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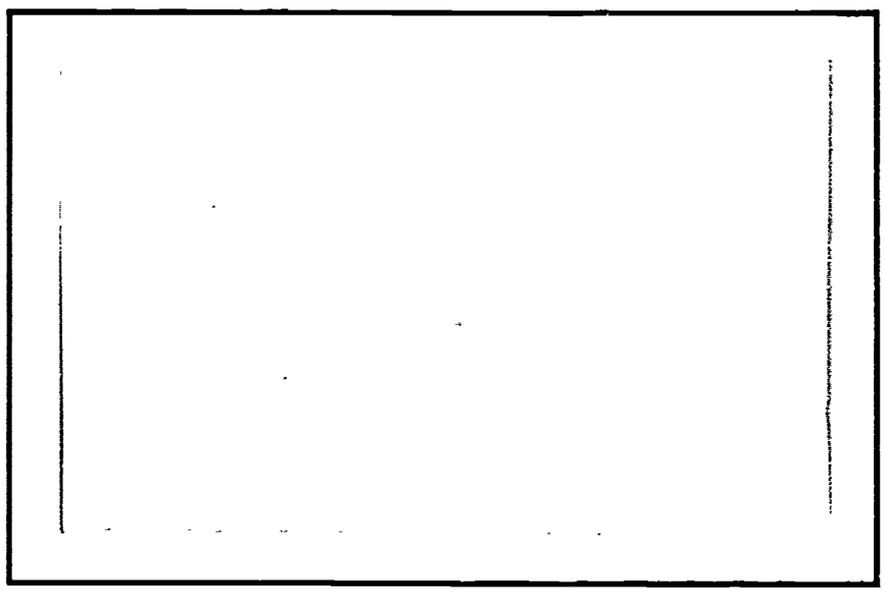
ABSTRACT

Minicourse, "Effective Teaching," a program of skills development, was designed to aid inservice training of elementary teachers. Fifty-two teachers in 13 widely distributed New York schools participated in the program on a voluntary basis. Thirteen Minicourse sessions were completed according to a timetable. Each instructional sequence required 1 week for participating teams to complete. A follow-up study, during the second semester, provided materials for each participating teacher in six schools. The primary source of data was three recorded teaching episodes, 15 minutes in length, which were collected prior to the beginning of the Minicourse program, at the end of the program, and at the end of a 6-month period following the program. Results indicated that teachers' behavior changed in directions intended by the Minicourse program and that the qualitative changes were well beyond the level required for statistical significance. Appendixes of related program materials and tables are included. (MJM)



TEACHER EDUCATION RESEARCH CENTER

STATE UNIVERSITY COLLEGE

FREDONIA, NEW YORK

FINAL REPORT

The Usefulness of Minicourse 1 in the Inservice Training of Elementary Teachers

March, 1972

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Research results based on a project sponsored jointly by:

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FOREWORD

It need hardly be said that the success of the inservice program and field testing reported in this paper is an attribute of the quality and utility of the skills development materials that are the product of a long and rigorous program of development by the Far West Laboratory.

In large measure, however, the effectiveness of a project of this magnitude is due to the strong and even enthusiastic support of all members of the consortium - the State University, the Western New York School Development Council, the State Education Department, the Far West Laboratory, the Southwestern Association for the Improvement of Instruction, Macmillan Educational Services, and the public schools of Western New York who were involved in the project. Each made important contributions to the project, and each received significant benefits.

Critical to the project, however, was the day-by-day effectiveness of the functioning team for the project: David Mack, Project Director, who coordinated both the large and small details of the project; Douglas Rector who handled the research data collection; Jack Bicknell who formulated the data organization and analysis; and the local coordinators and teachers whose substantial support and cooperation was essential. (This group is listed in Appendix C.)

The ultimate measure of success of any initiatory program of this kind lies in the use that is made of the results. It is our sincere hope that this program will be the beginning of an expanded use of the Minicourse programs and teaching skills development in the Western New York area.

Dr. Kenneth G. Nelson, Director
Teacher Education Research Center

INTRODUCTION

The development of the Minicourse programs by the Far West Laboratory for Educational Research and Development, under the direction of Dr. Walter Borg, has been cited as one of the major educational innovations of the past decade. Through rigorous testing, these programs of microteaching self-study and improvement have been shown to change the teaching behavior of teachers quickly and significantly. These results are in marked contrast to the findings of studies of other modes of teacher preparation and training, particularly in regard to the basic teaching skills, a major concern of the Minicourse programs.

The Minicourse with which this study is concerned, Effective Questioning: Elementary Level was the first to be developed and tested, in 1967, and was also the first to be published as an educational product by Macmillan Educational Services, in 1970. In this respect, it stands in prototype position, and is of particular concern to educational research and development. The study undertaken and described in this paper constituted the first major field use of a completed Minicourse program, and afforded an opportunity to assess the effect of the program on the teaching behavior of a teacher in a variety of school situations.

The Teacher Education Research Center at Fredonia, under the direction of Dr. Kenneth Nelson, became associated with the work of the Far West Laboratory in the Fall of 1968. During the Spring semester 1969, the Minicourse, Effective Questioning was tested in the pre-student teaching program for elementary teachers. Subsequent use and testing of the Minicourse at the undergraduate level has involved both Effective Questioning and Minicourse V, Tutoring in Elementary Mathematics, and has been continuous to the present date.

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OBJECTIVES

General Objectives

1. To conduct, within the Western New York public school setting, a carefully evaluated operational field test of the first commercially-produced minicourse program.
2. To assess the utility and functioning of a broad consortium of agencies, designed to carry out the operational field test.

Specific Objectives

Specifically, the study concerned itself with answers to the following questions:

1. To what extent are teachers' skill levels in leading class discussions changed during a period of training with Minicourse I?
2. To what extent are the changed skill levels maintained at the end of a six-month post-training period?
3. To what extent are the retentions of skill gains improved for those teachers who are provided with a refresher in Minicourse #1 at the end of a three-month post-training period?
4. Is Minicourse #1 training equally effective for both primary (K-3) and upper (4-6) elementary school teachers?
5. To what extent are the levels of Minicourse #1 skills developed during training related to the teachers prior attitude toward the training and to their prior levels of the skills?

6. To what extent are the findings of this experiment similar to those reported by Borg?[1]

Note - the specific objectives and related behaviors for Minicourse I, Effective Questioning are included in Appendix A.

ORGANIZATION

Initial

The initial organizational planning was done by the staff of the Teacher Education Research Center, the Western New York School Development Council, presently the Western New York Regional Planning Office and the Southwestern New York Association for the Improvement of Instruction, with the advice and participation of Dr. Walter Borg, director of the Teacher Education program of the Far West Laboratory. Basic funding was sought and obtained by means of a LOIC (local, in-service) grant from the Bureau of Inservice Education, of the New York State Education Department, Albany. At the same time, funding and service assistance agreements were concluded with other agencies, and the participation of area schools was invited.

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1. Walter Borg, and Others, The Minicourse, A Microteaching Approach to Teacher Education, Beverly Hills: MacMillan Educational Services, 1970, pp. 72-100..

Operational

The developed consortium, in addition to the foregoing, involved Macmillan Educational Services and administrators and staff members from the following thirteen public school systems: Bemus Point, Cassadaga Valley, Dunkirk, East Aurora, Friendship, Kenmore, Lancaster, Lyndonville, Olean, Randolph, Salamanca, West Seneca and Scio. The director of the project, responsible for overall organization and direction, was David P. Mack, Planning Associate of the Western New York School Development Council. The research aspects of the data collection and analysis were the primary function of the staff of the Teacher Education Research Center.

It was specified that in each participating school there be a coordinator and technician working with a study group of four teachers. (For purposes of the experimentation it was expected that two of the teachers be from lower elementary (K-3) and two from grades 4-6, or equivalent.)

The coordinators were: J. Robert Johnson, Bemus Point; Elmer Horey, Cassadaga; Robert Block, Dunkirk; George Oliver, East Aurora; Ruth Kellogg, Friendship; Peter Pacos, Kenmore; Rochford Harmon, Lancaster; Earl Warner, Lyndonville; Mrs. Winifred Hand, Olean; Gail Chapman, Randolph; Glen Goergen, Salamanca; Alfred Brush and James Watkins, Scio; and Arthur Donley, West Seneca.

Initial organization of the project was accomplished through a two-day workshop in August, in which the emphasis was upon the training and informing of the coordinators and technicians. Material concerning the workshop is included in Appendix B.

Selection of Schools and Teachers

The schools participating did so on a voluntary basis, and were not a cross-section or representative of the schools of Western New York. However, there was a wide range, geographically, and both city, suburban and country areas were represented.

Similarly, the participation of most teachers was voluntary. For the purpose of the experiment, the groups were limited to a single group of four teachers in each school system, with the further restriction that two teachers be teachers at the lower elementary (K-3) and that two be teachers of grades 4-6. The group of 52 teachers from 13 schools varied widely from first year teachers to some who were close to retirement. Most of the teachers were veterans with many years of experience. (Appendix C lists the participants by school.)

Duration of the Project

The project was initiated with a workshop for coordinators and technicians on August 10-11, 1970. The inservice program took place during the fall semester, 1970, for the total group, while a smaller group worked with the follow-up study materials during the 1971 spring semester. The final teaching sample, both by those using the materials, and the remainder of the group, serving as a control group, was recorded in June, 1971.

Budget Contributions

The budget reflects the nature and degree of support for the consortium on the part of the participants. Some parts of the costs are expressed in dollar equivalents or work equivalents.

A - State Education Department, Local Education Assistance Grant	$ 4,000
B - Far West Laboratory, materials and services	4,460
C - Local School Districts, substitutes and workshop cost	7,100
Also, unestimated time of coordinators and technicians	_____
D - Teacher Education Research Center	775
Staff time planning, 25 man days	_____
Staff time, data analysis and reporting, 15 man days	_____
E - Western New York School Development Council, staff time, planning, coordination, 30 man days	_____
F - Macmillan Educational Services	175
G - Southwestern New York Association for the Improvement of Instruction, staff, time, 5 man days	_____
	$16,510.+

Graduate Credit

Arrangements were made at State University College, Fredonia, for three hours of graduate credit to be made part of the program for those enrolled for graduate study at the college. The course was Education 619, Supervision Practicum, an independent study elective. The requirements were successful completion of the program, as measured by objective evaluation of final teaching, and the completion of a log and an evaluative summary paper. Seventeen teachers completed the course for credit, while two others received local inservice credit. The experiment served as a field trial in

a graduate course in skills training and has been proposed as a course in the graduate curriculum at Fredonia.

OPERATION OF THE PROGRAM

As has been stated, the operation of the program involved the cooperative efforts of many individuals. Appendix D summarizes in detail the roles of the cooperating agencies. The coordination of all aspects of the program was the responsibility and function of the director, with the exception of the program of collection and analysis of the videotapes of teaching performance, and the subsequent analysis of these and other data instruments.

Scheduling

The Minicourse, Effective Questioning, is a program of skills development, and the schedule of lessons is outlined in both the Teachers Handbook and the Coordinator's Handbook. This schedule of lessons is reproduced in Appendix E.

All use of the Minicourse lessons, and the recording of the pre and post course teaching was according to a pre-established schedule. (See Appendix F) The schools were divided, on the basis of geography, into four groups who used each lesson for one week and mailed it or arranged delivery to the next school scheduled to use it. These arrangements worked smoothly, and were necessitated by the need to share four sets of lessons among thirteen schools, and the need for consecutively scheduling the pre and post taping of fifty-two teachers in thirteen widely-distributed schools.

The follow-up study, during the second semester, required less rigid scheduling since the follow-up materials were provided for each teacher participating, in six of the schools. The post taping was done for these schools in May, upon completion of the [illegible] and the control schools were scheduled at their convenience in the same time period. The scheduling of the taping sessions was initiated with a questionnaire, but final arrangements were completed, in most areas, by phone.

Recording of Teaching Performance

A prerequisite to the participation of each school was the availability of both television recording equipment and available space for the microteaching. Three of the schools were equipped with half-inch portable recorders, the remainder used one-inch equipment. The latter were somewhat less portable and reliable, though no coordinators reported significant disruptions or delays. By the end of the program, most teachers had a degree of familiarity with the equipment, at least to the extent of making and replaying their own recorded teaching. As a general rule, teachers taught alone without a cameraman.

Similarly, in each participating school, a room was to be provided for the teaching practice and for the making of the recorded pre and post teaching lessons. During these latter sessions, it was clearly evident that the provision of space for microteaching was somewhat of a problem. It is axiomatic that most schools have

most rooms in use most of the time. In no instance was the pre and post tap cording accomplished in a room that was permanently equipped with the schools recording equipment as a single-purpose room. The facilities available ranged from board meeting rooms to an air raid shelter basement, with the latter a very desirable location.

The recorded taping of the teachers performance was done three times for each of the fifty-two teachers, according to a carefully prepared schedule. Each taping session in each participating school occupied the larger part of a morning or afternoon session. Each participating teacher was requested to conduct a microteaching discussion lesson of at least fifteen minutes duration with a group of six children. It was specified that the group remain substantially the same children during the course of the experiment. Following the recording, each teacher was given the opportunity of viewing the tape and discussing it with the Research Center staff member who was in charge. Most did so, and most viewed the tape along with the children. It was found that a 35-40 minutes per teacher time allowance was sufficiently generous.

The equipment used in the first two rounds was General Electric Tri-Pak one-half inch, while the final round was done with the SONY Video Rover, one-half inch. Both machines performed reliably, though the latter was far less burdensome. Extra machines were

always taken but were need only twice in the 156 recordings. The usual difficulties were with sound, and the routine use of a cassette sound recorder along with the television equipment eliminated any need to request the teacher to repeat the teaching.

PROCEDURES IN EVALUATION

Components:

1. Workshop participants were requested to complete a questionnaire evaluation of the effectiveness of the workshop.
2. Prior to the program, and again following the program, the fifty-two teacher participants were requested to complete a questionnaire designed to assess both attitude toward the skills and the Minicourse program and the frequency of use by the teachers of the skills involved in the program.
3. Specific skills-performance of the teacher was assessed three times during the program: prior to the program, at the completion of the major study, and five months later, as a check upon retention of the skills of the minicourses and the possible effect of the follow-up materials on the behavior of the experimental sub-group. The teacher was in each case, requested to conduct a discussion lesson with a group of six children, of at least 14 minutes in length.

Eleven specific behaviors related to the course objectives were measured. These were:

a. Percentage of teacher talk
b. Redirection
c. Prompting
d. Seeking clarification
e. Repeats own question (avoid)
f. Repeats pupil answer (avoid)
g. Answers own question (avoid)
h. Length of pupil response
i. One word answers (avoid)
j. Length of teacher pause
k. Percent of higher cognitive questions.

4.. At the completion of the program, the local coordinators were asked to complete a questionnaire concerning the overall operation of the program and their specific reactions.

Analysis of Teaching Tapes

The analysis of the teaching tapes, 154 in number, was the primary responsibility of the staff of the Teacher Education Research Center. The staff was successful in obtaining good voice transcriptions of all teachers in each of the three iterations. However, picture loss was encountered in two of the lessons.

Analysis was done according to protocols and procedures developed for the research field testing of Minicourse I by the staff of the Far West Laboratory, and subsequent analysis of data was according to the designs previously used by them.

The training and rating guides proved adequate in all but one respect, the category of Higher Cognitive Questions. Considerable time was devoted to the specifics of, "What is a higher cognitive question in grades K-3?"

Initially, tape analysis was to be done by undergraduate work study students, who were assigned to the laboratory for several hours each week. However, it was soon determined that their work was reliable only for simple counting and timing procedures. All skills of any complexity involving judgment therefore were rated primarily by the professional staff, or by one student who was hired full time during intermission and vacation periods.

Reliability was constantly assessed by spot checks by the principal researchers, rather than by comparison of student ratings. Higher cognitive questions were usually double rated.

The above procedures were substituted for the "double blind" mixing of the tapes for several reasons. First of all, a change was made to a more portable recorder between the second and third taping, so the third tape could not be mixed. Second, the quality of tapes used in the first taping was definitely inferior, so, upon reordering and use, the new tapes were identifiable. Also, when pre-tapes were mixed with the others, many behaviors were absent, and the rater had a tendency to "read into" the teaching more than actually existed. Finally, the "double blind" mixing of tapes would have postponed all analysis to the end of the year, when qualified staff was not available.

RESULTS

Analysis of Teaching

The primary purpose of the study was to obtain objective measures of changes in teaching behavior of the 52 teachers taking part in the program and to the changes relating to specific sub-studies presented as questions in the objectives previously stated.

The primary sources of data were the three recorded teaching episodes, 15 minutes in length which were collected prior to the beginning of the Minicourse program, at the end of the program, and at the end of a six-month period following the program. During this post-period the 24 teachers studied "refresher" material provided by the Far West Laboratory, while a group of 28 teachers had no further planned practice or training and thus served as a control group. This latter study constituted an iteration of a similar study performed by the staff of the Far West Laboratory.

The data concerning the scores (counts of instances of specific behaviors or percentage of use) are presented in tabular form, in response to the questions.

1. "To what extent are teachers' skill levels in leading class discussion changed during a program of training which involves the Minicourse, Effective Questioning?"

This question is the critical question of the study, since it relates directly to the total effectiveness of the minicourse program.

The findings are presented in Table 1, and show the analysis of the pre- and post-program teaching. The tabulation includes means, standard deviations, correlations and t-tests between pre- and post-test scores. It may be noted that in each measure, including the "negative behaviors" which the program is intended to extinguish, the direction of change is that which is intended in this particular Minicourse program, and that the t values are well beyond the .05 level of significance.

It is interesting to note that most of the correlations between pre- and post-test scores are small and, in three cases, are negative. Such correlations could occur as a result of the presence of either or both of two conditions.

The first would be a substantial training effect. In many cases, teachers watched themselves, and chose skills which they considered they did badly, for later emphasis. Several tried, and succeeded, in the later teaching, for example, in teaching discussion lessons in which they used only higher cognitive questions. Others tried to teach with very high pupil participation. Such selectivity may be assumed to produce low correlations between pre- and post-teaching behavior.

The second would be that the skills have been measured with a high degree of unreliability. Because of the nature of the measurement of the skills, the latter of these two conditions is highly unlikely. Most of the skill scores represent frequency counts. For example: Redirection, Prompting, Clarification, Repeats Own Question, Repeats Pupil Answer, Answers Own Question, and One Word

Table 1

Means, Standard Deviations t-test and Correlation Between Pretest and Post-test Skill Scores of 52 Teachers

(Time: 15 min.)

	Pretest x_1		Post-test x_2			
SKILL	Mean	sd	Mean	sd	$r_{x_1x_2}$	t(1)
Teacher Talk (Percent)*	62.25	12.85	32.03	9.18	-.061	13.42
Redirection	20.75	15.12	36.38	16.09	.049	4.23
Prompting	1.23	1.70	3.71	3.18	.002	3.88
Clarification	2.19	2.29	9.33	5.04	.117	13.22
Repeats Own Question*	5.58	3.82	1.96	1.87	-.005	6.12
Repeats Pupil Answer*	20.29	15.86	1.54	2.45	.308	8.85
Answers Own Question*	3.21	3.21	.88	1.60	-.090	4.52
Pupil Response Length	5.17	2.47	11.19	5.63	.272	7.90
One Word Answers*	8.19	7.75	2.79	4.82	.151	6.66
Pausing (Sec.)	1.16	.44	3.17	1.46	.186	10.04
Higher Cognitive Questions (Percent)	43.33	16.24	70.47	14.67	.312	10.73
Attitude Score	54.59	30.54	73.62	22.11	.579	5.42

(1) Level of t required to test hypothesis that post-test skills are significantly greater than pretest skills = 1.67 (at .05 level).

*Intent of Program is to decrease frequency.

Answer were assessed by counting the number of times they occurred in each taped lesson. The Teacher Talk score was obtained by use of a stop watch and is reported as the percent of the total lesson time that the teacher was speaking. The Pausing score was also obtained by use of the stop watch and is reported as the average time in seconds between the end of a teacher's question and her designation of the pupil who was to respond. Higher Cognitive Questions were reported as the percent of the teachers' questions which required more than recall of information for the pupil to respond. This is the only skill in which the rater's judgment came into play. It is also the skill in which the pretest and post-test scores are most highly correlated. However, the raters of the tapes were carefully trained in a rating procedure which was developed at the Far West Laboratory and found to be highly reliable. Therefore, in this study it was assumed that the rating of skills was sufficiently reliable.

2. "To what extent are the changed skill levels maintained at the end of a six-months post-training period?"

Table 2 shows a comparison of skills scores for 48 teachers completing the follow-up training in comparison with the post-tests made at the termination of the training program.

The results of any program of training designed to modify teaching behaviors are open to question unless they can be shown to persist in normal teaching over a period of time following the program. It was felt that six months was a sufficient period of time for the purposes of the study.

Table 2

Means, Standard Deviations and t-test Between Post-test and Post-post-test Skill Scores of 48 Teachers

SKILL	Post-test Mean	sd	Post-post-test Mean	sd	t
Teacher Talk	32.48	9.28	25.17	10.09	3.66#
Redirection	25.00	11.26	26.42	8.60	.68
Prompting	2.54	1.82	2.77	3.50	.40
Clarification	6.70	3.51	7.30	3.23	.87
Repeats Own Question	1.52	1.27	.44	.76	5.00#
Repeats Pupil Answer	1.06	1.53	2.10	2.93	2.16#
Answers Own Question	.60	1.10	.25	.63	1.92#
Pupil Response Length	10.93	5.10	11.63	9.02	.52
One Word Answer	2.89	3.19	3.81	5.48	2.83#
Pausing	3.06	1.34	3.13	1.96	.22
Higher Cognitive Questions	70.20	13.72	63.79	19.50	.27
Clarification*	6.70	3.51	7.30	3.23	.78
Higher Cognitive Question*	70.20	13.92	63.79	19.50	.33

*t calculated using t-test for correlated sample.

#Significant beyond .05 level of confidence.

An explanation concerning the t-tests shown in Table 2 should be made. Strictly speaking it would be inappropriate to use t-tests for correlated samples. However, because of an extended computer shut-down it was impractical to obtain all the necessary correlations. Two test cases were run to determine the magnitude of the difference between t's calculated from the correlated sample method and t's calculated from the separate group variances formula. For this purpose the skills, "higher cognitive questions" and "clarification" were chosen. The post-post-test correlations for these two skills were .3577 and .3012 respectively. The t-values thus obtained are shown in the last two lines of Table 2. When these values are compared with those obtained for t's using the separate group variances it can be seen that the t-values are slightly larger from the correlated t-test. The magnitude of these differences would change the significance of only one of the skills, "answers own question."

It can be seen from an examination of Table 2, that the changes in a number of items achieved statistical significance. However, these were not always in the direction intended by the program. Closer examination shows that statistical significance is characteristic only of those behaviors which the program was intended to diminish or extinguish. For example, "repeats pupil answer" increased significantly from a mean of 1.06 to 2.93, certainly not an effect intended by the program. However, both of the means show that for most teachers this behavior was for all practical purposes extinguished.

An examination of the other negative behaviors will produce similar observations, with the sole exception of "teacher talk." A reduction in this mean from 32%, approximately 1/3 of the total time, to 25%, or 1/4 of the total time, represents a substantial change in the pattern of daily classroom discussion, and is behaviorally significant.

The behaviors which the program was designed to increase show regularly low values of t, an indication that the behaviors persisted.

3. "To what extent are the retentions of skill gains improved for the teachers who are provided with a refresher in Minicourse I midway in the six-month post-training period?"

As may be recalled, a purpose of the follow-up program was to determine the possible effect of certain review materials provided for study by the Far West Laboratory. In Table 3, the post-post-test scores are shown for an experimental group of 24 who studied the materials and engaged in further planned skill practice, as well as the remaining 28 teachers who had no such practice and served as control group both for the sub-study and the post-program follow-up study as a whole. For only one item, "repeats own question" was significance found. However, one should note that this behavior, for both groups, had been, for all practical purposes, extinguished. Except for "pausing" all other t-values are consistently low. Although no comprehensive skills summation was made, the sign changes (4, 6) do not consistently favor either group.

Table 3

Mean Post-Post-Test Skill Scores and t-test for Teachers Who Did and Those That Did Not Receive a Minicourse I Refresher Course

SKILL	Mean Scores: Experienced Refresher (N = 24)	Did Not Experience Refresher (N = 28)	t
Teacher Talk	26.12+	25.07	.38
Redirection	25.38	27.64	.67
Prompting	3.13	2.43	.74
Clarification	7.46	7.14	.34
Repeats Own Question	.71	.18	2.53
Repeats Pupil Answer	2.17	2.18	.015
Answers Own Question*			
One Word Answers	4.02	3.70	.30
Pupil Response Length	10.79	12.02	.50
Pausing	2.90	3.58	1.23
Higher Cognitive Questions	65.10	63.91	.21

*No test possible - only 5 teachers who had and 6 who did not have refresher answered own questions at least once and at most, twice. For all practical purposes, the behavior was extinguished.

4. "Is Minicourse I training equally effective for both primary (K-3) and upper (4-6) elementary school teachers?"

The means, standard deviations and t-tests between Level 1 (K-3) and Level 2 (4-6) teachers are shown in Tables 4 and 5. Table 4 is devoted to pretest scores and Table 5 to post-test scores.

In Table 4 it can be seen that in only one skill, "repeats own question" was there a significant initial difference between the level groups. However, "teacher talk" and "one word answers" mean differences approached significance. Level 1 teachers talked less and obtained more one word answers than did Level 2 teachers. In Table 5 only two mean skill differences were significant. They were, "pupil response length" and number of "one word answers." As was expected, Level 1 teachers elicited more one word answers and shorter pupil responses than did Level 2 teachers.

It may be hypothesized, from examining the measures in question, that some of the differences may be a function of the "discussion style" of very young children in contrast to older children, rather than any differential effect of the program.

5. "To what extent are the levels of Minicourse I skills developed during training related to prior attitude toward the training and to prior levels of the skills?"

In Table 1 (Page 15) the correlations between the pre- and post-training skills scores were reported. With 50 degrees of freedom, an r-value of .231 is required for significance at the .05 level of

Table 4

Means, Standard Deviations and t-test

of Pretest Skills by Level

	Level I (K-3)		Level II (Gr. 4-6)		
SKILL	Mean	sd	Mean	sd	t
Teacher Talk	59.64	11.79	65.53	11.20	1.84
Redirection	22.55	14.49	18.48	15.92	.95
Prompting	.93	1.51	1.61	1.94	1.38
Clarification	2.21	2.05	2.17	2.68	.06
Repeats Own Question	4.59	3.45	6.83	3.77	2.20*
Repeats Pupil Answer	18.90	14.54	22.04	16.61	.72
Answers Own Question	2.59	2.62	4.00	3.80	1.52
Pupil Response Length	4.66	2.28	5.81	2.58	1.69
One Word Answer	13.41	8.77	9.57	6.06	1.86
Pausing	1.12	.48	1.20	.37	.67
High Cognitive Question	44.96	17.02	41.28	15.22	.82
Attitude Score	70.72	31.32	59.26	27.91	1.39
Number of Cases	29	-	23	-	-

*Significant beyond .05 level of confidence.

Table 5

Means, Standard Deviations and t-test

of Post-test Skills by Level

	Level I (K-3)		Level II (Gr. 4-6)		
SKILL	Mean	sd	Mean	sd	t*(1)
Teacher Talk	31.80	9.77	32.32	9.55	.19
Redirection	39.41	17.09	32.57	14.34	1.57
Prompting	3.83	2.63	3.57	2.95	.33
Clarification	9.55	5.78	9.04	3.47	.40
Repeats Own Question	2.10	1.80	1.78	2.04	.54
Repeats Pupil Answer	1.31	2.36	1.83	2.65	.73
Answers Own Question	1.03	1.61	.70	1.59	.73
Pupil Response Length	9.86	6.23	12.86	4.35	2.04*
One Word Answer	5.38	5.21	1.96	2.72	3.05*
Pausing	3.04	1.47	3.34	1.31	.77
High Cognitive Questions	72.45	13.61	67.98	16.33	1.05
Attitude Score	70.72	21.57	77.26	17.03	1.22
Number of Cases	29	-	23	-	-

(1) *t required for significance with 52 degrees of freedom = 2.00 (two tailed test)

*Significant beyond point .05 level of confidence.

confidence. For only three of the skills: "repeats pupil answer," "pupil response length," and "higher cognitive questions" was this value exceeded. For three of the skills: "teacher talk," "repeats own question," and "answers own question" negative but small values of r were obtained. It must be concluded that the post-training skill levels are relatively unrelated to pre-training skill levels. If these results can be generalized, training with Minicourse I would be beneficial to teachers possessing a variety of skill levels.

Originally, it was planned to use analyses of covariance and repeated measures of variance to test the significance of the differences between the groups of teachers. However, when multiple correlations were obtained between post-training skill scores and the combination of pre-training skill and attitude scores, it became apparent that they were too low to warrant the use of pre-training skill and attitude as co-variates. The zero order correlations and multiple correlations between the post-training skill scores and pre-training and post-training attitude scores are shown in Table 6. By comparing the multiple correlations with the zero-order correlations which are shown in the first column of Table 6 and the fifth column of Table 1 it can be seen that neither pre-training attitude scores nor pretest skill scores are strongly predictive of post-training skills either singly or in combination.

Table 6

Correlations of Post-training Skill Scores with Pre-training Attitude Scores, Post-training Attitude Scores and Multiple Correlations of Post-training Skill Scores with Pre-training Attitude and Pre-training Skill Scores

	Correlations		
SKILL	Post-training with Pre-attitude	Post-training with Post-attitude	Multiple R Post-Training with Pre-attitude and Pre-training Skills
Teacher Talk	-.002	-.185	.063
Redirection	-.216	.063	.217
Prompting	-.165	-.183	.172
Clarification	-.234	-.050	.271
Repeats Own Question	-.186	-.301	.188
Repeats Pupil Answer	.063	.013	.290
Answers Own Question	-.065	-.060	.116
Pupil Response Length	-.084	.134	.193
One Word Answer	.065	-.177	.083
Pausing	-.277	-.167	.319
Higher Cognitive Questions	.128	.037	.337

With 50 degrees of freedom r = .231 required for significance.

6. "To what extent are the findings of this experiment similar to those reported by Borg?"[2]

The data in Table 7 and Table 8 are a summation of findings from two studies reported by the Far West Laboratory, along with the relevant findings from the present study. (For ease of study, the items from the Far West Laboratory study have been arranged in the same order as in the New York study.) In Table 7, the pre- and post-data of the principal field studies are contrasted, along with comparable t-values. It may be noted that although initial behaviors varied somewhat between the two groups, the similarities are more evident than the differences. Similarly, the high t-values show strong patterns of change in the directions intended by the program, for both groups.

The scores in Table 8 are those for the follow-up studies of both the Far West Lab field study and the current study. Again, the similarities of the scores are clearly evident. Both studies show that most behaviors are maintained or enhanced in the period following training. Using percent of teacher talk, length of pupil response, redirection, and use of higher cognitive questions as the four items which may measure gross teacher behavior, very strong similarities in the studies emerge.

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[2] Borg, Walter, and others, op. cit., Chapter 3.

Table 7

Pre- and Post-test Scores for Two Field Tests of Minicourse I

SKILL	Original Field Test* Mean Scores* Pre-Course	Post-Course	t(1)	New York Field Test Mean Scores Pre-Course	Post-Course	t(1)
Teacher Talk	51.64	27.75	8.95	62.25	32.03	13.42
Redirection	26.69	40.92	4.98	20.75	36.38	4.23
Prompting	4.10	7.17	3.28	1.23	3.71	3.88
Clarification	4.17	6.73	3.01	2.19	9.33	13.22
Repeats Own Q.	13.68	4.68	7.26	5.58	1.96	6.12
Repeats Pupil Ans.	30.68	4.36	11.47	20.29	1.54	8.85
Answers Own Q.	4.62	.72	6.88	3.21	.88	4.52
Pup. Resp. L.	5.63	11.78	5.91	5.17	11.19	7.90
One Word Ans.	5.82	2.57	3.61	8.19	2.79	6.66
Pausing	1.93	2.32	1.90	1.16	3.17	10.04
Higher Cog. Quest.	37.30	52.00	2.94	43.33	70.47	10.73

(1) t = 1.67 critical value

*Walter Borg, and others, op. cit., p. 76.

Table 8

Post-training and Retention Average Skill Scores

for Two Field Tests of Minicourse I

SKILL	Original Field Test* N = 38		New York Field Test N = 48	
	Post-Training Score	Retention Score (4 months)	Post-Training Score	Retention Score (6 months)
Teacher Talk	29.44	30.20	32.48	25.17
Redirection	39.18	36.94	25.00	26.52
Prompting	7.15	4.47	2.54	2.77
Clarification	6.52	8.42	6.70	7.30
Repeats Own Question	4.73	2.31	1.52	.44
Repeats Pupil Answer	4.50	5.34	1.06	2.10
Answers Own Question	0.71	0.73	0.60	0.25
Pupil Response Length	11.55	12.46	10.93	11.63
One Word Answer	2.44	3.05	2.89	3.87
Pausing	2.36	2.23	3.06	3.13
Higher Cognitive Question	52.27	48.58	70.20	63.79

*Walter Borg, and others, op. cit., p. 82.

Teacher Attitude and Reactions

The success of any innovation in teaching, at any level, is dependent to a high degree on its acceptance by the learner, no matter how effective it may be otherwise. Therefore, the affective reactions of the learners in this program, the teachers, were an important element to assess.

Expressed attitudes toward the program were gathered by a questionnaire administered prior to the program and again following the program. The summary data from this questionnaire are shown in Table 1, page 15. A strong positive change in attitude is indicated as having taken place during the program in spite of a highly favorable initial set toward the program. A great many of the teachers talked knowledgeably and positively about the skills, their efforts and accomplishments with the skills, and the effect of the practice on their classroom and teaching. The expressions of satisfaction took many forms. What few negative comments were received directly concerning the program focused primarily upon the quality of the model films.

In January, following the post-taping, each teacher received a private individual summary of the pre- and post-behavioral scores, and each coordinator received a mean summary of skills of the four teachers in the school. This procedure received favorable comments.

The coordinators in each of the schools were also asked to provide a final program evaluation. This evaluation is reproduced in entirety in Appendix G. The coordinators' expressed attitudes appear to confirm

and reinforce the positive attitudes previously reported for the teachers, both specifically and generally.

Retention

All teachers enrolled in the program, fifty-two in number, completed both the original program and the follow-up program satisfactorily.

Additional Use

In several schools the program was made available both to teachers not in the experimental groups and to student teachers. During the second semester several schools made regular use of the lesson materials made available by the Research Center for additional programs.

Program Operation

It was felt that the local coordinators were in the best position to assess the effectiveness of the program operation. The previously mentioned evaluation form, summarized in Appendix G, was the principal method used to determine their expressed reaction. In addition, all took occasion to discuss the program with either the Director or the Research Center staff on one of the visits to the school.

As may be seen in Appendix G, responses concerning all aspects of the program were generally either favorable or highly favorable. The individual comments are in line with similar comments from many of the teachers.

Of importance, but impossible to measure, are the reactions of the Research Center staff during the visits to the schools. At first the staff were welcomed, but with reserve, and an almost protective attitude toward the teachers was felt in working with some of the coordinators. By the end of the year, there was a feeling or atmosphere of friendly "belonging" and of informal acceptance. This is, perhaps, one of the more important indices of the successful functioning of the consortium.

DISCUSSION AND CONCLUSION

The primary concern of the program was the field testing through a consortium arrangement, of a major inservice program of skills development, using the first Minicourse produced and completed by the Far West Laboratory and commercially published by Macmillan Educational Services. Some measure of the accomplishment of the objective is contained within the attitudes and opinions of teachers, coordinators, and staff members of outside agencies. More important, however, is the record of success of the teachers, through the program, in changing their skills in the desired direction, and the outstanding success of the teachers and coordinators in carrying the program to an almost flawless completion.

It would appear that a Minicourse program, such as the program, "Effective Questioning" is well fitted for use in broadly-based and supported inservice education projects.

Support for this conclusion is to be found in the research studies which were an integral part of the program. The examination of the data concerning the skills studied by the teachers shows not only that the teachers behavior changed in the directions intended by the Minicourse program, but that the quantitative changes were well beyond the level required for statistical significance. In most behaviors the changes were major and highly visible, of the order which Dr. Borg classifies as "behaviorally significant."

Of particular importance are the findings of the follow-up study. It is a rather rare and unexpected occurrence in any study of learned behavior to find that the learner not only has maintained the behavior over a period of time, but has actually increased the frequency of the behavior. The data would seem to indicate these increases to be characteristic of this program.

Both the original program, and the follow-up study, constitute an iteration and replication of similar studies by the Far West Laboratory in the field testing and development of the Minicourse. The similarities of the data for two widely separated groups of teachers, - from the Far West and from New York State - would seem to emphasize both the commonalities of teaching and the utility of the Minicourse program.

The data, on the other hand, do not appear to support in any way the value of post-program materials such as were used with the experimental group of 24 teachers in the follow-up study.

Neither did any differential effects of the program appear in a comparison of the levels of skill behaviors between primary and upper level elementary teachers. Points of significance appearing between the groups would appear to be explained in terms of previously researched patterns of teacher and child behavior that vary with grade level.

Similarly, pre-training skills levels were mostly unrelated to post-training skills levels, and neither skill gains nor retention could be predicted from the measures of attitude. Teachers of varying

attitudes and abilities in skills seem to be able to benefit from Minicourse training.

It must be emphasized, in conclusion, that the program was both a program for inservice education, and field testing of the program. The requirements of the field testing necessitated the use of the program in a variety of schools. Similarly, the rigorous nature of the selection of teachers, the newness of the program, and budget restrictions sharply reduced the number of teachers possible to include in the program. However, it must be pointed out that, as an inservice training program alone, the consortium model used promises an effective means of implementing the program in the training of large groups of teachers. The expansion of the program in several of the schools gives strong indications of this potential effectiveness.

SPECIFIC OBJECTIVES AND RELATED BEHAVIORS FOR MINICOURSE I

1. To increase the incidence of teacher behaviors designed to add to the pupil's readiness to respond to discussion questions.

   Teacher Behaviors:

   Ask question, pause 5 seconds, then call on pupil. Call on both volunteers and non-volunteers in order to keep all pupils alert and distribute participation.

2. To increase the incidence of teacher behaviors designed to decrease teacher participation and raise the level of pupil response.

   Teacher Behaviors:

   Redirection--directing the same question to several pupils.
   Framing questions that call for longer pupil responses.
   a. Ask for sets or groups of information when framing information level questions.
   b. Avoid yes-no replies.
   Framing questions that require the pupil to use higher cognitive processes.

3. To increase the teacher's use of probing behaviors designed to guide the pupil to more complete and thoughtful responses.

   Teacher Behaviors:

   Prompting.
   Seeking further clarification.
   Refocusing the pupil's responses.

4. To reduce the incidence of teacher behaviors that interfere with the flow of discussion.

   Teacher Behaviors:

   Teacher should not repeat her questions.
   Teacher should not answer her own questions.
   Teacher should not repeat pupil answers.

ORIENTATION WORKSHOP

Minicourse Microteaching Inservice Project

Location: Old Main, State University College at Fredonia

Dates: August 10 and 11, 1970

Monday, August 10	--	Team Coordinators Only
9:00 - 9:30 a.m.	--	REGISTRATION AND COFFEE
9:30 - 10:30	--	"Microteaching and the Minicourse" Dr. Walter Borg
10:30 - 10:45	--	COFFEE BREAK
10:45 - 12:00 noon	--	PANEL PRESENTATION & DISCUSSION "The LOIS Microteaching Inservice Project" Panel Members: David Mack, Chairman Dr. Frank Ambrosie, Dr. Jack Bicknell, Dr. Jack Hanssel, Mr. Douglas Rector, Dr. Bonnie Star
12:00 - 1:00 p.m.	--	LUNCH
1:00 - 2:15	--	"The Role of the Team Coordinator" Dr. Walter Borg
2:15 - 2:30	--	COFFEE BREAK
2:30 - 3:00	--	GROUP PLANNING SESSION Develop schedule for circulation of films and for pre taping.
3:00 - 4:00	--	INDIVIDUALIZED PLANNING SESSION Coordinators, with the assistance of consultants, make plans for their schools in regard to any one or all of the following: 1. Orientation of teachers 2. Allocation of space 3. Scheduling of microteach sessions 4. Use of substitutes 5. Handling of problems - breakdowns, backup equipment, teacher absence, scheduling conflicts, etc. At this time, the consultants will select two of the Team Coordinators who will be asked to prepare a sample teacher orientation program which they will present the following morning to the technicians.

Tuesday, August 11	--	Coordinators & Technicians
9:00 - 9:30 a.m.	--	REGISTRATION & COFFEE
9:30 - 10:30	--	ORIENTATION OF TECHNICIANS
10:30 - 10:45	--	COFFEE BREAK
10:45 - 11:45	--	DEMONSTRATION The Microteach set-up - Douglas Rector & Freeman Hockenberger Simulated Microteach Session - Dr. Alice Hilton Discussion
11:45 - 12:00 noon	--	Discussion of college credit arrangements Dr. John Bouchard
12:00 - 1:00 p.m.	--	LUNCH
1:00 - 2:15	--	"Preparation of pre and post tapes" Douglas Rector & Freeman Hockenberger
2:15 - 2:30	--	COFFEE BREAK
2:30 - 3:45	--	"The Role of the Technician" (For Technicians) Douglas Rector & Freeman Hockenberger
2:30 - 3:45	--	"Individualized Instruction and Planning with Consultants" (For Team Coordinators)
3:45 - 4:00	--	WORKSHOP WRAP UP AND EVALUATION

This project is partially funded as Locally Originated Inservice (LOIS) Project by the Bureau of Inservice Education, New York State Education Department.

MICROTEACHING ORIENTATION WORKSHOP OBJECTIVES

For Team Coordinators

By the end of the workshop each Team Coordinator should:

1. Understand the history and theory of microteaching.
2. Understand the Minicourse and its use as an inservice technique.
3. Understand the objectives of the LOIS Microteaching Inservice Project.
4. Understand the process by which the objectives of the project will will be carried out.
5. Be able to accurately explain the Minicourse objectives to participating teachers.
6. Be able to accurately explain the Minicourse operational process to participating teachers.
7. Be able to accurately explain the Minicourse evaluation process to participating teachers.
8. Be able to accurately explain and demonstrate for teachers how to conduct a microteach video taping session.
9. Be able to accurately explain to teachers the arrangements for college credit which are available through the State University College at Fredonia.
10. Understand the project well enough to make the necessary arrangements in his district for the use of substitutes or alternate methods of freeing teachers for microteach sessions.
11. Understand the project well enough to make the necessary arrangements in his district for scheduling microteaching sessions and use of the training films.
12. Understand the project well enough to make the necessary arrangements in his district for most emergencies, i.e. equipment breakdown, teacher absences and scheduling conflicts.
13. Understand the master schedule for the use and circulation of films among participating districts.
14. Understand what will be expected of him in his role as Team Coordinator.
15. Be able to prepare pre- and post-tapes with audio and video quality adequate for evaluation of the project.
16. Be able to perform the role of Team Coordinator in his district.

MICROTEACHING ORIENTATION WORKSHOP OBJECTIVES

For Technicians

By the end of the workshop each Technician should:

1. Have enough knowledge about microteaching, the Minicourse and the objectives of this project that he will understand and be able to explain to others the activities of participating teachers.

2. Be able to list the skills that teachers must have with the video-tape equipment in order to participate in the project.

3. Be able to teach those skills that teachers in his district well enough that they could conduct a microteach session without assistance.

4. Have a clear idea the role of technicians in this project and of the duties that the Team Coordinator in his district will expect him to perform.

5. Understand the video-tape equipment well enough that, with the exception of major breakdowns, he could keep it in operational condition during the term of the project.

6. Be able to arrange the video-tape equipment (camera, VTR, monitor and microphones) in a microteach set-up that would produce tapes with adequate audio and video quality.

7. Be able to handle all the technical details involved in the preparation of pre- and post-tapes so that the tapes would be of adequate audio and video quality.

Appendix C

Project Participants

District	Team Coordinator	Technician	Teachers	Grade Level
Bemus Point	J. Robert Johnson	Richard Babbage	Barbara Murdock	1
			Marian Johnson	4
			Ruth Bemus	4
			Marian Barrett	3
Cassadaga Valley	Elmer N. Horey	Harold T. Hallberg	Harold Hallberg	6
			Joanne Bennett	4
			Valerie Holmes	K
			Mary Lloyd	1
Dunkirk	Robert Block	Edward Kell	Dail Pfeiffer	K
			Lorie Bartela	2
			Delanor Westling	5
			Alice Jonus	Reading Spec.
East Aurora	George Oliver	Patricia Babinger	Marcella Felleisen	1
			Louise Rose	2
			Mary Buddington	4
			Dennis Leach	4/5
Friendship	Ruth Kellogg	Henry Van Ess	Martha Blair	K
			Mary Ellen Zacker	1
			Robert Kennedy	4
			Mark Lesi	4
Kenmore	Peter Pacos	Stanley Penchacik	Marsha Krietor	1
			Patricia Veronick	3
			Luke Welgoss	5
			Dorothy Goldman	6

Project Participants (con't)

District	Team Coordinator	Technician	Teachers	Grade Level
Lancaster	Rochford Harmon	Rochford Harmon	Sharon Johnson Marilyn Noack Richard Carlson Jay Seeley	3 3 6 5
Lyndonville	Earl Warner	Russel Martino	Winifred Miller Marcia Cleary Terry Houseman Laura Close	K Pre 1 5 5
Olean	Winifred Hand	Fred Nichols	Michele Slavin Donna Olson Robert O'Connor Nancye Mack	3 3 4 6
Randolph	Gail Chapman	Kim Daniels	Carolyn Applin Jean Crosby Janice Fellows Carol Patterson	5 6 3 1
Salamanca	Glen Goergen	Glen Goergen	Thomas Hamilton Christine Nash Judy Toner Gwen Wiley	4 3 5 2
Scio	Alfred Brush James Watkins	Henry Van Ess	Janet Browning Eleanor Reynolds Odessa Nickerson Mrs. Tompkins	K 1 4 5
West Seneca	Arthur Donley	Donald Banks	Elizabeth Macro Jean Murray Nancy Cieslak Paul Balon	2 2 3 5

Appendix D

ROLES OF COOPERATING AGENCIES

1. Western New York School Development Council

   Provide general project planning and coordination (see role of Project Coordinator).
   Act as LEA for the project.
   Writing reports, conclusions and recommendations for the Minicourse Project.

2. Local School Districts

   Supply the necessary technical equipment: videotape recorders, television monitors and cameras.
   Identify participating teacher teams.
   Supply the services of an A-V technician.
   Provide substitute teachers to relieve participating teachers from regular classroom duties.
   Provide the participating teachers with the necessary time to conduct the project.
   Provide adequate space for conducting the microteach lessons.
   Provide financial support as determined by the number of teachers participating.

3. Southwestern Association for the Improvement of Instruction

   Assist in project planning.
   Assist in writing reports, conclusions and recommendations for the Minicourse Project.

4. Teacher Education Research Center

   Assist in project planning.
   Supply one set of Master Films for Minicourse 1.
   Evaluate the pretest and post test videotapes.
   Writing reports, conclusions and recommendations for the Minicourse Project.

5. Far West Laboratory for Educational Research and Development

   Supply two sets of Master Films for Minicourse 1.
   Consult on all phases of the project.

6. State University College at Fredonia

   Upon application and receipt of tuition, offer appropriate college credit for participating teachers completing the inservice project.

7. Macmillan Educational Services

   Supply one set of Master Films for Minicourse 1.
   Supply printed materials at discounted cost.
   Consult on various aspects of the project.

SCHEDULE OF MINICOURSE SESSIONS

The Minicourse sessions were completed according to the timetable listed below. The 13 required sessions were completed during the first semester of the 1970-71 school year.

Each instructional sequence required one week for a participating team to complete. It was necessary for districts to share the master films which were the heart of the course. This required staggering the starting dates of the course from district to district.

PRETEST

Videotape pretest

INTRODUCTION (first week)

Session 1
- Introductory Film
- Teach Practice Lesson

INSTRUCTIONAL SEQUENCE I (second week)

Session 2
- View First Instructional Film
- View First Model Film

Session 3
- Conduct Microteach Lesson I
- First Replay - General Evaluation
- Second Replay - Specific Evaluation with Checklist

Session 4
- Reteach Microteach Lesson I
- First Replay - General Evaluation
- Second Replay - Specific Evaluation with Checklist
- Third Replay - Peer Evaluation (Optional)

INSTRUCTIONAL SEQUENCE II (third week)

Session 5
View Second Instructional Film
View Second Model Film

Session 6
Conduct Microteach Lesson II
First Replay - General Evaluation
Second Replay - Specific Evaluation with Checklist

Session 7
Reteach Microteach Lesson II
First Replay - General Evaluation
Second Replay - Specific Evaluation with Checklist
Third Replay - Peer Evaluation (Optional)

INSTRUCTIONAL SEQUENCE III (fourth week)

Session 8
View Third Instructional Film
View Third Model Film

Session 9
Conduct Microteach Lesson III
First Replay - General Evaluation
Second Replay - Specific Evaluation with Checklist

Session 10
Reteach Microteach Lesson III
First Replay - General Evaluation
Second Replay - Specific Evaluation with Checklist
Third Replay - Peer Evaluation (Optional)

INSTRUCTIONAL SEQUENCE IV (fifth week)

Session 11
View Fourth Instructional Film
View Fourth Model Film

Session 12
Conduct Microteach Lesson IV
First Replay - General Evaluation
Second Replay - Specific Evaluation with Checklist

Session 13
Reteach Microteach Lesson IV
First Replay - General Evaluation
Second Replay - Specific Evaluation with Checklist
Third Replay - Peer Evaluation (Optional)

POST TEST

Videotape post test

Western New York
School Development Council
27 California Drive
Williamsville, N.Y. 14221

Minicourse Microteaching Inservice Project

SCHEDULE FOR PRETESTS AND FILM DISTRIBUTION

DISTRICT	WEEK OF PRETEST	WEEK COURSE BEGINS
SET #1		
Bemus Point	Sept. 14	Sept. 21
Cassadaga Valley	21	28
Dunkirk	28	Oct. 5
Kenmore	Oct. 5	12
SET #2		
Olean	Sept. 14	Sept. 21
Randolph	21	28
Salamanca	28	Oct. 5
SET #3		
Friendship	Sept. 14	Sept. 21
Scio	21	28
Lyndonville	Oct. 5	Oct. 12
SET #4		
East Aurora	Sept. 14	Sept. 21
West Seneca	21	28
Lancaster	28	Oct. 5
Williamsville	Oct. 5	12

WESTERN NEW YORK SCHOOL DEVELOPMENT COUNCIL
27 California Drive
Williamsville, New York 14221

MICROTEACHING PROJECT EVALUATION FORM

To Be Completed by Team Coordinators N = 13

NAME SUMMARY

DISTRICT _____

Please assist us in evaluating the Minicourse Microteaching Project by responding to the following questions. Indicate your responses with a check in the appropriate blanks. Your written comments will be most helpful.

Return the completed questionnaires to:

David P. Mack
WNY SCHOOL DEVELOPMENT COUNCIL
27 California Drive
Williamsville, New York 14221

Self-addressed envelopes have been provided for this purpose. Thank you for your cooperation.

1. On the basis of your experience, how valuable do you consider the Minicourse as a technique for teacher inservice?

   9 Very valuable
   4 Of considerable value
   _____ Of some value
   _____ Of little value
   _____ Of no value

2. How do you feel about your district's participation in the Minicourse microteaching project?

   _____ Very sorry we participated in it
   _____ Somewhat sorry we participated in it
   _____ Indifferent
   _____ Somewhat glad we participated in it
   13 Very glad we participated in it

3. The Minicourse Microteaching Project was designed in a way that required considerable cooperation and overall coordination. How well do you feel each of the following aspects of the project was handled? Check the appropriate blank for each item. Comment on any special strenghts or weaknesses of each aspect.

	Good	Fair	Poor	N.A.
a. Film distribution Comments:	13	___	___	___
b. Pre and post tape arrangements Comments:	13	___	___	___
c. College credit arrangements for participants Comments:	9	4	___	___
d. Mailings of materials and information Comments:	11	2	___	___
e. Response to requests for information or assistance Comments:	13	___	___	___
f. Project evaluation Comments:	9	___	___	4
g. Pre-project training for Team Coordinators Comments:	12	1	___	___
h. Pre-project training for Technicians Comments:	12	1	___	___

4. The following aspects of the project were related to local coordination. How frequently did you experience problems with any of them? Check the appropriate blank for each item. Add comments to explain your responses.

	Often	Sometimes	Never
a. Equipment operation Comments:	1	5	7
b. Teacher enthusiasm Comments:	1	3	9
c. Teacher cooperation Comments:	1	1	11
d. Teacher attendance Comments:	1	1	11
e. Administrative cooperation Comments:	1	1	11
f. Freeing teacher for participation in microteaching activities Comments:	1	2	10

5. Which of the following most accurately expresses your present attitude toward repeating the Minicourse in your school?

5 I have already made plans to repeat the Minicourse with another group of teachers.

8 I would like to repeat this or some other Minicourse with another group of teachers at some future date.

____ I am undecided about whether or not I would like to repeat the Minicourse in my school.

____ I am not interested in repeating the Minicourse.

6. Would you be willing to serve as a consultant to another school district or a BOCES interested in Minicourse microteaching inservice?

6 No, because
- ____ I don't feel qualified.
- 6 I haven't the time.
- ____ I'm not convinced that the Minicourse is that valuable.
- ____ Other _____

7 Yes. If yes, indicate below the conditions under which you would assume this responsibility.

- 4 I would donate my time if my home district would release me.
- ____ I feel I should be paid for the service.
- ____ I would work only within a radius of ____ miles of my home district.
- ____ I feel I could give no more than ____ days during the year.
- 3 Other _____

7. Please describe briefly the public relations efforts made in your district regarding the microteaching project. Send copies of publications or news clippings, if available.

9 - Newspaper
5 - Within School System
4 - Board of Ed.
2 - PTA
1 - NA
1 - Radio

8. Make any additional comments you wish concerning your evaluation of the project, the Minicourse approach and its potential for inservice teacher training.

WRITTEN COMMENTS OF LOCAL SCHOOL DISTRICT TEAM COORDINATORS

(in response to Question 8, previous page)

1. "The project appears to be one of the best means to affect teacher behavior in the classroom that I have had the pleasure in working with for some time. I'll use it for certain. One important factor - the threat of administrative observation is completely removed - gives a nice cooperative attitude between principal and teacher." (J. Robert Johnson, Bemus Point)

2. "The teachers involved were very enthusiastic and tenacious. They found themselves using their newly acquired techniques with all their children. The children loved it."

"A great tool for inservice teacher training." (Elmer Horey, Cassadaga Valley)

3. "The only major problem - how to get participation of the people that really need it!! Maybe in time it would spread to them (?). I really don't know as yet."

P.S. "Good job Dave and thanks for the opportunity!!" (Robert Block, Dunkirk)

4. "I feel that this is an excellent supervisory technique for the improvement of instruction. The possibilities are unlimited, and I'm sure that this approach will be receiving more emphasis in the future." (Ruth Kellogg, Friendship)

5. "One of the main purposes of our interest in purchasing video tape equipment was its obvious potential for inservice education for teachers. The minicourse is a direct and effective approach to instruction. I will be interested in examining the other programs which were mentioned as being in preparation." (R. S. Harmon, Jr., Lancaster)

6. "The success of the course was dependent to a great degree on the preplanning done before and during the sessions to train the coordinators and technicians. It was a pleasure to work in a program which was so well planned and coordinated. Thanks for including us 'in'." (Earl M. Warner, Lyndonville)

7. "It is good inservice training for both beginning and experienced teachers. I feel all teachers should have this experience." (Winnie F. Hand, Olean)

8. "We were highly pleased and felt the project most valuable. We are seeking to utilize it further by ordering the films after Jan. 1st and possibly having several additional teachers participate in our version of the program." (Gail N. Chapman, Randolph)

9. "The more courses the better." (Glen Goergan, Salamanca)

10. "This type of inservice has proven to us that it has tremendous future possibilities. The whole program should be made available to more people, perhaps through a BOCES program on a county basis. It is impossible to describe the enthusiasm it generated with our team. The carry over improvements in the future will certainly be of great value to the youngsters of the district." (James R. Watkins and H. Alfred Brush - Scio)