementation of the project, though only a couple of its members had known about the program. The principal attributed the trust the board had in the school to previous success experiences the school had with programs such as a parent volunteer reading (volunteers helped children with reading during the whole-school reading time), and Friday activities (one-hour special activities such as crafts and music provided by teachers, for which students signed up).

All the teachers signed up for the workshop during the summer of 1989-90; the first week of training was conducted by Susan Kovalik and the second week by the local project

director and coordinator. Though they could still decline to implement the project after the training, all the teachers of the school decided to implement it. Looking back at what happened then, one of the teachers said, "It was amazing that all went in for it" (Vol. I, p. 80). The project director explained, "I wondered where is the rock, but there was none" (Vol. I, p. 51) referring to the absence of any teacher opposition. Thus the school had a 100% teacher implementation of the project.

In fact, this whole participation of the school in using ITI was one of the first things I had heard about the school. It was interesting to study such an implementation site of ITI and learn from it.

Support Systems

For a school to go on with commitment and energy, a great deal of support is essential. As I conducted the observations and the interviews, I perceived that support for the program came from different sources and at different times. I saw four distinct, and strong support systems: (1) district support and training, (2) principal support, (3) peer support, and (4) community support which were available for teachers, the implementors of the program.

Intermediate School District Support and Training

The definite and sustained backing from the Intermediate School District was one of the supports for the

teachers and the school in general. The funding, training, and ongoing feedback through visitations and consultations were crucial to the implementation process. Federal funding allowed the initial training sessions, subsequent staff development meetings, substitute pay (during planning days), and materials and equipment.

Principal Support

The principal, Ralph Olson, who is characterized by teachers as "supportive," and "understanding" (Vol. I, pp. 4, 9), was well-liked by teachers. He seems to manifest the principle of freedom with accountability in his dealings. His office, second on the left from the main entrance, was seldom occupied. He is usually out among the classrooms and hallway, talking and interacting with students, teachers, or visiting parents.

An open communication seems to have existed between him and his teachers. Teachers came into his office for suggestions, for house-keeping matters as well as other school matters. At weekly staff meetings, things were anything but formal, according to Rose, the second grade teacher. Though the principal usually had an agenda, the teachers rarely were able to complete it: "We teachers do a lot of talking during these meetings and we feel free to do that" (Vol. I, p. 11). They talked about school related concerns openly. However, confidential topics such as parent problems, as one teacher said, were discussed

privately with the principal and "he [is] always supportive" (Vol. I, p. 9).

Having gone through the project training himself, the principal seemed able to understand and help the teachers in a knowledgeable way. Teachers submitted their monthly lesson plans a week after the monthly planning days. They indicated the key points and inquiries to be covered for the unit. He, thus, kept himself up-to-date on major classroom activities of the week.

Even during days when he had to be away for meetings, Ralph took time off to visit the special events. For example, when the first graders were having a Mother's Day closure (described in chapter 5), he came in for a brief time to say hello and see how things were going. Occasionally, he himself would direct me to the special events in different classrooms. He would be stay, at least for awhile for those special events, with his camera.

I had seen his interest and excitement in what the teachers and students were doing. He was present during 14 of the 15 closures they had during the year, even though most of these were held during after-school hours. From what I saw and heard, he seemed actively involved in what was happening and was viewed by teachers as very supportive. Teachers remarked about this support:

He gives us a lot of support and gives us a lot of leeway in what we want to do, although we are accountable to him. (Vol. I, p. 20)

Our principal has been an elementary school teacher and understands [our problems]. (Vol. I, p.)

Teachers had found not only moral support in him but also active, participatory support.

Peer Support

Spending time in the teachers' lounge gave me a lot of insight into teacher communications and support. By noon hour usually, groups of teachers were having lunch in the room. Their conversation was evidence that they were friends as well as colleagues. On a typical day, their conversation extended from rumors about budget cuts to planning summer vacations together. As one of the teachers put it, "These people in this building are a real support group. We do a lot outside the building; most of us here get together for social things as well. And a lot of times we talk [about] teaching" (Vol. I, p. 7). Several times I had seen teachers sharing books they found useful for another class and ideas for teaching themes.

The planning team was like a family group. It consisted, in general, of a regular classroom teacher, a special education teacher and a reading (chapter I) teacher. Besides the once-a-month planning sessions that these teams had, some met on a weekly or daily basis to talk about and plan their lessons. Most teachers had expressed their opinion about the power of such an arrangement by saying that "Two or three heads work much better than just one"

(Vol. I, p. 20). Bonnie Freeman, the third-grade teacher, said,

The special education teacher comes into my classroom. This gives me a chance to see and learn. I can focus on how my kids are reacting . . . gives me a different perspective." (Vol. I, p. 97)

Resource ideas and the gathering of materials were facilitated more efficiently with this set-up. That the teachers felt a strong feeling of moral support from planning and teaching together was evident. Comments on such support included:

We (the planning team) spend an awful lot of time at the library . . . we'll pick up things for each other--sharing back and forth. . . And I think this is a real plus for this school that we share this job. We have been pretty supportive and open with each other too. . . . If you can get one idea from one person, you can get four ideas from two people. (Vol. I, p. 20)

I would have been lost without Lillian. The purpose of this program is to get you out of the isolation of the classroom. It's nice to have another person's opinion or view-point on the subject. (Vol. I, p. 32)

The best part of this type of peer support was the moral support. Many times teachers encountered difficult times and had felt like giving up. One teacher told me of her experience of almost giving up on the cooperative group setting in her room. She said that she first went to her colleagues and admitted that she was giving up. Her colleagues were supportive and told her she was not alone in her feelings of desperation. She said to me, "One neat thing about this staff is, nobody nails you about stuff. It is a very cooperative learning group, an interactive group"

(Vol. I, p. 12). Eventually she found the fortitude to come back to the program.

Though there were ups and downs in their relationships with each other, not very obvious to a casual visitor, the teachers here seemed a happy group. The encouragement and support that was obtained from peers was one of the forces that had kept this group going.

Community Support

Parent support was one of the strongest community supports that the school and the program received. The local Parent-Teacher Organization (PTO) was active and had engaged in many projects including helping fund the carpeting in two classrooms. Active participation of the PTO was seen during closures when volunteers helped with setting up the room, bringing food, and setting up the food line. Parents had indicated their strong support of the program through the parent survey given them at the end of the year. Of the 122 respondents, 83 indicated that the program was beneficial to their children, 33 said somewhat beneficial; 4 said no; and 2 were not sure. Some of the informal interviews (Vol. I, pp. 66, 67) that I had with parents confirmed this as well:

This program has helped my son feel better about himself. He has progressed in his abilities were stilted before. There is a learning environment here, they help each other.

My child has been helped very much by this program. Last year it was not like this.

Kids are getting better education here. They are reading and are challenged by it, but they don't realize it.

Examples of school activities that parents and community people participated in include: a book fair, raffle, a spaghetti dinner, popcorn, apple, hot pretzel, and nacho and cheese sales. The PTO helped provide funds for a fifth grade ski trip, classroom manipulatives, and other classroom equipment; they also purchased \$2000 worth of library books, and supported the Open House, fifth grade banquet, and awards assembly.

The 96% attendance at both the fall and spring parent conferences spoke for itself about the parent cooperation. I had observed closures with attendance of over 70 parents and friends for a class of 26 students. Attendance at all closures had been good.

The participation of community resource people became an important part of the project, particularly during this school year (1991). Resource people from the police, military, post office, nature center, and fire station had visited the school in connection with classroom theme needs. Other volunteers, besides parents, came and helped with classroom reading and other cooperative learning activities.

One of the reasons for this strong community support could be the effective and constant communication between school and the community. Communication, particularly to parents, included a weekly newsletter from the school,

newsletters from various classrooms, report cards at the end of four marking periods, parent-teacher conferences, phone calls, one Back to School Night, home visits of those who could not come for parent conferences, 15 closures, and one year-end school picnic.

Students

The students served by the school could be described in a variety of ways. Classroom, lunchroom, playground observations, and informal discussions with students revealed a normal, enthusiastic, and hard-working group of students. Friendliness and ease of conversation were evident throughout the school. When asked about any changes especially during the year in his student body, the principal said, "Kids seem happy and seem happy about what they are doing" (Vol. I, p. 100). Students expressed their liking for the program as the comments in a classroom questionnaire show:

I like it (the program) because we get to choose our own activities.

It is funner [sic] and there is more than one teacher in the classroom.

The academic performance of students has been above the state norm over the years. For the state reading test, Salisbury School scored an average of 72% compared to the state average of 36.6%. Results over the last two years (1989-90 and 1990-91) indicate that 100% of the students tested in state math tests received an acceptable score,

compared to the state average of 88%. The annual report of the school said, "We are proud of the improving results."

The high morale among students, as I perceived from the interviews and conversations, could be attributed to several reasons. The friendliness of teachers and principal, and the supportive approach of parents that I had described earlier could be some of the reasons for this.

The number of special education students decreased with the total enrollment. During the 1990-91 school year, 11 students (compared to 13 last year) were in special education programs, most requiring speech therapy.

Teacher Characteristics

That teacher characteristics and personality do affect use of educational ideas is certain as proved by several studies (Evans & Hopkins, 1988; Maslow, 1962; McKibbin & Joyce, 1980). It was, then, imperative that a description of teacher characteristics be provided to help better understand the context of implementation of ITI. The two areas investigated were demographics and psychological states of individual teachers.

Demographics

The demographical information indicated that: (1) the teachers at Salisbury Elementary School were all White, (2) 10 out of the 11 teachers were females, and (3) all had more

than 12 years of teaching experience. A summary of teacher-demographical data is presented in Table 2.

Psychological State

The psychological state of individual teachers was determined from a semi-structured interview (Growth States) based on studies of Joyce, Bush, and McKibbin (1982). These interviews, of approximately thirty minutes duration, were conducted with individual teachers to find out about their growth-producing activities (details of the interview are provided in chapter 3). The growth states of teachers was recorded, as were the statistical findings obtained from the three specific questionnaires, Gregorc's (1982a) Style Delineators, Rand Corporation's (Armor et al., 1976; Berman et al., 1977) teacher efficacy measure, and Hunt, Butler, Noy, and Rosser's (1977-78) Paragraph Completion Method questionnaire to assess conceptual level. Descriptive accounts, through observations and interviews, of individual teachers helped to corroborate statistical findings. Table 3 shows a summary of this data.

Table 2

Salisbury Elementary School Teacher Demographics

Teacher	Gr	Ge	Ra	Ex
Lillian Weiss	DKG	F	W	18
Daffney Fisher	KG	F	W	12
Sarah Kelly	1	F	W	18
Irene Hamil	1	F	W	12
Rose Bower	2	F	W	16
Bonnie Freeman	3	F	W	17
Rick Adams	4	M	W	15
Nina Harris	5	F	W	25
Stacy Jay	C	F	W	17
Jackie Cook	C	F	W	20
Janice Howe	S	F	W	15

Gr = Grade taught
 Ge = Gender
 Ra = Race
 Ex = Years of Teaching Experience

C = Chapter I
 S = Special education
 W = White
 F = Female
 M = Male

Table 3

Data on Psychological State of Teachers at
Salisbury Elementary School

Teacher	L	C	G	E
Lillian Weiss	CS	2.3	P	7
Daffney Fisher	CS	2.3	A	4
Sarah Kelly	AR	1.2	A	6
Irene Hamil	CS	2.0	A	7
Rose Bower	CR	1.8	A	8
Bonnie Freeman	AR	1.7	A	7
Rick Adams	AR	1.5	A	7
Nina Harris	AR	1.3	A	8
Stacy Jay	CS	1.7	O	8
Jackie Cook	AR	2.3	A	10
Janice Howe	CS	1.8	P	9

L = Learning style
C = Conceptual level
G = Growth State
E = Efficacy

CS = Concrete Sequential
CR = Concrete Random
AS = Abstract Sequential
AR = Abstract Random
O = Omnivore
A = Active
P = Passive

Growth States. The semi-structured interview to determine the growth states of teachers ascertains an individual's attitudes and activities in both the professional and private domain. Four categories of individuals (omnivore, passive, and reticent) have emerged (Joyce, Bush, & McKibbin, 1982) differentiated by the degree of participation and initiative they exhibit in educational and cultural/social activities. A detailed description of Growth States is provided in chapter 3.

The general state of growth of teachers at Salisbury Elementary School, as found from the Growth States interviews (outline of the format shown in the Appendix), might be described as active. As shown in Table 3, there were 8 out of 11 who were active, 2 passive and 1 omnivore. No reticent was found among the group. The implication of this finding is that the group, as a whole, was eager for growth and was willing to seek change in personal teaching behaviors.

Efficacy. In this study I used the two-item measure (see Appendix) developed by the Rand Corporation (Armor et al., 1976; Berman et al., 1977). The first item consists of beliefs regarding the extent to which teachers in general can motivate students to achieve, and the second consists of the teacher's beliefs about his or her personal ability to

influence student performance (Ashton, 1984; Berman, McLaughlin, Bass, Pauly, & Zellman, 1977).

Four patterns of beliefs may be derived from the two items: (1) Pattern 1 (teachers can't; I can't) had a combined score of 2-4 points; (2) Pattern 2 (teachers can; I can't) a combined score of 5-7 points, with the first item equal to 4 or 5 points; (3) Pattern 3 (teachers can; I can) a combined score of 8-10 points; and (4) Pattern 4 (teachers can't; I can) a combined score of 5-7 points, with the first item equal to 1 or 2 points.

Based on the responses to the two Rand items, 7 of the 11 teachers were classified into the four efficacy belief pattern groups. The responses of four (36%) of the teachers fell outside the point ranges of the four patterns. These teachers, therefore, were not included in the analysis. One teacher was classified in response Pattern 1 (teachers can't; I can't), one in Pattern 2 (teachers can; I can't), five in Pattern 3 (teachers can; I can) and none in Pattern 4 (teachers can't; I can).

The findings showed a moderate percentage (45%) of teachers with high efficacy level. They felt confident in themselves as well as teachers in general. Two of the teachers felt less confident about their teaching.

Learning Styles. The Gregorc-Style Delineator (Gregorc, 1982a) found that 45.5% of the teachers were concrete-sequential (CS), and another 45.5% also were

abstract-random (AR) in their mode of perception, while 9% were concrete-random (CR). Thus the dominant modes of perception of most of the teachers in the school were CS and AR. There seemed to be a balance between those with learning styles that were adverse to change (CS) and those who were enthusiastic about change (AR).

Conceptual Levels. A measure of the cognitive processes of teachers was taken using Paragraph Completion Method (Hunt, Butler, Noy, & Rosser, 1978). Using this procedure, the Conceptual Level (CL) is measured on a scale of 0-3, with scores defined as: 0-1.1 low, 1.2-1.9 moderate, and 2.0+ high. A description of the instrument is presented in chapter 3.

I found that 4 teachers out of the 11 had a high CL, and the remaining 11 had a moderate CL, as shown in Table 3. As a whole, the conceptual levels of teachers at Salisbury Elementary School seemed to be high. The general CL of teachers showed their capacity to profit from low structure, or be less affected by variations in structure. This finding is important, as ITI, in this initial stages of implementation, was less structured and allowed several variations. Teachers were enthusiastic about the use of the program and expressed the desire to continue its implementation.

Summary

In summary, the study of teacher characteristics revealed demographical, psychological, and cognitive idiosyncrasies. Demographically, they were well-experienced (all more than 12 years of teaching experience), all white, and predominantly female (only 1 male out of 11). Psychologically, growth state placed them as active contributors to the school environment. The learning style of the majority was, essentially, random but there was somewhat of a balance with sequential learners. The efficacy level was moderate; the varied cognitive levels revealed general flexibility to changes. Some of the above characteristics might explain the high dexterity of the group toward ITI and its implementation. For example, Showers (1984) has found that high CL individuals have a higher transfer of training than those of low CL.

ITI Training

The initial training of teachers consisted of two parts: one week of a Kovalik and Associates workshop and another week of a local project workshop. All the teachers, including special education and reading teachers, attended the sessions. The principal was also part of the training group.

All the teachers had high satisfaction regarding the training, as indicated in their interviews:

ITI got me excited about teaching. I had taught for years and gotten into a rut. The workbooks and textbooks told me this and that and I would do it. When I went to ITI it was like . . . having a new start. . . . It was like a rebirth. The idea of theme--I would have never thought of that if I didn't have that training. (Vol. I, p. 25)

It was just great, it was so uplifting. . . . The expectations they had were very high and you wanted to do it. (Vol. I, p. 17)

Talking about the effect of training involving the whole group of teachers from the school, one of the teachers remarked, "We all worked so hard together as a team" (Vol. I, p. 7). Nina Harris, the fifth grade teacher, said, "The reason it (ITI) works here . . . is because we are doing it as a whole group" (Vol. I, p. 12).

Teacher Implementation of ITI--in General

During my (eight-month) observations and the frequent informal interviews with teachers of Salisbury Elementary School, I have been able to understand, to some extent, what ITI looks like in classrooms. The implementation of ITI, though varied, has several similarities. Let me first describe what I saw in general, at Salisbury Elementary School.

Use of Components

Each teacher used components at various levels of implementation. I was able to identify several of the components of ITI during the grand tour. Let me describe briefly each of the components that I saw being implemented.

Use of Yearly Theme

Each classroom used a yearly theme. Large posters displaying the yearly themes with the components were seen in each of the rooms. According to Kovalik (1989), the intent of the theme is organizational. For teachers, it serves as an organizer for curriculum building and material-gathering throughout the year.

Observations verified that themes were being used on a regular basis in the classroom. Theme activities were engaged in, and resource materials such as books, pictures, manipulatives, music, and resource people were brought in at appropriate times to give the children experiences in their theme learning.

Theme titles were "kid grabbers" and seemed to meet the five criteria that Kovalik required: meaning for students, readily available resources, has substance and application to real world, flow, and worthy of time. The themes for the year for the different grades were as follows:

1. KG--Wonderlands
2. 1st grade--Chika chika boom boom; Friends (There were two 1st grades)
3. 2nd grade--Making tracks
4. 3rd grade--Mysteries of the world
5. 4th grade--Wide world of sports
6. 5th grade--Soar like an eagle

During the first year of implementation of ITI, the teachers integrated two or three subjects under a theme. The subjects integrated included language arts, science, and social studies. Though certain math concepts were incorporated into the theme, teachers still were having a separate subject for math using textbooks and work-sheets.

One of the first grades had the theme "Friends" with components: nature friends, animal friends, community friends, man's best friends, family friends, school friends. The teacher integrated language arts, social studies, and science through this theme.

The catchy fourth-grade theme "Wide World of Sports" had the components: advertising, football, sports around the world, shinning stars, the olympic challenge, animals in sports, space-age sports, nutrition, and "let's get physical." I observed theme activities that the children had researched on American Indian games. The presentation in the class consisted of description of a certain Indian tribe by one student, the type of games they played by another child. Some children demonstrated playing Indian games with sticks and ropes. They had been to a nature center and museum which displayed artifacts of Indians. The whole class compiled materials they had collected on Indian skills and games to make a reference book.

Students felt good about the themes and the projects they were doing. These remarks taken from a student survey

indicated this: "Themes are my favorite," "I like being able to do special projects," and "You can do fun projects."

Use of Multiple Resources

The types of books each classroom had was amazing. Classrooms had an abundant supply of books related to themes along with World Books and reference books. The children felt free to pick up these books during the research time and find information. In contrast to many typical classrooms there was a freedom to use other resources as they were not restricted to textbooks. Magazine articles from Ranger Rick and National Geographic were part of classroom materials, and selected articles from these magazines were used in theme-related reading activities.

Team teaching had facilitated the use of multiple resources. The teachers' access to several public libraries had enabled each room to have an abundant supply of books on theme-related topics. Textbooks were used only in subjects not yet integrated.

Resource people were involved in several theme-related activities. Depending on the theme, the school was able to bring community people from the police, military, and fire station to give students first-hand information and experiences in their areas of expertise. First-hand experiences were obtained frequently through field-trips to museums and nature centers.

Physical Set-up of the Classroom

Although each room had its own distinctive features, it shared some commonalities with others. As mentioned earlier, each room had displays of the yearly theme on the walls. One of the first things the teachers did at the beginning of the day was to write the daily agenda on the chalk board. Students normally copied this information into their journals in the morning. It gave an overview of the happenings of the day. The agenda was on display throughout the day. At the end of the day it was used to summarize the activities of the day. At times, what was planned in the agenda could not be completed and this could be then planned for the next day or so.

Most of the teachers had made deliberate attempts to create a healing environment in their classrooms. Often when I entered a classroom, the aroma of potpourri and the sound of soft music were discernable. In several rooms potted plants were placed in different parts of the room.

I also found in all the rooms were large charts of megaskills and standards to live by. According to one teacher, more than incidental attention was given to these; having to look at it helped it subconsciously enter and stay in the mind.

All the classrooms, without exception, had the desks and chairs arranged in small groups rather than in rows. There was sufficient room for easy movement and for whole-

class meeting during the day. Children's projects were on display in all the rooms.

Group Work and Social Skills

An average of 23 children were in each room. This number facilitated 3 to 5 children to be in a group at a time. I observed several active group interactions during my visits. Usually teachers went over the social skills that they were to work on during the time. Ideas from the book Tribes (Gibbs, 1987) were most commonly used.

Large posters showing "Standards to live by" and "Megaskills" (explained in chapter 5) were on display in each classroom. There was a deliberate attempt to help students be aware of these principles. For example, principal Olson often met the buses in front of the school and would ask, "What is the standard to live by for today?" Children guessed the right answer and got a pat on the back by Olson (Vol. I, p. ; Green, Brantley, P. Gaikwad, S. Gaikwad, & Korniejczuk, 1991, p. 7). In the fourth-grade room the teacher had the "MegaSkill of the month"--the one the class especially worked on during the month.

A student survey showed that one of the best liked aspects of the program was working in groups. "I like working in groups," "We get to work together" are examples of student remarks. However, some did not like the particular group they worked in. A few would rather be working by themselves than in groups.

Teacher's Role

Co-teaching was observed regularly. For example, I observed the special education teacher taking over the first grade class for 45 minutes while the regular classroom teacher took a supportive role. This was true in other classes too. Chapter I teacher also came in and taught the entire class daily for 45 minutes. At times these teachers (special education or chapter I) were seen helping the special education and chapter I students who needed help as the regular teacher carried on with the lesson.

Both the special education and chapter I teachers had four to five different classes to teach each day. Though their special focus is helping their respective students, they also taught the class just as the regular classroom teacher did. During the previous years, they had pulled out these students from the regular classroom and taught them separately in their rooms called the resource room (for special education) and reading room (for chapter I).

Teachers worked in teams planning for the next month. Called the planning team, the team consists of the regular classroom teacher, the special education teacher and the chapter I teacher. During the monthly planning day this team planned the lessons, gathered materials and identified resource persons for the next month. The location where the teams planned varied. Some of the teams used a nearby public library regularly for this purpose. The library

personnel were very cooperative and were even helpful in identifying the theme materials, according to one teacher (Vol. I, p. 15). While the teachers are planning, the school arranged substitutes for their classes.

Assessment of Pupil Learning

Classroom testing was the main form of assessment of student learning. As the second grade teacher remarked, "Newspapers and schools put so much stock on testing, so students need to take tests" (Vol. I, p. 42). No letter grades were given to students prior to the third grade. The third-grade teacher, Bonnie Freeman, said, "I have to give [letter] grades in third grade" (Vol. I, p. 96). But she preferred a non-graded report card, a qualitative assessment of student activities. She tried to maintain an individual portfolio for students and kept track of individual and group projects (Vol. I, p. 96).

Outreach and Political Action

In one of the rooms, children had written letters to troops in Saudi Arabia, and received replies from the soldiers. One class went to a popular baseball game as part of their theme outreach. The children, through projects of selling hot pretzels, had collected the money for the trip. One of the first grades, during their unit on "animal friends," made a zoo with modelling clay. They later went to the zoo and reported about the animals they saw.

Learning Strategies

Language arts was mainly taught through the whole language approach. The use of anticipation guides, K-W-L, DRTA, SQ3R (reading strategies explained in chapter 5) were used for promoting and practicing higher thinking skills. Group and individual research was encouraged. Students worked on projects, most often in groups, and obtained first hand learning experiences.

Creativity and thinking was encouraged through classroom activities. For example, the "Story cloud" activity of one of the first grades was fascinating. The chapter I teacher read aloud Story Cloud, a picture story book. She had asked children to predict what will happen next at certain points in the story. After the story, the chapter I teacher placed a popped pop corn on the over-head projector and traced its silhouette on a paper. She asked children to imagine that it is a cloud and to tell what it looks like. Children responded very enthusiastically. Then each child was given a popped pop corn and they were to trace the outline of each silhouette and then write a story about the cloud. They worked at three stations with an over-head projector each (the regular classroom teacher and the teacher aid helped out at the other two stations). That activity was, no doubt, a very creative and interesting activity for all.

Choices

Inquiries (activities that give students opportunities to internalize and apply what is learned) based on Bloom's Taxonomy allowed for choices for students. Teachers incorporated modalities of visual, auditory, tactile, and kinesthetic while writing inquiries. With some guidance from the teacher (lest the person choose the same type of inquiry) students chose the inquiries to work on. There were, however, certain inquiries that all the students had to do.

Unique Features

The most unique thing about the implementation, in general, was the 100% teacher participation in ITI. This, no doubt, had an impact on the feeling of mutual support of teachers. The principal's support was extra ordinary too, as described earlier.

Problems

One of the problems the school faced during the first year of implementation was the lack of specific role definition of the special education teacher. Though there seemed to be no problems in developing a working relationship between the special education teacher and the regular classroom teacher, the special teacher was concerned about the academic performance of special education students:

I feel a little uneasy about the role of special education. I am not sure about my role. When we talk to parents, they ask, 'What are you doing for this child?' and I am working with the whole group. I cannot tell what is going on. So I feel uneasy about it. . . . I want to make sure that the kids that I am responsible for, their needs are met too. (Vol. I, p. 31)

But the principal was optimistic about the future. Once the special education students had raised their self-esteem, it would positively affect their learning in the coming years, he was sure. "Yes, some changes may have to be made about the learning arrangement for special education students, that needs to be worked out," he said (Vol. I, p. 100).

Many of the teachers at the school expressed a desire to have follow-up training sessions based on their needs, particularly in the areas of cooperative learning, whole language, and children's literature:

We need more workshops, more training sessions to help us. We are all excited about all these, but are we going in the right direction? . . . I hope they don't just leave us standing here with that amount of training and not any more. (Vol. I, p. 25)

Teachers felt that the first year had been much too overwhelming in trying to put together so many things, much of it for the first time. One teacher said, "I was flying up in the air for a while with all these new innovative, wonderful things going on. But now I am having a little hard time now" (Vol. I, p. 11).

Plans for the Future

The teachers and principal of the school felt they needed to continue using the program. Rick Adams, the fourth-grade teacher, remarked, "I am on the right track" (Vol. I, p. 103). "It is the way to go. . . . We'll continue the program" (Vol I, pp. 112, 113), said the principal.

Future plans for the program included the allocating of weekly planning time for teachers in addition to the monthly planning days. The monthly planning days might be reduced from seven a year to five a year because of the lack of funds. There was also a plan to switch to a non-graded report card, according to the principal (Vol. I, p. 113).

In summary, several similarities and variations of use of ITI components were observed. The use of a yearly themes, multiple resources, cooperative learning, and co-teaching were components that were common to all classrooms. Variations were observed in the use of choices and student assessment.

In the next section, I will describe the implementation of ITI by two teachers. Toward the middle of my study I found the need to refocus my observations to add the needed depth to the implementation study so that I could answer the question, "How is ITI implemented" more specifically.

In Depth Teacher Implementation of ITI

This section describes the implementation of ITI by two teachers of Salisbury Elementary School--Irene Hamil, a first-grade teacher and Rose Bower, a second grade teacher. What criteria I used for selecting these two teachers to converge my attention on is explained in chapter 3. Data for this description was obtained mainly through interviews, observations, questionnaires, archival records, and notes gathered from conferences and anecdotal evidences.

Irene Hamil

The Person

Irene had always enjoyed children and loved being around them, and so early in her life she had decided to be a teacher. Her student teaching in an international school in Western Germany was a very positive experience, and she saw a lot of similarities in techniques used in that school and what ITI was advocating. It was during this time, while teaching kindergarten students, that she realized that "Kids are like sponges and can learn and understand a lot, if given a chance" (Vol. I, p. 89).

Prior to using ITI, Irene had been using activities similar to the ones in the new program, such as use of projects, outreach, and political actions. Earlier, her fifth grade had written a proposal to the Maritime Society and won third place in naming the new space shuttle.

On an average, Irene had attended two workshops per year in areas such as cooperative learning, and gifted and talented. Earlier in her career she had been involved in teaching a gifted and talented program on Saturdays. Since she started using the program, Irene had found herself sharing ideas she had gained from the training as well as her own experiences with teachers from other schools who were anxious to learn.

Irene acknowledged that since contact with ITI she had read more books than before. Other than the books needed to be read for classroom purposes, she had read almost all the books Kovalik recommended, including Teachers Make the Difference and The Absorbent Mind. She also read the magazine Instructor and often used ideas from this periodical in her classroom.

Irene's Class

Irene's first-grade class consisted of 22 students. This was her first year to teach first graders.

Past and Present Compared

The past year had been a "year of change" for Irene in more than one way. She had been teaching fifth grade for the past several years, but due to the changes in school enrollment and the eventual reshuffling, she was assigned the first grade. Along with this came the change to the ITI

program, and she often felt overwhelmed by the amount of time needed for preparation for classes.

From interviews and observations of her teaching, I was able to describe the process of planning and organization of Irene's class to some extent and to describe a unit of her theme from the planning stage to the assessment stage.

Implementation of Components

Yearly Theme. Irene's first-grade theme was "Chika Chika Boom Boom." This title is derived from one of the alphabet books of Bill Martin, Jr., which were, then (1989) just published. Explaining why she chose that theme, Irene said, "I knew I would be teaching first grade and knew they (children) needed a lot of repetition of the alphabet. This book was a wonderful book and there was so much in it" (Vol. I, p. 88). Her idea was to incorporate other alphabet and literature books into the theme. She had decided on that theme during the Kovalik summer workshop and had input from Kovalik as well as her team members, Stacy and Jackie, the reading teachers. Irene remembered the process of settling down to a theme with the appropriate components as very traumatic. On some evenings she came back literally in tears from the workshop not able to decide the appropriate theme (Vol. I, p. 90). Finally she found the theme that was appealing to her and the children.

It was interesting to find out how Irene had devised the components of the theme. She brought stacks of alphabet books from the neighboring libraries and started categorizing them into groups, a type of inductive process. These categories, then, became the components. The components of the theme were: Martin's Alphabets, Bear Alphabets, Animal Alphabets, and Dramatic Alphabets. In her original plan, she also had the components of Rhyming Alphabets, Monster Alphabets, Artistic Alphabets, and Musical Alphabets. She felt it best to limit components to a few during the first year.

For integrating subjects, Irene used the Single Subject Model suggested by Kovalik (1989, p. 64). She integrated all the language arts (reading, writing, vocabulary, spelling) areas under the theme. Irene felt that starting with one subject area like language arts was good; she planned to eventually incorporate other subjects (Vol. I , p. 91).

On an average, she had 15 key points for each component or unit (Vol. I, p. 89), with several inquiries for each key point, written at different levels of Bloom's taxonomy. During the planning of key points and inquiries, alignment with the objectives required of the school curriculum was taken into consideration.

Choices. As I observed children working on different projects, I realized that all were working on similar

assignments. Later, I asked Irene if she provided choices of inquiries for the children. She said that in her class all children had to do all the inquiries. It was her personal opinion that first graders were not quite ready for choices for inquiries (Vol. I, p. 88).

At the same time, I had seen Irene working on group choices or decision-making. For example, on the day when the children had no morning recess due to "Mother's Day tea," Irene allowed the class to make a choice in the afternoon between music class and recess, both of which were liked by all. The class chose recess.

Immersion in the Theme. When I first entered Irene's class, I had the feeling of being on some tropical island. Irene had decorated her classroom with a tropical hut and a wall mural depicting a coastal scene and sunset (her church gave them to her, she told me), and for a final touch--a coconut palm.

On the left side of the front wall her theme was spelled out on a large chart, "Chika Chika Boom Boom." Though at that time the theme did not make much sense to me, I later found out that her theme indeed had much to do with the tropics. Though the arrangement of the room did not vary substantially during my subsequent observations, the same feeling of entering a special place came to me every time I entered Irene's room.

The daily agenda was on Irene's chalk board every day, and gave an overview of the activities of the day. Irene usually went over the agenda with the children after they copied it in their journals. It also helped, at the end of the day, to check what was accomplished for the day and what had not been accomplished as planned.

Irene told me that at the beginning of the year she did not ask the children to copy down the daily agenda as they were not ready to write. She had the agenda written on tag board set on an easel. She would read the agenda aloud in the morning. She also had it copied on ditto sheets. Gradually, she left out parts of the agenda from the ditto sheets and would ask children to fill them out. Children soon were saying, "I know how to write that!" Soon she was writing the agenda on the blackboard and children were copying it in their agenda journals.

Usually the daily agenda listed things to be done by the students, the teachers and any special events such as music or library. An agenda (Vol. I, p. 73) for a typical day looked like this (see Figure 9):

May 29, 1991		
<u>Me</u>	W e d n e s d a y	<u>Mrs. H.</u>
Agenda		Opening
Equator		Read
Spelling test	Mrs. F	
Read		
Math		Dad's
Journal		day
		Music
		Library

Figure 9. Irene's daily agenda

Activities for the day were listed under "me" (the student) and "Mrs. H" (the teacher). If other teachers were coming in, their names were listed, and any other special classes were listed too.

Instructional Materials. Irene relied heavily on children's literature books, and alphabet books in particular. One of the reading teachers, Stacy, had a keen interest in finding good books for the class and contributed greatly toward that. The "cereal box" books (trade books placed inside empty, alphabetized cereal boxes) were changed every month when Stacy brought in a fresh supply from a local public library. A chart was maintained to identify

which cereal box book (by its corresponding alphabet) each child is to read for the day. These books seemed to have a special charm for the children due to its abode within the cereal boxes.

Three to four times a day students could read or were read to. Irene had a set of encyclopedias in her room which children were encouraged to scan through, or look at the pictures.

Irene used simple objects to teach different concepts. She used an apple to teach the concept of quarters cutting the apple into four equal parts. She then extended the concept to currency, showing how a dollar bill could be cut into a quarter with the quarter coin equal to one quarter of a dollar. It would be unlikely for children to forget such a lesson.

Social Skills. One of the first needs of the students was to get to know each other, as the children had come from different classes of kindergarten. Another of Martin's books, Brown Bear, Brown Bear, What Do You See? was used during this time, and the class wrote their own book entitled, "First Graders, First Graders, What Do You See?" Later, during one of my observations, I found the class reading this book, with each member of the class responding to what they saw. For example, the class would read, "Linda Lee, Linda Lee, what do you see?" and Linda would respond by reading, "I see a frog, sticking out its tongue" (Vol. I,

p. 88). The activity not only helped the children get to know each other by names, but also helped in improving sight reading. The sentences had been dictated earlier by the children themselves.

During this initial unit, a deliberate attempt was made to have the children become acquainted with the megaskills and standards to live by, which were posted on the walls. The "equator", the place in front of the classroom for the whole class to sit in semi-circle, became the learning ground for social skills. Children had given the name "equator" for this special place from their theme book while discussing coconuts and the fact that they grow in tropical places close to the equator.

After sitting in her class several times, I realized that there was a minimum of discipline-related problems in the class. Whenever Irene wanted order in her class, she would say, "Boys and girls, active listening," and she would make the "L" formation with her fingers for active listening. Soon the children were raising their own active-listening sign and the class would quiet down. When there was unusual noise in the room, she would shut off the light for a second to get their attention.

It was only much later during my observation of her class, that I heard her referring to the "time-out corner" by the entrance. (Amusingly, this was where I was seated most of the time during the observations.) To Irene and her

children, the time-out corner was the place where one needed to visit to assess one's behavior. When the child was ready to return to be a responsible, vital part of the group, he/she could join the group again.

Irene found greater discipline problems on the playground than in the classroom. I wondered if the principal's remark to me about his plans to have the standards to live by written outside the building facing the playground had anything to do with this issue. One thing that Irene had discovered during the workshop in observing Kovalik teaching children was to tell the child who was not engaging himself, "I'm going to tell you the truth; you need to work hard." Irene had been using this type of descriptive sentence without being critical.

The first few weeks of school were important in creating a "bonding" among the children and between children and the teacher. She had found that, once these feelings of trust and responsibility were developed in her children, very few discipline problems arose during the year. Bryan, who had joined the class later in the school year, had a difficult time because he had missed the initial instruction in social skills.

Cooperative Learning. It took about three weeks to make workable groupings in the class. During these days, Irene closely observed the behavior of her students, their interactions with each other, and their performance in

studies. In the groups of four or five children, she had at least one low and one high achieving child. The groups remained the same for the whole year.

Teacher's Role. I observed frequent interactions between Irene and the children. For example, the "sharing time" at the "equator" was a mutual sharing of special things that happened to every one, including the teacher. There was also cooperation between her, the reading teacher, and the teacher aide.

Outreach Activities. A field trip to the zoo was one of the highlights of the year. Irene found her class developing a compelling interest in insects and animals. One day the class went outside to find insects and found several varieties of them. This is an example of one of the outreach activities that provided first hand learning experiences to the children.

Teaching Techniques Used. Though children had seated themselves in groups, cooperative learning activities within these groups were rarer than whole group activities. There were language arts strategies that I found her using. The use of "anticipation guides" (a type of prediction method used for reading) was common. She also used role playing. For example, one day she asked children to act out and show the meaning of spelling words.

Assessment of Student Performance. Friday-folders helped to inform parents about the progress of their children. A sturdy envelope contained the daily agendas for the past week, spelling words for the next week, assignments done, a list of books read, a weekly school newsletter, a class newsletter, a lunch menu for the next week, and any upcoming events arranged by the school or the PTO and so on. The weekly agendas and assignments were returned, signed by parents, and filed in the classroom. First suggested by Irene to the principal, the whole school used the Friday-folders which were valuable to the parents, as indicated by the results of the parent survey given at the end of the year.

There were two parent-teacher conferences during the year: one in the Fall, and the other in Spring. "The attendance had been phenomenal," according to Irene (Vol, I, p. 121), in referring to the 96% parent participation at both sessions.

A Sample Unit

When I expressed the desire to write about a sample unit of her theme, Irene described to me one of her favorite units, which happened to be the first one she had used for the year--Martin's Alphabets. The key points and inquiries of this unit were planned by Irene, as the monthly planning days with team teachers were scheduled after school started.

During this unit, they had books on Hawaiian alphabets,

and a friend from Hawaii sent a real coconut to them. They not only had the experience of seeing, touching, smelling, and tasting the coconut, but the experience lent itself to a variety of math activities. These included calculating the price and weight of the coconut, and the height of the coconut tree. Irene recalled similar unexpected activities happening quite often, many of them arising from the children's own interest and teachable moments. One of them took place while they were reading the books The Very Hungry Caterpillar and The Very Busy Spider.

The children became obsessed with an interest in insects. The New True Books series that were in their cereal boxes contained books about insects. The children would come and show her pictures of insects. Seeing the gleam in their eyes, Irene would take the class out to look for insects. Her teaching experience in the fifth grade had given her the needed expertise with insects and she was able to identify quite a few insects in the neighborhood.

Children drew various pictures of insects such as butterflies and labelled their life cycles. One day a cercropeia caterpillar came into their room, which turned into a pupa and stayed in the room through the fall and winter. Later, just before school closed, the children were curious to know why it had not yet turned to a moth and so had pulled it out of the ceiling. Though it was still alive, it was not fully formed to break through. The class

did some research on the typical cycle of cercropeia and concluded that the temperature level in the room was not ideal for it, or it possibly needed more time to develop. I was in the class that day, and the class seemed upset that their wish to see the emergence of the moth had not been fulfilled. But they learned much from the whole experience.

For spelling, about half the words were selected from the basal-used Dolch words (a set of 150 sight words that are most commonly used at elementary level) and the remaining from the trade books they were using for the theme. Spelling tests were given once a week to check the progress of the children. Since first graders were not given letter grades, it was convenient to make a qualitative assessment of their performance. For example, the students' work was assessed as being outstanding, satisfactory, or unsatisfactory.

One of the key points in Irene's unit was for the children to learn that Bill Martin and the illustrator of his books, Eric Carl, were real people. In September, when Martin came for a one-day presentation to a nearby county, Irene was able to attend it.

The children's interest in learning about the names of different states and capitals came when they read The White Dynamite and the Curly Kid, the story of a little girl who was a performer and visited many places. I observed several times (Vol. I, pp. 68, 69, 73) Irene pointing to the map and

reminding the children of the names of states and cities, using memory devices such as the like link-word method. For example, to help children remember that the capital of Washington state was Olympia, she said that it sounded like "Olympics."

Unique Features

One thing that stood out in Irene's class was the use of "teachable moments." She did not feel restricted by time. She confessed that she was not able to cover all that she had wished to under the theme. But there were instances of unanticipated learning in the class. For example, while the class was reading a poem about the zoo, they came across the word "pelican." The reading of the poem had to be stopped for a while as the class discussed pelicans; the children shared what they knew about pelicans (they had seen them at the zoo during their recent field trip). Their interest grew so much in that subject that soon I found children looking for information in the World Book. Though these first graders could not read and understand all what was written about it, they identified the book (under alphabet "p"), and looked at the pictures, and were seen asking more questions about it.

Transition from one component to another was done in a unique way. Irene used the theme book Chika Chika Boom Boom as the spin-off area for her components. After completing one component, the class would read the theme book and then

go to the next component which fitted the particular aspect of the theme book.

Euphoria and Anquishes

Freedom to do the theme and not just follow the pages of traditional textbooks was the most exciting thing about ITI for Irene. She thrived on the pattern of one activity lending itself to another related activity. Parents told of how children were really interested in what was happening in school. The comments of several parents concurred with this: "This format has helped my son feel better about himself. . . . There is a learning environment here, they help each other"; "Kids are excited about the program"; and "I don't know how kids can get along this well in school. The room is very different. My son likes his teacher" (Vol. I, pp. 66, 67).

With the excitement and euphoria came also new challenges and pain. The amount of time needed for preparation was indeed a problem for Irene: "The difficult part is the amount of time that I need to put in. I had to do a lot of shuffling around to find books" (Vol. I, p. 8). She noted that she had two significant changes for the year--change of grade from fifth to first, and the change to ITI which might have caused the extra load. She found it overwhelming at first; and "There was a lot of initial pain," but admitted that she had been able to manage well so far (Vol.I, p. 8).

Plans for the Future

Irene had plans to incorporate other subject areas, such as science and social studies, under the theme. Though in different ways her theme had already lent itself to science, social studies, and math topics, no deliberate planning was made during the year to integrate these subjects.

Rose Bower

The Person

There was never a question in Rose's mind about being a teacher. Her father had always encouraged her to complete college. She started teaching immediately and after two years began graduate work. After completing a Master of Arts in teaching, she had no desire to attend any classes. But since the ITI workshop last year (1990), she has attended several other workshops and has plans to attend more classes and workshops. She had been teaching for 16 years.

Rose enjoyed reading a lot. Other than mystery books, which she read for pleasure, she also read quite a few educational books (including all the books recommended by Kovalik), and read some of the latter during the silent reading time in her class. She also read a variety of journals and magazines.

Her other hobbies included cross stitch and aerobic exercises. Her 14-year-old son needed her attention too, as

her husband stayed out of town in connection with work and came home only on week-ends.

Rose's Class

Rose's second grade class consisted of 24 students. Children were seated in groups of 4 each; thus there were 6 such groups in the room.

Past and the Present Compared

Like most of the teachers in her school, Rose found herself doing a number of alterations in her class during the year. She had been in the same room for the past 16 years and was used to the competitive type of classroom with each child doing his or her own work. As Rose recalled, "'Everybody do their own work'--I used to say that a hundred times a day" (Vol. I, p. 2). She had not tried cooperative learning in her class before.

Another thing that was very different was the bypassing of basal readers and the use of children's literature, instead, for reading. As she said, "My kids are reading from children's books and we are not doing any work-sheets or dittos. . . . My whole method of teaching reading has completely changed" (Vol. I, p. 2). Using the thematic model, co-planning, and co-teaching were also new to her.

Rose felt she had truly needed a change. She was attracted to the program for its inclusive learning aspect,

had not liked her students leaving to go to the resource room.

Implementation of Components

In observing Rose's classroom and interviewing her periodically, I gained many insights into her planning and implementation of ITI. She often took time to explain to me what she was doing, and it helped me to better understand both her and her teaching.

Yearly Theme. Rose's second-grade yearly theme was "Follow Those Tracks." She had the components planned as monthly units as shown in Figure 10.

Sep.:	People tracks
Oct.:	Fruit, vegetable and leaf prints
Nov.:	Tracking a letter
Dec.:	Paw prints
Jan.:	Tracks in the snow
Feb.:	Vehicle tracks
Mar.:	Train tracks
Apr.:	Tracks in the desert
May :	Dinosaur tracks

Figure 10. Rose's theme components

On the front wall, above the chalk board, was the display of her theme and the components.

Rose had an idea of what her yearly theme would be even before the Kovalik workshop which was held during the summer

of 1990. Earlier, during the spring, the local project director had conducted five sessions introducing the concepts of ITI. During these sessions, teachers from other schools implementing ITI talked about their themes.

Subsequent brain-storming sessions led Rose to come up with the theme; the components slowly evolved as she worked hard at it. A few of the components were derived from the second-grade materials. For example, the unit on dinosaurs came straight out of the second grade textbook, a unit generally liked by children. The unit on tracking a letter was derived from the required letter-writing skills for second graders; the fruit and vegetable unit was taken from the four food groups of the science lesson (Vol. I, p. 81).

Other components were added to make it a balanced program, at the same time integrating language arts, science, and social studies. To complete the requirements of the "required" curriculum, she needed to teach several concepts separately from the theme. Answering a question about integrating math (although she had done several activities involving math in the theme), she said, "I found math the hardest to integrate" (Vol. I, p. 81).

In general, Rose had seven to twenty key-points for each of the units. She was keen on being on track and did not deviate a great deal from the planned objectives. She was able to cover all the components she had planned for the year.

Choices. Students had choices within inquiries, as contrasted with Irene's classroom. Projects could be research work resulting in oral reports or written reports, or activities such as puppet shows. Certain projects were required of all, such as making an Indian mask. Rose knew that everyone would enjoy doing it and could do it.

Immersion in the Theme. When I visited Rose during the unit on "dinosaurs," the classroom had large pictures of dinosaurs on the walls and on the glass windows. A variety of dinosaur models were on display; the children had made dioramas of dinosaurs with modelling clay which were displayed on low cupboards by the windows. They had watched a video on dinosaurs and by the chalk board was a dinosaur outline with spelling words written within it. Poems about dinosaurs were written on large drawing sheets and hung at different places and there were several books on dinosaurs which children could scan through or read. Immersion in the theme was evident all around.

Whenever a transition of unit took place, Rose changed the room setting noticeably. When she changed to the unit on train tracks, for example, she had her room arranged with pictures of different types of train cars, pictures she had taken of trains, calendar pictures of trains, and brochures sent to the class about trains. Large posters were also used when possible. During the unit on fruit, vegetable and leaf prints and large cellophane apples were stuck to the

glass windows. One of the four bulletin boards was allotted for theme-related materials.

The daily agenda was a typical part of Rose's room. Before leaving school for the day, she took time to make the agenda for the next day and wrote it on the chalk board. A typical agenda had activities for "me," "group," "buddies," and "Mrs. B" (Vol. I, p. 63). An example of a daily agenda in her classroom is given below in Figure 11.

BUDDIES		ME
Spelling	WEDNESDAY	Agenda Journal *DEAR
MRS. B	GROUP	
Reading	Daily news Dinosaur mail Music Wildlife conservation 2 x 3 = ? Songs	
*Drop Everything and Read		

Figure 11. Rose's daily agenda

One of the first things children had to do in the morning was to copy the daily agenda in their journals. At the end of the day, each had to write what he or she liked best that day.

Instructional Materials. Rose seemed to make use of a wide variety of resources in her class. Children's literature books were the most abundant resources in the room. The "cereal box books" were replaced every week and children tried to complete the set before it was removed. Stacy, the reading teacher in the room, and Rose went every Thursday to two different libraries to get the books they put in the cereal boxes. Rose kept a record of all the books used for classroom reading in her notebook.

Though her own class did not possess any World Books or other encyclopedias, she borrowed these from other classrooms and the school library whenever needed. Magazines such as Ranger Rick were frequent sources of information, and articles from these were used for class activities.

Other than the myriad of books the children were surrounded by in the class, Rose had several resource people come into her room several times during the year. Some of these included such presentations as: (1) a mail carrier came in to talk about her job (during the unit on tracking a letter); (2) a woman from the humane society talked about being kind to animals (during animal tracks); and (3) a state trooper came in and illustrated making foot prints using plaster of Paris (during people tracks). Besides these occasional resource people visiting the classroom, Rose had regular volunteers helping with reading and

assisting during special activities that required extra supervision.

Games and manipulatives were also used in the class. For her math class, I observed the use of colored chips and unifix cubes. Each child in the groups were provided these math manipulatives. Children were given number charts and were to cover up every fifth number (counting by 5s) or every third number (counting by 3s) with the chips. Unifix cubes were used as visual aids in counting. I observed children helping each other with counting and sharing chips during this time.

Social Skills. Charts of "megaskills" and "standards to live by" were posted on the walls of the room. The major means to develop these social skills in a definite way came through the "magic circle" which met on Monday. When it was magic-circle time children pulled their chairs to the front of the room and made a circle for sharing time. Rose had started this activity during the first month of school.

Frequently during this time she would remind children of the standards to live by and what they meant. I observed quite a relaxed interaction with laughter and giggles. They shared some of the special happenings during the past week. Some children brought things for "show and tell."

As Rose recalled, almost half of the class used to pass and not share during those initial days (Vol. I, pp. 53, 84). I was surprised and pleased by the amount of sharing

that took place in the group when I observed. Though a few children passed during the first round, they had something to share when given another chance.

The bonding that took place during these sessions, the values of active listening, trust, truth, no put downs, and doing one's personal best were inculcated during these sessions. Rose agreed that the effect of such an interaction might have minimized the discipline problems in her room (Vol. I, p. 80).

From my observation, I gathered that Rose's strong and firm personality added to the reduced misbehavior in the room. If there were any discipline problems, Rose liked to solve them right in the classroom. She did not like to send students to the office for disciplinary problems. In general, she felt that second graders were excited about school, were eager to learn, and best of all, wanted to make teachers happy. The situation could be different for higher grades, she added (Vol. I, p. 84).

Cooperative Learning and Inclusion. To facilitate cooperative learning, Rose had seated the children in groups of three to six. She used the sociogram method to group the children. Each child was given a card and asked to write the names of three people they would like sit to next to, one of which should be a boy, another a girl, the third either a boy or a girl. She guaranteed that at least one of those persons would be in the group. Then looking at that,

and making sure that a balance of low and achieving students were in different groups, she developed the groups. Every month the groupings were changed. According to Rose, "nobody ever complained" about the grouping (Vol. I, p. 84).

Group members had to choose the roles of each member before beginning an activity. The responsibilities of the members during one of my observations were those of runner, writer, encourager, and reader. Rose asked the class, "What does it sound like when you work in your group?" before beginning the activity. Children answered: "Won't be angry," "Won't be yelling at each other," "We will be cooperating." She also reviewed the responsibilities of each role. For example, she asked, "What will the encourager do?" A child answered, "Come on, you can do it!" The runners usually got the supplies for the group.

The most coveted role was the writer's role. In several groups I observed a time of confusion, with most of the children wanting to be writers. The group had to solve their own problem, as Rose insisted. Most groups resolved the problem by each member taking turns writing a sentence or two.

Children also often worked in pairs. Buddies, as they were called, especially worked on learning spelling words.

At the end of a cooperative group activity, Rose asked for feedback on how the group functioned. Typical responses

were, "We took turns writing," or "Talking about the baseball accident slowed us down" (Vol. I, p. 57).

Rose had two special-education children (one left the school eventually) in her class. It was difficult to differentiate them from the rest of the group. Rose and the reading teacher, Stacy, were found to zero-in on these children often. There were several others who also needed special attention and the teachers rotated among these often.

Teacher's Role. Rose was assisted in the classroom by Stacy four times a week for 50 minutes. Stacy also helped with planning, making inquiries, and searching for books for the "cereal boxes." I also observed her helping Rose during closures. The special education teacher, Janice, worked for 20 minutes with the special-education children in her resource room daily, while the rest of the class did silent reading. At the beginning, Janice had gone into the classroom and worked with the whole group as well as with the special-education children. But after a month she felt concerned about the special needs of these children and preferred teaching them separately during the silent reading time.

Social and Outreach Activities. Rose's class participated in several political action and outreach activities. Children wrote letters to troops during the war

in Saudi Arabia and got replies from them. They also corresponded with clubs connected with environment or museums. Children were thrilled when, in response to a letter to Mrs. Bush asking for a paw print of her dog, a photograph of President Bush, Mrs. Bush, and their dog was sent back!

One of the special activities during the year included going to the post office. Each of the students had written a letter to him/herself and then the class mailed these letters at the post office. Later, they saved the stamps from these envelopes and began a stamp collection for the class. Other activities included: (1) visiting an apple orchard and picking apples, (2) visiting a nature center during winter, (3) snow shoeing there, and searching for animal tracks on snow (they found rabbit paw marks), (4) tracing footprints of all in the class (the principal's as well) and graphing the sizes (guess whose was the biggest?), and (5) taking a train ride to the city to visit a museum.

One of the most exciting activities took place during the last Monday of the school year. The whole class went out carrying shovels and dug out the items they had buried during the beginning of the school year. There were items such as an apple, paper clips, and plastic and metal articles inside socks. The excitement of digging out these articles was almost beyond control of the students. Once

taken out, they investigated the changes that had taken place on the different materials.

Teaching Techniques Used. Several reading strategies were observed in Rose's class. These included Anticipation Guides (usually used at the beginning of a new unit), SSR (Silent Sustained Reading)--used every day, DEAR (Drop Everything and Read), and Buddy Reading.

Closure. During the year Rose conducted three closures, which usually came at the end of a unit. Let me describe one of the closures, which also happened to be the last of the three, that took place.

Scheduled between 7:07 and 8:08 p.m., the second-grade room was filled with parents and relatives when the program started (about 60 parents and friends were in the room, as I counted). Activities included songs, poems, and stories related to the unit on dinosaurs; the children participated in groups or individually. A slide show of the highlights of the year was followed by Rose's acknowledgment of help of a parent volunteer as well as the reading teacher, Stacy. The announcement by the principal of finding dinosaur eggs on the school playground got every one curious. The mad rush to the playground ended in finding the surprise dinosaur eggs (water melons) and everybody had fun eating the watermelons imagining they are dinosaur eggs.

Assessment of Student Performance. Usually the evaluation of student projects, oral reports, and assignments was done subjectively. Using the criteria of correctness, completeness, and comprehensiveness, Rose would give a grade based on a scale of 1-10. She discussed the performance of students with Stacy whenever possible. Spelling and math tests were conducted the traditional way. Since she didn't have to give letter grades to second-grade students, she tried to make her evaluation as subjective as possible.

The collection album that each child had been working on since November was a big attraction of the class. Children could select any theme-related topic for this. The aim of the project was for the child to become an expert on the topic. The train album made by Billy was one of the first to be submitted and it contained 33 pages of pictures, information, brochures, tickets, and photos of trains. I was impressed by what I saw. Derick's album had materials on two topics: dinosaurs and the environment.

Every Friday the folders that were sent home with school news, the class newsletter, student agendas, and student assignments helped parents keep up-to-date with children's progress. The student assignments were checked by parents and returned on Monday, the next week. There were two parent conferences during the year. "Every parent

has positive feelings about what is happening in school," Rose said to me (Vol. I, p. 69).

A Sample Unit

The unit I chose to describe is one of Rose's favorite units: Tracks in the desert. This unit, the second to the last one, assigned for April, happened to be the newest unit. She explained to me how it all happened. Originally she had named the unit for April "The Mysterious Tracks" thinking of covering some children's literature on mystery stories. But when the class was experiencing the unit "Tracks in the Snow," in January, the idea came to her that a similar study about plants and animals of the desert would be excellent.

Planning for the unit on the monthly planning day began with Rose reading much about the desert, mainly from encyclopedias. Since the school library was not equipped sufficiently, planning sessions were held at another township library. During these sessions, Stacy, the reading teacher, helped her with finding resources, books for children to read on the topic, and so on.

From reading on the topic from many books, Rose developed the key points. For this unit she had eight key points. Then together with Stacy, Rose wrote down the inquiries, about three to four, for each key point, using Bloom's taxonomy of verbs. They made deliberate efforts to

provide varied activities, keeping in mind the different strengths of the students.

Choices usually came within the inquiries. For example, children could choose between a desert animal or plant to work on. They could choose to make a picture book, do an oral report, or do a puppet show. One of the outstanding projects, Rose felt, was the picture book made by a child on "road runners" (Vol. I, p. 82). Children had to read their picture books to the class after completing them. Most of the children chose to do picture books, however, two children did oral reports, and two did puppet shows. Certain projects were done by everyone.

An example of a key point in this unit on desert is: "Oasis is a fertile area that lies near springs or underground streams. People develop underground streams through irrigation." Following are two examples of inquiries to help children learn this key point: (1)
Level--Comprehension--Describe what a desert is like; include oasis and irrigation. (To be done in the journal.)
Level--Evaluation--Predict what would happen to an apple tree to be grown in a desert. (Draw a picture of an apple tree on the drawing sheet provided and write the prediction in a sentence).

Several cacti were on display in the class during this unit. Children were encouraged to look, touch, and feel the

different ones and get first-hand experience of cacti. There were no special out-reach activities for this unit.

Unique Features

One of the impressive parts of Rose's teaching is her organizing abilities. She maintained folders which contained all the theme materials and list of books read by the students. These folders saved her much time.

She was able to complete, with satisfaction, all the major components of her theme, unlike several other teachers who found it difficult to do so this first year of ITI. She tried not to deviate from the topic at hand. To her, successful teaching is "all the planning" (Vol. I, p. 87).

Euphoria and Anguishes

The positive effect of the program on children was what Rose was most excited about. Talking about the change, she said, "Kids are able to find information on their own; they are thinking about these outside school time and looking for information in books, newspapers, and comics. [I] never had that experience before" (Vol. I, p. 61). She said that she had grown so much during the year. She knew so many children's books now. Though she had taught for fifteen years, she said she had only superfluous knowledge about different topics. But now she was learning more thoroughly about them because of the amount of reading and research that was done in preparing for the classes (Vol. I, p. 62).

Rose often found herself caught up in the middle between teaching basic reading skills and content. "This was the hardest part," she said, remembering what Kovalik had said about teaching content and putting skills where you needed them. But she felt that she had to do the opposite--put skills first and content to teach that (Vol. I, p. 81). At lower grades this was one problem teachers would face, she felt.

"It was totally overwhelming though, for me," she said. "There were different changes I had to make." She further added that the only thing that did not seem to work out well was the coordination between her and the special education teacher (Vol. I, p. 81).

Plans for the Future

One of her plans was to combine two of the theme components--vehicle tracks and train tracks--but would keep the whole theme in-tact. She hoped that a better role definition for the special education teacher could be developed so that they could work more cooperatively.

Rose planned to go on with the program in the future. In her words "I'll never go back" could be found the hope and confidence she had in the program.

Summary

In summary, this chapter deals with the description of the context and implementation of ITI in one school. The

units analyzed were the school (demography, school climate, getting in touch with ITI, support systems, students, and teacher characteristics) and the teachers. Implementation of ITI is described both in general and in detail.

CHAPTER 7

IMPLEMENTATION OF INTEGRATED THEMATIC INSTRUCTION AT HUTCHINS ELEMENTARY SCHOOL

Introduction

This chapter discusses the implementation of Integrated Thematic Instruction (ITI) in another school context. The purpose of describing another school context of ITI is obvious. While similarities in implementation of the program could be identified between two school situations, variations and traces of uniqueness might also be observed. Therefore, it is my intention to describe the contextual factors of ITI including school demographics, school climate, teacher characteristics, student characteristics, staff development and training, and administrative and community support.

My purpose here is to show, through describing another school context of ITI, patterns of implementations that were similar. It is also possible to distinguish variations of implementation. These similarities and variations may be discerned between teachers as well as between schools. Such a description will help portray a more complete picture of ITI as implemented by teachers.

The School--Hutchins Elementary School

Demography

Located in a quiet part of the town but within the city limits, Hutchins Elementary School stands as one of the centers of learning for the young ones in the area. On the first visit to the school, one may find it difficult to locate the building since there are four main buildings on the campus. On the outer side of the campus are two buildings housing the middle school, on the inner side, away from the entrance, is the elementary (Hutchins) school and between the middle school and the elementary school is an On Campus Suspension (OCS) building shared by both the schools.

Hutchins Elementary School is part of a school district with approximately 2500 students. This K-4 elementary school, together with another K-4 elementary school, the middle school (5-7), a junior high (8,9), and a high school (10-12) form the community schools.

The community schools have been under a court order for desegregation. Thus, since 1981, the school has been taking transferred students from a nearby district. During the current year (1990-91), Hutchins school had about 90 black students bused daily in this connection. The total student population of 488 at Hutchins consisted of 74% (356--180 male and 176 female) Caucasians, 20% (94--34 male and 60 female) Afro-Americans and 6% (38--21 male and 17

females) Hispanics. Thirteen school buses are used to transport children back and forth between school and home. The population of the locality, predominantly white, is of average socio-economic status. People here are engaged in a variety of occupations from fruit farming and small industries, such as paper mills, to large factories.

Built in 1954, the building is a single-storied building with four wings. Wing 1 has 4 first-grade classes, three second-grade rooms, offices, teachers' lounge, and rest rooms. Wing 2 consists of one second-grade room and three fourth-grade rooms. Wing 3 has three third-grade rooms, gym/cafeteria, library and speech therapist's room, time-out room, and rest rooms. Wing 4 contains one developmental kindergarten room, two kindergarten rooms, the music room, and two special education and reading teachers' rooms.

Within the building are 17 home-rooms:

1 Developmental Kindergarten (with morning and afternoon shifts), 2 Kindergartens (with morning and afternoon shifts), 4 first-grades, 4 second-grades, 3 third-grades, and 3 fourth-grades. The average number of students in each class is 24.

The 17 regular classroom teachers are assisted by 3 special education teachers, 6 full time and 1 part time Chapter I teachers, 1 PE, 1 music, 1 media teacher, and 1 counselor. The non-teaching staff includes six aides, four

cooks and food service workers, two secretaries, and one custodian. The one full-time principal assumes two major roles--instructional leader and manager.

During the school year 1990-91, the second year of implementation of ITI, all teachers except one were implementing the program. For 11 of the teachers, this was the second year of ITI. A few teachers from the other buildings of the community schools also implemented the program.

School functions on a 8:50 a.m. to 3:15 p.m. schedule, except for the kindergarten classes which has a morning (8:50-11:30) shift and an afternoon (12:30-3:10) shift. Morning recess and lunch timings are staggered to accommodate the different grades. Teachers take turns supervising recess and lunch.

School Climate

It was easy for me to feel at home in this building which had an open, bright, and cheery emotional climate. The large, brightly colored wall-murals, by the left side of the main entrance, depicted a tropical forest of animals and birds with children playing with the animals. On the right-hand wall of the entrance was a picture of a boy holding a trophy, and captioned, "Study hard, the reward is worth the effort." I constantly looked for evidences of support and goodwill and found it in many instances. Several times during my observations I had been to the school as early as

7:30 in the morning (teachers had to be present by 8:20) and would see the office busy with activity. The office secretaries were in early and several teachers were in early also preparing for the day's classes, either in their own rooms or in the library. The custodian, a veteran, was obviously in even earlier than anyone else. He felt that though the students these days are somewhat different compared to students of "those good old days," basically the school was still a nice place to work (Vol. II, p. 88).

Examining the mission statement of the school helped me understand the thrust the school had toward collegiality and togetherness. The mission statement said:

Our Hutchins Elementary staff will create and maintain a positive and safe learning environment where all students have the opportunity to maximize their social, emotional, physical, and intellectual potential. We will promote skills, values, and attitudes which will enable students to lead fulfilling productive lives.

One of the bulletin boards by the office was for displaying photographs taken during closures of different grades. I saw eager children smiling and pleased while looking at their pictures there. On another bulletin board were newspaper clippings of outstanding school activities; it also displayed general school announcements. Newspaper clippings of various outstanding activities of students, both school and community related, and achievements of the school were often posted on this board.

Staff meetings were held once a week. Other than these general meetings, sub-committees such as school improvement

committee, and language arts committee met on a regular basis. The principal "Tries to keep the meetings between 20 minutes and half an hour" (Vol. II, p. 89), which were usually held during after-school time. There was open communication during these committees, and as a teacher said, "The meetings are so informal" (Vol. II, p. 89).

I had seen the satisfaction and pride swelling on the faces of Helen Sands, a second-grade teacher, and her students when they were recognized in the newspaper for reading over 2000 books. During the first day of my visitation, this class had met us in the hallway and the teacher shared with us the joy of reading her classroom experienced (Vol. II, p. 90). Outside their classroom walls was written, "Home of the 'Super Readers' of Hutchins Elementary School. Since October 1st, we have read 2709 books! We're feeling proud! . . . Everyone in our room earned a Pizza Hut certificate" (Vol. II, p. 91).

Being unfamiliar with the floor plan of the building, to find my way around the building was a problem at first. Things became easier for me when the principal gave me the map of the school.

The office was a busy place, especially in the mornings before school began. Regardless of the many other things they had to do, the office secretaries patiently waited on the teachers, parents, and students who came by the office.

They had time enough for me, too, and helped arrange the schedule for teacher interviews and observations.

One of the goals of implementing the program was to build the self-esteem of the teachers and the students, according to the principal (Vol. II, p. 96). He felt this was being achieved by the end of the year. There were indications of job satisfaction and interest. There was open communication between the principal as indicated by Millie Reed, a Kindergarten teacher, when she said, "I can go to Charles for anything. I can say this is to be done. If you have a plan in mind, he usually goes along" (Vol. II, p. 6).

Student-teacher interactions observed outside the classrooms were mixed; there were smiles and hugs but also reprimands for disobedience, and for being too noisy in the hallway. Classroom interactions were varied; in most classrooms teachers and students displayed ease of communication and showed mutual respect.

Getting in Touch with ITI

The decision to implement the program was made by the principal after discussions with the project director, district coordinator, and the teachers. During the first year (1989-90) of implementation, 28 teachers from the school district volunteered for the training of which 10 were from Hutchins school. The next year, the second year of implementation, 12 more teachers from the school (4 of

which were newly employed), joined the program. Thus, during its second year of implementation, all classrooms, except one first grade, were implementing the program.

Support Systems

The power and the vitality of the teachers to go on with the program came from different sources. These sources were the Intermediate School District, the local school district, the principal, peers, and the community. These support systems were useful in helping teachers persevere and find for themselves what could be possible if they tried.

Intermediate School District and School District Support, and Training

A substantial amount of support of the program came from the Intermediate School District (ISD). The director of the local training program was an ISD official. Funding of the program came from a federal grant--\$54,000 in 1989 (first year) and \$24,000 in 1990 (second year). A continuation grant of \$16,000 is allotted for 1991. Support of the program came through funding, provision for substitutes during planning days, and ongoing staff development activities. Federal funding provided the initial training sessions, the subsequent staff development activities, substitute pay (during planning days), and materials and equipment. The project director from the ISD

and the project coordinator from the school district worked very closely to make the implementation as uncomplicated as possible for teachers.

Principal Support

The role of the principal is always crucial in a school situation, particularly while a new program is being implemented (Heald-Taylor, 1989; Hopkins, 1990; Ornstein, 1986). Teachers at the school felt the strong support of the principal. Rita Hancock, a second-grade teacher said,

Charles (the principal) is so supportive of our program. I don't know if I would have been able to do (it) without the support from the administration (Vol. II, p. 8).

Referring to the principal support, another teacher, Pat Cooper, said, "Oh excellent! Couldn't do without that. He has given us the freedom. He has empowered us. He lets us really try things" (Vol. II, p. 37). Trained in the program himself, the principal seemed to understand and encourage teachers to try new things. When I asked the principal what made him confident about implementing this new program, he said that in the past he had introduced new procedures, though in "bits and pieces." Since he found the teachers trying and becoming successful before, he was confident this program would work well, too (Vol. II, p. 97).

Peer Support

Watching and listening to teacher interactions in the library, hallways, teachers' lounge, playground, and

cafeteria revealed the friendliness and support of peers as well as the frustrations and helplessness of not being able to coordinate with others. It was typical for most teachers to have lunch together in the lounge where they talked about home and school and indulged in typical gossip sessions. During my full-day observations, I often had lunch with these teachers. On some days the principal joined in. Some talked about problems they faced in their classrooms and others shared ideas that they found useful. There were a few teachers, though, who did not participate in this lunch-room experience. My curiosity got the better of me as I wondered why these teachers did not come to this "socializing time." Inquiries and observations revealed that some of these teachers preferred working lunches and were seen either in their own classrooms, or the library preparing for classes.

Since there were several teachers who had used the program last year, the teachers using the program for the first time this year had support from this earlier group. Talking about this type of support, a second-grade, first-year teacher said, "Pat has stopped in (my classroom) a couple of times. She was very positive" (Vol. II, p. 23)

Teachers' comments such as the following indicated open communication and sharing found within the teacher group:

There is a lot of communication. Everyone is willing to share their ideas. Even during planning days--we second grade teachers share ideas. The communication is very good (Vol. II, p. 23)

I share my teaching (ideas) with other teachers and do problem solving too. . . There is a lot of support in this school. I am always finding things in my mail box. All the teachers around here have a copy of everyone's themes. Then if they find something that another could use, they are willing to share (Vol. II, p. 2)

Referring to the support from other teachers who were not necessarily part of the planning group, Beth White, a second-grade teacher talked about another teacher who came into her classroom to watch her, "She would walk by my room and I would ask her to come in and watch. . . . And even other teachers, we talked about teaching in our faculty room" (Vol. II, p. 23).

Sharing the closures with other grades was a unique feature of the group. As one teacher pointed out during the two closures she had organized, "All the third grades came, all the second grades came in and all the firsts. Our class shared a poem with another class" (Vol. II, p. 23).

Community Support

The support of parents was evident through a high attendance rate at the fall open house with 60% attendance, and two parent conferences with 81% attendance and 90% attendance. Closures (totalling more than 35) were attended by a total of 849 parents and relatives. Parent volunteers were included in classroom learning, in the library, during field trips and excursions, and during closures. In the annual school report, it was indicated that a total of 1220 hours were donated by parent volunteers toward school

activities. These hours were spent by volunteers in classroom assistance, and daily assistance in the library, especially with the filing and sorting of books.

The formal Parent Teacher Organization (PTO) was a strong support for the school. According to the principal, the PTO "is very active" and gives a helping hand in different ways. It took part in various fund raising projects, allowing each classroom to have \$100 for field trips. Its members helped with myriads of arrangements and activities connected with closures (Vol. II, p. 97).

There was support from several community business enterprises. Donations of both materials and facilities for the use of the students were made by several of these enterprises. For example, one of the bowling centers had allowed the children to go bowling for free. "Partnerships for Education," a community organization to "foster involvement between Hutchins school and its supporting community by creating mutually beneficial partnerships" (Vol. II, p. 105) was re-established during the current year. During their yearly meeting, agreement was made for mutual support and pledges were signed by the principal, business enterprises, superintendent of the district, and a teacher representative.

Students

The student population consisted of Whites, Blacks and Hispanics, as explained earlier. Thus there was a wide

range of culture and ethnic backgrounds represented. Academically, students might be viewed as heterogeneous, according to the principal (Vol. II, p. 97). Since the implementation of ITI, there had been gains in the reading and math achievement of students. The percentage of students achieving satisfactory performance in standardized tests had risen since last year from 89% to 93% in math, 60% to 66% in story selection, and 26% to 37% in information section--the two strands of reading test, since 1990.

The program seem to have brought a definite improvement in the self-esteem of the students. "Though the increase in self-esteem could not be measured in numbers, it was evident in day-to-day activities. This is true of both teachers and students," said the principal (Vol. II, p. 97). My own observations confirmed this. I observed that special education students felt included, and it was not always easy to differentiate between special education children and the others by observation of classroom interactions. As the principal indicated, the gifted and talented children had their roles changed from being detached to one of sharing and at the same time, they could see and appreciate the different abilities of others as well (Vol. II, p. 97).

Teacher Characteristics

Demographics

The 15 teachers that I studied at Hutchins Elementary School seemed to be a group that was energetic and cooperative. The group consisted of 14 females and the teaching experience of teachers ranged from 1 year to 35 years. A summary of the demographical information of the group is shown in Table 4.

Psychological State of the Teacher

As described in detail in chapters 3 and 6, the psychological state of individual teachers was determined from a semi-structured interview (Growth State) based on studies of Joyce and McKibbin (1982), and from three questionnaires, Gregorc's (1982) Style Delineators, Rand Corporation's (Armor et al., 1976; Berman et al., 1977) teacher efficacy measure, and Hunt, Butler, Noy and Rosser's (1977-78) Paragraph Completion Method questionnaire to assess conceptual level. Statistical findings were aligned with descriptive accounts, such as observations and interviews of individual teachers. A summary of this data is presented in Table 5.

Table 4

Hutchins Elementary School
Teacher Demographics

Teacher	Gr	Ge	Ra	Ex
Joyce Stern	DKG	F	B	7
Millie Reed	KG	F	W	8
Norma Hood	1	F	W	1
Nancy Press	1	F	W	1
Helen Sands	2	F	W	10
Jenny Powell	2	F	B	10
Rita Hancock	2	F	W	3
Beth White	2	F	W	1
Pat Cooper	3	F	W	5
John Summers	4	M	W	7
Wendy Pratt	4	F	W	12
Kim Good	C	F	W	15
Lin Ashburn	C	F	W	35
Dixie Milton	S	F	W	20
Ann Moss	S	F	W	15

Gr = Grade taught

Ge = Gender

Ra = Race

Ex = Years of Teaching Experience

Vi = No. of visitations--observations & interviews

C = Chapter I

S = Special education

B = Black

W = White

F = Female

M = Male

Growth States. The teachers seemed to be a moderately active to very active group of people. In general, this might be quite a unique situation, as no reticent type of people were found. All 15 teachers seemed active from the interviews I had with them. Observing their interactions with each other in sharing ideas and materials, and their collective enthusiasm and synergy invested in trying the new program, confirmed this.

Efficacy. Based on the responses to the two Rand items, 14 of the 15 teachers were classified into the four efficacy belief pattern groups. The response of one of the teachers fell outside the point ranges of the four patterns, therefore could not be included in the analysis.

Eleven teachers were classified in response Pattern 3 (a combined score of 8-10 points). These teachers showed the belief pattern "teachers can; I can." Three teachers were classified in Pattern 4 (5-7 points, where the first Rand item equalled 1 or 2 points). These teachers exhibited the belief pattern "teachers can't; I can."

From the analysis of the efficacy scores, it was evident that this group of teachers held high levels of efficacy, having confidence in their ability to overcome teaching difficulties. They believed in themselves and their ability as teachers. This again, is an important characteristic of the group of teachers that needs to be recognized.

Learning Styles. Using the Gregorc-Style Delineator (Gregorc, 1982a), it was found that 8 out of the 15 teachers exhibited either a Concrete Random or Abstract Random mind style, which is rather unique; there were 6 with Concrete Random style (2 out of these had bi-modality) and 5 with Abstract Random style (1 had bi-modality). The remaining 5 had Concrete Sequential style (1 had bi-modality) and 1 had Abstract Sequential. The group, in general, needed less structure and was able to deal with varied activities.

Conceptual Levels. Measures of cognitive processes of teachers were taken using Hunt's Paragraph Completion Method (Hunt et al., 1978). Eight out of 15 teachers had a score of 2 or above, 5 were between 1.5 and 1.9, and 2 were between 1.2 and 1.4. From this information, it might be inferred that the group, in general, was flexible to changes.

A summary of this data is found in Table 5.

ITI Training

All the teachers implementing ITI were trained in the program. They had joined the training on a voluntary basis and were not obliged to use the program after the training. Except for one teacher, all had a one-week training session with Kovalik, and a one-week local training conducted by the local project director Carol Weber from the ISD. The local school district strongly supported the training and the

subsequent inservice sessions. They had several monthly follow-up sessions with the project director where they talked about their achievements as well as the problems they faced while implementing the program.

In general, teachers expressed positive feelings about the effectiveness of the training. One of the new teachers who started her teaching this year with the program said, "The standards, the megaskills, the theming, I am using everything I learned at the workshop" (Vol. II, p. 23).

General Teacher Implementation of ITI

During the five-month observation and the frequent informal interviews with teachers, I collected information which helped me understand what ITI looked like in classrooms. There were similarities and differences in using the components of the program. First, let me present a general summary of the observations. Later, I will describe the classrooms of two teachers in particular.

Table 5

Data on Psychological State of Teachers
at Hutchins Elementary School

Teacher	L	C	G	E
Rita Hancock	CR	1.8	A	9
Joyce Stern	CR/CS	1.8	A	8
Norma Hood	CS	2.5	A	6
Wendy Pratt	AR	1.0	A	6
Millie Reed	CR	2.0	A	8
Lin Ashburn	CS	2.3	A	8
Nancy Press	AR	2.0	A	10
Helen Sands	AR	1.5	A	8
Pat Cooper	AR/CR	2.0	A	9
Dixie Milton	AR	1.8	A	7
John Summers	CS	1.7	A	10
Ann Moss	CR	2.0	A	9
Jenny Powell	CR	2.2	A	8
Beth White	AS	1.2	A	9
Kim Good	CS	2.0	A	6

L = Learning style CS = Concrete Sequential
 C = Conceptual level CR = Concrete Random
 G = Growth State AS = Abstract Sequential
 E = Efficacy AR = Abstract Random

 A = Active

Use of ComponentsUse of Yearly Theme

All the classrooms that implemented ITI had yearly themes. Typically, the theme display was made in a prominent part of each room with the topics and subtopics. The themes for the 11 classes that I observed were:

1. DKG--Animals
2. KG--Rainbow connections
3. 1st grade--Bears (three 1st grades used the same theme)
4. 2nd grade--Making tracks; Cycle; World of big and little; Learning is fun every day
5. 3rd grade--Creatures understanding the earth
6. 4th grade--Disney's magic kingdom; Water

Integration of subjects was done on varying levels. There were single subject integration (language arts) as well as multiple subject integration (language arts, social studies and math, science and language arts, etc). There were plans of more complete integration, as Millie Reed, the KG teacher said, "I will continue to build on what I have done" (Vol. II, p. 7). Another teacher said:

My kids do key points and inquiries for everything we do. At the beginning of the year I focused on me doing with them. Now they do inquiries on their own where they have to get information from books and other materials.

Use of Multiple Resources

Most rooms contained an abundant supply of books. Some of them were equipped with World Books and encyclopedias. For example, in one of the second grades there were two sets of encyclopedias. The library was well-stocked with books (around 10,000 books) and other materials such as videos and audio tapes which were frequently used in classrooms. The library assistant and classroom teachers frequently coordinated in setting up multi-sensory, theme-related activities for children during "library" time. Teachers were seen using special materials as science and reading kits borrowed from the ISD media center.

Physical Set-Up of the Classrooms

During my observations I saw that, except for one class, all classes had group seating arrangements. In the other room, cooperative learning took place in the afternoon and then the arrangement was changed for group work. Theme displays were posted in all the rooms. Bulletin boards, glass windows, and walls were used to display items and pictures related to the theme.

Group-work, Inclusion, and Social Skills

There were evidences of group work in every class. Though some teachers felt the need for more training in cooperative learning, they felt the inservice training and the use of books on cooperative learning were useful at

present. Most of the teachers consistently used the concepts of cooperative learning from the two books-- Cooperative Learning: Resources for Teachers (Kagan, 1990), and Tribes: A Process for Social Development and Cooperative Learning (Gibbs, 1987).

Considering the inter-racial and mainstreaming set-up of classrooms, cooperative groups facilitated working on common tasks on an equal-status basis. Referring to the effect of inclusive learning in cooperative groups, Rita Hancock, a second-grade teacher said:

One of my special ed child [sic] Jason came to me, and hugged me and talked to me. . . . And he said, 'Thank you for taking me out of special ed, I am not dumb anymore.' So he is going to learn so much more, because he [feels he] is not dumb anymore. (Vol. II, p. 9)

Another teacher said,

Our classrooms are almost a haven for some of these children. You know they come from such difficult home situations and they are coming into a classroom where they are accepted by their peers, they have their own learning groups like their little family, and they are going to be welcome. (Vol. II, p. 31)

Friendships between regular and the learning disabled children was evident in daily interactions in classrooms as well as playgrounds. An evaluation study (Green et al., 1991) of the program conducted simultaneously with my research, corroborated with my observations. In the evaluation study, each student was asked to nominate someone in the class the student would like to sit near in case classroom seating was to be changed. The results of the

sociometric results showed that the program promoted "widespread social interaction among students" (Green et al, p. 18), though the greatest social preference was for regular students by regular students as well as chapter I and special education students.

One of the important aspects of the classroom was the emphasis on social skills. Expressions such as: "Time for active listening" (with the 'L' symbol made with the index finger and thumb), "Are you doing your personal best?", and "What megaskill would be needed to do that?" were heard frequently reminding children of the standards to live by and megaskills.

Teacher's Role

Most teachers taught in teams at least part of the day. Teams also worked together on planning days as well as on week days. The special education and chapter I teachers usually helped with planning the key points and inquiries. There were a few teachers who were implementing ITI for the second year and using the same theme. The special education and chapter I teachers who worked with these regular classroom teachers found that their role had changed slightly this year. Dixie Milton, a special education teacher said,

My role has changed a little bit this year. Last year key points and inquiries, we did together. This year they are using the same theme. That role (planning key points and inquiries) is being replaced by trying to

find interventions for helping slow learners. (Vol. II, p. 16)

Assessment of Pupil Learning

Assessment of student learning was basically done in traditional methods using test scores. Letter grades were given to students at the end of each marking time. Most teachers felt that the grading system needed to be changed; one teacher commented, "I hate this grading system. We should assess for mastery which means everyone should get an A" (Vol. II, p. 23). Scores were also given for individual and group projects. Teachers maintained separate group scores and individual scores.

Outreach Activities

Classrooms engaged in outreach activities several times during the year. Trips to nature centers, planetariums, museums, zoos, farms, and orchards were made by classes. In one classroom, where they were learning about the six classifications of animals, personnel from a nature center brought different animals that the class classified. Another class went to the zoo where they were shown animals that changed colors in their natural habitat. The class was studying about colors.

Learning Strategies

The use of whole language approaches and use of children's literature in reading were noted. Cooperative

learning was used in each classroom in varied forms and frequency. Direct instruction was in limited use and I realized that Kovalik (1989, p. 41) had recommended that direct teaching be limited to 11-16 minutes an hour. She added,

By limiting my direct instruction to 11-16 minutes, I am then free to move from group to group to obtain feedback on how individual students are understanding the assignment. . . . I respect their time and efforts and know that the most important things I might say to them are likely to occur one-on-one as I circulate around the classroom. (p. 42)

Choices

Students were allowed to choose inquiries from a selected number of options. For example, in a third-grade class, students were given the choice to do class presentations of the inquiries they worked on in different ways: oral report, poem, and diorama. Another class, a fourth grade, could choose inquiries from different levels of Bloom's Taxonomy for points; thus the higher the level, the higher the point and the more the number of inquiries chosen, the more the points earned.

Unique Features

The unity among teachers was unique. They made both their grievances and their excitement known. Everyone seemed excited about the program and none wanted to go back to their previous ways of teaching. A teacher commented

about it, saying, "I don't think I will want to go back" (Vol. II, p. 34).

The inclusion of special students and regular students was one important part of the program that seemed to make a difference. "I love keeping them in the classroom. I feel that they are not being labelled. None of my kids know who my chapter I kids are. They can tell who the good readers are but none are labelled," said Rita Hancock, a second-grade teacher (Vol. II, p. 9).

Another unique feature was the sharing of themes and planning of similar grade teachers. There were two first-grade teachers, for example, who shared a common theme-- bears--and planned very closely with each other.

Hutchins school was designated as a "model school" for the implementation of ITI by the ISD. Twice a month visitors interested in the program came in to observe teachers and to talk to them. As many as 489 visitors had visited the school during the year. Visitors included parents, teachers, and administrators from seven of the districts of the county, but also from 15 other counties. Thus, the school site was special in more than one way.

Problems

In general, the program was viewed by teachers as something different and effective, but the problem that most of them found was the difficulty is finding suitable materials. As one teacher pointed out, "We don't have all

the materials [that we would like to have] and don't know where they are" (Vol. II, p. 2). Not knowing where to look for materials was a constant problem and much time was used in searching for the right kind of materials. Another said, "It's a lot more work" (Vol. II, p. 18).

Another problem that teachers faced was acceptance of the program by parents. To help parents be aware of what was happening, a teacher suggested, "We need to involve more parents in our program" (Vol. II, p. 18).

As a beginning teacher, Norma Hood was very stressed at the beginning, but she said, "I know how much the kids were getting, it motivated the kids and me to keep going" (Vol. II, p. 22). Another first-year teacher recalled the beginning experiences with the program, "It was very stressful; I had an awful time. I was going home in tears every single night" (Vol. II, p. 21).

Working with other regular classroom teachers had not been very easy for special education teachers. As these special education teachers pointed out,

In some classrooms the teacher wants to be the planner of the entire thing. I look them over and try to offer suggestions. I try not to get explosive. . . . I have to work really hard to work cooperatively with these teachers. Some teachers still feel those are 'your kids and not mine really,'--I have heard this. (Vol. II, pp. 16, 17)

You have to be willing to play the second fiddle or the third fiddle and I am willing to do that. Whenever that doesn't happen there is conflict. I have seen the conflict when somebody is not willing to take the back-seat. (Vol. II, p. 15)

Trying not to put each other down is an area that still needed attention. I still see teachers putting children down, and children putting children down. But I see us growing. (Vol. II, p. 17)

Special education and chapter I teachers worked with at least three regular classroom teachers. This had caused some unforeseen problems during the earlier part of implementation. For example, as each class was to have three closures per year, the special education and chapter I teachers had three times the number of closures to help plan and assist. That became overwhelming for these teachers.

Plans for the Future

Over the past two years the program has helped to increase self-esteem of both teachers and students. In the words of the principal, "There is definite increase in the self-esteem of both teachers and students in this school" (Vol. II, p. 97). A continuation of this trend was one of the goals for the coming year. Also expressed as a goal was an increase in parent/school interaction as expressed in the annual school report.

In-Depth Teacher Implementation of ITI

To focus on teacher implementation, I will describe the classroom interactions of two teachers, Jenny Powell and Pat Cooper. The description comes from the observations and the interviews of these teachers as well as surveys and archival records of the school.

Jenny PowellThe Person

As Jenny recalled, earlier in her life she wanted to be a physician rather than a teacher. In college she majored in science and at graduate level, she studied family life. During her college studies she had a chance to work with children. She remembered her experience, "Every time I did something with kids it was very rewarding because it was a new problem to solve" (Vol. II, p. 58). This exposure helped her realize that teaching was what she should do.

As a child, Jenny did not enjoy schooling very much; she said, "I felt lonely. I felt that I was intelligent enough but just could not transfer . . . over to convince my teachers" (Vol. II, p. 57). The very same displeasure that she experienced in her elementary school life became Jenny's burden and she went into teaching with a desire to help little ones who had problems similar to hers when she was young (Vol. II, p. 57).

This was Jenny's tenth year of teaching. Her current interest was in multicultural education. She was awarded a scholarship grant from the state and she was writing a book based on multicultural education. Other than reading scores of children's literature for classroom purposes, Jenny read for fun every day as well as for professional growth. She wrote music and was a professional singer. Her musical

abilities enriched her classroom and made it interesting and lively.

During the year she had been called to make several presentations about the program during inservice training and in teacher education classes of the surrounding universities. One of the earliest exposures to ITI, that I received, came from Jenny's inservice presentation. She spoke about her belief in a philosophy for learning called the "Learner's Manifesto" :

1. Brain is always learning
2. Learning does not require coercion
3. Learning must be meaningful
4. Learning is incidental
5. Outcomes of worthwhile learning is obvious
6. Learning always involves feeling

Later during the year when I observed her classroom, I found evidences of her belief in these ideas.

Jenny's Class

Jenny taught one of the four second grade classes at Hutchins Elementary School. There were 22 students in her classroom--8 boys and 14 girls. Children were seated in six groups or "families", as Jenny referred to them, with each group having four to five members. The room was spacious enough for group activities and moving around.

Past and Present Compared

For Jenny, this was the second year of teaching in an ITI classroom. When she looked back at her previous eight years of teaching experience, there was so much that was similar to the principles of ITI that she had been using in her classroom. She said,

Over the years I have been teaching students in a holistic fashion. Personally I never see things in part, I see things in a holistic fashion. So ITI only satisfied my inner yearning to see students learn the way I perceive things (the holistic way). (Vol II, p. 58)

Commenting on the question of the kinds of adjustments she had to make to use the new program, she said, "I really did not have much to adjust to" (Vol. II, p. 59). She commented that the "program has enabled me to come out of the closet and do with confidence what I had been doing behind closed doors" (Vol. II, p. 59). She also added,

With this program, I am permitted to allow inspiration to enhance the art of teaching. Every time I teach a new concept, it is like running a race. I try to beat my old record. That's what ITI has permitted. (Vol.II, p. 61)

I went to Jenny's classroom to observe how she practiced the different components of ITI. I was able to participate in observation not only in her room but also out on the playground, during a picnic, and during a closure. Jenny felt free to answer any questions that I had about the program and took time to clarify points that needed to be cleared. The following is a summary of my findings.

Implementation of Components

Yearly Theme. The theme in Jenny's second-grade classroom was "Cycle." She defined theme as "An outlet through which all of my ideas flow, it's spontaneous" (Vol. II, p. 61) She considered her theme as an appropriate theme for the class and felt that it could cover a spectrum of topics in language arts, science, social studies, and math and tried to integrate all these subjects under the theme. The bulk of planning, according to Jenny, was done during the initial training workshop (Vol. II. p. 108).

In explaining the concept of "cycle," Jenny said that it was about things and events that happened over and over again. The theme was divided into monthly components or topics. These topics were:

1. Animal cycle
2. Cycle of me
3. Cycle of African Americans
4. Cycle of Europeans and Indians
5. Holland, the city of cycles
6. Cycle of celebrations

Key points and inquiries in the topic "animal cycle" included butterfly, Canadian geese, salamander and snake. Children designed their own projects based on areas of interest to them. As I visited her room, I found displays of dioramas of ducks and geese that the children made. The topic "cycle of me" dealt with key points based on "social

me," "cultural me," "physiological me," and "emotional me." The key points in the "cycle of African Americans" consisted of countries of Africa, African-American history, current and future issues. The closure that I witnessed at the end of this unit depicted in a very touching way the essence of this unit. Children had put on a play of American history. The "cycle of Europeans and Indians," along with African history were no longer fragmented concepts, taken out of context, but whole and connected (Vol. II, p. 108).

"Holland, the city of cycles," had key points on windmills and the history of Europe. Finally, the "cycle of celebrations" comprised six cultural celebrations--Nativity, Hanukkah, Kwanza, Feliz Navidad, St. Nicholas, and St. Lucia--which were studied during these holiday seasons.

The theme and the components were her own ideas. Key points and inquiries were selected by a combined effort of the planning team during the monthly planning days for each component. Inquiries were written using Bloom's Taxonomy.

Often she reminded the class of the different levels of thinking that were being used during her teaching. For example, during an oral language lesson about "contraction," she began, "Today we are going to use comprehension and analysis." She then asked the students what comprehension and analysis meant and what their differences were. A child's answer for what comprehension meant--understanding what is said--seemed to be a smart answer for a second

grader. Jenny illustrated with examples the differences between comprehension and analysis, especially for those who did not know the difference. The lesson continued with contractions as she used these levels of thinking in the lesson.

Choices. Jenny found working on inquiries a little different for her second-grade students. Children were too young to choose the inquiries on their own and she said, "I had to direct them in their selection of inquiries" (Vol. II, p. 109). Both individual and group assignments and projects were designed to carry out the inquiries.

Immersion in the Theme. The classroom showed evidences of immersion in the theme. The cycle theme was displayed with a large cycle symbol on the wall. Pictures and artifacts of topics they were studying were displayed in different parts of the room. During the topic on "Cycle of Europeans and Indians," for example, Jenny had a small-sized log cabin as well as a canvass tepee set up in the room. The room had the look of a museum during the study of African Americans, as she had brought in 250 African American cultural artifacts, including an authentic African chief's chair, loaned by a local museum. The children experienced a fantasy trip to Ghana, Africa, right in their classroom; this event was televised by the local TV station.

Writing the agenda on the chalk board was one of the first things that Jenny did in the morning. Children had to copy the agenda on paper as soon as they came into the room. More than one reason was behind the writing of the agenda by children. She said, "It helps in eye-hand coordination. The agenda provides student with a sense of wholeness. We cross-out items as we cover them during the day" (Vol. II, p. 108). A typical daily agenda appears in Figure 12.

Agenda	
March, 1991	
<u>Me</u>	<u>Us</u>
*D.M. Spelling test Spelling Syllables Oral reading	Music Reading test Fractions Africa
<u>Teachers</u>	
Powell -Kim	
*Daily math -Student teacher	

Figure 12. Jenny's daily agenda

Instructional Materials. Children's literature was a major part of Jenny's teaching. These books proved more than a substitute for basal readers. These books were also

used as sources of information on theme-related topics. Books in the classroom were color-coded for the different reading levels of children. A chart showing children's names and the corresponding color codes was displayed on the chalk board. Magazines such as National Geographic and Ranger Rick were also used in the classroom.

The use of manipulatives, especially in teaching math, was observed. Jenny was assisted in her classroom by a student teacher this year, and Jenny was a mentor teacher to her. They both seemed to work together very well.

Social Skills. During my observation, I found Jenny spending a considerable amount of time helping children become aware of social skills and making sure these skills were put into practice. The classroom standards (the Standards to Live By) and the megaskills charts were on the wall and often she referred to these in her teaching. She used role play to make the points clearer. Usually she would role play herself (she was good at that) and then ask a child to do the same.

Rather than calling out the names of those who did not listen actively, Jenny called out the names of those who were listening. It was typical of her to say, "I appreciate the way you are giving me your attention" by calling out the children's names. On a day when the class was practicing for a play, as some children got restless, she reminded them, "What social skills should you be practicing now?"

Children answered, "responsibility, common sense." They seemed to understand what these meant as the interruptions disappeared.

Cooperative Learning. The students were grouped into "families" in her room. There were six cooperative groups of four or five in each. She often called the group by that name as she did one day during attendance time, "Who is missing in your family?" (Vol. II, p. 64). Jenny considered that these groups were really "support groups" to encourage each other (Vol. II, p. 108). During group activity, tasks were assigned to different members, such as writing and drawing. For example, during their study of the digestive system as the group members discussed the process of digestion, a member wrote down the procedure, and one or two members helped draw and color the picture of the digestive system. The whole group made a presentation of their work. "Presentations were made only after the group mastered the concept," said Jenny (Vol. II, p. 108).

Generally children took turns with the roles. Jenny said the whole idea of group work was to capitalize on one's abilities as well as to learn the other abilities from others (Vol. II, p. 108).

Teacher's Role. Jenny moved around the room freely during class time. From the interactions in the classrooms it could be said that she assumed the role of a facilitator

rather than that of a traditional "know it all" teacher. She planned and taught with the reading teacher and special education teacher who came in every day for a half hour to an hour. The student teacher who was in the room during the latter part of the year felt that Jenny was highly supportive and accommodative.

During the monthly planning sessions, the planning team worked very closely. They not only worked on the key points and the inquiries in general, but also discussed how to effectively involve the slow students. The reading teacher and the special education teacher helped in finding the resource materials, (Vol. II, p. 65). The team also planned and worked together on closures and field trips; they usually accompanied the regular education teachers during the field trips.

Outreach Activities. One of the outreach activities of Jenny's class was a visit to an institution for senior citizens. The idea of kindness being a cycle was emphasized during this trip as the children were made aware of the kindnesses these old people had given to others; the children, in turn, needed to show these old people kindness too. Dressed in festive costumes of children around the world, the children sang songs, and read the poem "Kindness is a cycle" to cheer these older people.

Jenny shared her ideas also with the news media of TV, radio, and newspaper. She had written an article about the

program and her class in the local newspaper. Public interest had been created because of these presentations. Jenny was able to share at length the principles of her teaching to visitors who came to her class during the visitation days.

Another big event of the year was the "cultural meal luncheon." This was a cultural event that involved parents and family members. Parents had provided a multi-cultural meal that was derived from their cultural background. The meal consisted of German potato preparation, European salad, African rice, beans and corn, and so on. As Jenny put it, "It was a wonderful integration experience" (Vol. II, p. 109). Parents of children, as well as the entire staff of the school, participated in the meal which was sold at a reasonable price. This project helped raise over \$200 for the CYCLE club (Children who Yearn to Create and Learn Effectively).

The "CYCLE club" consisted of all the students in the class. To become a life-time "CYCLE club" member, students had to complete an "honors" project consisting of inquiries which were not mandatory for the whole class. During one of the closures conducted in the classroom, I witnessed an investiture service when awards were given to children who did an outstanding job on their projects. Award ribbons were presented to "CYCLE club" members, and T-shirts were presented to all the students in the class. I had seen

during the closure a few members of her previous year's club members with their T-shirts.

The class sent a weekly newsletter home. It had important announcements, achievements of different children, and assignments for the coming week.

Teaching Techniques Used. Other than direct instruction, Jenny used a variety of strategies in her classroom teaching. Cooperative learning, role playing, questioning, use of manipulatives, and the use of various reading strategies such as echo reading and vocabulary building reading were commonly used.

A unique strategy, called the PPP (Positive Personal Progress), was used to integrate different skills for the student. "This strategy has helped the children to be successful in reading," Jenny said. The color-coded books were read by the student, its main idea written in the journal, and a book report submitted. For each book read one dollar was given to the child. This money could be used in the class store which opened after 2:30 in the afternoon. The store sold modelling clay, short story books, special pencils, marbles, and games. "This activity," said Jenny, "covered research, handwriting, reading, comprehension, and math" (Vol. II, p. 109).

Assessment of Student Performance. Jenny maintained individual student portfolios. The packet contained test scores. Daily, Jenny assessed the student work by looking for comprehension, syntax, and spelling (in written work). When group work was involved, she assessed the group performance. The principle of grading that Jenny followed was "either you know it or you don't" and she did not like giving letter grades, but the system required it (Vol. II, p. 86).

Inclusion. The 11 chapter I children and the one special education child were part of the group set-up and took part in all group activities. Jenny was seen often beside these children and offering help.

A Sample Unit

The unit that I will describe is the "Cycle of Me." Jenny had key points based on sub-topics, "social me," "cultural me," "physiological me," and "emotional me."

A special mirror was placed on the wall below the caption "special person." When a child looked at the mirror that child became the special person. There was also a picture of a large tree with roots to teach prefixes and suffixes. To teach spelling words which were based on families (roots), me and self-esteem, the same tree was used.

A "Me Booklet" was made to help children understand their "roots." The child's pictures, birth certificate, finger prints, family tree, inventory of self-esteem, and a sample of handwriting were included in this booklet.

This project lent itself to social studies when children had to write about their family history based on the family tree. Parents helped children in this. For math, the study of facts of addition, subtraction, and multiplication, concepts of even and odd numbers, and greater than and less than, were considered as families and that which occurred in cycles.

Unique Features

The spontaneity of teaching and the use of teachable moments were what I saw as very special in Jenny's class. There was also encouragement of the sense of self-esteem in the class. For example, if a child answered a difficult question right, Jenny encouraged every one to clap. She was warm and friendly with children who felt free to hug her.

Euphoria and Anguish

Jenny felt satisfied with the program and said that this program was something that had been needed (Vol. II, p. 58). She felt that though the co-planning and co-teaching was going smoothly, there was room for improvement.

Writing lesson plans had been difficult for Jenny with the new program. She said, "I am not strong in that area, but I have come up with a format that works perfectly with me now. But to write holistic lesson plans, I felt, was very difficult" (Vol. II, p. 59).

One of the anxieties expressed by the reading teacher in the present situation of inclusive learning was whether the individual academic growth of slow learners was being taken care of. As Kim said,

Not every need (academic) of special education children will be met this way. They need more individual attention. . . . So basically we go into the classrooms in the morning and then in the afternoon pull the children out. What we are doing is to give them readiness ahead of time so that they can cope with the class. (Vol. II, p. 110)

Plans for the Future

Jenny had plans to change the yearly theme. She felt that she had worked with it for two years and that she needed a change. Ideas from the current theme would be incorporated into the new theme (Vol. II, p. 109).

Several times Jenny expressed her desire to help teachers. She hoped to be a mentor teacher for new teachers in the program. She was also working on the completion of two classroom resource booklets on multicultural education. She hoped to continue helping in inservice training and other presentations related to the program.

Pat CooperThe Person

Like Jenny, Pat also had not wanted to be a teacher when she was growing up. Taking a music major in college, she worked as a band director for 18 years. During those years as a band director she had the opportunity to teach vocal music in the elementary grades. Then as Pat said,

I realized what a nice world it was in elementary school and thought I would like to do that some time. Then I had a serious head injury which ruled out my being a band director and fortunately I had the training to do classroom teaching. It happened before I had really planned on it, but I really enjoyed it very much. (Vol. II, p. 27)

This was her fifth year of teaching, second year of ITI; Hutchins was the first school she had taught in. She attended three to four workshops per year.

Pat read most of the time to relax and she tried to keep up with the best sellers in fiction. She kept herself current by reading the newspapers and the magazines; Time, Newsweek, US News and World Report are what she regularly read. She sometimes watched TV, especially PBS, and listened to a lot of music.

With amusement Pat acknowledged that she had not participated in the complete training originally provided for the teachers in the building. Narrating her story, she said that at first she was not sure about using the program and did not sign up for the workshop. Later when she changed her mind and signed up, it was too late. Though she

did not attend the complete training, she went ahead and learned about the program mostly on her own and became quite proficient at using it, becoming one of its strongest supporters.

During the visitation days (mentioned earlier), visitors came in to observe her. She usually took time to explain the excitement of the ITI teaching model. To Pat's joy, Susan Kovalik herself visited one of the closures last year, when the latter came for a one-day workshop. That visit, as well as the reports of her classroom activities, seemed to have made quite an impression on Susan that she asked Pat to consider becoming one of her training assistants.

Pat's Class

The third grade that Pat taught was one of the classes that faced the library. It had 28 students and the seating of students was done in groups. There were six "stations", as these groups were referred to.

What impressed me was the deliberate attempt Pat made in making the room a "healing environment." Lustrous potted plants hung by the large glass windows. Often, as children came into the class in the morning, there was soft background music, and the light was kept dim. The electric pot of potpourri was on throughout the day, filling the room with a sweet aroma. Whenever I visited the classroom, I felt exactly what a visitor felt as she commented, "The

comfort of your classroom is wonderful. I would love working in this classroom" (Vol. II, p. 41).

Past and Present Compared

Looking back at her earlier methods of teaching, Pat realized that she had liked being very much in control of her classroom. She said, "I think my classroom was always a warm, friendly one, but I was very much in control; it was a nice quiet classroom" (Vol. II, p. 32). She had not liked the noise and so had very little group work in her room. Therefore, having to change to cooperative groups had not been easy for Pat. The greatest change in her teaching had been switching to cooperative learning.

Implementation of Components

There were components of ITI that were observable in Pat's classroom even by a casual observer. Being in the classroom 12 times during a seven-month period helped me perceive the typical pattern of implementation of ITI components in her classroom.

Use of Yearly Theme. The yearly theme in her classroom had been "Creatures Understanding the Earth" (CUE). Being very interested in science, Pat had selected this theme integrating science, language arts, and math. She still maintained a separate skill time for math and topics in

social studies were integrated as opportunities arose.

Figure 13 shows the details of the theme.

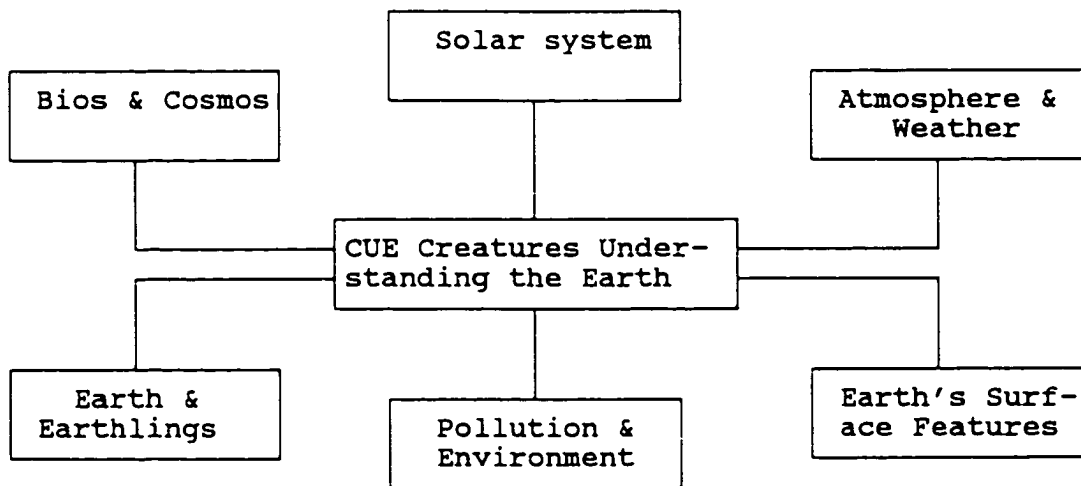


Figure 13. Pat Cooper's yearly theme

A large poster of the theme with its topics was displayed on the wall of the room. The theme display had an interesting touch to it with characteristic symbols and drawings beside each topic.

The school year began with the class as space aliens living in deep space, far from this solar system. The brochure that Pat gave out to her classroom visitors read:

We created our own planets and creatures, and we had a wonderful time naming them! One day, while out on our planets, we intercepted the space probe Voyager 2, and after studying the plaque with its symbolic description of Earth, and after listening to the record aboard Voyager 2 (saying 'Welcome to Earth' in 62 languages), we decided to head toward this interesting planet" said

the brochure that Pat gave out to her classroom visitors.

Several interesting acronyms were used in connection with the theme. For example, earlier in the year, after making passports and other preparations, children became official members of IGSPA (Inter-Galactic Space Agency) and were beamed aboard the starship "Empowerment"; then, when they came down to the earth during the latter part of the year, they became members of two subgroups of IGSPA: PSST (Planetary Scientists and Space Technicians) and EEEK (Earth: Exploring the Environment Karefully).

Choices. Morning hours of the day were more traditional and structured in Pat's class. It was in the afternoon that they worked on key points and inquiries based on Bloom's Taxonomy. There were at least six inquiries for each key point and the children could choose from those. Thus, as Pat said, the "Child has a wide range of activities to choose from and can find something he can do" (Vol. II, p. 33). When a child consistently chose similar types of inquiries, Pat had to intervene and help him/her choose another suitable inquiry. "Yes, I make sure that children engage in a variety of inquiries" Pat said (Vol. II, p. 41).

There were certain inquiries that everyone had to do. Pat added, "Children have really enjoyed working on their inquiries" (Vol. II, p. 42). Observing the class doing a research on storms, I came to know that this was true.

Looking at the list of things that children enjoyed doing during the year, as they wrote it, I found that the activities (inquiries, though children did not call it by that name) were what they liked best.

Immersion in the Theme. Even from outside the room, it was easy to identify Pat's room. A large model rocket and a space creature were by the door. There were satellites and fuzzy creatures hanging from the ceiling. Each of the six "stations" (where groups were seated) had name tags of the planet the group was working on, hanging from above. The bulletin boards displayed a variety of pictures and information on space, planets and satellites.

Some of the projects that children made were on display all the time. Shadow boxes of planets, rockets hanging from the ceiling, and dioramas of different storms were a few of these projects. There was a general feeling of immersion when one entered the room.

Instructional Materials. While working on the theme, children used a variety of reference books. The classroom contained a set of World Books. I also noticed that children brought from home other resource materials such as encyclopedias and magazines to work on their inquiries. I did not see them using any type of textbooks. Later Pat confirmed that they do not use any textbooks in the usual

sense, but if topics related to the theme were found in the textbook, then it became another resource book.

Social Skills. One of the characteristics of Pat's class and her teaching was the effective use of social skills. The special education teacher, Dixie Milton, who worked with Pat, was helpful in this aspect. Appreciation of each other and self was a daily activity for the class. For example, after a spelling test, if a child's score improved, he/she raised hand and told the class about it and the whole class clapped. Though it took only a few seconds, it helped in raising the self-esteem and trust.

Cooperative Learning. While working on cooperative activities, Pat used different strategies. One was the use of reflecting how a group working together will look like and sound like before the group started their cooperative work. During the group work she called for feed back on how each group was doing. This sharing encouraged everyone to keep moving along.

Grouping was changed four times during the year. It was interesting to watch the interaction among group members. I watched the groups assign tasks for the members. The secretary's job seemed to be the most difficult one and usually those who were good at writing were assigned that by the members. But Pat had mentioned earlier that roles should be switched and not the same person should do the

same thing all the time. So on a particular day, one group had assigned writing to a slow member. The patience and the support the other group members gave to that boy was incredible. Since time was running short, finally they decided to take turns in writing the information.

Teacher's Role. Since morning classes were traditionally structured, Pat practiced more direct instruction during that time. Student interactions were encouraged, though, with questions and feedback. During the afternoon theme period there was much flexibility in her teaching. She was seen moving around the class and checking the group work.

The special education teacher, Dixie Milton, and the reading teacher, Lin Ashburn, worked together with Pat. Lin was in the classroom daily for one hour in the morning while Lin came in for 45 minutes daily to help with reading. Since the class had a considerable number of problem readers, she brought in specially made theme materials for these and worked with these children in the room itself.

The team worked together on planning days, making key-points and inquiries as well as preparing specific materials for the slow learners. The team also worked together during closures and field trips. The teachers worked well together, as Dixie commented, "Pat and I plan together well" (Vol. II, p. 16).

Outreach Activities. Wherever possible, Pat attempted to provide first-hand experiences to students. The making of projects such as satellites, rockets, and dioramas of storms were in themselves rewarding and interesting. The trips to the museum and nature center in relation to the theme activities were useful. Several resource persons gave presentations on theme-related topics; one of the presentations was by a meteorologist.

Political action usually took the form of writing letters of concern or satisfaction to related organizations. For example, students wrote letters to NASA (during the unit on pollution and environment) asking what they were going to do about all the space debris.

Closures were a major outreach activity for the class. The three closures that Pat had during the year were elaborate and well planned. The closure that I attended at the end of the unit on planets was attended by all the students of the class and over 90 parents and friends. There were short presentations, skits, poems and raps, some of which were composed by the children.

Teaching Techniques Used. Cooperative strategies used in the class included activities from Tribes (Gibbs, 1988). There was direct instruction time, which did not usually last for more than 10 to 15 minutes an hour. Reading strategies KWL (explained in chapter 5), peer reading, and

small group discussions were frequently used in the class. Students worked individually on certain assignments.

Assessment of Student Performance. Projects and assignments were assessed for completeness and correctness; what Pat really looked for was mastery. There were separate grades for groups and individuals. Pat wished that she did not have to give letter grades, but so far no other system had been developed to replace that.

Inclusion. Each student in the classroom was given the title--doctor. When asking a student a question, Pat referred to the student by the title. There was a sense of pride and confidence in each face as they answered or commented.

Pat had five special education and six chapter I children in her room. It was difficult to observe any difference between the regular students and these students by casual observation. The self-confidence that each child displayed was amazing to me. Pat attributed the feeling of inclusion in her classroom to the cooperative group work as well as the time spent in sharing feelings in community-type activities. She said,

It has been wonderful for the special education and for the regular children to work together. They have been quite kind to each other. This has resulted from the kinds of things we are doing, like sharing our feelings in the classroom. We worked very hard at no put downs, and the children are confident that they are not going to be put down. They are not afraid to risk an answer. It's really paying now. (Vol. II, p. 38)

A Sample Unit

The unit that I will describe is one on atmosphere and weather. One of the first things I noticed was the change in the room features. The "stations" had new titles; instead of planet names they had different storm's names. There were three dimensional models of a blizzard, hurricane, thunderstorm, tornado, cyclone, and gale hanging from the ceiling above each station. The bulletin board had information on storms and pictures of these.

As a group, children conducted research on storms, and presented them as TV programs, skits, or raps. Because "tornado safety week" came during this time, the children worked on tornado safety rules and shared it with other classrooms. During this time, they did quite a few theme-related math problems. They also wrote poetry about storms.

The closure that came at the end of the unit was a "station closure" with different groups of students responsible for their own stations. Parents and visitors moved from station to station.

Unique Features

A distinguishing feature of Pat's class had been the healthy self-esteem and confidence that students displayed. Interaction between the teacher and the students was natural and friendly and they treated one another with respect.

Euphoria and Anguish

One of the most exciting aspects of the program for Pat had been the empowerment to write one's own materials.

Sharing her excitement with me she said,

I think this program has done wonders for the teachers' self-esteem; we are treated as professionals knowing what we are doing. We are not just handed materials and told to just teach. We are getting to make some decisions ourselves. We feel ownership of our program; this is our own program, we have made it. I think the level of professionalism is higher in the building than before. (Vol. II, p. 33)

Looking back at the problems that she faced at the beginning of the program, "getting materials was the biggest challenge," she said (Vol. II, p. 30), referring to the different levels of interest and learning that needed to be taken care of. Pat felt that it seemed overwhelming at first, especially in regard to pacing and time. She said,

When we first started, we expected things to move more quickly than they did, and we didn't know if we were pacing things correctly. We were not used to giving children time to achieve mastery. We were used to being pushed along a time-line, so it took time to adjust to mastery level work. I think you have to be really patient at first and believe that this program is the right thing. (Vol. II, p. 33)

Pat also felt that handling the integration of several subjects at once would be much too overwhelming for the first time and advised that one should start integrating one subject area (language arts, for example). She recalled Kovalik calling the program a "labor intensive model" and unless the teacher was willing to do it, it would not work.

When asked whether she would go back to her previous style of teaching, Pat said,

I was concerned (at first) about what I was doing. This was a big change for me. But now I wouldn't change back for the world! (Vol. II, p. 41)

Plans for the Future

Pat hoped to continue to use the program. She had been requested by Kovalik to be one of her assistants in training teachers. Pat looked forward to that assignment which she would take up shortly. She hoped to continue using ITI in her classes.

Summary

In this chapter I described ITI within the context of its implementation at another school--Hutchins Elementary School. Included in the context was the demographical background of the school, how the school got involved in the use of the program, the various support systems affecting the implementation of the program, a brief description of the students, and psychological characteristics of teachers. This was followed by a description of the implementation of ITI in general, and in particular. To do this, the use of various components of ITI was described. The implementation of ITI by two exemplars of users of the program, Jenny and Pat, was presented. These descriptions derived out of two major sources: observations and interviews, as well as questionnaires and archival records.

CHAPTER 8

SUMMARY OF ANALYSIS AND IMPLICATIONS

Introduction

This study was conducted to describe what Integrated Thematic Instruction (ITI) looked like in classrooms in the context of implementation. Through the previous four chapters (chapters 4-7), I presented a case study of ITI. This single case study of ITI was conducted to describe the program in operational terms as well as to describe the context of its implementation.

Several characteristics of the study made this an intriguing one from the standpoint of both theory and practice. ITI is a complex program; it incorporates several of the research-based educational practices such as brain-compatible learning, cooperative learning, whole language and main-streaming. There are conflicting findings regarding how complexity of the program affects implementation. Studies have shown that teachers resist complex, conceptual, longitudinal changes (Duffy & Anderson, 1984; Duffy & Roehler, 1986). On the other hand, studies have also shown that narrow treatments did not lead to enduring change (Berman & McLaughlin, 1976). This suggests, according to Berman and McLaughlin, that innovations with

comprehensive curriculum areas or those that require an overall change in teacher behavior are more likely to bring about change, other things being equal. It seems logical that if a change effort has many parts then more of it will endure than those with fewer parts.

It may not be possible to confirm whether the complexity of an innovation helps or hinders the implementation. However, Harrison and Glaubman (1990) have pointed out that compatibility of the components of the program is very crucial for its adaptation.

In this study, an effort was made to examine the critical components of ITI as it was being implemented in classrooms. To study such a complex program, a qualitative study was seen as ideal. While myriads of quantitative studies exist on innovative programs, comparatively few studies are done using qualitative methodologies, especially on innovative elementary school curricula.

Recognition that pure-type innovations are rare and that innovations can, and probably will, be adapted by different users to fit different contexts is a major implication of this study. Perhaps the most well-known study on adaptation of innovations, the Rand change agent study (Berman & McLaughlin, 1974), stands in support of this idea.

Implications for the world of practice are also presented in my the study. A complex program such as ITI

could be of interest to a wide audience including classroom teachers using ITI, or those planning to use it, teacher educators and staff developers, and researchers in the field of education.

The three main questions that guided the study were:

(1) What does ITI look like when implemented by the teacher? (2) What does the context of implementation of ITI look like? and (3) What variations are found in the use of the various components of ITI as different teachers implement it?

The study was conducted at two elementary schools over a period of nine months--October 1990 to June 1991. The basic design of the study was a single embedded case study, with ITI as the main unit, and schools and teachers as subunits of analysis. The data presented in the earlier chapters was obtained through direct observation, interviews, responses to surveys, archival records, and review of related literature. This chapter deals with the summary of analysis of the findings, and the implications.

Summary of the Findings

To present a summary of the findings, I will first describe the main unit of this case study analysis, (i.e., ITI description). This will be followed by the description of the subunits of analysis, the schools, and implementation of the program by teachers in these schools.

Findings on ITI Description

It was identified that practices of ITI have parallels with several other educational practices of the past and present. These include Dewey's Experiential Learning, Kilpatrick's Project Learning, the Montessori Method, White's True Education, Open Classrooms, Schools Without Failure, Unit Teaching, and Interdisciplinary Approaches. The educational philosophy that ITI is rooted in is pragmatism with its underlying concern for the learner and the environment.

The theoretical underpinnings of ITI are based on brain research, such as the Triune Brain Theory, the Proster theory, and the Theory of Multiple Intelligence. Its theoretical model is also established on two other areas: (1) instructional strategies and (2) curriculum development. Creating a brain-compatible environment for the learners, using discovery processes through strategies such as cooperative learning, and providing curriculum in an integrated and meaningful way are quintessentials of the ITI model.

After examining the historical, philosophical, and theoretical basis for ITI, I tried to describe the operational form of ITI. Through the procedures of Innovation Configuration (IC), a strand of the Concerns-Based Adoption Model (CBAM), I was able to formulate a configuration checklist for ITI, consolidating

findings based on (1) reading of ITI-related literature, (2) interviewing Kovalik, the originator of the program, as well as consultants and trainers of the program, and (3) observing and interviewing teachers implementing ITI.

To describe the classroom implementation of ITI, two elementary schools where ITI was used were chosen. A general description of its use by teachers as well as a focused, in-depth description of its use by two teachers in each of these schools were presented.

Findings on Schools Implementing ITI

As was mentioned in chapter 3, the school context of ITI was both varied and similar. The school population was smaller in Salisbury school (204) as compared to Hutchins school (488); the number of teachers also was proportionately more in the latter. The student population of Salisbury school was all White and included a very small proportion (5%) of special education students, while those at Hutchins consisted of White, Black, and Hispanic, and a larger proportion (19%) of special education students. Regardless of these differences, implementation of ITI was done with equal vigor and interest at both sites. The similarities in school context, as derived from observations, interviews, and archival records, included positive school climate and strong support systems. Hopkins (1990, p. 59) has reported that "the process of use is considerably facilitated by an open, democratic school

climate" and that a democratic school climate showed the greatest number of educational ideas. With the implementation of ITI, teachers seemed to be experiencing, just as Fullan (1991) noted, a bond of shared understandings and common language that sustains innovations and reduces the stress of change.

There was evidence (as derived from observations and interviews) of open communication within the schools as well as supportiveness of the administration--intermediate school district, the local school districts, and principals. Most teachers who participated in the study felt free to express their opinions and school-related concerns either formally in staff meetings or privately to the principals. In essence, teachers worked "in a climate where there is a discernible move towards a more democratic form of school management" (Evans & Hopkins, 1988, p. 220). Both principals were also trained in the use of the program and seemed to understand the process of implementation and teacher concerns of the program. I am reminded of the statement that Fullan made regarding the role of the principal in the context of effective school literature; he said that for successful improvement process there must exist "a feel for the process on the part of leadership" (1985, p. 400). This seemed to be true in both the schools.

Also evident was a strong community and peer support. Data gathered through observation, interviews, and parent

interviews showed that parents and other community members strongly supported the school and the new program. Collegiality and collaboration in both schools were enhanced through the formation of planning teams consisting of three to five members (regular classroom, the reading teacher, and the chapter I teacher).

The enthusiasm and active implementation of ITI as observed in these schools could be largely due to the positive effect of the planning teams. These teams, were co-teaching teams as well. Studies by Joyce, C. Murphy, Showers, and J. Murphy (1989), and Joyce and Murphy (1990) have established that organization of teachers into study groups improved implementation and student achievement. Recently, the study conducted by S. Gaikwad (1991) has suggested that the single most important influence for continued use of an innovation is the active participation of teachers and principals in such study groups. It could be possible, then, that such planning/teaching teams as those present in these schools would be a crucial factor for the continued implementation of ITI in these schools.

Teacher characteristics such as psychological, cognitive, and growth states were other aspects of the school context of ITI that were examined. Studies conducted by McKibbin and Joyce (1980) and Evans and Hopkins (1988) found high correlations between teachers' psychological

state and implementation. The important finding on this aspect of the study was the learning style of teachers.

In general, more teachers showed learning styles which were random in modality than sequential and this, I think, is unique. A majority of the teachers studied (16 out of 26) showed dominant random--either concrete or abstract--modalities which, according to Gregorc (1982a, p. 5), "enables one to deal with numerous, diverse, and independent elements of information and activities." That such personalities could affect implementation positively could be hypothesized. The principals had selected most of the teachers themselves. Combining this factor with the freedom and flexibility the teachers were allowed, this situation--teacher random thinking--may be justified. Whether such mind styles were shaped by the demands that environment places upon individuals to adjust to it, as Gregorc (1982a) further states, would also be interesting to know.

Findings on Teacher Implementation of ITI

The procedures used for collecting data on teacher implementation were observations, as well as interviews--both semi-structured and unstructured. The implementation of ITI, in general, at the two schools was both elaborate and deliberate. There were variations in use of the components of ITI across individuals as well as across schools. These variations were evident in the description

of the implementation of the components of ITI found in chapters 6 and 7.

Individual teacher use of components varied, for example, in the amount of integration and the number of subject areas integrated, use of out-reach activities, and use of cooperative learning activities provided. Use of components across schools varied, though not in any substantial way, except for the use of one component. This component was the use of relaxation strategies. While at one school relaxation strategies were used by several teachers in their classrooms, at the other school, teachers did not use this strategy in any significant way.

At this point, it is difficult to identify the difference between the Kovalik version of the ITI model and the adapted version of the ITI model being studied. Both the ITI models seem to have similar components. The variations were mainly in the emphasis given to components. For example, this adapted version of ITI emphasized the inclusive learning component (having regular, special education, and chapter I children in the same classroom), and thus the co-planning and teaching aspect of the program was built into it; it also had a thrust toward whole language and literature-based learning.

Implications of the Study

The descriptions of the classroom use of ITI and its context presented in this study are not exhaustive. The insights and experiences obtained from the study have facilitated the formulation of several implications for the areas of research and practice. These are presented below.

Implications for Further Research

I see several research possibilities deriving out of this study. Those researchers interested in these areas may find these suggestions helpful. The following are some important areas of research interest:

1. This study was a descriptive study of ITI in schools which were in the initial years (i.e., either in the first or the second year) of implementation. As such, further research during subsequent years at the same schools would make an interesting comparative study.
2. Individual teacher adaptation as well as school adaptation of ITI have been observed in this study. Similar studies at other sites using ITI will make interesting comparative studies.
3. With the use of the program description derived from the study, it will be possible to conduct evaluative studies of ITI. Such studies may be specially designed to see the student outcomes of ITI.

Implications to Staff Developers and
Change Facilitators

The results of the study have suggested the following implications for staff development programs; these implications may be applicable for ITI program specifically or any other innovation in general.

1. Comprehensive in-service training and on-going staff development activities were seen to be effective in the implementation process. This approach has advantages over the piece-meal approach that is often seen in training sessions.
2. Support from school and district administrators acted as a catalyst to teachers in the implementation process. It seems crucial to provide such support while implementing any innovation in general, and ITI in particular.
3. There was evidence (as gathered from interviews and observations) that the promoters of the program and the practitioners believed in the theoretical basis of ITI. Past research (e.g., Fullan's) has revealed that unless training involved a sound theoretical basis, there is less likelihood that the program will be practiced. This could imply that the theory part of the training should not be neglected.
4. This study used Innovation Configuration (IC), one of the dimensions of Concerns-based Adoption Model (CBAM) to assist in describing ITI. In other situations

involving implementation of innovative programs, the use of IC to facilitate program description may be useful.

Implications to Principals

As mentioned in the earlier chapters, past research points out the importance of administrative support, especially that of principal, in the implementation and continuation of change. The data obtained from the present study revealed enormous administrative support of the program. The following implications may be derived from the data:

1. Principal support greatly influenced the implementation of ITI as seen in the present study. The democratic leadership, as well as the training the principals themselves received, were important considerations. Similar qualities of the principal may have positive influence on implementation in other situations as well.
2. In ITI schools, teachers were empowered to create the curriculum based on their interest and students' interests and needs. Such a set-up seems to have increased the feeling of professionalism and self-esteem among the teachers. It could be possible that making teachers an integral part of the curriculum

decision making would help build positive attitude towards their profession.

3. The positive influence of the planning/co-teaching teams may be proved beyond doubt. There was sufficient data in the present study to come to this conclusion. Teacher teams helped plan and coach its members and therefore, must be an made an integral part of the school program.

Implications to Teachers

Some implications to teachers--the users of the program--may also be obtained from the study. These implications are separately dealt with for the potential users and for those already using the program.

Those Intending to Use ITI

1. It is seen that implementing a complex program such as ITI might be overwhelming, especially during the beginning stages. Incremental implementation seems to be indicated in the study. Beginning with the most critical components and integrating the others as confidence is gained may be one way of facilitating implementation.
2. The participants in the present study showed evidence (as obtained through interviews, especially) of having sound theoretical basis of ITI and the program seemed to go on well, in its early years. Obtaining a

innovation may be considered crucial for effective implementation.

Those Already Using ITI

1. The importance of the role of the planning/co-teaching team was evident in the study. It may be important for teachers to be actively involved in such group processes for the effective and continued implementation of an innovation.
2. Staff development was seen as crucial in the context of the study. Continued exposure to co-operative learning, brain research, whole language, mainstreaming, and learning strategies is needed to improve knowledge and practice.

Summary

ITI is an intriguing and complex program with several internally compatible components. The study of its description and implementation provided several useful insights. Implications from the study included those for further study, for staff developers/change facilitators, for principals, and for teachers.

APPENDIX

Questionnaires Used to Gather Data

Growth States Interview

Conceptual Level Survey

Rand 1 and 2

GROWTH STATES INTERVIEW

Summary

Overall State of Growth

- _____ Initiating
- _____ Active
- _____ Passive
- _____ Reticent
- _____ Withdrawn

Summary

Effect of School

- _____ Raises level dramatically
- _____ Raises level
- _____ Does not effect level
- _____ Lowers level
- _____ Lowers level dramatically

Summary

Transfer

What kinds of materials, content, and teaching processes are being added to this person's repertoire?

Summary

Personal Dimension

Reading

of books last 2 months
(sample titles or type)

#books last year
(sample titles or type)

Films: #last 2 months
(sample titles or type)

Live Performances: #last
2 months
(sample titles or type)

Visual Arts:

Personal Dimension

Travel _____

Civic Activity _____

Sports _____

Other _____

Overall State:

Initiating
 Active
 Passive
 Reticent
 Withdrawn

Effect of School:

Raise level dramatically
 Raises level
 Lowers level
 Lowers level dramatically

Effect of Consorts

Raises level dramatically
 Raises level
 Does not affect level
 Lowers level
 Lowers level dramatically

Summary

Formal Staff Development Activities

	Topics	Degree Progr.	
		Yes	No
University-Sponsored Courses	1.	_____	_____
	2.	_____	_____
	3.	_____	_____
	4.	_____	_____

	Topics	Length (in hours)
District-sponsored Workshops	1. _____	_____
	2. _____	_____
	3. _____	_____
	4. _____	_____

Regional Teacher-Center Sponsored Workshops	1. _____	_____
	2. _____	_____
	3. _____	_____
	4. _____	_____

Transfer of (describe):

	Content	Material	Skills
Formal	_____	_____	_____
Personal	_____	_____	_____

	Topic	Length
School-sponsored Workshops	_____	_____
	_____	_____
	_____	_____
	_____	_____

Clinical Supervision (describe amount, type, transfer)

Total hours of staff development/yr other than university
courses _____

Overall response to formal environment

- Initiating
 Active
 Passive
 Reticent
 Withdrawn

Probable effect of school quality on overall response

- Raises level dramatically
 Raises level
 Does not affect level
 Lowers level
 Lowers level dramatically

Summary

Informal System

	Never	Occasionally	Regularly
Plans with other teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Observe other teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is observed by other teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Discusses teaching with other teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Overall response to informal environment:

_____ Initiating

_____ Active

_____ Passive

_____ Reticent

_____ Withdrawn

Effect of school qualities on response:

_____ Raises level dramatically

_____ Raises level

_____ Does not affect level

_____ Lowers level

_____ Lowers level dramatically

CONCEPTUAL LEVEL SURVEY

(PLEASE PRINT)

Male _____

Female _____

Name _____, _____
(Last) (First)

School _____

Grade _____

On the following pages you will be asked to give your ideas about several topics. Try to write at least three sentences on each topic.

There are no right or wrong answers, so give your own ideas and opinions about each topic. Indicate the way you really feel about each topic, not the way others feel or the way you think you should feel.

You will have about 3 minutes for each page.

Please wait for the signal to go to a new page.

1. What I think about rules . . .

Try to write at least three sentences on this topic.

WAIT FOR SIGNAL TO TURN PAGE

2. When I am criticized . . .

Try to write at least three sentences on this topic.

WAIT FOR SIGNAL TO TURN PAGE

3. What I think about parents . . .

Try to write at least three sentences on this topic.

WAIT FOR SIGNAL TO TURN PAGE

4. When someone does not agree with me . . .

Try to write at least three sentences on this topic.

WAIT FOR SIGNAL TO TURN PAGE

5. When I am not sure . . .

Try to write at least three sentences on this topic.

WAIT FOR SIGNAL TO TURN PAGE

6. When I am told what to do . . .

Try to write at least three sentences on this topic.

WAIT FOR SIGNAL TO TURN PAGE

RAND 1 and 2

Name: _____
School: _____

Date: _____

Circle the alternative which best describes how you feel:

1. When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home environment.
 - a. Strongly agree
 - b. Agree
 - c. Neither agree or disagree
 - d. Disagree
 - e. Strongly disagree

2. If I really try hard, I can get through to even the most difficult or unmotivated students.
 - a. Strongly agree
 - b. Agree
 - c. Neither agree or disagree
 - d. Disagree
 - e. Strongly disagree

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- 1992 Ph.D Curriculum and Instruction, Andrews University, Berrien Springs, MI
- 1985 M.A Curriculum and Instruction, Spicer Memorial College, Poona, India.
- 1976 B.L.A. Math (major), Physics (minor), Spicer Memorial College, Poona, India.

Professional Experiences:

- 1989-1991 Graduate/Research Assistant, Andrews University, Berrien Springs, MI.
- 1987-1988 Assistant Professor, Spicer Memorial College, Secondary School Teacher, Spicer Secondary School.
- 1979-1986 Instructor, Spicer Memorial College (Math and Education), Secondary School Teacher, Spicer Secondary School.
- 1975-1979 Secondary School Teacher, Spicer Secondary School, Poona, India.

Professional Memberships and Honors

- 1989- Member, Phi Delta Kappa
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Professional Interests:

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Publications:

Bassett, P. & Gaikwad, P. (1990-91) Teacher edition.
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