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# A Comparative Study of Concerns of Ralston Elementary Teachers in Respect to the Implementation Procedures of the Madeline Hunter Model

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A COMPARATIVE STUDY OF  
CONCERNS OF RALSTON ELEMENTARY TEACHERS  
IN RESPECT TO THE IMPLEMENTATION PROCEDURES  
OF THE MADELINE HUNTER MODEL

Presented to the

Graduate Faculty  
University of Nebraska  
at Omaha

In Partial Fulfillment  
of the Requirements for the Degree  
Specialist in Education

University of Nebraska

by

Krista M. Cox

May 1985

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FIELD PROJECT ACCEPTANCE

Accepted for the Graduate Faculty, University of  
Nebraska, in partial fulfillment of the requirements for  
the degree Specialist in Education, University of Nebraska  
at Omaha.

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## TABLE OF CONTENTS

### Chapter

1.	INTRODUCTION.....	1
	STATEMENT OF THE PROBLEM.....	3
	STATEMENT OF PURPOSE.....	3
	PROCEDURES.....	3
	BASIC ASSUMPTIONS.....	4
	DEFINITION OF TERMS.....	4
	LIMITATIONS.....	4
	ORGANIZATION.....	5
	FOOTNOTES.....	6
2.	REVIEW OF RELATED LITERATURE.....	7
	FOOTNOTES.....	18
3.	METHODOLOGY.....	20
4.	DISPLAY OF DATA.....	22
	TABLE I - MANDATED STATUS, 5 YEARS OF USE.....	25
	TABLE II - VOLUNTARY STATUS, 5 YEARS OF USE.....	26
	TABLE III - MANDATED STATUS, 4 YEARS OF USE.....	27
	TABLE IV - VOLUNTARY STATUS, 4 YEARS OF USE.....	28
	TABLE V - MANDATED STATUS, 3 YEARS OF USE.....	29
	TABLE VI - VOLUNTARY STATUS, 3 YEARS OF USE.....	30
	TABLE VII - MANDATED STATUS, 2 YEARS OF USE.....	31
	TABLE VIII - VOLUNTARY STATUS, 2 YEARS OF USE.....	32
	TABLE IX - MANDATED STATUS, 1 YEAR OF USE.....	33

Chapter

	TABLE X - VOLUNTARY STATUS, 1 YEAR OF USE.....	34
	TABLE XI - HIGHEST STAGE OF CONCERN, MANDATED.....	35
	TABLE XII - HIGHEST STAGE OF CONCERN, VOLUNTARY....	35
	FOOTNOTES.....	37
5.	SUMMARY.....	38
	CONCLUSIONS.....	38
	RECOMMENDATIONS.....	39
	BIBLIOGRAPHY.....	40
	LIST OF APPENDICES.....	42
	APPENDIX <u>A</u> .....	43
	APPENDIX <u>B</u> .....	44
	APPENDIX <u>C</u> .....	49
	APPENDIX <u>D</u> .....	50

## CHAPTER I

### INTRODUCTION

"Over the past two decades, concerned people in local schools have expended considerable energy and resources aimed at making schools better." (Parish and Arends, 1983) Efforts to improve teaching require change and change is a process that takes time and is achieved only in stages.

During the change process, the individual must be the primary target. The Concerns-Based Adoption Model (CBAM) developed by Hall and Loucks emphasized working with individual teachers and administrators in relation to their role in the change or innovation process. "CBAM rests on the conviction that institutions can not change until the individuals within them change." (Hall and Loucks, 1978) Hall and Locks assume that change has a personal dimension to it and that dimension is of critical importance to the success or failure of the change effort. As well as the personal dimension, implementation strategies would, also, affect success or failure of an innovation.

Schools are in a constant state of change. Staff are striving to provide curriculum to students with quality instruction. As research and theories of curriculum (what to teach) and instruction (how to teach) are articulated and studied, local programs change to meet the emerging data.

"For the first time in many years, local school districts find themselves with a stable, and tenured staff. Thus, teacher-training institutions are confronted with the need to move from a focus on preservice education;

local school districts can no longer rely on 'new hires' to bring ideas into district classrooms and must face the problem of how to upgrade the skills of the teachers they already have." (McLaughlin and Marsh, 1978)

Ralston School District has experienced the phenomena of a stable and tenured staff. In an effort to enhance the teaching skills of the professional staff in the school district, Madeline Hunter's Instructional Theory Into Practice (ITIP) was implemented.

Developed at the U.C.L.A. Lab School in the early 1970's, ITIP was based on research on how students learned most effectively. Hunter field-tested the teaching strategies of ITIP in several California schools including the Long Beach Public Schools. As a result of her work, a program of teaching techniques was compiled and disseminated throughout the country.

Ralston's staff developer decided to adopt the ITIP philosophy and model in the school district. The purpose of the adoption was to improve and upgrade teacher effectiveness. Incorporating and using ITIP required change for the professional staff.

Initially, the school district implemented the strategies of the innovation, ITIP, in such a manner that administrators and teachers were trained voluntarily by either an outside consultant or in-district trainers. However, beginning in 1983, Ralston officials mandated the training of all Ralston professional staff in ITIP.



### Problem

Statement of the Problem. The problem was to determine whether the different implementation strategies of the Madeline Hunter ITIP would affect the levels of teacher concern in the Ralston Schools.

### Statement of Purpose

The purpose of this study was to measure the relationship between the teachers' level of concern and the implementation strategies of the Madeline Hunter model in the Ralston Schools.

The following hypotheses will be tested to accomplish the purpose of the study.

Hypothesis 1: It is hypothesized that there is no difference in the concerns of Ralston teachers who volunteered and those who were directed to participate in ITIP.

Hypothesis 2: It is hypothesized that there is no difference in teachers' concerns based on the time the participants were engaged in the program.

### Procedures

In order to accomplish the purpose, a nine step procedure was followed. Specifically, it consisted of these steps: (1) identify Ralston elementary school teachers who have received training in ITIP (2) administer Stages of Concern Questionnaire (SoCQ) (3) score questionnaire (4) interpret SoCQ data (5) describe stages of teachers' concerns (6) compare SOCQ data with demographic data

(7) analyze implication of the concerns assessment for implementation strategies (8) make recommendations for future innovation implementation (9) suggest staff development interventions for ITIP.

#### Basic Assumptions

It was assumed the SoCQ is representative and accurately reflects concerns of teachers. It was, also, assumed teachers would give reliable information on the SoCQ.

#### Definition of Terms

**Trainers:** Trainers refer to school district personnel trained in the ITIP program.

**Concern:** Concern refers to the feelings, attitudes, thoughts, ideas or reactions an individual has related to an innovation.

**Implementation:** Implementation is the act of enforcing an innovation.

**Innovation:** Innovation is a new idea, method or device.

#### Limitations

This study included only elementary teachers in the Ralston School District. Teachers who had been exposed to the Madeline Hunter Model were selected. There was no control group in this study.

Of the 111 elementary teachers surveyed, 56 teachers returned the questionnaire.

Organization

Chapter I	Introduction of the Topic
Chapter II	Related Literature
Chapter III	Methodology
Chapter IV	Analysis of the Results
Chapter V	Summary, Conclusions, and Recommendations

## FOOTNOTES

1. Hall, Gene & Loucks, Susan "Teacher Concerns as a Basis for Facilitating and Personalizing Staff Development," Teachers College Record 80 (1): 36-53; September, 1978.
2. McLaughlin, Milbrey Wallin & Marsh, David D. "Staff Development and School Change." Teachers College Record 80 (1): 69-94; September, 1978.
3. Parish, Ralph & Arends, Richard "Why Innovative Programs are Discontinued." Educational Leadership 40: 62-65; January, 1983.

## CHAPTER II

## REVIEW OF RELATED LITERATURE

School systems are in a constant state of change. Models of change are often adopted to best facilitate the innovative process. Generally, research indicates that innovation models consist of sequences of steps or stages characterized by events, actions, or decisions at each point.

An organization is a stable system of individuals who work together to achieve common goals through a hierarchy of ranks and a division of labor. Organizations are created to handle routine tasks and to lend stability to human relationships. Their efficiency as a means of organizing human endeavors is in part due to this stability which stems from the relatively high degree of structure that is imposed on communication patterns.

Given the relatively stability of organizations one would expect that innovation would be very rare. On the contrary, innovation is going on all the time in almost every organization. (Rogers, 1962)

Rogers, Bushnell and Blair illustrate three types of innovation models. Following is a brief summary of each:

A Model of the Innovation Process in Organizations  
(Rogers, 1962)

STAGE IN THE INNOVATION PROCESS	MAJOR ACTIVITIES AT EACH STAGE IN THE INNOVATION PROCESS
I. Initiation:	All of the information-gathering, conceptualizing, and planning for the adoption of an innovation, leading up to the decision to adopt.
1. AGENDA-SETTING	General organizational problems, which may create a perceived need for an innovation, are defined; the environment is searched for innovations of potential value to the organization.

2. MATCHING                    A problem from the organization's agenda is considered together with an innovation, and the fit between them is planned and designed.

-----The Decision to Adopt-----

- II. Implementation:            All of the events, actions, and decisions involved in putting an innovation into use.
3. REDEFINING/RESTRUCTION (1) The innovation is modified and re-invented to fit the situation of the particular organization and its preceived problem, and (2) organizational structures directly relevant to the innovation are altered to accommodate the innovation.
4. CLARIFYING                The relationship between the innovation and the organization is defined more clearly as the innovation is put into full and regular use.
5. ROUTINIZING                The innovation eventually loses its separate identity and becomes an element in the organization's activities.

Six Stages for Planned Change (Bushnell, 1971)

- |                                       |  |
|---------------------------------------|--|
| 1. Diagnose Problem                   | Recognize the problem  |
| 2. Formulate Objective                | Search for solutions   |
| 3. Identify Constraints               | Awareness of factors resisting change                        |
| 4. Select Potential Solutions         | Retrieve and evaluate alternative problem-solving procedures |
| 5. Evaluate Alternatives              | Rank alternatives and select the best from the array         |
| 6. Implement the Selected Alternative | Design the procedures for innovation acceptance              |

The Bureaucratic Model (Blair, 1982)

- |                                      |   |
|--------------------------------------|---|
| 1. Problem Identific-<br>ation       | Recognize the problem                   |
| 2. Consideration of<br>Solutions     | Evaluate remedy proposals               |
| 3. Decision on Strategy<br>or Method | Select appropriate solution             |
| 4. Implementation                    | Design activities for<br>innovation use |
| 5. Evaluation                        | Measure innovation<br>effectiveness     |

A critical attribute of the above models is the implementation stage. "This is the essential cycle through which any proposed solution must go if it is to have a maximum change of acceptance in the school setting." (Bushnell, 1971) According to Mann (1978), innovation or revision in programs have had only about a 20 percent success rate in education. Studies by Lortie (1975), Miles (1979), Sarason (1971) and Fullen and Pomfret (1977) conclude that successful implementation is more complex and difficult than might be expected.

Parish and Arends (1983) state "that lack of success in implementing programs may be related to a lack of understanding of how schools work as social systems, how political processes influence change efforts, and the many dilemmas facing those who attempt to facilitate school improvement."

Teacher autonomy and individualism is a strong force in the implementation of a new program. Teachers feel that the new program must fit their way of teaching. They feel they

have the right to determine, on their own, what happens in their classrooms with their children. Not only does teacher autonomy influence aspects of the programs but it decides their ultimate fate. (Parish and Arends, 1983)

In support of the above studies, Galloway, Seltzer, and Whitfield (1980) indicate, "no more difficult task besets a teacher than to be expected to change and develop. Adults resist new demands and expectations. They can be coerced to change but resentment develops and psychological risks run rampant. Teachers screen information for its usefulness, rejecting what is unfamiliar, accepting what is tried and true."

Efforts to improve teaching are often initiated without teacher involvement and understanding. Teachers too frequently are viewed as nothing more than technicians who implement the objectives of school wide curriculum guides and textbooks written by experts. In the face of conflicting expectations, teachers create a balance between what others demand and what they themselves are. (Galloway, Seltzer and Whitfield, 1980)

In 1975, the Rand Corporation completed a study of the United States Office of Education (USOE) projects. These USOE federally funded projects were designed to disseminate innovative practices in public schools. (McLaughlin and Marsh, 1978) "This study highlighted the implementation phase as the crucial stage in whether or not a change would be successful." (Blair, 1982)



According to the Rand findings the following implementation strategies were found to be effective:

- (1) concrete, teacher-specific, extended training
- (2) classroom assistance from project or district staff
- (3) teacher observation of similar projects in other classrooms, schools, or districts
- (4) regular project meetings focusing on practical problems
- (5) teacher participation in project decisions
- (6) local materials development
- (7) principal participation in training.

In contrast, the following strategies were deemed to be ineffective: (1) outside consultants (2) packaged management approaches (3) one-shot preimplementation training (4) pay for training (5) formal evaluation (6) comprehensive projects (Blair, 1982)

Further research indicates intrinsic rewards are effective implementation strategies. "Extrinsic rewards such as salary schedule advancement, stipends, and compensatory time are generally perceived by teachers as less motivating than are the intrinsic rewards associated with learning something of value for their teaching." (Swenson, 1981)

Change is a complicated process. "It is no secret to teacher educators that it is extremely difficult to change teacher practices. Real change occurs only when teacher attitudes change and teacher attitudes should be the heart of the educational change process." (Blair, 1982) In addition, "installing the innovation requires, of course, a trained staff, the necessary resources and materials,

objectives and procedures, and a well-developed plan for monitoring, feedback, and modification of the adopted procedure." (Bushnell, 1971) Furthermore, models of change often prove the implementation stage is the most critical phase. Research demonstrates that it is crucial for districts to assess the feelings, attitudes, thoughts, and "concerns" individuals experience when relating to an innovation.

A model of change that has proved most useful is based on the work of Frances Fuller (1969). Fuller focused on identifying the concerns of pre-service teachers as they progressed from early experiences in pre-service teacher education programs to being experienced educators. This sequence of teacher concerns Fuller labeled as unrelated, self, task and impact. (Hord, 1979) Based on the Fuller field experience, Hall, Loucks, Rutherford and Newlove (1975) researched educators as they adopted educational innovations.

The research on concerns resulted in the development of the Concerns Based Adoption Model (CBAM). CBAM is a conceptualization of the way the concerns of individual teachers change as they become familiar with new programs, processes or educational practices in their schools. (Hall, Wallace and Dossett, 1973) Six assumptions were derived from that experience: (1) In educational institutions, change is a process not an event. It takes time and is achieved only in stages. (2) Institutions can not change

unless individuals within them change. (3) Change is a highly personal experience. (4) Individuals go through stages in their perceptions and feelings about innovation. (5) Inservice training activities should be client-centered. (6) Follow up is necessary for effective innovation. (Hall, Loucks, 1978)

The research has verified that individuals advance through seven Stages of Concern (SoC). The SoC are intended to be used diagnostically in describing or assessing individuals involved with innovation. As a result of Hall and Loucks' research, Fuller's work was reaffirmed. Not only do new teachers go through sequence of concerns about teaching, but all teachers faced with innovation have concerns that are identifiable and developmental. (Hord, 1979)

The seven Stage of Concern are:

0. **AWARENESS:** Little concern about or involvement with the innovation is indicated.
1. **INFORMATION:** A general awareness of the innovation and interest in learning more detail about it is indicated. The person seems to be unworried about himself/herself in relation to the innovation. She/he is interested in substantive aspects of the innovation in a selfless manner such as general characteristics, effects, and requirements for use.
2. **PERSONAL:** Individual is uncertain about the demands of the innovation, his/her inadequacy to meet those demands, and his/her role with the innovation. This includes analysis of his/her role in relation to the reward structure of the organization, decision making, and consideration of potential conflicts with existing structures or personal commitment. Financial or status implications of the program for self and colleagues may also be reflected.

3. **MANAGEMENT:** Attention is focused on the processes and tasks of using the innovation and the best use of information and resources. Issues related to efficiency, organizing, managing, scheduling, and time demands are utmost.
4. **CONSEQUENCE:** Attention focuses on impact of the innovation on student in his/her immediate sphere of influence. The focus is on relevance of the innovation for students, evaluation of student outcomes, including performance and competencies, and changes needed to increase student outcomes.
5. **COLLABORATION:** The focus is on coordination and cooperation with others regarding use of the innovation.
6. **REFOCUSING:** The focus is on exploration of more universal benefits from the innovation, including the possibility of major changes or replacement with a more powerful alternative. Individual has definite ideas about alternatives to the proposed or existing form of the innovation.  
(Hall, Wallace and Dossett, 1973)

CBAM proves teachers seldom have concerns at only one stage. However, there is a general sequence of concerns as teachers implement an innovation. (Hord and Loucks, 1980) In 1976, Hall analyzed 411 public school teachers in relation to team teaching. Loucks in 1977 studied a small number (N=50) of elementary school teachers in implementing the Science Curriculum Improvement Study. In 1979, Loucks and Melle reported on the implementation of a new science curriculum for Grade 3-6 in Jefferson County School, Colorado Public Schools. All three studies documented the general sequence of concerns of teachers. Teachers who are now users of an innovation generally have concerns high at Stages 0, 1 and 2. They are more concerned about gaining information (Stage 1) or how using the innovation will affect them personally (Stage 2). As they begin to use an

innovation, Stage 3 (Management) concerns become higher and more intense. And, when teachers become experienced and skilled with an innovation, the tendency is for concerns at Stages 4, 5 and 6 to become more intense with a decrease in Stages 0, 1, 2 and 3. (Hord and Loucks, 1980). However, concerns were found to be not static. Movement in concerns is influenced not only by passage of time, but also by interventions that may not be directly associated with the innovation. (Hall and George, 1979)

Since teachers do move through the SoC in a general sequence and concerns are not static, supervisors of inservice must be aware. CBAM has four basic assumptions which provide guidelines for structuring facilitative inservice strategies and activities: (1) change is a process, not an event (2) change is accomplished by individuals first, then institutions (3) change is a highly personal experience (4) change entails developmental growth in both feelings about and skills in using new programs. (Hord and Loucks, 1980) "When those persons responsible for implementing change via staff development have relevant information about those individuals experiencing the process, they are better able to provide more appropriate and effective support. (Hord and Loucks, 1980)

To provide effective inservice, "Hall (1979) describes characteristics of activities that would be appropriate for teachers at different Stages of Concern." (Hord and Loucks, 1980)

**Stage 0:**

Tie the innovation to an area that the teacher is concerned about.  
Encourage the teacher to talk with others about the program.  
Share information in hopes of arousing some interest.

**Stage 1:**

Share descriptive information: brochures, short media presentation, conversation.  
Contrast what teacher is now doing with what he or she might do if using innovation.  
Provide opportunity to visit a site where innovation is in use.

**Stage 2:**

Establish rapport, encourage and assure the teacher she/he can do it.  
Clarify how innovation relates to other priorities.  
Introduce innovation gradually.  
Provide personal support through easy access to facilitator.

**Stage 3:**

Provide hands-on practice with innovation materials.  
Provide classroom management and organizational tips.  
Ask users to share successful and unsuccessful practices.  
Establish buddy system/consulting pair or support group.

**Stage 4:**

Encourage and reinforce regularly.  
Send written information about topics of interest.  
Advertise the teacher's potential for sharing skills with others.  
Send teachers to a conference or workshop on topic of interest and usefulness.  
Provide training in classroom analysis techniques.

**Stage 5:**

Arrange a meeting for idea exchange.  
Provide time and support on the school level for collaboration.  
Facilitate training in organization development skills.  
Use teacher to assist others in use of the innovation.

Stage 6:

Involve teacher as trainer.

Encourage and facilitate teacher to take action related to his/her concerns.

Provide resources to access other materials and encourage to pilot test other programs or ideas.

In conclusion, staff developers need to design and deliver their activities so that the concerns of teachers are addressed. "The concept of concerns is offered as one tool for use in achieving our common goal - effective education." (Hall and Loucks, 1978)

## FOOTNOTES

1. Blair, Timothy Development of Inservice Models to Implement Teacher Effectiveness Research Findings. National Reading Conference, 1982.
2. Bushnell, David "A Systematic Strategy for School Renewal." Planned Change in Education. New York, N.Y.: Harcourt Brace Javanovich, 1971.
3. Fullen, M. & Pomfret, A. "Research on Curriculum and Instruction Implementation." Review of Educational Research 47 (Winter, 1977): 335-397.
4. Fuller, F. F. "Concerns of Teachers: A Developmental Conceptualization." American Educational Research Journal 6 (2): 207-26; March, 1969.
5. Galloway, Charles; Seltzer, Marjory C.; Whitfield, Truman "Exchange and Mutuality: Growth Conditions for Teacher Development." Theory Into Practice 19 (4): 262-265; Fall, 1980.
6. Hall, Gene E. & George, Archie A. "Stages of Concern About the Innovation: The Concept, Initial Verification and Some Implications." 1979
7. Hall, Gene & Loucks, Susan "Teacher Concerns as a Basis for Facilitating and Personalizing Staff Development," Teachers College Record 80 (1): 36-53; September, 1978.
8. Hall, Gene; Loucks, S. F.; Rutherford, W. L.; & Newlove, B. W. "Levels of Use of the Innovation: A Framework for Analyzing Innovation Adoption." Journal of Teacher Education 26 (1): 52-56; Spring, 1975.
9. Hall, G. E.; Wallace, R. C. & Dossett, W. F. A Developmental Conceptualization of the Adoption Process Within Educational Institutions. Austin, Texas: University of Texas, Research and Development Center for Teacher Education, 1973.
10. Hord, Shirley Assessing Teacher's Concerns as a Basis for Designing Inservice. American Association of Colleges for Teacher Education, Chicago, March 1, 1979.



11. Hord, Shirley M. & Loucks, Susan F. "A Concerns Based Model for the Delivery of Inservice." 1980
12. Lortie, D. School Teacher Chicago University of Chicago Press, 1975.
13. Loucks, Susan F. & Melle, Marge "Implementation of a District-Wide Science Curriculum: The Effects of a Three Year Effort." A paper presented at the Annual Meeting of the American Educational Research Association. April, 1980.
14. Mann, Dale "The Politics of Training Teachers in Schools," Making Change Happen. New York, N.Y.: Teachers College Press, 1978.
15. Miles, M. "Creating New School Programs: The Dilemmas of Social Architecture." Paper submitted to New York University Education Quarterly, June, 1979
16. McLaughlin, Milbrey Wallin & Marsh, David D. "Staff Development and School Change." Teachers College Record 80 (1): 69-94; September, 1978.
17. Parish, Ralph & Arends, Richard "Why Innovative Programs are Discontinued." Educational Leadership 40: 62-65; January, 1983.
18. Rogers, Everett M. Diffusion of Innovations. New York, N.Y.: The Free Press, 1962.
19. Sarason, S. B. The Culture of the School and the Problem of Change, Boston: Allyn and Bacon, 1971.
20. Swenson, Thomas "The State-of-the-Art in Inservice Education and Staff Development in K-12 Schools." Journal of Research and Development in Education 15 (1): 2-7; 1981.

## CHAPTER III

## METHODOLOGY

Madeline Hunter's theory of teaching and learning has been introduced, in varying degrees, to all Ralston teachers. For the purpose of this study, only elementary teachers were selected to participate in the Stage of Concern Questionnaire (SoCQ). This survey consists of thirty-five questions to be rated on a Likert Scale (0-7). Each question is correlated to a Stage of Concern, which has been previously described in Chapter II.

During the month of November, the district's staff developer was contacted to set up a time with each building administrator, in order to give the survey. Following some negotiating, it was decided that the questionnaire would be sent out to the buildings, rather than being administered in person. This was not a preferred method, but considering the time of the year and busy schedules, it was the only acceptable way. One school was an exception, however, and their SoCQ was given during a staff meeting in December.

January 7th, the remaining five schools were sent the SoCQ with an attached cover letter explaining the purpose of the study. Also included was the name of a person from each building whose responsibility was to distribute and collect the questionnaires.

In an attempt to boost the importance of the project, the Ralston Education Association (REA) got involved. During their January meeting, an overview of the project and

its purpose was presented to the building representatives. They in turn, were to encourage their people to complete the SoCQ.

One week following the dispersement of the survey, a thank you letter attached to a two-foot bag of popcorn was delivered to each of the six elementary buildings. This gesture was two fold in purpose. First of all, it was intended to be a sincere thank you, and second, it prompted some individuals who had not completed the questionnaire to do so. It proved to be a successful method.

The SoCQ's were returned via school mail. A total of 111 questionnaires were sent out to individuals and 56 were returned to be scored. The SoCQ Quick Scoring Device was utilized accordance with the directions from CBAM. All information was plotted on this sheet and numbered with its corresponding questionnaire for continuous reference.

All information gained from these surveys was analyzed and will be shared in Chapter Four followed by recommendations in Chapter Five.

CHAPTER IV  
DISPLAY OF DATA  
INTRODUCTION

This study was undertaken in order to determine whether or not the implementation strategies of the Madeline Hunter Theory influenced the concerns of teachers with the innovation.

All Ralston teachers were introduced to the Hunter Model over a four-year period. Some individuals received their training through voluntary inservices or college credit courses, while others were mandated to take part by attending either an outside consultant presentation or district "cadre" orientation. All of the presentations varied in duration.

The Stages of Concern Questionnaire (SoCQ) was available to all elementary teachers. Fifty per cent of the surveys sent out were returned.

Following the analysis of the data, the individual profiles were divided into five groups according to the number of years engaged in the Madeline Hunter innovation. These groups were then subdivided into cells according to the following criteria:

1. Voluntary participation in the innovation.
2. Mandated participation in the innovation.

These subdivisions were described as users, nonusers, interested and disinterested groups.

"As individuals move from unawareness and nonuse of an innovation into beginning use and more highly sophisticated use, it is hypothesized that their concerns develop from being most intense at Stages 0, 1, and 2, to most intense at Stage 3, and ultimately to most intense at Stages 4, 5, and 6. Particularly if the innovation is a positive one and there is support for its implementation, an individual's concern profile plotted over time should have the form of a progressive wave motion from left to right." (Hall, George, Rutherford, 1979) (See Appendix D.)

Stage 0 scores of the nonuser vary from being the highest to being the second or third highest. This is not as important to check as is the variations in Stage 1 and Stage 2 scores. If the Stage 2 score is higher than Stage 1, it is identified as a "negative one/two split." This represents doubt and potential resistance to the innovation. The Stage 2 concerns will have to be reduced before the individual can look at the innovation objectively.

The tailing-up of Stage 6 on the typical nonuser concerns profile provides further information about the attitude of the individual. When Stage 6 tails off or down at the end of the curve, the respondent does not have other ideas that would potentially compete with the innovation. However, when Stage 6 concerns tail-up, then it is inferred that the respondent has other ideas that he/she sees as having more merit than the proposed innovation. The tailing-up only needs to be seven to ten percentile points

to be detectable in terms of the overall concerns of the individual. Any tailing-up indicates a warning that there may be resistance to the innovation. A more severe tailing-up should be heeded as a loud announcement.

The most frequently found user concerns profiles have single peaks at either Stage 3, 4, 5, or 6. The lower concerns will be found at Stages 0, 1, and 2.

Using the interpretation guidelines, the following Tables are presented and described.

TABLE I  
Mandated Status  
Five Years of Use

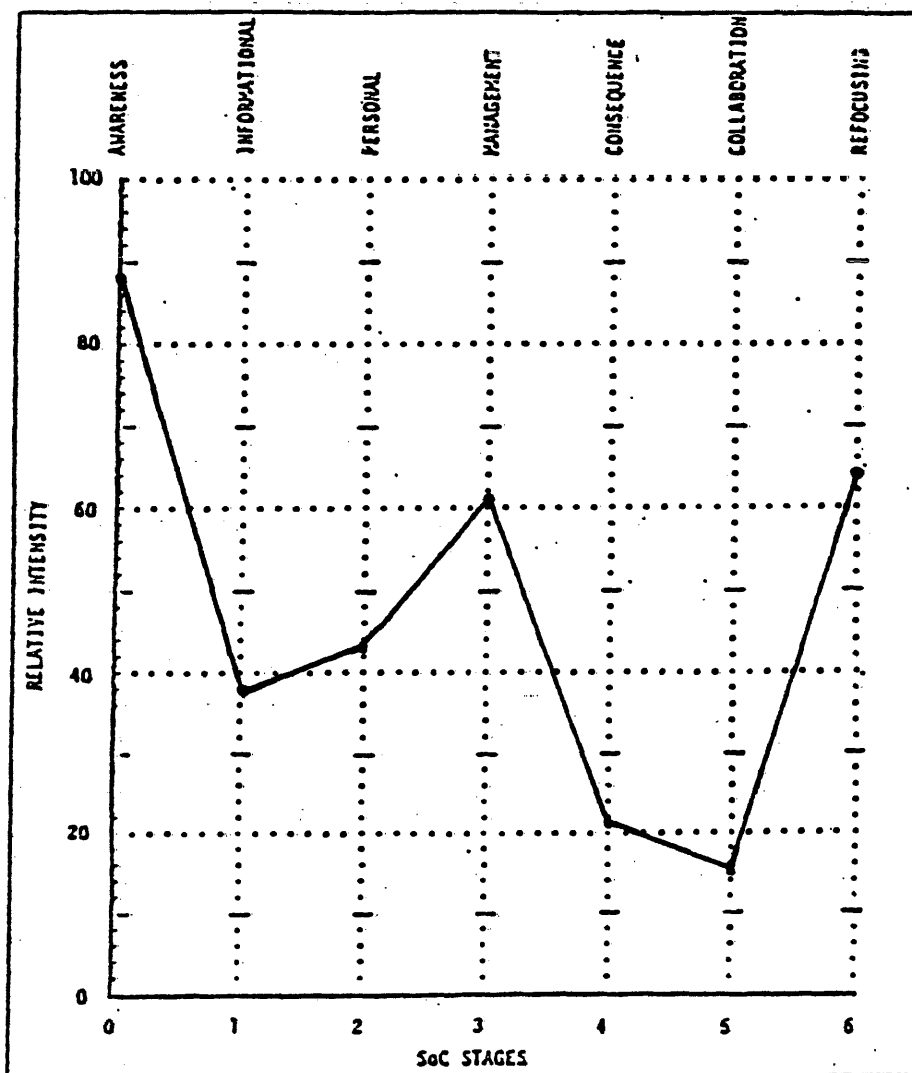
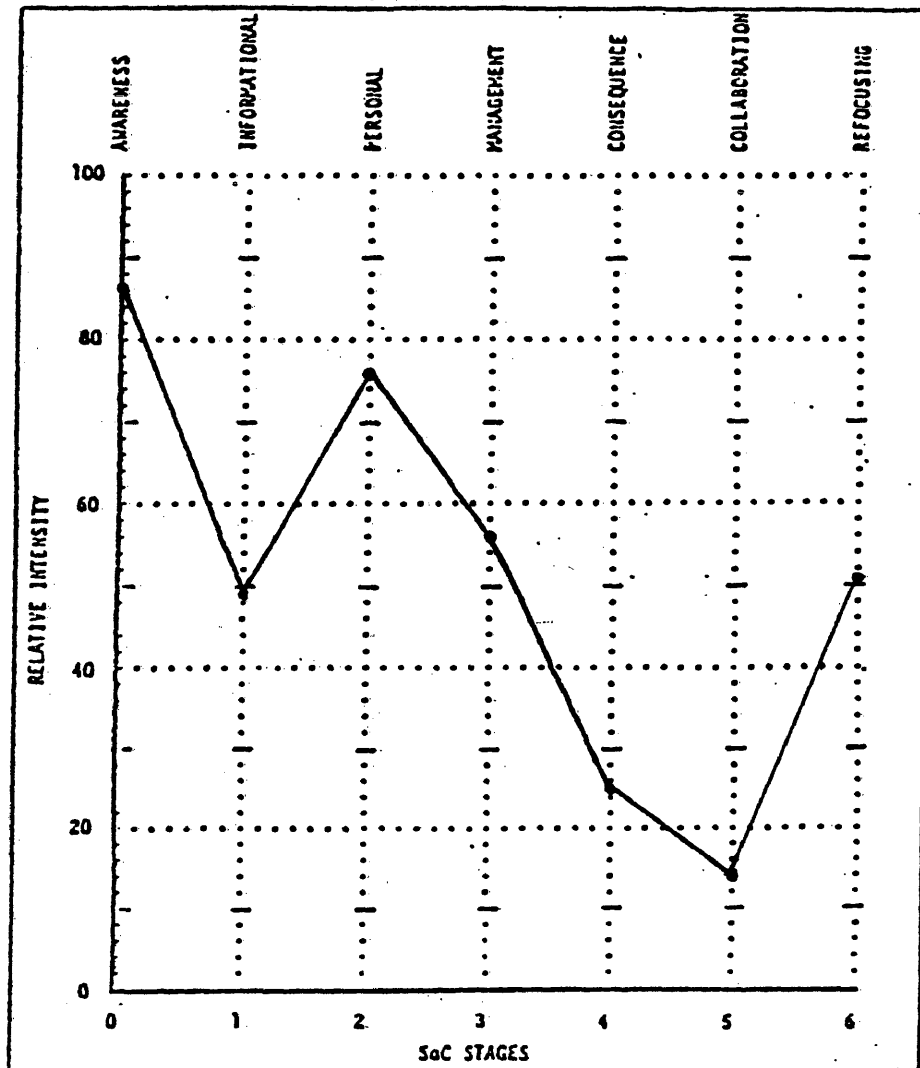


Table I shows the average score of the five individuals who have been using the innovation for five years and who were mandated to take part in the program.

This illustrates a group of people who are disinterested users of the innovation and have ideas about something that will work better.

They are highly concerned about the management, time, and logistic aspects of the innovation.

TABLE II  
 Voluntary Status  
 Five Years of Use

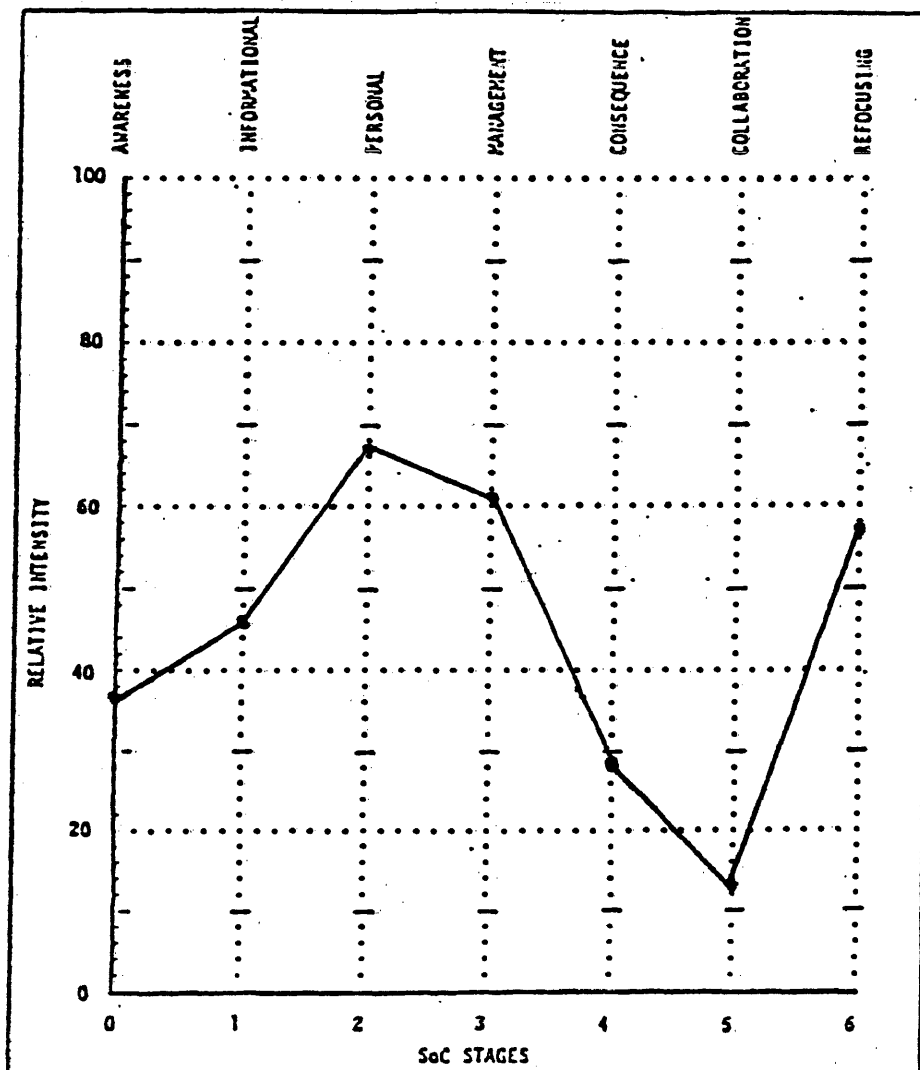


This graph displays the mean score of the three persons involved voluntarily with the innovation.

These persons are nonusers and are having other competing ideas. They have personal concerns about the innovation; such as, reward, status, and effects of the innovation.



TABLE III  
Mandated Status  
Four Years of Use



Two people fit into this group. They are nonusers who have had enough information and are disinterested in receiving any further training. In fact, they have some ideas about a process that would work better for them.

TABLE IV  
 Voluntary Status  
 Four Years of Use

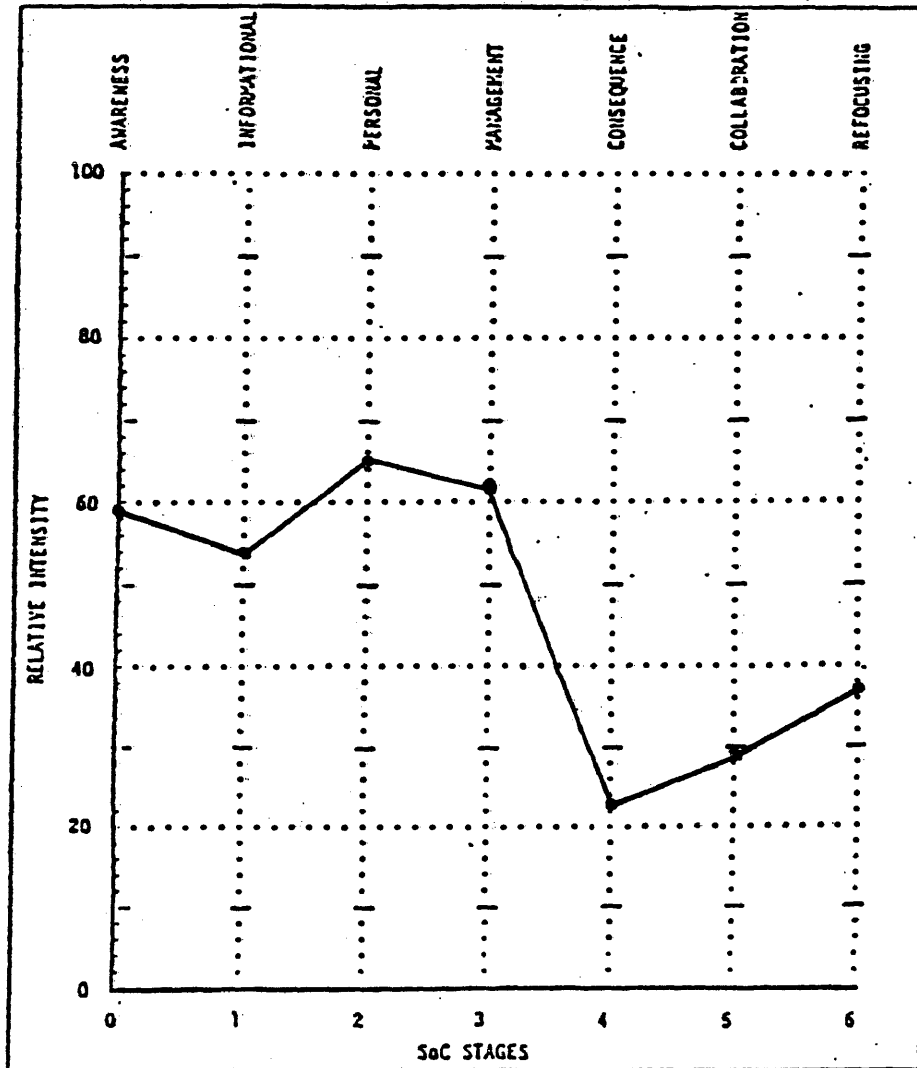


Table IV shows the profile average of eight individuals that are resistant, disinterested, nonusers of the Madeline Hunter Theory.

They have high personal and management concerns that are keeping them from using the innovation.

TABLE V  
Mandated Status  
Three Years of Use

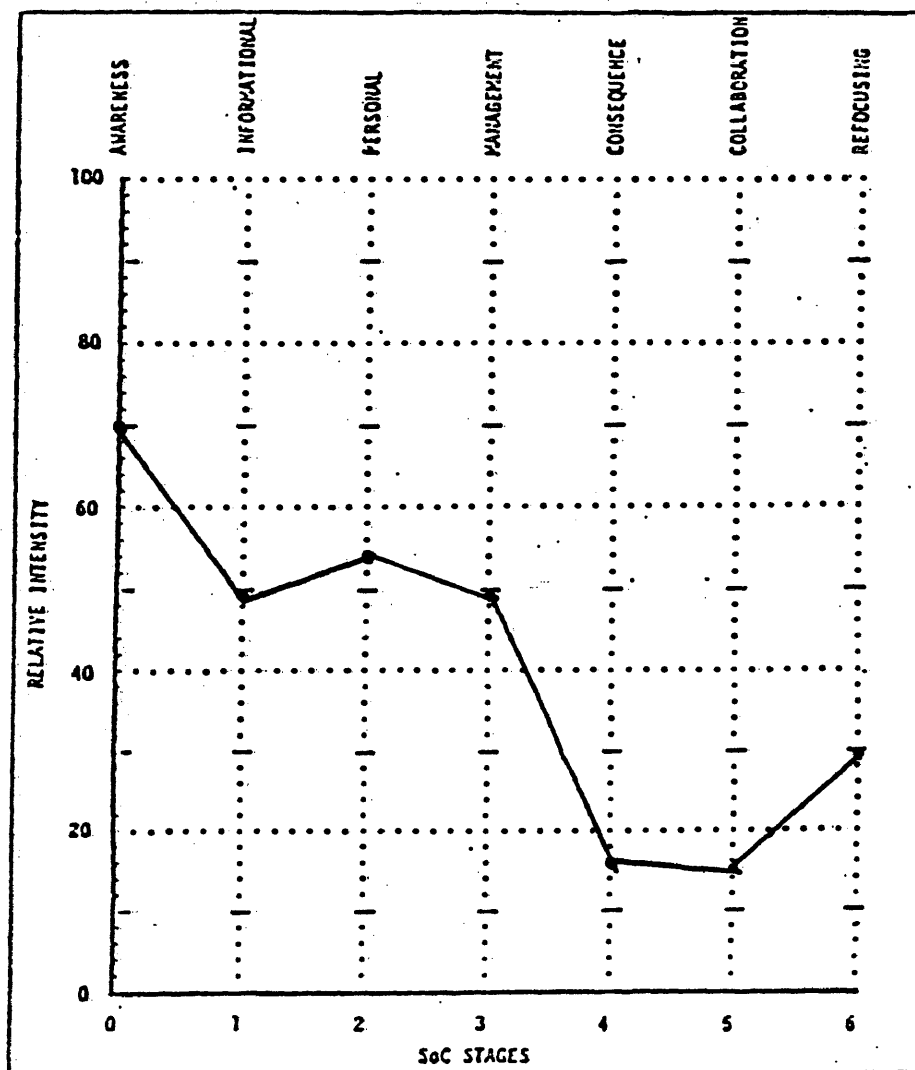
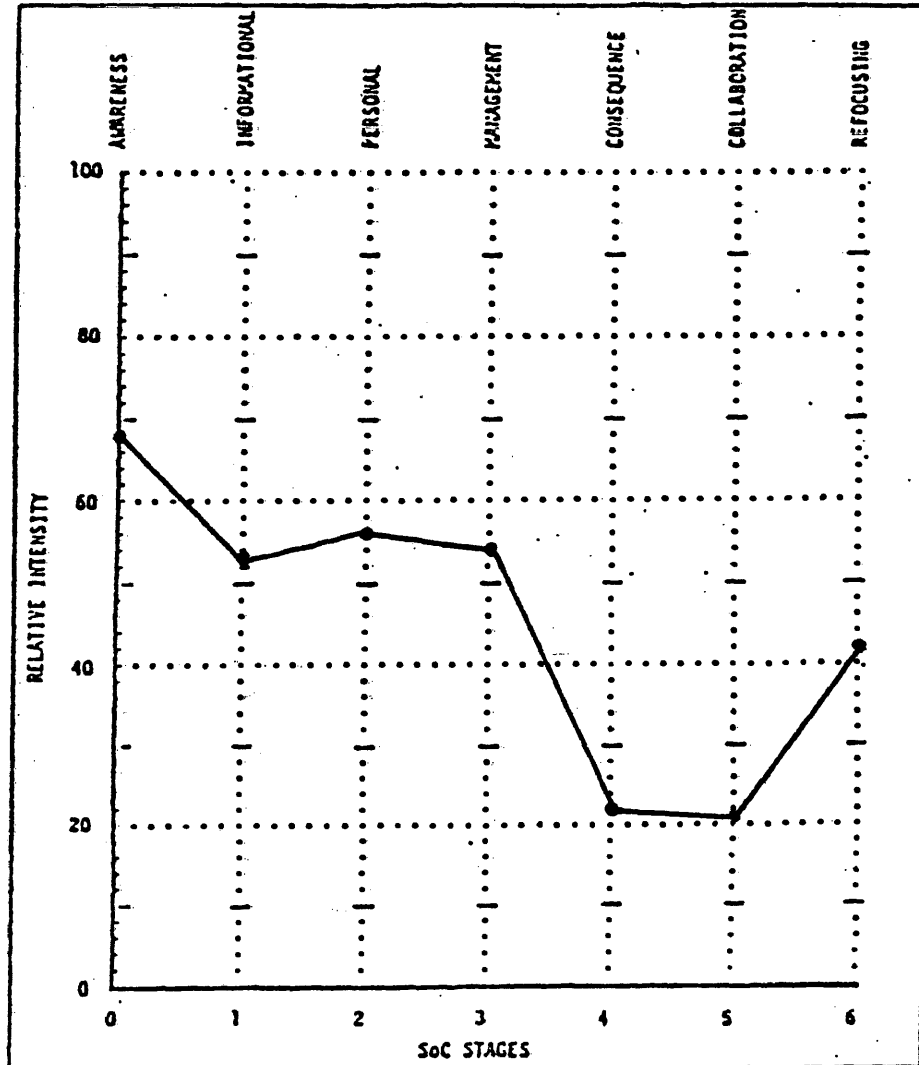


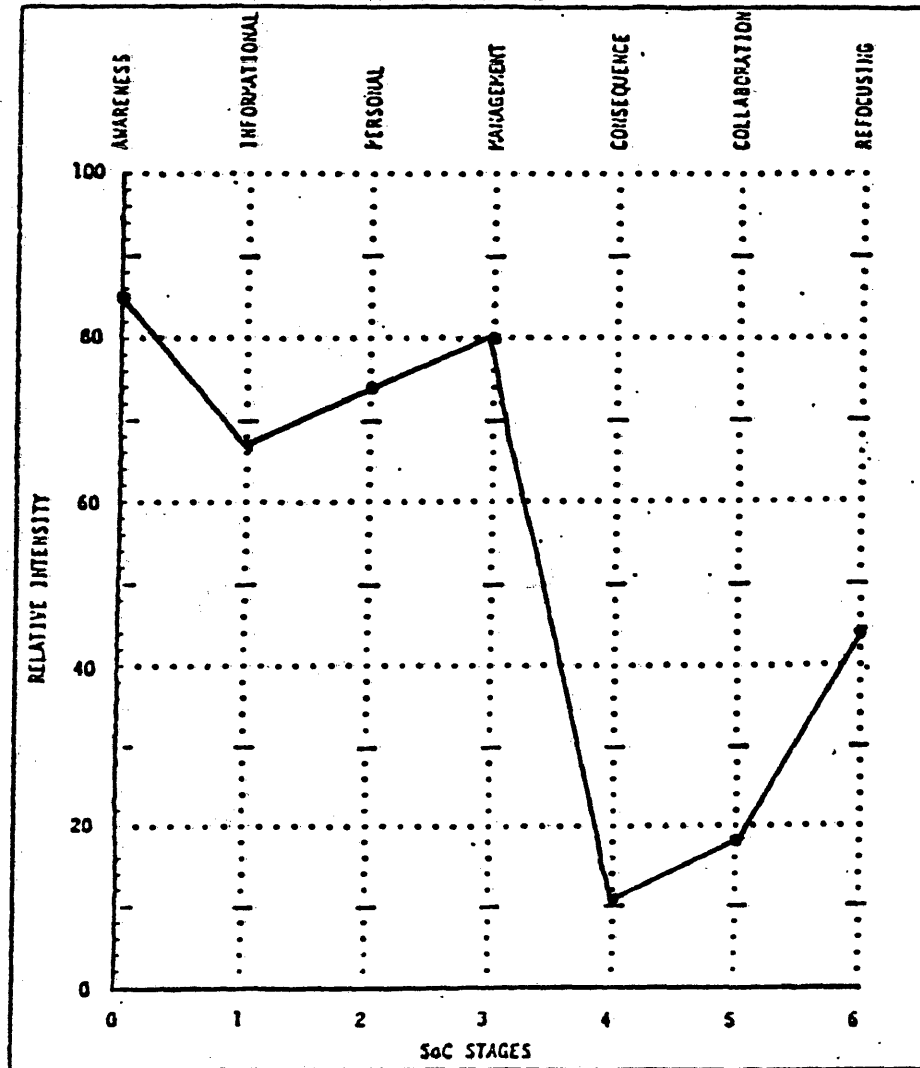
Table V shows the mean profile of the six teachers who have been involved with Hunter for three years. They were mandated to take part in the program and are not really using the theory. They are resisting the innovation and will until their high personal concerns are relieved.

TABLE VI  
 Voluntary Status  
 Three Years of Use



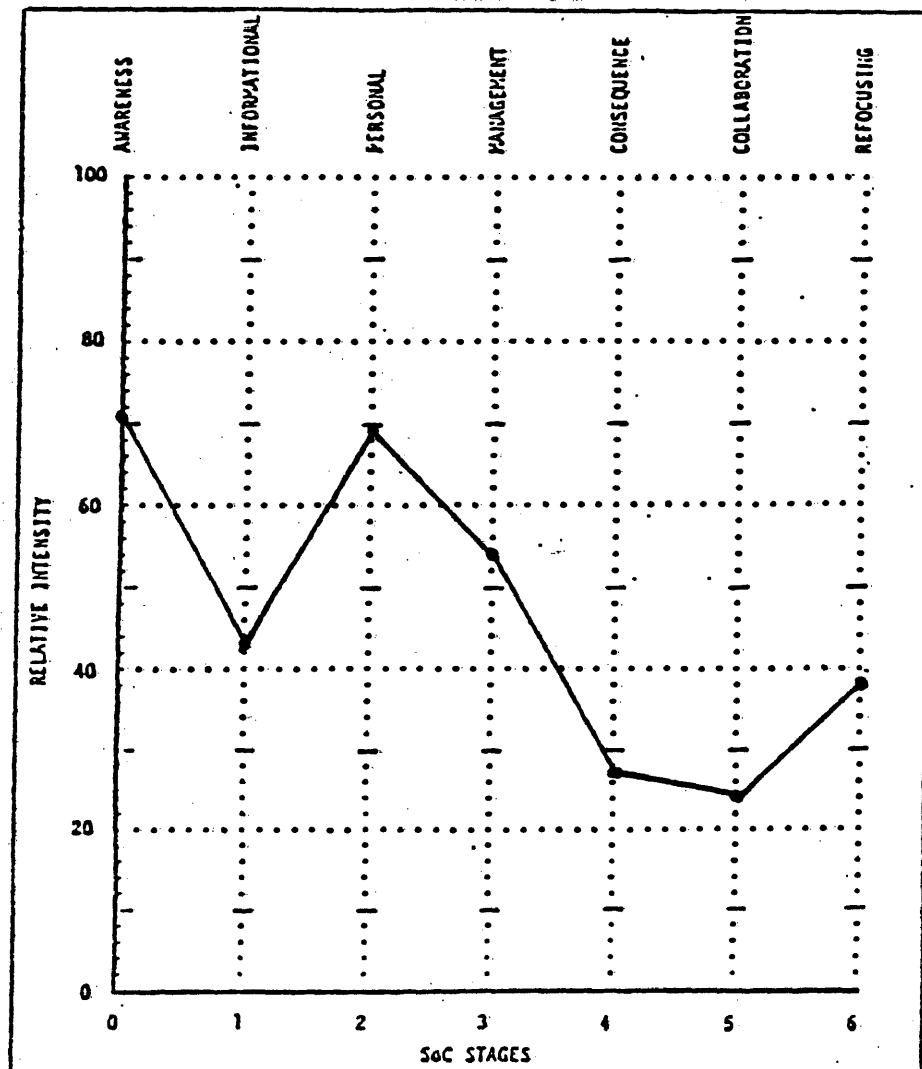
These ten people whose average is shown on Table VI are resistant nonusers of the innovation. They have high personal and management concerns. They do not wish to share any information about Hunter with others, nor do they care what the consequences are in reference to the theory. They do, however, have some ideas about something that they feel works better than Hunter.

TABLE VII  
Mandated Status  
Two Years of Use



Resistant nonusers are shown in Table VII. These ten persons are showing critically high personal and management concerns with a lack of concern for any sharing or caring about the consequences. They have refocusing concerns which mean that they have competing ideas.

TABLE VIII  
 Voluntary Status  
 Two Years of Use



These five volunteers with two years of experience are nonusers of the Hunter model. They are fully aware of the model, want no more instruction and have an idea of some theory that would work better for them.

TABLE IX  
Mandated Status  
One Year of Use

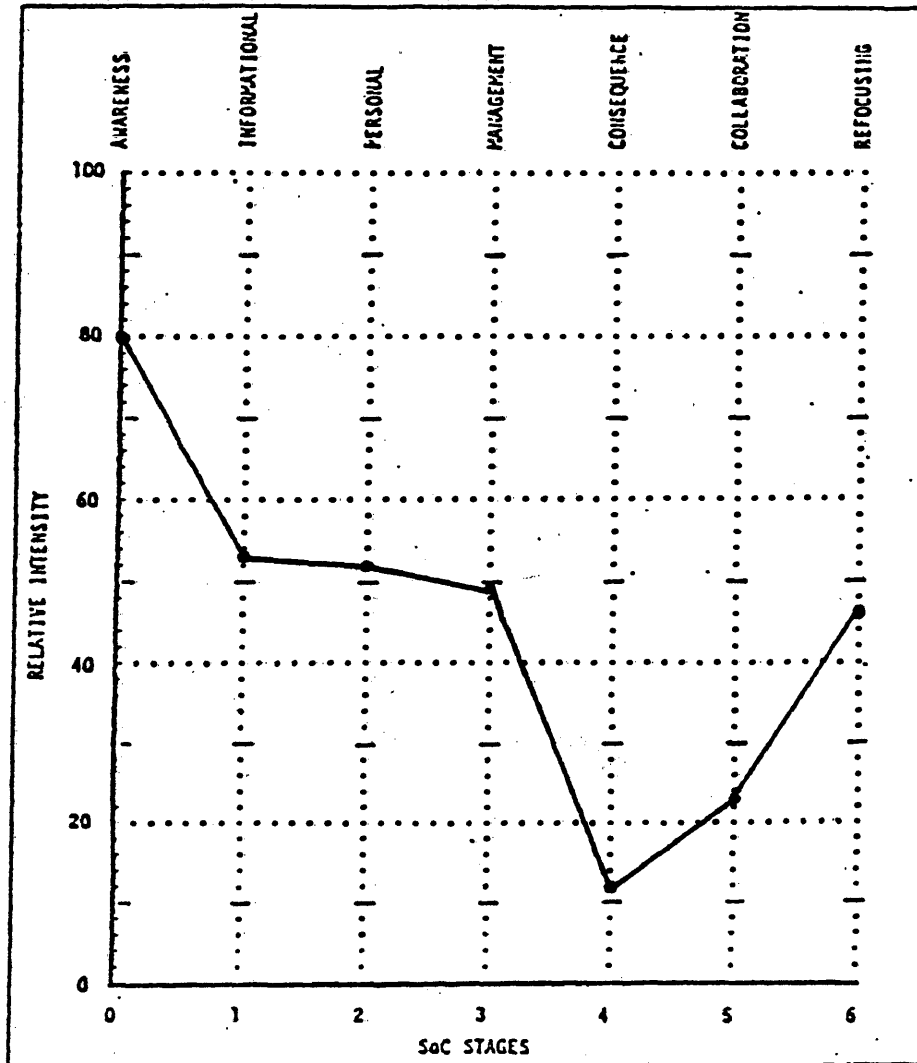
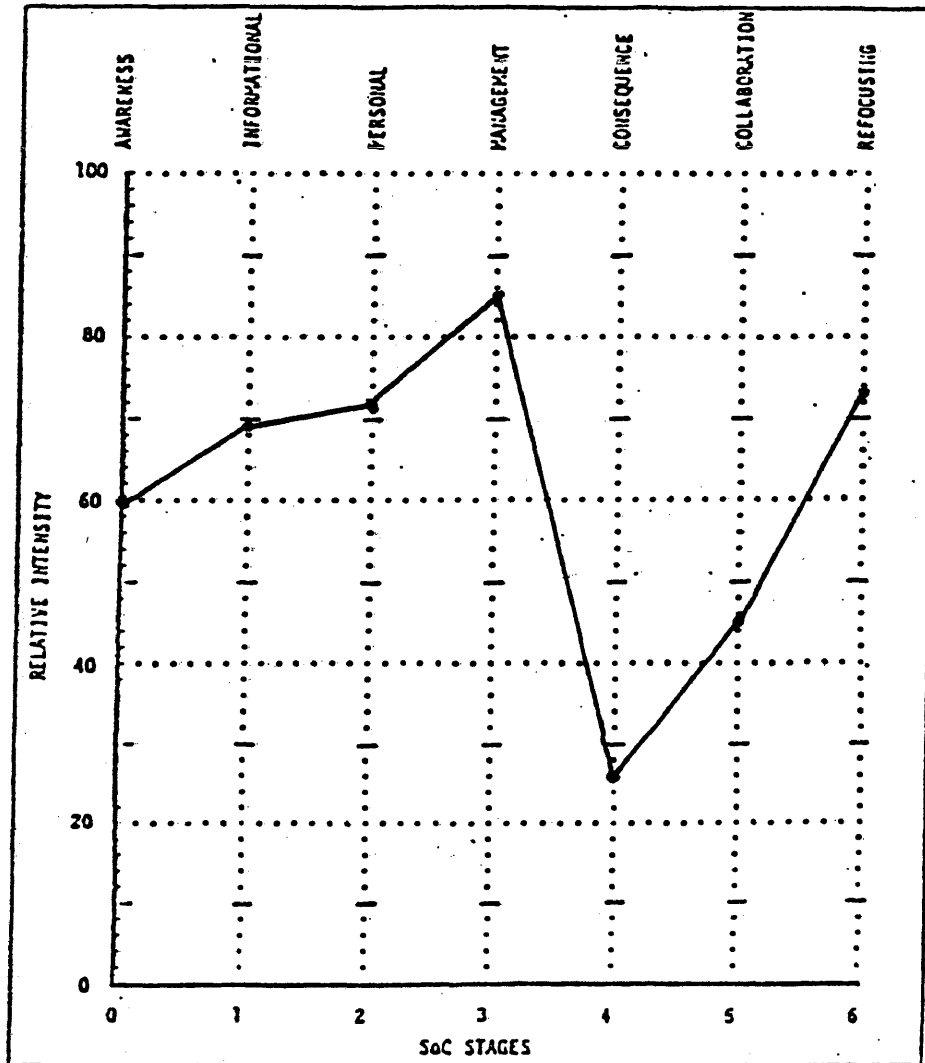


Table IX shows a mean profile of eleven teachers who were mandated to participate in the theory. They are resisting it strongly, as shown by the high concern in the refocusing stage. They are not using the innovation and are not interested in it or in gaining further information.

TABLE X  
 Voluntary Status  
 One Year of Use



The concerns of these two people are so high in the first four stages that it is doubtful that they are users of the innovation. They have competing ideas, as shown by the extremely high stage six.



There is another recommended way of treating group data. Tables XI and XII display a tally of the number of individuals that are high on each stage. This gives a clear picture of the range of peak scores within a group.

TABLE XI

Frequency of Highest Concerns Stage  
for  
Mandated Individuals

	Highest Stage of Concern						
Number of Individuals	0	1	2	3	4	5	6
	19	2	5	7	0	0	3

Total number = 36

TABLE XII

Frequency of Highest Concerns Stage  
for  
Voluntary Individuals

	Highest Stage of Concern						
Number of Individuals	0	1	2	3	4	5	6
	14	1	8	2	1	2	0

Total number = 28

The large concentration of high concern in the first four stages supports Tables I-X. Typical nonusers have high concerns in Stages 0-3, according to CBAM.

Ninety-one per cent of the mandated individuals expressed their highest concerns in Stage 0-3.

Eighty-nine per cent of the voluntary individuals expressed their highest concerns in Stages 0-3.

The following information was gained from the questionnaire:

1. Thirty-four teachers (60%) designated that they were mandated to be trained in Hunter.
2. Twenty-two teachers (40%) designated that they volunteered to take part in the Hunter training.
3. Eight individuals (14%) have been involved with the innovation for five years.
4. Ten people (17%) have been exposed to Hunter for four years.
5. Sixteen teachers (28%) expressed that they have used the Hunter model for three years.
6. Fifteen persons (26%) have been engaged with the innovation for two years.
7. Thirteen teachers (23%) have been involved with the new model for one year.
8. Ten individuals (17%) were actual users of the innovation.
9. Ninety per cent of the returned questionnaires were marked "user" of the innovation.

## FOOTNOTES

1. Hall, Gene; George, Archie; & Rutherford, William  
Measuring Stages of Concern About the Innovation:  
Manual for use of the SoC Questionnaire.  
University of Texas; Austin, Texas; 1979.

## CHAPTER V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### SUMMARY

The purpose of this paper was to discover whether or not the implementation strategies affected the concerns of teachers with the Madeline Hunter innovation. Information dealing with the concerns of teachers who have been involved with the model for varying years was also sought.

One hundred eleven elementary teachers were contacted to participate in the study. Fifty-six individuals responded by completing the Concerns Based Adoption Model (CBAM) questionnaire.

The SoCQ was hand scored and then analyzed according to CBAM guidelines. The teachers were then placed into groups or cells that contained similar identities.

#### CONCLUSIONS

Following the completion of the research, the following conclusions were drawn:

1. No difference was noted in the concerns of teachers with the Madeline Hunter innovation. It made no difference whether the teachers were mandated or whether they volunteered for training.
2. The individuals as a whole were resistant nonusers of the innovation.
3. Teachers indicated that they had received as much training as was necessary.

4. They were disinterested in sharing information about Hunter.
5. Personal and management concerns with the innovation were so critically high that these concerns were a hindrance in using the theory.
6. Staff felt that there were methods that would have worked better than Madeline Hunter.
7. The number of years involved with the innovation had no bearing on the concerns of the teachers.
8. The collaboration and consequence concerns were uniformly low, indicating that teachers are not concerned about how it affects students nor are they concerned about sharing information about the innovation with fellow teachers.

### RECOMMENDATIONS

If a school district were interested in implementing the Madeline Hunter Theory, the following recommendations should be considered:

1. Provide teachers with constant input capabilities.
2. Provide ample training time for all staff members.
3. Provide follow-up training, inservice, and communication.
4. Introduce the innovation slowly.

## BIBLIOGRAPHY

1. Blair, Timothy Development of Inservice Models to Implement Teacher Effectiveness Research Findings. National Reading Conference, 1982.
2. Bushnell, David "A Systematic Strategy for School Renewal." Planned Change in Education. New York, N.Y.: Harcourt Brace Javanovich, 1971.
3. Fullen, M. & Pomfret, A. "Research on Curriculum and Instruction Implementation." Review of Educational Research 47 (Winter, 1977): 335-397
4. Fuller, F. F. "Concerns of Teachers: A Developmental Conceptualization." American Educational Research Journal 6 (2): 207-26; March, 1969.
5. Galloway, Charles; Seltzer, Marjory C.; Whitfield, Truman "Exchange and Mutuality: Growth Conditions for Teacher Development." Theory Into Practice 19 (4): 262-265; Fall, 1980.
6. Hall, Gene E. & George, Archie A. "Stages of Concern About the Innovation: The Concept, Initial Vertification and Some Implications." 1979
7. Hall, Gene; George, Archie; & Rutherford, William Measuring Stages of Concern About the Innovation: Manual for use of the SoC Questionnaire. University of Texas; Austin, Texas; 1979.
8. Hall, Gene & Loucks, Susan "Teacher Concerns as a Basis for Facilitating and Personalizing Staff Development," Teachers College Record 80 (1): 36-53; September, 1978.
9. Hall, Gene; Loucks, S. F.; Rutherford, W. L.; & Newlove, B. W. "Levels of Use of the Innovation: A Framework for Analyzing Innovation Adoption." Journal of Teacher Education 26 (1): 52-56; Spring, 1975.
10. Hall, G. E.; Wallace, R. C. & Dossett, W. F. A Developmental Conceptualization of the Adoption Process Within Educational Institutions. Austin, Texas: University of Texas, Research and Development Center for Teacher Education, 1973.

11. Hord, Shirley Assessing Teacher's Concerns as a Basis for Designing Inservice. American Association of Colleges for Teacher Education, Chicago, March 1, 1979.
12. Hord, Shirley M. & Loucks, Susan F. "A Concerns Based Model for the Delivery of Inservice." 1980
13. Lortie, D. School Teacher Chicago University of Chicago Press, 1975.
14. Loucks, Susan F. & Melle, Marge "Implementation of a District-Wide Science Curriculum: The Effects of a Three Year Effort." A paper presented at the Annual Meeting of the American Educational Research Association. April, 1980.
15. Mann, Dale "The Politics of Training Teachers in Schools," Making Change Happen. New York, N.Y.: Teachers College Press, 1978.
16. Miles, M. "Creating New School Programs: The Dilemmas of Social Architecture." Paper submitted to New York University Education Quarterly, June, 1979
17. McLaughlin, Milbrey Wallin & Marsh, David D. "Staff Development and School Change." Teachers College Record 80 (1): 69-94; September, 1978.
18. Parish, Ralph & Arends, Richard "Why Innovative Programs are Discontinued." Educational Leadership 40: 62-65; January, 1983.
19. Rogers, Everett M. Diffusion of Innovations. New York, N.Y.: The Free Press, 1962.
20. Sarason, S. B. The Culture of the School and the Problem of Change, Boston: Allyn and Bacon, 1971.
21. Swenson, Thomas "The State-of-the-Art in Inservice Education and Staff Development in K-12 Schools." Journal of Research and Development in Education 15 (1): 2-7; 1981.

## LIST OF APPENDICES



**APPENDIX A**

Dear Teacher,

I am asking for your help on a project I am doing for my Specialist Degree at U.N.O. The study involves the concerns of teachers with the Madeline Hunter Model. The findings will provide information on whether or not there are significant differences in the concerns of teachers who have volunteered for Hunter training and those who were mandated to take part.

If you would please take five minutes of your time to fill this survey out, it would be greatly appreciated. When you are finished, please give it to your building contact person, and they will return it to me. I will release the findings when they are completed.

Again, I thank you for your help.

Sincerely,

Krista Cox

Building contact people:

Blumfield and Karen Western - Trish Ring  
Seymour - Twila McCracken  
Wildewood - Lynne Wragge

**APPENDIX B**

## INTRODUCTORY PAGE

ITIP

## Concerns Questionnaire

Name (Optional) \_\_\_\_\_

Date Completed \_\_\_\_\_

The purpose of this questionnaire is to determine what people who are using or thinking about using various programs are concerned about at various times during the innovation adoption process. The items were developed from typical responses of school and college teachers who ranged from no knowledge at all about various innovations to many years experience in using them. Therefore, a good part of the items may appear to be of little relevance or irrelevant to you at this time. For the completely irrelevant items, please circle "0" on the scale. Other items will represent those concerns you do have, in varying degrees of intensity, and should be marked higher on the scale, according to the explanation at the top of each of the following pages.

For example:

- 0 1 2 3 4 5 6 ⑦ This statement is very true of me at this time.
- 0 1 2 3 ④ 5 6 7 This statement is somewhat true of me now.
- 0 1 ② 3 4 5 6 7 This statement is not at all true of me at this time.
- ① 1 2 3 4 5 6 7 This statement seems irrelevant to me.

Please respond to the items in terms of your present concerns, or how you feel about your involvement or potential involvement with the Instructional Theory Into Practice (ITIP)/Madeline Hunter. We do not hold to any one definition of this innovation, so please think of it in terms of your own perception of what it involves. Phrases such as "the innovation," "this approach," and "the new system" all refer to ITIP/Madeline Hunter. Remember to respond to each item in terms of your present concerns about your involvement or potential involvement with ITIP/Madeline Hunter.

Thank you for taking time to complete this task.

Krista Cox (Ralston)  
Barbara Winterburn (Millard)

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Austin

## SoC QUESTIONNAIRE ITEMS

0	1	2	3	4	5	6	7	
								Not true of me now    Somewhat true of me now    Very true of me now
0	1	2	3	4	5	6	7	I am concerned about students' attitudes toward the ITIP/Madeline Hunter.
0	1	2	3	4	5	6	7	I now know of some other approaches that might work better.
0	1	2	3	4	5	6	7	I do not even know what the ITIP/Madeline Hunter is.
0	1	2	3	4	5	6	7	I am concerned about not having enough time to organize myself each day.
0	1	2	3	4	5	6	7	I would like to help other faculty in their use of the ITIP/Madeline Hunter.
0	1	2	3	4	5	6	7	I have a very limited knowledge about the ITIP/Madeline Hunter.
0	1	2	3	4	5	6	7	I would like to know the effect of reorganization on my professional status.
0	1	2	3	4	5	6	7	I am concerned about conflict between my interests and my responsibilities.
0	1	2	3	4	5	6	7	I am concerned about revising my use of the ITIP/Madeline Hunter.
0	1	2	3	4	5	6	7	I would like to develop working relationships with both our faculty and outside faculty using the ITIP/Madeline Hunter.
0	1	2	3	4	5	6	7	I am concerned about how the ITIP/Madeline Hunter affects students.
0	1	2	3	4	5	6	7	I am not concerned about the ITIP/Madeline Hunter.
0	1	2	3	4	5	6	7	I would like to know who will make the decision on the ITIP/Madeline Hunter.

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- | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |   |
|---|---|---|---|---|---|---|---|---|
|   |   |   |   |   |   |   |   | Not true of me now    Somewhat true of me now    Very true of me now                                    |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | I would like to discuss the possibility of using the ITIP/Madeline Hunter.                              |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | I would like to know what resources are available if we decide to adopt the ITIP/Madeline Hunter.       |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | I am concerned about my inability to manage all that the ITIP/Madeline Hunter requires.                 |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | I would like to know how my teaching or administration is supposed to change.                           |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | I would like to familiarize other departments or persons with the progress of this new approach.        |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | I am concerned about evaluating my impact on students.  |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | I would like to revise the ITIP/Madeline Hunter's instructional approach.                               |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | I am completely occupied with other things.   |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | I would like to modify our use of the ITIP/Madeline Hunter based on the experiences of our students.    |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Although I do not know about the ITIP/Madeline Hunter, I am concerned about things in the area.         |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | I would like to excite my students about their part in the ITIP/Madeline Hunter approach.               |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | I am concerned about time spent working with non-academic problems related to the ITIP/Madeline Hunter. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | I would like to know what the use of the ITIP/Madeline Hunter will require in the immediate future.     |

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0            1            2            3            4            5            6            7

Not true of me now    Somewhat true of me now    Very true of me now

0 1 2 3 4 5 6 7    I would like to coordinate my effort with others to maximize the ITIP/Madeline Hunter's effects.

0 1 2 3 4 5 6 7    I would like to have more information on time and energy commitments required by the ITIP/Madeline Hunter.

0 1 2 3 4 5 6 7    I would like to know what other faculty are doing in this area.

0 1 2 3 4 5 6 7    At this time, I am not interested in learning about the ITIP/Madeline Hunter.

0 1 2 3 4 5 6 7    I would like to determine how to supplement, enhance or replace the ITIP/Madeline Hunter.

0 1 2 3 4 5 6 7    I would like to use feedback from students to change the program.

0 1 2 3 4 5 6 7    I would like to know how my role will change when I am using the ITIP/Madeline Hunter.

0 1 2 3 4 5 6 7    Coordination of tasks and people is taking too much of my time.

0 1 2 3 4 5 6 7    I would like to know how the ITIP/Madeline Hunter is better than what we have now.

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## DEMOGRAPHIC PAGE

\_\_\_\_\_ Primary

\_\_\_\_\_ Intermediate

## PLEASE COMPLETE THE FOLLOWING:

1. How long have you been involved in ITIP/Madeline Hunter, not counting this year?

never \_\_\_\_\_ 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 years \_\_\_\_\_  
 year \_\_\_\_\_ years \_\_\_\_\_ years \_\_\_\_\_ years \_\_\_\_\_ or more \_\_\_\_\_

2. Are you using ITIP/Madeline Hunter in the classroom?

yes \_\_\_\_\_ no \_\_\_\_\_

3. How did you receive your ITIP/Madeline Hunter training?

voluntary \_\_\_\_\_ district mandate \_\_\_\_\_

4. With which school system are you affiliated?

Millard \_\_\_\_\_ Ralston \_\_\_\_\_



APPENDIX C

SoCQ Quick Scoring Device

**A** DATE: \_\_\_\_\_ SITE: \_\_\_\_\_ SSN: \_\_\_\_\_  
 INNOVATION: \_\_\_\_\_

**D**

Five Item Raw Scale Score Total	Percentiles for Stage					
	0	1	2	3	4	5
0	10	1	5	2	1	1
1	23	12	13	5	1	2
2	39	16	16	7	1	3
3	57	19	17	9	2	3
4	66	22	21	11	2	4
5	73	27	25	15	3	5
6	80	30	28	18	3	7
7	86	34	31	22	4	11
8	92	37	35	27	5	17
9	97	40	39	30	5	20
10	99	43	41	34	7	23
11	99	45	45	39	8	26
12	99	48	48	41	9	28
13	99	51	52	47	11	31
14	99	54	55	52	13	34
15	99	57	57	56	16	38
16	99	60	59	60	18	42
17	99	62	62	65	21	47
18	99	64	67	69	24	52
19	99	69	70	72	27	57
20	99	72	72	77	30	60
21	99	75	76	80	33	65
22	99	80	78	82	38	70
23	99	84	80	85	41	75
24	99	88	83	88	46	80
25	99	90	85	90	54	84
26	99	91	87	91	59	87
27	99	92	89	94	63	90
28	99	93	91	95	65	92
29	99	95	92	97	71	94
30	99	97	94	97	76	96
31	99	98	95	98	82	97
32	99	99	96	98	86	98
33	99	99	96	99	90	99
34	99	99	97	99	92	99
35	99	99	99	99	96	99

Margin for Scoring Page 1

**B**

0	1	2	3	4	5	6
3	6	7	9	1	5	2
12	14	13	6	11	10	9
21	15	17	16	19	18	20
25	26	28	25	24	27	22
30	33	32	24	23	26	31

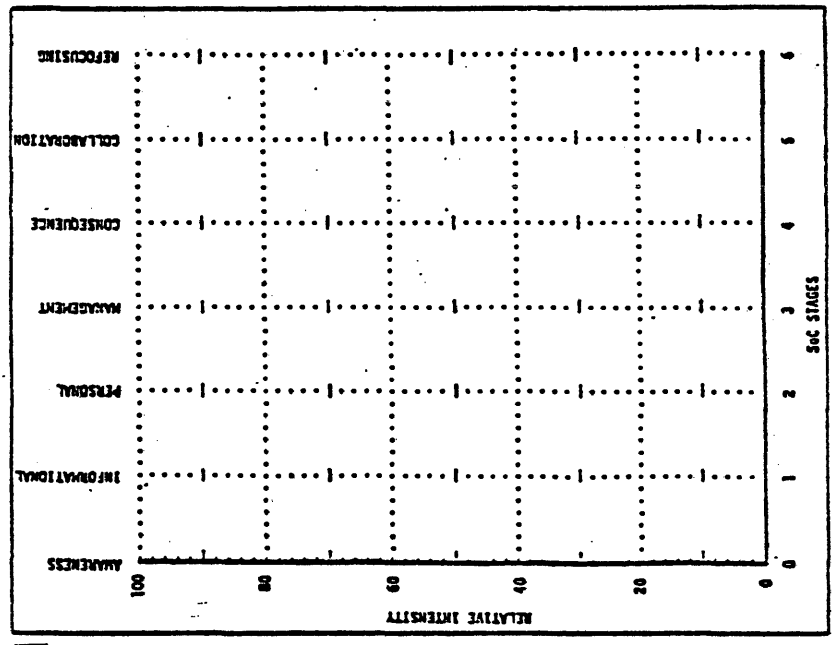
**C**

0	1	2	3	4	5	6
0	1	2	3	4	5	6

**E**

0	1	2	3	4	5	6
0	1	2	3	4	5	6

Margin for Scoring Page 2



20 \_\_\_\_\_  
 21 \_\_\_\_\_  
 22 \_\_\_\_\_  
 23 \_\_\_\_\_  
 24 \_\_\_\_\_  
 25 \_\_\_\_\_  
 26 \_\_\_\_\_  
 27 \_\_\_\_\_  
 28 \_\_\_\_\_  
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 35 \_\_\_\_\_

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 17 \_\_\_\_\_  
 18 \_\_\_\_\_

**APPENDIX D**

Figure IV.4. Hypothesized Development of Stages of Concern

