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Pilot Implementation of the Nebraska Reading Retrieval System at Norman Rockwell Elementary School

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PILOT IMPLEMENTATION OF THE NEBRASKA READING
RETRIEVAL SYSTEM AT NORMAN ROCKWELL ELEMENTARY SCHOOL

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 at Omaha

by

Bernard Vanis

April 1983

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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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June 30, 1983
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CHAPTER I

INTRODUCTION

There is a variety of different reading systems in use in the elementary schools today. The most commonly found systems are often organized into a basal reading series which many schools use as their major source of reading instruction. However, no matter how complete a basal series is, it can't be the answer for all of the students all of the time. To incorporate this area of weakness or needed review, teachers often use supplemental materials from a variety of sources. Some of the problems with gathering supplemental material are that of time to search, money to acquire, space to store, or the ability to retrieve and correlate the material identified.

Within the last decade, the rapid development and marketing of the micro-computer has made it now possible to minimize the problems of organization, storage, and retrieval of the material. Professor James Akers of the University of Nebraska at Omaha used this technology to put a wide range of reading materials, designated the Omega II system, on diskette format to be used on the Apple Computer. This conversion of format from printed text to diskette made it possible for quicker and easier indexing and retrieval of stored supplemental materials.

The organization and planning of the Omega II format change was a cooperative effort of Professor Akers and

Jim McDowell, Administrator of Education Service Unit #3. Together they applied for and received a Title IV-C grant to fund this project. The grant provided funds for programming, data input and printing the manuals.

The Omega concept began in 1974, when Professor Akers began collecting and categorizing a variety of supplemental reading materials into a comprehensive collection called Omega I. In 1980-81, a revision was made in the Omega I materials. The new collection of materials now was called Omega II.

"The Omega II book is a compilation of games, exercises, and techniques that exist in many forms which were collected from a wide variety of sources. It was compiled by a group of teachers who were graduate reading students under the direction of Dr. James Akers during a summer workshop in 1981 at the University of Nebraska at Omaha. The project was undertaken to provide a central source for teachers looking for ideas to use with students having reading difficulties. This effort was a revision and update to the original Omega book which was done in 1974." ¹

The Omega II book was then used as the source of data for the non-commercial aspect of the Nebraska Reading Retrieval System (NRRS). The Omega book was transformed into a series of some sixty diskettes to be used by the classroom teacher to assist in getting material for everyday classroom use. Thus, the (NRRS) is a computerized indexing and retrieval reading system.

The Omega II and the NRRS program systematically organizes materials from a wide variety of sources into

five areas of reading skills; (1) word recognition, (2) vocabulary, (3) comprehension, (4) study skills, (5) related reading problems. These five areas are then further divided into specific sub-skills. Proper materials are selected for the sub-skills with five continued refinements by: level (primary, secondary or intermediate), type (beginning or reinforcement), method (game, exercise or technique), size (individual or small group), directed (pupil or teacher).

THE PROBLEM

During the spring of 1982, the program was made available for use and installation in a school. Professor Akers, the Millard Public School administration and the Rockwell Elementary School principal agreed to pilot the program in one elementary school. The problem was of two dimensions: (1) to evaluate the pilot implementation of the NRRS, and (2) to assess the concerns of teachers for the implications.

THE PURPOSE

The purpose of this study was to evaluate the concerns of teachers during the pilot implementation of the Nebraska Reading Retrieval System (NRRS), using the Bruce Joyce, Training Model of Teaching,² at Norman Rockwell Elementary School, and the Stages of Concerns Questionnaire 3. In this study, the expected results will be that of increased

use of the NRRS by at least 50% of the teaching staff. This increased participation will be measured by the Concerns Based Questionnaire, which will provide a means for usage comparisons.

From the results of this study it would then be possible to recommend inservice programs for future implementation of the NRRS or any similar innovation.

PROCEDURES

In order to accomplish the purpose, a seven-step procedure was followed. Specifically, it consisted of these steps: (1) describe the implemented program, (2) administer a pre-concerns questionnaire, in October 1982, (3) administer the post-concerns questionnaire in April 1983, (both the pre and post-concerns questionnaires were administered by the building principal to all of the certified classroom teachers, resource teacher and building principal.) (4) maintain descriptive accounts of all inservice training during the pilot, (5) describe changes in teacher concerns, (6) analyze the implications of the concerns assessments for the training modifications, and (7) develop a recommended inservice training program for future implementations using Bruce Joyce's training model.

In this study, Bruce Joyce's training model was used to design the inservice strategies. This model is made up of five phases: (1) clarifying objectives, (2) explain-

ing theory, (3) demonstrating correct performance, (4) simulated practice with feedback, and (5) transfer training.

In phase one, the objective was made specific and clear to the teachers. The objective for the inservice was that the teachers would gain knowledge in the operation of the NRRS on the micro-computer and would be able to successfully use the system in their classrooms.

To complete phase two of Joyce's model, an inservice component giving background information on the NRRS, was given. All teachers involved in the pilot were shown the step by step development of the NRRS and the philosophy of why it was developed. This inservice was provided by the author of the program, Professor Akers.

To provide a sensor image or model for phase three, all staff members attended a "hands on" inservice on the computers. All teachers involved must have 5 hours of time logged on the computer in training situations before they can begin to use the NRRS with their classes. This time will include computer literacy training as well as the specific training for the NRRS. The training for this phase will be conducted by Professor Akers and by the author of the field project.

Practice with feedback is very important in Joyce's fourth phase of the model. In this project, each teacher will have had at least one hour of hands on computer time in using the NRRS in a controlled setting. This time was

scheduled in advance with one of the trainers. This did allow for immediate feedback to them as they worked with the NRRS.

The final phase is training for the transfer to the classroom. This phase was implemented during the second semester of the 1982-83, school year. Continuous follow-up inservice will be required to assure continued success of the program. This inservice would be done at the building level by the principal and other trained teachers.

A concerns questionnaire was used to measure the teachers' responses to the implementation of the NRRS. In March 1983, the staff was administered a post-concerns questionnaire. These data were used in the evaluation and also used to show the staff concerns that will affect the future implementation of the NRRS and other similar innovations.

BASIC ASSUMPTION

The decision to pilot the NRRS was based on several assumptions. First, the principal assumed that the Rockwell teachers had a need for supplemental reading materials. Second, the NRRS was operational for the Fall of 1982. Finally, Joyce's, Training Model of Teaching, could be used in setting up an inservice model. The Central Office Curriculum Department also

offered support for the piloting of the program. This pilot was submitted as a district objective for the Board of Education.

LIMITATIONS

This project involved only the first through sixth grade teachers in one elementary school.

The timeline for this study is from October 1982, through March of 1983. During this time the inservice training and the gathering of the concerns data was conducted.

SIGNIFICANCE

The data collected in this field study provides useful information and recommendations to future adoptors of the NRRS. This study will also provide a model of data collection to be used by implementors of any new innovation, in directing the inservice to fit the needs of the staff.

ORGANIZATION

The organization of this paper will be as follows: Chapter 1 - introduction, Chapter 2 - related literature, Chapter 3 - design of investigation, Chapter 4 - findings, and Chapter 5 - summary, conclusions, and recommendations.

REFERENCES

- 1 James Akers, "Forward to Omega Manual," University of Nebraska at Omaha and Educational Service Unit #3, pp. i, ii.
- 2 Bruce Joyce and Marsha Weil, Models of Teaching, Englewood Cliffs, New Jersey: Prentice-Hall, 1967, p. 377.
- 3 Beulah W. Newlove and Gene Hall, "Concerns Questionnaire," University of Texas, Austin, Texas: Research and Development Center for Teacher Education, University of Texas, 1979.

CHAPTER II

REVIEW OF LITERATURE

"Most instructional programs and teaching methods that exist in today's schools were bred in an age when experience was limited and technology was an infant. That age has passed. The rapid explosion of knowledge in recent years demands that the traditional approaches to education give way to the curriculum and methods that will provide the student with skills needed to cope in this rapidly changing environment."¹

James Mahon suggests that before any decisions are made about installing a new program with a teacher group, one should collect information on the new innovation and get it out to the teachers for their consideration. Allow ample time for them to inspect and discuss the information, then collect their concerns and use these data to establish the need for the new innovation. Teacher concerns of the innovation are a very real factor in the successful implementation of the innovation.²

Computers have been used in instructional experiments for over twenty years and in educational research even longer than that. Computers are not new to education, but with the introduction of the micro-computer, it has opened up new possibilities for use in the schools and classrooms as well as for the researcher. It is this innovative use of the computer that is recently finding its way into our schools. The rate of change in both hardware and courseware is very rapid and needs close selection and monitoring. In this rapidly changing field,

the current status of the technology may be far less important than the application of that technology in a manner that produces useable data for its improvement.

In this study, the introduction of the micro-computer was a concern.

W. G. Bennis addresses concerns involved in implementing innovations in an organized format in Changing Organizations. He states that change usually involves risk and fear. The support and trust of the change agent during the period of stress may help to prepare the client for the change.³

It is suggested by Richard Carlson, in Adoption of Educational Innovations, that the rate of acceptance of a new practice by individuals is dependent on (1) the characteristics of the adopting units, (2) the way the adopting unit is joined to communication channels and sources of information, and (3) the position the adopting unit holds in the social structure of the units.⁴

Another theory of innovation states that an innovation may be implemented by an individual process, that is the number of adoptors remains constant with time, or by chain reaction, where the number of adoptors increases as the time of implementation increases.⁵

Inservice design is the next step in the change process. The direction of the inservice sets the tone for the success of the innovation. When referring to

program design in an implementation, Betty Dillon-Peterson states that typical "instant solutions" to these long term programs are crash training courses or brief workshops with little followup. Another continued concern is that the staff members are not helped to determine their needs and show how important the new innovation really is to their future success.⁶

The dissemination or implementation of an innovation may take many different faces or stages of technique. Richard Miller discusses a broad three step process for implementation; (1) establish need, (2) make sure you have the resources to implement, and then (3) guide staff in playing out the innovation.⁷

To expand on this further, Egon Guba breaks the change process into four stages; (1) research, (2) development, (3) diffusion, and (4) adoption.⁸

Bruce Joyce continues the model even further. His model is made up of five stages; (1) clarify objectives, (2) explaining theory, (3) demonstrating correct performances, (4) simulated practice with feedback, and (5) transfer training.⁹

In 1969, Frances Fuller, pursued a series of indepth studies of concerns of teachers. Based on a series of her group counseling and interviews with student teachers, she proposed a developmental conceptualization of the Concerns of Teachers.¹⁰

Fuller continued to modify her model, and in 1970 proposed a model, based on the concerns of teachers, Personalized Education for Teachers, An Introduction for Teacher Educators.¹¹

These studies then lead to the development of the Stages of Concerns Questionnaire (SofCQ) developed by Gene E. Hall, 1974, at the Research and Development Center for Teacher Education at the University of Texas at Austin.¹²

Gene Hall's studies of teacher's concerns showed that the perceptions of the innovation is what stimulated concern, not necessarily the reality of the situation. Hall developed the Concerns Based Adoption Model (CBAM) in 1973 based on the concept of the Stages of Concerns About the Innovations. The seven stages of the model are as follows:

0 Awareness: Little concern about or involvement with the innovation is indicated.

1 Informational: A general awareness of the innovation and interest in learning or detail about it is indicated. The person seems to be unworried about herself/himself 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 demands of the innovation, her/his inadequacy to meet those demands, and her/his role with the innovation. This includes analysis of her/his 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 process 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 students in her/his 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 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.¹³

The Concerns-Based Adoption Model is based on change being a process, not an event. It is based on the concept that the change is first made by individuals and then by institutions.

Many times the focus of the change strategies is on the individual as the focus of power and not on the organization. David Bushnell and Donald Rappaport state that any comprehensive change or implementation strategy should deal with the institutional barriers as well as the defenses (concerns) of the individual.¹⁴

The research looked at here gives the background for the related concerns of this study. Change and innovation has been taking place in education, and is not really new to educational research. However, the

introduction of the computer into the schools has changed the complexity of the innovation. In her article on Staff Development for Computer Literacy, Paulette Lovelle discusses a model for an innovation process.¹⁵ She based her model upon Havelock's Model for Change (1973): (1) choose a manager for change, (2) define goals, (3) research the topic, (4) consult with those who adopt readily to change, (5) design the working model, (6) she also states that hands on experience is a very essential delivery system,¹⁶ with feedback on the proper use. Her findings follow closely that of the Bruce Joyce's model that was discussed earlier.

Guba, Joyce, Fuller and other noted researchers and authors on change and innovations have set very lasting standards, or models of procedures, for implementing change in our schools. We now have to be prepared to use these models to successfully implement today's curriculum with yesterday's models of innovations. The models are strong and very applicable to most changes, and as Allen Ornstein states:

"Instructional goals and curriculum have changed, but new approaches in curriculum and instruction do not seem to have been implemented successfully on a wide spread basis. Changes in content seem to have been implemented more successfully than changes in methodology or process."¹⁷

The micro-computer is a process or methodology that we have to learn to implement successfully in our schools, using the available research and experiences that we have had.

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- 11 Frances F. Fuller, "Personalized Education for Educators," Austin, Texas: Research and Development Center for Teacher Education, University of Texas, 1970.
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CHAPTER III

METHODOLOGY

The purpose of this study is to evaluate the concerns of the staff at Rockwell Elementary during the implementation of the NRRS on the micro-computer. This study assessed the concerns of the teachers before the introduction of the innovation (NRRS) and then again after a six month period of inservice and use. The data from the pre-concerns instrument and the post-concerns instrument were then used to evaluate the results of this study. The data was reviewed to determine the degree of success of the inservice techniques used in the implementation of the NRRS.

A micro-computer was purchased for Rockwell Elementary in the fall of the 1981-82 school year. The micro-computer was purchased for the primary reason of implementation of the NRRS. Before a Fall implementation of the NRRS was introduced, an inservice plan was developed.

The first stage of inservice was to introduce the staff to the micro-computer. This was done through the offering of a six week course in computer literacy in the spring of 1982. These inservice sessions were held after school, one day a week, for one and one-half hours. The trainer for the inservice was a math teacher from Millard Central Junio High School that was trained to be a trainer of teachers. This course was offered at Rockwell

Elementary and was offered free of charge. In addition to this, the staff could use this coursework to count for professional growth within the district. With this encouragement and convenience, 90% of the staff participated in the training.

The next stage of inservice on the NRRS continued through the fall of 1982. During this year, the final revisions on the NRRS were made and the staff inservice was developed for the implementation. The inservice model that was used throughout this study followed that of Bruce Joyce's model. For stage one of the inservice model, the first staff inservice was held. At this time they were introduced to the background information on the development of the NRRS. After the staff understood the objectives of the implementation and was introduced to the theory of the innovation, an inservice session was developed where the staff could see the program demonstrated correctly and at the same session could also practice what they had seen. For this inservice session, Dr. Akers from the University of Nebraska at Omaha conducted the inservice. This session was conducted at the Educational Service Unit #3 so that the teachers could use the micro-bus, which is a bus with twelve computers on board. This bus holds twenty-two people plus the instructor. This was an excellent tool for the inservice as it gave the par-

participants a chance to see the demonstration and get immediate practice with feedback.

At this session, Dr. Akers gave background information on the NRRS that led to its present format. He then demonstrated the proper way to operate the NRRS. After his presentation and demonstration, the staff had a chance to practice the NRRS on the micro-computer. The micro-bus allowed Dr. Akers to closely monitor the teacher's progress. This stage of the inservice was completed before the staff was given the NRRS to use in the building.

In October 1982, the final stages of inservice were begun. It was during this school year that the simulated and guided practice stage of the Joyce Model was completed. This progress was done by working closely with individual teachers so that they could be monitored and guided through their concerns. The building principal worked individually with teachers on a need basis mostly, but also asked a few for extra inservice sessions as they were observed using the program incorrectly. These individual sessions gave the teachers an opportunity to have the NRRS demonstrated for them and gave them immediate feedback as to the proper or improper use. This was a very important stage to the inservice component. Through their familiarity with the NRRS by this inservice training, transfer to classroom is expected.

It was during the 1982 school year, in October, that the Pre-Stages of Concerns Questionnaire was administered to the teachers. This questionnaire was developed by Gene Hall of the Texas Research and Development Center for Teacher Education. This questionnaire has thirty-five questions designed to assess the levels of concerns of the staff involved in the innovation. The instrument is based on a seven point Likert rating scale. In this instrument, a seven would indicate that the statement is very true of the individual and a one would indicate that the statement is not true of the individual. A zero would indicate that the question was irrelevant. (Appendix A)

The questionnaire was explained and distributed to the staff at a staff meeting. Time was given at this meeting for them to complete the instrument. This procedure allowed them to ask for point of clarification of the questionnaire and assured a 100% return of the instrument. The following day, the questionnaire was given to any staff members who were absent on that first meeting. A cover letter explaining the purpose and design of the instrument was included with the questionnaire. (Appendix B)

In March of 1983, after all sessions of the inservice were completed, a Post-Stages of Concerns Questionnaire was given to all of the staff who participated in the previous questionnaire. This was

the same form of questionnaire that was administered in October.

Twenty-three teachers took part in the literacy training and the first part of the inservices. During the year, four teachers did not complete both pre and post questionnaires. The data from these nineteen teachers were used in this study.

The questionnaires were scored in standard format as designed and standardized by Gene Hall in the development of the Questionnaire at the University of Texas at Austin. The data were first reported in raw scores and then converted to percentile scores for interpretation and comparison purposes. (Appendix C)

CHAPTER IV

FINDINGS

In this study, the Stages of Concerns Questionnaire was used to assess the levels of concerns of the teachers at Rockwell Elementary as the NRRS was introduced through a series of inservices. The Stages of Concerns Questionnaire was also used to identify staff members who were 'users' of the program or became users as the inservice progressed.

To further understand the findings of this study, it is necessary to refer to the research that was done on the development of the Stages of Concerns Questionnaire. These baseline data were used in this study to compare the Rockwell teachers with that of the research baseline data.

One of the early concerns by the researcher of the study was to determine from among the teachers who were early users of the NRRS. By administering the Stages of Concerns Questionnaire in October, this information was available. The data from the Pre-Stages of Concerns Questionnaire for Stages 0, 1, and 2 are presented in Table I by percentile score.

Table I
PRE-STAGES OF CONCERNS QUESTIONNAIRE DATA.

Teacher number	Stages of Concern						
	0	1	2	3	4	5	6
1	30	6	15	6	3	6	3
2	42	36	39	18	3	6	3
3	12	12	3	3	3	3	3
4	39	24	15	39	3	3	6
5	39	12	6	27	3	3	3
6	9	36	33	9	21	12	21
7	30	39	36	9	27	24	3
8	30	6	3	12	3	3	3
9	30	15	15	21	3	3	15
10	39	21	12	21	3	3	3
11	12	33	15	6	3	3	3
12	33	21	6	3	3	3	3
13	15	36	21	15	12	12	9
14	9	9	3	3	3	3	3
15	30	30	27	36	9	12	27
16	6	6	9	3	3	3	3
17	45	42	33	36	3	6	3
18	15	6	24	6	3	3	3
19	30	9	15	9	3	3	38

In reviewing the baseline data from the research on the Stages of Concerns Questionnaire, the nonuser concerns profile is quite evident. The nonuser concerns are usually high on Stages 0, 1, and 2 and are lowest on Stages 4, 5, and 6. Variation occurs in the intensity of these concerns depending on the innovation and the prior familiarity with it.

In this study, as Table I indicates, all of the teachers had high scores in Stages 0, 1, and 2. Their scores in Stages 4, 5, and 6 were low. This would indicate that prior to this pre-concerns instrument, the staff had little or no experience with the NRRS.

In order to determine the extent of use of the NRRS, the Post-Stages of Concerns Questionnaire was administered in order to be used as a comparison to the Pre-Concerns Questionnaire. This questionnaire was administered in March, six months after the Pre-Concerns instrument was given and the NRRS was introduced. By comparing these data, the use of the innovation can be determined by looking at Stages 0, 1, and 2 compared to Stages 4, 5, and 6. By reviewing these data and comparing them to those of the Pre-Concerns instrument the amount of change that occurred in each stage is measureable. These changes can be interpreted to determine the usage rate. The data from the Post-Stages of Concerns Questionnaire for Stages 0, 1, and 2 are listed in Table II.

Table II
POST-STAGES OF CONCERNS QUESTIONNAIRE DATA

Teacher number	Stages of Concern						
	0	1	2	3	4	5	6
1	9	9	12	3	3	3	21
2	39	30	21	18	3	3	3
3	42	3	3	3	3	3	3
4	15	33	15	21	3	3	21
5	42	12	6	30	3	3	21
6	15	36	27	30	3	3	36
7	9	36	15	3	3	39	6
8	39	12	15	24	3	9	12
9	39	12	33	36	3	3	36
10	45	24	15	24	3	3	21
11	30	24	15	9	3	3	3
12	39	33	12	6	3	3	6
13	3	30	24	6	6	6	15
14	15	3	3	3	3	3	3
15	36	6	12	18	3	3	3
16	39	6	6	3	3	3	3
17	30	15	12	12	3	3	3
18	30	21	27	6	3	3	6
19	39	9	9	6	3	3	3

Group inservice was held with the staff on the correct use of the NRRS and the correct use of the micro-computer. The data from Table II indicate that the levels of concerns are still high in Stages 0, 1, and 2 as compared to the scores in Stages 4, 5, and 6. This would indicate that most of the nineteen teachers still shared a high degree of concerns at the early stages and are not ready to or not interested in making the transfer of knowledge of the NRRS into their classroom.

The high scores in these first three stages indicate that they wanted more information about the goals of the innovation, had personal concerns about it and its consequences and had management concerns as to how it would be used in the classroom.

In keeping with Gene Hall's interpretation of the scorings, it must be concluded that only three of the nineteen teachers clearly became a high positive user of the innovation. A high positive user is defined here as one who had a total score of at least 40 on Stages 4, 5, and 6 of the questionnaire.

A graphic comparison of the total score of Stages 0, 1, and 2 in the pre to post questionnaire shows the percentile totals tended to decrease during the six month period for half of the teachers. (See Figure 1)

In this study, the measurement of use of the NRRS was necessary to evaluate and monitor the success of the inservice. To do this, the total scores from the seven stages of concerns were used as indicators of the amount of involvement the teachers had with the NRRS. However, total score is not so reliable as the individual scores are in the interpretations. In Table III, the total scores are shown for the Pre-Stages of Concerns Questionnaire.

TABLE III
TOTAL PERCENTILE SCORES FOR THE PRE-STAGES OF CONCERNS
QUESTIONNAIRE

Teacher number	Total Score
1	69
2	147
3	39
4	129
5	93
6	141
7	168
8	160
9	102
10	102
11	75
12	72
13	120
14	33
15	171
16	33
17	168
18	60
19	107

In Table III, a low total suggests low intensity of concerns and a comfortableness with the innovation. A high total score suggests definite feelings and involvement with the innovation, either positive or negative. Again, one must look at the significant differences when compare total scores to make any accurate interpretations. Using these data, it is evident that teachers three, fourteen and sixteen had significantly lower scores.

These scores indicate that they had low intensity of concerns and were comfortable with the goals, and intended use of the NRRS. Teachers seven, fifteen, and seventeen expressed the highest levels of concerns, which again indicates a reluctance of use.

In order to study the changes of concerns, a comparison of the total scores also needed to be made for the Post-Concerns Questionnaire. Table IV shows these data.

TABLE IV
TOTAL PERCENTILE SCORES FOR THE POST-STAGES OF CONCERNS
QUESTIONNAIRE

Teacher number	Total Score
1	60
2	117
3	60
4	111
5	105
6	132
7	111
8	114
9	162
10	135
11	87
12	102
13	90
14	33
15	81
16	63
17	78
18	96
19	72

Table IV also displays high total scores. When comparing these scores to that of Table III, the intensity is lower in Table IV. In this study, eleven of the nineteen teachers showed a lowering of the total score. This indicates that the teacher's level of concerns have decreased in intensity, but have not moved to the higher stages of concerns as was anticipated by this researcher. This lowering of intensity was expected in this study however, the degree of intensity of changes displayed was not as different between the pre and post instrument as expected by the researcher.

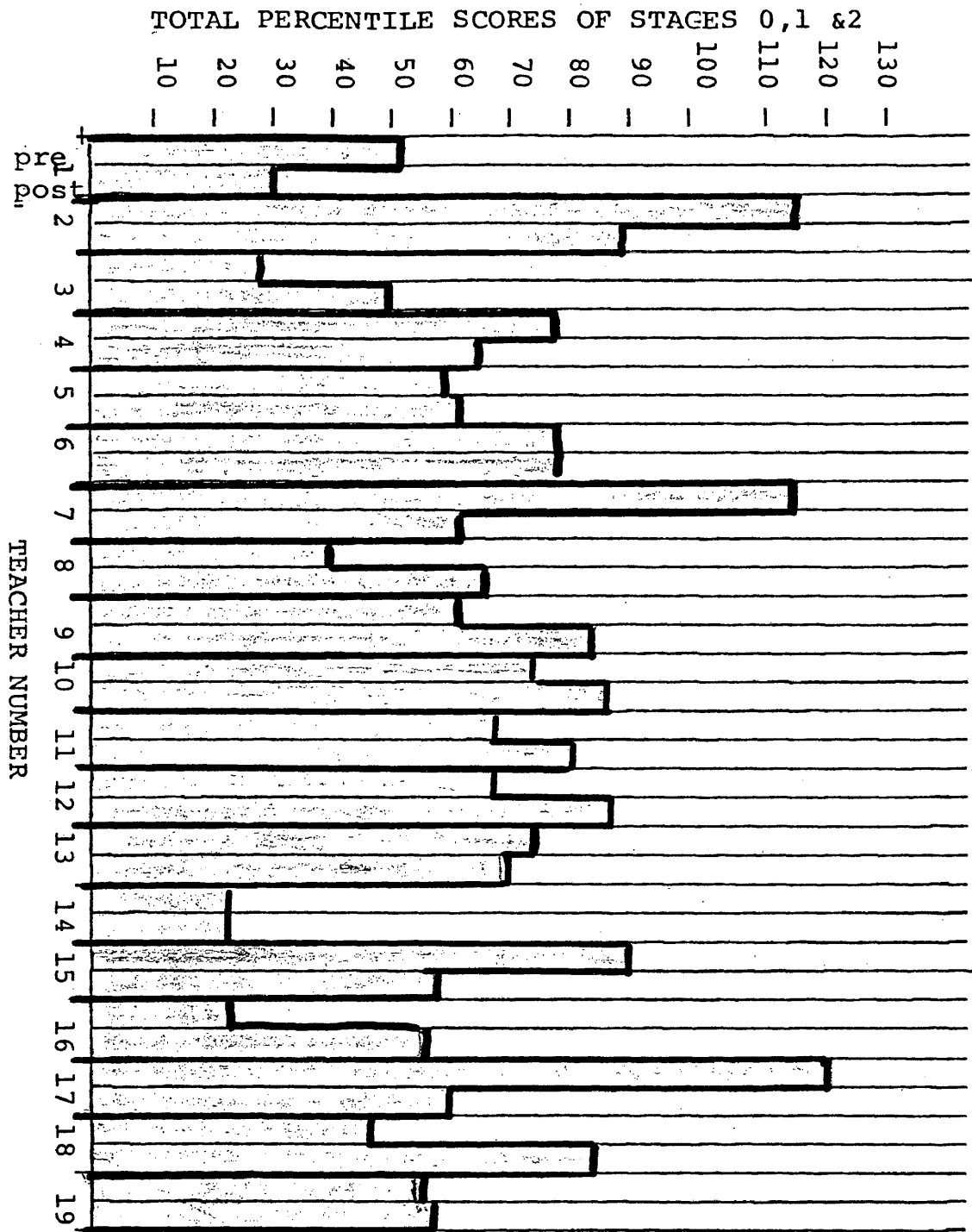


Figure 1

CHAPTER V

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

SUMMARY

The purpose of this study was to evaluate the concerns of the teachers during the pilot implementation of the NRRS. A questionnaire, designed by Gene Hall and based on the Concerns Based Adoption Model, was given to the teachers at Rockwell Elementary as a pre and post instrument to monitor and measure changes in the teachers' concerns. The intensity of use was also measured with this instrument.

All members of the teaching staff participated in the inservice sessions. A total of nineteen teachers participated in taking both the pre and post Stages of Concerns Questionnaire. The pre-questionnaire was administered in October of 1982, and the post-Stages of Concerns Questionnaire was given in March of 1983.

The data presented in this study are the results of this six months of teacher contact with the NRRS.

The results of this study are compatible to that of other research done by users of the Concerns Based Questionnaire. The stages of concerns shifted from the informational level to that of working with the innovation.

CONCLUSION

The results of this study indicate that there was a high degree of concern about the innovation (NRRS) with the teachers involved before they were introduced to the NRRS. The pre-Stages of Concerns Questionnaire indicated that the majority of the teachers were intensely concerned about the objectives of the NRRS and did not understand the useful purpose of the NRRS. These results were expected at the pre-concerns stage because they were not introduced to the program at this time. In reviewing the data, there were three teachers who were able to look beyond the expected concerns and look at the impact on the management, and relations of the NRRS and their students.

The post-Stages of Concerns Questionnaire indicated that there were still the majority of the staff that had a high degree of concern at the informational level. This would indicate that even though the teachers had the working knowledge of the NRRS and the micro-computer, they still had a high degree of concerns on the informational, personal and management level. Their degree of concern had not reached the collaboration or refocusing level.

In comparing the data between pre and post questionnaires, it is evident that the majority of the teachers had learned what was presented during the inservice training, but were not able to make the transfer

necessary into the classrooms to make more extensive use of the NRRS.

There was a clear distinction from the questionnaire as to which teachers were the users and which ones did not advance to the user level. These data indicate that for these non-users, they clearly understood the NRRS program and its objectives, but had limited use for the NRRS in the classroom.

Reviewing the demographic information shows that age and length of experience had little effect on the usage of the NRRS. The new teachers with little experience did not show any more significant use than the experienced teachers. What the demographic information did point out was that the teachers who used the program, moved to a higher level of concern, and were able to make the transfer for the use of the NRRS to their classrooms, were the non-classroom teachers; reading specialist, Chapter 1 and resource teacher.

These results were expected because of the remedial settings of these classrooms. In the Millard School District, the elementary student that has difficulty in reading usually is also in one of the remedial settings for extra instruction. Since the classroom teacher usually does not have to provide the extra materials needed for further remediation, they did not have as great of need to use the NRRS as did the Reading Specialist.

The next high users of the NRRS were the teachers that had lower reading groups. However, the data were not significantly higher than those teachers without the lowest groups.

RECOMMENDATIONS

Based on the findings of this study, the Bruce Joyce Training Model was effective in introducing the teachers to the knowledge level of the NRRS and the use of micro-computers. To get to the personal, management, and transfer level, additional inservice programs are apparently needed to provide more followup on the use of the NRRS. This inservice should be at the individual level since the staff is at different stages of usage. The amount of inservice provided will depend on the individual.

The inservice provided in this study was sufficient for those teachers that could see a direct use in their classroom setting. Additional information needs to be given to show how the NRRS could apply to the regular classroom teacher and the average groupings of students.

In order to assure future success of the NRRS, additional clerical or volunteer time needs to be addressed. The expansion of the district volunteer program could provide the needed assistance to the teachers using the NRRS.

The use of the Stages of Concerns Questionnaire was a very useful instrument in gathering data and setting

the direction of future inservices. This instrument would be beneficial to any implementor of a new innovation.

The classroom teachers continued a high degree of concern on the early stages. In personal interviews, the teachers related that they were impressed with the concept of the NRRS, and its possibilities, but they felt that the time frame was a concern. By time frame, they meant that they had a difficult time getting access to the computer. During the day, the computer is very heavily used by students. The teachers have access to it only before or after student hours, Another time frame concern is that even though the teachers might take the time to get the resource information from the computer, time becomes a factor in getting the games or worksheets then made for classroom use.

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BIBLIOGRAPHY

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APPENDIX A

INTRODUCTORY PAGE

Concerns Questionnaire

Name (Optional) _____

Date Completed _____

It is very important for continuity in processing this data that we have a unique number that you can remember. Please use:

Last 4 digits SS# _____

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
- 0 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 Nebraska Reading Retrieval System (NRRS). 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. Since this questionnaire is used for a variety of innovations, the name NRRS never appears. However, phrases such as "the innovation," "this approach," and "the new system" all refer to NRRS. Remember to respond to each item in terms of your present concerns about your involvement or potential involvement with NRRS.

Thank you for taking time to complete this task.

Bernie Vanis

SoC QUESTIONNAIRE ITEMS

43

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 NRRS.
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 don't even know what the NRRS 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 NRRS.
0	1	2	3	4	5	6	7	I have a very limited knowledge about the NRRS.
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 NRRS.
0	1	2	3	4	5	6	7	I would like to develop working relationships with both our faculty and outside faculty using this NRRS.
0	1	2	3	4	5	6	7	I am concerned about how the NRRS affects students.
0	1	2	3	4	5	6	7	I am not concerned about the NRRS.
0	1	2	3	4	5	6	7	I would like to know who will make the decisions on the NRRS.
0	1	2	3	4	5	6	7	I would like to discuss the possibility of using the NRRS.
0	1	2	3	4	5	6	7	I would like to know what resources are available if we decide to adopt the NRRS.
0	1	2	3	4	5	6	7	I am concerned about my inability to manage all that the NRRS 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.

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Procedures for Adopting Educational Innovations/CBAM Project
 R&D Center for Teacher Education, The University of Texas at Austin

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 evaluating my impact on students.
- 0 1 2 3 4 5 6 7 I would like to revise the NRRS'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 NRRS based on the experiences of our students.
- 0 1 2 3 4 5 6 7 Although I don't know about the NRRS, 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 NRRS approach.
- 0 1 2 3 4 5 6 7 I am concerned about time spent working with nonacademic problems related to the NRRS.
- 0 1 2 3 4 5 6 7 I would like to know what the use of the NRRS will require in the immediate future.
- 0 1 2 3 4 5 6 7 I would like to coordinate my effort with others to maximize the NRRS'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 NRRS.
- 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 NRRS.
- 0 1 2 3 4 5 6 7 I would like to determine how to supplement, enhance or replace the NRRS.
- 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 NRRS.
- 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 NRRS is better than what we have now.

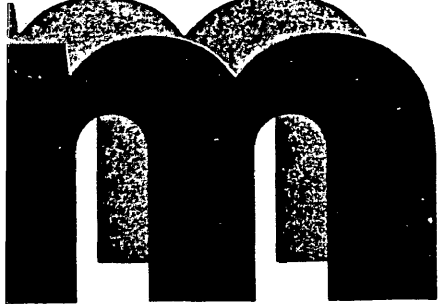
DEMOGRAPHIC PAGE

___ Primary
 ___ Intermediate

PLEASE COMPLETE THE FOLLOWING:

1. What percent of your job is:
 teaching ___% administration ___% other (specify) ___%
2. Do you work: full time ___ part time ___
3. Female ___ Male ___
4. Age: 20-29 ___ 30-39 ___ 40-49 ___ 50-59 ___ 60-69 ___
5. Highest degree earned:
 Associate ___ Bachelor ___ Masters ___ Doctorate ___
6. Year degree earned: ___ 7. Total years teaching: ___
8. Number of years at present school: ___
9. In how many schools have you held full time appointments?
 one ___ two ___ three ___ four ___ five or more ___
10. How long have you been involved in NRRS, not counting this year?
 never ___ 1 year ___ 2 years ___ 3 years ___ 4 years ___ 5 years or more ___
11. In your use of NRRS, do you consider yourself to be a:
 Nonuser ___ novice ___ intermediate ___ old hand ___ past user ___
12. Have you received formal training in NRRS (workshops, courses)?
 yes ___ no ___
13. Are you currently in the first or second year of use of some major innovation or program other than NRRS.
 yes ___ no ___
 If yes, please describe briefly.
14. How many times have you used the NRRS so far? ___
15. Please check to see that you have written the last four digits of your Social Security number on the front page of this questionnaire. Thank you for your help.

APPENDIX B



MILLARD PUBLIC SCHOOLS

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DRMAN ROCKWELL ELEMENTARY SCHOOL
70 South 140th Ave. Omaha, Nebraska 68137
Phone: 895-8246

Dear Teacher:

Thank you for your willingness to assist in one of our districts research efforts. We are currently involved in studying the process of change in education, what happens to individuals involved in change, and why.

Because our school is working with a new innovation, it is felt that we are one of the best sources of information to seek and learn more about the process of change. At this time, the program that we will focus on is the Nebraska Reading Retrieval System.

We are asking you to fill out the questionnaire which seeks to measure your present concerns about the NRRS. Please turn in your finished questionnaire to the office. As you notice, we do not ask for your name, but we would like for you to use a number in order that we can run some comparisons from the pre to post questionnaires. For this purpose, please use the last four numbers of your social security number.

Thank you for your help.

Bernie Vanis