A project was designed to evaluate a teacher training program in the use of audiovisual resources for teachers in the nonpublic New York City schools for the disadvantaged. It was conducted to insure effective utilization in the teaching-learning situation of audiovisual resources provided to these schools through ESEA Title I and Title II monies. The program dealt broadly with the educational values of audiovisual presentations, with their applications to teaching the disadvantaged child, and with the optimal uses of instructional television, overhead projectors, filmstrip projectors, phonographs, and audiotapes and tape recorders. The evaluation aimed to determine whether participant teachers' abilities in using audiovisual resources were improved, and whether the addition of audiovisual techniques improved pupil involvement and performance. Data gathered in the evaluation indicate that the program was well organized, useful, and fairly successful in achieving its objectives. The success was limited by several factors: the program was conducted too late in the school year for teachers to practice their new skills, and shortages of equipment further decreased opportunities for use. Given the program limitations, participants were better equipped to utilize audiovisual technology in the classroom as a result of the training experience. (MT)
EDUCATIONAL TV AND AUDIOVISUAL TEACHER TRAINING PROGRAM FOR TITLE I BOARD OF EDUCATION TEACHERS OF DISADVANTAGED PUPILS IN THE NON-PUBLIC SCHOOLS

James Morrison

Evaluation of a New York City school district educational project funded under Title I of the Elementary and Secondary Education Act of 1965 (PL 89-10), performed under contract with the Board of Education of the City of New York for the 1966-67 school year.

Committee on Field Research and Evaluation
Joseph Krevisky, Assistant Director

October 1967
TABLE OF CONTENTS

INTRODUCTION ........................................... 1
BACKGROUND ............................................. 1
DESCRIPTION AND OBJECTIVES OF PROGRAM .................. 2
GENERAL DESCRIPTION ...................................... 3
EVALUATION ............................................... 4
CONTENTS OF TRAINING PROGRAM SUMMARIZED ............... 4

CHAPTER II
FINDINGS .................................................. 6
TEACHERS’ QUESTIONNAIRE .................................. 6
TEACHERS’ EVALUATION OF TRAINING PROGRAM .............. 7
TEACHERS’ OBSERVATIONS OF EFFECT OF AV INSTRUCTION ON STUDENTS ................................. 15
TEACHERS’ PERCEPTIONS OF PROGRAM’S STRENGTHS AND WEAKNESSES ....................................... 19
SUBJECTS TO BE COVERED IN FUTURE TRAINING PROGRAM .... 20
CHARACTERISTICS OF TEACHERS IN TRAINING PROGRAM ........ 20
EVALUATION OF PROGRAM BY SELECTED PROGRAM PERSONNEL ........ 26
CONCLUSION ............................................... 27

APPENDIX A: Tables ........................................ (Tables included in the test)
APPENDIX B: Instruments ..................................... B1
APPENDIX C: Staff List ...................................... C1
Chapter I

INTRODUCTION

This report contains an evaluation of a teacher training program conducted by the Board of Education with Title I funds in March of 1967. The objective of the program was to provide teachers with technical and theoretical training enabling them to utilize television and audio-visual materials and equipment in classroom teaching most effectively. The full title of the program was:

Educational TV and Audio-Visual Training Program for Board of Education Title I Teachers of Disadvantaged Pupils in Nonpublic Schools.

Background

Over one and a half million dollars ($1,625,093) of Title I funds were allocated for educational TV and audio-visual (AV) materials and equipment for New York City schools during the 1967 fiscal year.

About one fourth of these monies ($424,507) were allotted for this equipment to nonpublic schools which serve disadvantaged children. There were 180 such schools in New York City, all participating in one or another Board of Education Title I project in 1967.

Since this was the first time that TV-AV equipment had been allotted to nonpublic schools under Title I, measures needed to be taken to insure that it would be utilized properly and with maximum effectiveness. With this objective in view, the Board of Education instituted a special training program for those 289 Board of Education teachers who were on assignment in the 180 nonpublic schools in Title I positions. All the teachers were providing corrective programs -- they taught cor-
The training program was conducted during March of 1967. It consisted of two-day training sessions conducted by specialists from the Bureau of Audio Visual Instruction. It was funded under Title I. Basically its purpose was to train the participating teachers in AV-TV teaching techniques and to furnish them with basic technical skills as well as a theoretical basis for using the equipment and materials provided with optimal educational results.

Description and Objectives of Program

The formal program objectives as stated in the Board of Education proposal were:

1. To change in a positive direction the pupils' attitudes toward school and education through the use of audio-visual resources.

2. To improve the abilities of teachers (corrective reading, mathematics, and speech) of disadvantaged children in the effective use of audio-visual resources in the learning situation.

3. To increase the effective use of audio-visual resources in the learning situation of disadvantaged pupils.

4. To increase the interest of parents in the educational program through their awareness of the new audio-visual materials and techniques used in the learning situation of disadvantaged pupils.

The procedures for implementing these objectives were:

1. Intensive audio-visual instruction will be provided for Board of Education teachers who are engaged in nonpublic schools.

2. This instruction will be provided by licensed Board of
Education personnel, specializing in Audio-Visual Instruction.

3. Supportive instructional material will be distributed in the form of manuals and transparencies.

The proposal also contained a fuller description of the program, as well as the rationale for utilizing audio-visual teaching methods with culturally disadvantaged children which clearly place the program in its overall context.

General Description

This project is designed to insure effective utilization in the teaching-learning situation of the audio-visual resources provided under Title I and Title II of the Elementary and Secondary Education Act.

Licensed Board of Education personnel, specializing in audio-visual instruction, will conduct workshops to train Board of Education teachers, serving in Title I projects in designated nonpublic schools, in the effective utilization and proper maintenance of the audio-visual equipment provided under Title I Elementary and Secondary Education Act. This program is intended to provide intensified audio-visual instruction for a total of approximately 275 Board of Education teachers of corrective reading, corrective mathematics and speech therapy in 180 (Title I) nonpublic schools serving disadvantaged pupils. It has been found that disadvantaged pupils are most responsive to audio-visual modes of stimulation. While audio-visual modes are attractive to children in general, those who are retarded in skill subjects, especially in reading and mathematics, will manifest greater interest, motivation and attention to school work, and will open up new approaches for the teacher and for those pupils. The audio-visual equipment is designed to attain the important objectives of improving attention span, pro-
nunciation and enunciation, motivation and class behavior. By making instruction more vivid and concrete it is further hoped that pupils will develop better attitudes toward the school and its procedures and toward teachers. The New York City Board of Education is expanding its television broadcasting on Channels 13 and 25. Maximum utilization of these educational programs planned can be realized only with the best use of audio-visual equipment.

Evaluation

The proposal outlined plans for an evaluation of the program which would utilize data gathered through observation and the use of questionnaires.

The evaluation had as its objective to determine:

1. if the training program did improve the participant teachers' abilities in the effective use of audio-visual resources;
2. if the addition of audio-visual teaching devices and techniques improved the pupils' involvement and performance in the subjects taught.

The evaluators obtained information relative to both of these areas, in the most part from questionnaires received from 135 teachers who participated in the training program, and in part from personal interviews conducted with the project coordinators and with some district supervisors.

Contents of Training Program Summarized

The training program dealt broadly with the educational values
of audio-visual presentations, more specifically with their application to teaching the disadvantaged child, and in greatest detail with the optimal uses of the five pieces of audio-visual teaching equipment provided to the schools under Title I. The five items were:

1. Instructional Television
2. Overhead Projector
3. Filmstrip Projector
4. Phonograph
5. Audio Tapes and Tape Recorder.

In addition preparation of various lesson plans utilizing TV-AV equipment were developed and demonstrated, a variety of specialized materials were produced, and creative and imaginative uses of the materials were presented and explored.
Teachers' Questionnaire

Questionnaires (developed for this study) were mailed to all 289 Board of Education teachers assigned to nonpublic schools under Title I.

Completed replies were received from 135 teachers -- a response rate of 47 per cent.

The questionnaire covered several areas relevant to the subject at hand. Data was collected on:

1. Teachers' appraisal of the usefulness, depth, completeness of the training program.

2. Teachers' appraisal of the program's strengths and weaknesses.

3. Teachers' appraisal of the effect of the AV-TV teaching equipment on their pupils, in terms of academic performance of general attitude toward learning and school.

4. Suggestions for improvements in future TV-AV teacher training programs.

5. The amount of previous teaching experience and the license status of the teachers.

The findings from the teachers' questionnaire should be read
and interpreted in the context of the following circumstances:

1. The training occurred late in the school year (March), not permitting the teachers much opportunity to use the equipment.

2. In some instances equipment was not received by the designated school even by the end of March. Though Bureau of Audio-Visual Instruction staff members made every effort to distribute materials from schools with too many pieces of equipment to those without any, some teachers reported not receiving the items in their schools.

For either or both of these reasons a considerable number of teachers did not use many or all of the pieces of audio-visual and TV teaching equipment.

Consequently the replies of those teachers about the effectiveness of the training they had received were more theoretical than practical, in as much as they had few occasions to test the training empirically. The same applies to their responses to questions relating use of the TV and AV teaching equipment to the pupils' academic and social reactions.

Teachers' Evaluation of Training Program

What the teachers found "most helpful" in their inservice training program was "illustration of the use of various (AV) materials." Four fifths rated those helpful. Almost two thirds felt that "instruc-
tion-lectures" were most helpful. Only a third or less were as positive about the "pace of learning," "relevancy of learning," and "classroom discussion."

"Pace of learning" was the element drawing most criticism, here and in other parts of the questionnaire.

Table 1

Elements of Training Program Rated on Helpfulness

<table>
<thead>
<tr>
<th>Per Cents</th>
<th>Good</th>
<th>Fair</th>
<th>Bad</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illustration of AV materials</td>
<td>80.0</td>
<td>12.6</td>
<td>1.5</td>
<td>5.9</td>
</tr>
<tr>
<td>Instruction and lectures</td>
<td>63.7</td>
<td>21.5</td>
<td>6.7</td>
<td>8.1</td>
</tr>
<tr>
<td>Classroom discussion</td>
<td>36.3</td>
<td>28.9</td>
<td>7.4</td>
<td>27.4</td>
</tr>
<tr>
<td>Pace of learning</td>
<td>22.2</td>
<td>24.4</td>
<td>13.4</td>
<td>40.0</td>
</tr>
<tr>
<td>Relevancy of learning</td>
<td>31.1</td>
<td>31.1</td>
<td>3.2</td>
<td>34.6</td>
</tr>
</tbody>
</table>

As asked what they recalled were the primary objectives of the inservice AV training, the largest group (68 per cent) said "to give me teaching skills." Preparation of programs and preparation for one's own teaching role were each perceived as a program objective by about half the teachers.
Table 2

Teachers' Perception of Training Program Objectives

<table>
<thead>
<tr>
<th>Objective</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>To give me teaching skills</td>
<td>67.9%</td>
</tr>
<tr>
<td>To prepare me to develop programs</td>
<td>53.7%</td>
</tr>
<tr>
<td>To prepare me in my specific work role</td>
<td>49.3%</td>
</tr>
<tr>
<td>To help me understand the disadvantaged</td>
<td>14.9%</td>
</tr>
</tbody>
</table>

Thirteen per cent listed other objectives, as summarized below:

- To use latest AV techniques for my subject area;
- To show us how to operate and effectively utilize AV equipment for teaching specific skills;
- To demonstrate the uses of equipment the teacher may not be familiar with;
- Skills in operating AV equipment and knowledge of what was available in AV equipment;
- To show approaches through different media which can stimulate interest in learning (pupil participation);
- To "convince" me of the importance of AV materials;
- To meet requirements;
- To make the learning realistic and apply it to life situations;
To help improve teaching techniques -- making them more effective;

To show ways of achieving variety in presentation of lessons;

To show us better methods of communication and motivational approaches.

Almost none of the teachers (less than one per cent) felt the training program achieved its objectives completely. Four out of ten felt it had met them "quite well," a slightly larger number felt it had only achieved some of the objectives, and three per cent felt it had not met any of them.

On a more subjective scale, the teachers' appraisal of the program was more positive. About 30 per cent had "liked" the AV training program "very well," an additional 54 per cent had liked it "fairly well." Only about 13 per cent disliked it somewhat or completely.

Table 3

Teachers' Estimates of Extent to Which Program Achieved Its Objectives

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completely</td>
<td>0.8 per cent</td>
</tr>
<tr>
<td>Quite well</td>
<td>40.3 per cent</td>
</tr>
<tr>
<td>50-50</td>
<td>11.6 per cent</td>
</tr>
<tr>
<td>Some</td>
<td>44.2 per cent</td>
</tr>
<tr>
<td>Not at all</td>
<td>3.1 per cent</td>
</tr>
</tbody>
</table>
Table 4

How Well Teachers Liked The AV Inservice Training Program

<table>
<thead>
<tr>
<th>Rating</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very well</td>
<td>29.8%</td>
</tr>
<tr>
<td>Fairly well</td>
<td>54.5%</td>
</tr>
<tr>
<td>Not so well</td>
<td>9.0%</td>
</tr>
<tr>
<td>Not at all</td>
<td>4.5%</td>
</tr>
<tr>
<td>I don't know</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

Judging from the teachers' own estimates (and in the absence of more empirical evidence), it may be said that the training program was quite successful in making the teachers better qualified for their posts. Three fourths of the teachers said their qualifications had improved through the training. Even if this were only an improvement in the way the teachers felt about themselves, this degree of increase in confidence is in and of itself noteworthy (particularly among such inexperienced teachers, as will be illustrated later).

Table 5

Teachers' Estimates of the Improvement of Their Qualifications

<table>
<thead>
<tr>
<th>Rating</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved</td>
<td>74.4%</td>
</tr>
<tr>
<td>Same/not Improved</td>
<td>22.6%</td>
</tr>
<tr>
<td>No Answer</td>
<td>3.0%</td>
</tr>
<tr>
<td>Less than 30%</td>
<td></td>
</tr>
</tbody>
</table>

Less than 30 per cent of the teachers felt that they would
use "all" or "much" of what they had learned in the classroom. The majority (52 per cent) felt they would utilize some of what they had been taught. Almost two out of ten said they would use little or none of the skills they had acquired.

Table 6

<table>
<thead>
<tr>
<th>Teachers' Estimate of Amount of</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Material From The Training Program They Will Use</td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>2.3 per cent</td>
</tr>
<tr>
<td>Much</td>
<td>25.8 per cent</td>
</tr>
<tr>
<td>Some</td>
<td>52.3 per cent</td>
</tr>
<tr>
<td>Little</td>
<td>14.9 per cent</td>
</tr>
<tr>
<td>None</td>
<td>4.7 per cent</td>
</tr>
</tbody>
</table>

The great majority (72 per cent) of the teachers felt that enough samples of AV material had been provided for and used in the training sessions; about 22 per cent felt there had not been enough sample material to work with. The majority also felt that the readings, books, and AV materials used in the training program were useful.

Table 7

<table>
<thead>
<tr>
<th>Teachers' Appraisal of Amount of AV Sample Material Provided</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Enough</td>
<td>72.4 per cent</td>
</tr>
<tr>
<td>Not enough</td>
<td>22.4 per cent</td>
</tr>
<tr>
<td>Uncertain</td>
<td>5.2 per cent</td>
</tr>
</tbody>
</table>
Table 8

Teachers' Appraisal of Usefulness of AV Training Materials

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Useful</td>
<td>73.3%</td>
</tr>
<tr>
<td>Not useful</td>
<td>9.2%</td>
</tr>
<tr>
<td>Uncertain</td>
<td>17.5%</td>
</tr>
</tbody>
</table>

Half the teachers felt that the training program was just about long enough -- neither too short nor too long. The other half, however, were divided in their reactions. Almost one-third felt that the training program was too long -- and about 18 per cent that it was too short.

It is likely that the reaction to this question is determined by the general level of teaching experience of the teacher. Those completely new to AV teaching techniques might feel the training period was too short -- the fairly experienced, initiated teacher experienced it as too long and repetitious.

Table 9

Teachers' Appraisal of Length of Training Period

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too long</td>
<td>31.1%</td>
</tr>
<tr>
<td>Too short</td>
<td>18.2%</td>
</tr>
<tr>
<td>About right</td>
<td>50.1%</td>
</tr>
<tr>
<td>No response</td>
<td>.6%</td>
</tr>
</tbody>
</table>
As for use of equipment in the classroom, the overhead projector was the piece of equipment used with the greatest frequency - 52.6 per cent reported using it more often than the other items listed. Ten per cent used tape recorders most frequently, and about 7 per cent named the filmstrip projector.

Table 10

<table>
<thead>
<tr>
<th>Equipment Used With Greatest Frequency</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Overhead Projector</td>
<td>52.6 per cent</td>
</tr>
<tr>
<td>Tape Recorder</td>
<td>10.4 per cent</td>
</tr>
<tr>
<td>Filmstrip Projector</td>
<td>7.4 per cent</td>
</tr>
<tr>
<td>Television</td>
<td>4.4 per cent</td>
</tr>
<tr>
<td>Phonograph</td>
<td>2.2 per cent</td>
</tr>
<tr>
<td>Too Late In term,</td>
<td></td>
</tr>
<tr>
<td>No Answer, No Equipment</td>
<td>23.0 per cent</td>
</tr>
</tbody>
</table>

The teachers were asked to estimate the effect of increased use of TV-AV equipment on the achievement of their students. As noted earlier, in the case of some teachers this turned out to be a hypothetical question, since there had been no "increase" in the use of such equipment in their classrooms. This was true of the few schools where equipment had not yet arrived at the time of the evaluation (Spring 1967), or where it was in disrepair, stored out of reach of the teacher, or not introduced by the teacher because of the lateness in the school year.
Teachers' Observations of Effect of AV Instruction on Students

The teachers noted various behavioral changes in their students which they attributed to the introduction of the AV teaching devices. The most universally noted effect of the new equipment was an increase in attentiveness when listening or viewing, with 82 per cent reporting that effect (see Table 11). Also, use of the AV techniques stimulated more verbal activity - of various kinds - among the children. About 74 per cent of the teachers noted that their students participated more in discussions, 67 per cent that they asked more questions, and 66 per cent that they answered more questions. About half the teachers reported that the children showed a greater interest in a variety of school subjects: four out of ten observed more alertness and enthusiasm in problem solving and about the same proportion thought the children had become more purposefully self-directed in learning situations (see Tables 11, 12, and 13).

Even allowing a margin for a certain amount of overestimation of the positive effects by the teachers (because of their subjective involvement in the teaching situation), these figures indicate that the results of introducing AV equipment into the classrooms and of training the teachers in its uses have been gratifying. The disadvantaged students in the nonpublic schools were intended to be the ultimate beneficiaries of the AV teacher training program, and at least, in some measure, they have benefited (and one hopes will continue to do so) from it.
### Table 11

**Teachers' Observations of Effect of AV Instruction on Students**  
*(Since the introduction of AV equipment)*

<table>
<thead>
<tr>
<th>Observation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased attentiveness when listening or viewing</td>
<td>81.7%</td>
</tr>
<tr>
<td>A greater willingness to practice skills or oral communication</td>
<td>54.8%</td>
</tr>
<tr>
<td>More alertness and enthusiasm in problem solving</td>
<td>41.9%</td>
</tr>
<tr>
<td>More purposeful self-direction in learning situations</td>
<td>38.7%</td>
</tr>
<tr>
<td>More imagination and creativity in his approach to learning</td>
<td>37.6%</td>
</tr>
<tr>
<td>More responsibility for friendly cooperation in group activity</td>
<td>30.1%</td>
</tr>
<tr>
<td>More curiosity and willingness to probe &quot;in depth&quot;</td>
<td>29.0%</td>
</tr>
<tr>
<td>More appreciation of good records, TV programs, filmstrips, and books</td>
<td>25.8%</td>
</tr>
<tr>
<td>A development of a better self-image</td>
<td>25.8%</td>
</tr>
<tr>
<td>Growth of self-expression</td>
<td>23.7%</td>
</tr>
<tr>
<td>An increased application to reading</td>
<td>22.6%</td>
</tr>
<tr>
<td>Greater personal and social adaptability</td>
<td>20.4%</td>
</tr>
<tr>
<td>An increased desire to serve on AV squads</td>
<td>19.4%</td>
</tr>
<tr>
<td>More concentration with less random reactions</td>
<td>17.2%</td>
</tr>
<tr>
<td>A more relaxed emotional pattern, a greater self-discipline</td>
<td>15.1%</td>
</tr>
</tbody>
</table>
Table 12

The Children Have:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participated more in discussions</td>
<td>73.3%</td>
</tr>
<tr>
<td>Asked more questions</td>
<td>66.7</td>
</tr>
<tr>
<td>Answered more questions</td>
<td>65.6</td>
</tr>
<tr>
<td>Shown a greater variety or a greater depth of interest in school subjects</td>
<td>50.0</td>
</tr>
<tr>
<td>Practiced more skills</td>
<td>45.6</td>
</tr>
<tr>
<td>Increased their working on follow-up activities</td>
<td>30.0</td>
</tr>
<tr>
<td>Related more out-of-school knowledges and skills to the curriculum</td>
<td>28.9</td>
</tr>
<tr>
<td>Done more investigating as individuals or in a group</td>
<td>15.6</td>
</tr>
<tr>
<td>Read more books</td>
<td>12.2</td>
</tr>
<tr>
<td>Performed more experiments</td>
<td>11.1</td>
</tr>
<tr>
<td>Read a greater variety of books</td>
<td>10.0</td>
</tr>
<tr>
<td>Played more records and shown filmstrips in their free time in the classroom</td>
<td>4.4</td>
</tr>
<tr>
<td>The Children Show:</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Increased skills in oral expression</td>
<td>52.3%</td>
</tr>
<tr>
<td>Greater ability in drawing of inferences due to comparisons</td>
<td>46.5</td>
</tr>
<tr>
<td>Increase in creative efforts as follow through activities</td>
<td>44.2</td>
</tr>
<tr>
<td>Increase in reading ability</td>
<td>39.5</td>
</tr>
<tr>
<td>Increase in mathematical skill</td>
<td>39.5</td>
</tr>
<tr>
<td>Increased ability to form concepts and use them in solving new problems</td>
<td>37.2</td>
</tr>
<tr>
<td>Increase in speech skills</td>
<td>32.6</td>
</tr>
<tr>
<td>Increased skills in handling modern methods of communication</td>
<td>31.4</td>
</tr>
<tr>
<td>More purposeful practicing of skills related to art, music, etc.</td>
<td>15.1</td>
</tr>
<tr>
<td>Increase in spelling ability</td>
<td>15.1</td>
</tr>
<tr>
<td>Gain in skills as scored by the Iowa Tests</td>
<td>5.8</td>
</tr>
</tbody>
</table>
Teachers' Perceptions of Program's Strengths and Weaknesses

Asked to identify what, in their opinion, was the program's greatest strength, the teachers' focus centered on the acquisition of mechanical technical skills and on the high caliber of the program staff. Specifically, 50.9 per cent listed as the program's greatest strength the fact that they had learned to use the machines, and had the opportunity to use them, while 31 per cent felt that the program's strong point was its "enthusiastic, pragmatic, understanding, excellent, knowledgeable" staff.

More than two out of ten teachers singled out "demonstration of the potential of the AV materials for my subject area and of creative classroom use and lesson plans." Another 18 per cent mentioned the great "variety of material and/or equipment which was demonstrated."

In all, 79 per cent of the teachers were able to point to a positive value in the training they had received.

Asked to specify the weaknesses of the program, 64 per cent of teachers were able to respond.

The largest single group of criticisms (32.2 per cent) concerned the unsuitability of the instruction to the teacher's subject area.

About 20 per cent mentioned the excessive length of the train-
ing program; 16 per cent limited opportunities to actually handle the machines.

On the whole it would appear that the training program did not suffer from any fundamental weakness. Some of the perceived weaknesses -- like "I don't have this equipment in my school" and "Program was given too late in school year" -- were not actually functions of the training program and could have been "deducted" from the total criticisms.

Subjects to Be Covered In Future Training Program

Asked for suggestions for future AV training programs, the largest group (48.1 per cent) of teachers requested "more specific work in my own subject area."

That was the only suggestion offered by a sizeable group. About one out of ten of those answering the question wanted a program to include "observations of lessons given with AV aides and of lesson plans," while an equal number wanted it to cover "how to prepare visuals and transparencies."

Characteristics of Teachers In Training Program

The teachers participating in the AV inservice training program had one of three teaching specialties: 49 per cent taught corrective reading, 40 per cent taught corrective math, 11 per cent were speech therapists.

The bulk of these teachers had very little teaching experience.
Table 14

Teachers' Perceptions of Program's Strengths

<table>
<thead>
<tr>
<th>Perceived Strength</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learned to use the machines; opportunity to use the machines, etc.</td>
<td>50.9 per cent</td>
</tr>
<tr>
<td>Staff: excellent, pragmatic, enthusiastic, understanding, knowledgeable, etc.</td>
<td>31.1 per cent</td>
</tr>
<tr>
<td>Demonstration of the potentials of the AV materials for my subject area/of creative classroom use/of lesson plans</td>
<td>22.6 per cent</td>
</tr>
<tr>
<td>Great variety of material and/or equipment illustrated, demonstrated</td>
<td>17.9 per cent</td>
</tr>
<tr>
<td>Program was well-planned and organized</td>
<td>8.5 per cent</td>
</tr>
<tr>
<td>Discussion and exchange of ideas with other teachers; cathartic</td>
<td>7.5 per cent</td>
</tr>
<tr>
<td>Providing follow-up materials; information about resources available through the Bureau of AV Instruction</td>
<td>6.6 per cent</td>
</tr>
<tr>
<td>Chance to see teaching approaches of different staff members; team teaching</td>
<td>1.9 per cent</td>
</tr>
<tr>
<td>Being made aware of AV materials in the schools</td>
<td>.9 per cent</td>
</tr>
<tr>
<td>Small groups</td>
<td>.9 per cent</td>
</tr>
</tbody>
</table>
Table 15

Teachers' Perceptions of Program's Weaknesses

<table>
<thead>
<tr>
<th>Perception Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everything was not appropriate for my subject area</td>
<td>32.2 per cent</td>
</tr>
<tr>
<td>Too long; too drawn out</td>
<td>19.5 per cent</td>
</tr>
<tr>
<td>Limited (or no) opportunity to actually use the machines</td>
<td>16.1 per cent</td>
</tr>
<tr>
<td>Not enough equipment and/or prepared materials</td>
<td>11.5 per cent</td>
</tr>
<tr>
<td>Lack of new ideas and imagination; boring, repetitious</td>
<td>13.8 per cent</td>
</tr>
<tr>
<td>I don't have this equipment in my school</td>
<td>11.5 per cent</td>
</tr>
<tr>
<td>Group was too large</td>
<td>9.2 per cent</td>
</tr>
<tr>
<td>Lack of resources (for transparencies, films, ed. TV. etc.)</td>
<td>8.0 per cent</td>
</tr>
<tr>
<td>Poor facilities</td>
<td>6.9 per cent</td>
</tr>
<tr>
<td>Too much lecturing</td>
<td>5.7 per cent</td>
</tr>
<tr>
<td>The staff, lecturers and speakers</td>
<td>5.7 per cent</td>
</tr>
<tr>
<td>Program was given too late in the school year</td>
<td>5.7 per cent</td>
</tr>
<tr>
<td>Tried to cover too much too quickly</td>
<td>3.4 per cent</td>
</tr>
<tr>
<td>Not enough assistant instructors</td>
<td>2.3 per cent</td>
</tr>
<tr>
<td>Not comprehensive enough</td>
<td>2.3 per cent</td>
</tr>
</tbody>
</table>
Table 16

Suggestions for Subjects to be Covered in Future AV Training Programs

<table>
<thead>
<tr>
<th>Subject</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>More specific work in my own subject area</td>
<td>48.1%</td>
</tr>
<tr>
<td>Observations of lessons given with AV aids and of lesson plans</td>
<td>11.7%</td>
</tr>
<tr>
<td>How to prepare visuals and transparencies</td>
<td>10.4%</td>
</tr>
<tr>
<td>Listings or bibliographies of available materials, films, prepared acetates, sources and evaluation</td>
<td>9.1%</td>
</tr>
<tr>
<td>More demonstrations by experienced teachers</td>
<td>7.8%</td>
</tr>
<tr>
<td>The role and uses of educational TV</td>
<td>7.8%</td>
</tr>
<tr>
<td>Understanding the disadvantaged child and how to motivate him; classroom management and disciplines</td>
<td>7.8%</td>
</tr>
<tr>
<td>More work with specific machines: overhead projector</td>
<td>7.8%</td>
</tr>
<tr>
<td>Observation of real classroom situations</td>
<td>3.9%</td>
</tr>
<tr>
<td>More work with specific machines:</td>
<td></td>
</tr>
<tr>
<td>tape recorder</td>
<td>2.6%</td>
</tr>
<tr>
<td>phonograph</td>
<td>2.6%</td>
</tr>
<tr>
<td>movie camera</td>
<td>1.3%</td>
</tr>
<tr>
<td>Other (each mentioned once: science, social studies, children's symphonies/operas)</td>
<td>3.9%</td>
</tr>
</tbody>
</table>
Sixty per cent were just completing their first year of full time teaching. About 13 per cent had had one or two years of experience, almost as many had taught from three to four years. Only 15 per cent of the teachers had had five or more years of teaching experience.

This finding is significantly related to the success and effectiveness of the training program. In general, the amount of teaching experience amassed by teachers offers an important index when appraising the goals of an educational program. It is the position of the evaluators that effective use of audio-visual technology requires adequate understanding of teaching principles. The acquisition of audio-visual skills can supplement basic teaching techniques — it can enhance and diversify them — but it cannot serve as a substitute for them.

While it cannot be assumed that the amount of teaching experience is directly related to excellence in teaching, some actual experience in the classroom would be advisable for an individual to reap the anticipated benefits of a training program in audio-visual instruction utilizing a multi-media approach. That a teacher know his subject area and the needs and reactions of his pupils well would appear to be a necessary precondition for the inservice training these teachers were offered (as opposed to preliminary training).

Many of the neophyte teachers who participated in this program had also taken part in the Intensive Teacher Training summer pro-
gram offered by the Board of Education during the previous summer, which provided them with at least a measure of substitute experience.

Table 17

Years of Full Time Teaching Experience

Before June 1966

<table>
<thead>
<tr>
<th>Years</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>60.4 per cent</td>
</tr>
<tr>
<td>1 or 2</td>
<td>12.7 per cent</td>
</tr>
<tr>
<td>3 or 4</td>
<td>11.9 per cent</td>
</tr>
<tr>
<td>5 - 9</td>
<td>7.5 per cent</td>
</tr>
<tr>
<td>10 - 14</td>
<td>2.2 per cent</td>
</tr>
<tr>
<td>15 - 19</td>
<td>1.5 per cent</td>
</tr>
<tr>
<td>20 - 29</td>
<td>.0 per cent</td>
</tr>
<tr>
<td>30 or more</td>
<td>3.7 per cent</td>
</tr>
</tbody>
</table>

The overwhelming majority (97 per cent) of the teachers held other than regular teaching licenses. About half (47 per cent) were provisional substitutes, about 37 per cent were regular substitutes, and 13 per cent were conditional substitutes. Only 3 per cent held regular teaching licenses.

The question being raised at this point is whether providing teachers who had such limited experience and irregular certification with AV training represents the most efficient deployment of resources. This consideration is per se beyond the scope of the present
evaluation -- but it does bear on it and therefore should be taken into consideration in the institution of any future programs.

Evaluation of Program By Selected Program Personnel

Interviews were conducted with the three program coordinators -- one each for corrective math, corrective reading, and speech therapy -- and some of the district supervisors.

On the whole, all these respondents were very positive in their appraisals of the AV training program, feeling that it provided a much needed part of teacher training. Still, each of the coordinators mentioned some aspects of it that in her opinion needed improvement or revision. For instance, one coordinator felt that the training was very successful in teaching the handling and use of the machines, but that it did not fully convey the dramatic potential of applying AV techniques to the teaching of corrective math.

Another coordinator made the point that the tape recorder is a superfluous, unnecessary tool for a corrective math teacher, but the overhead projector is invaluable, while for the speech therapist the reverse situation is true. Training should be less generalized and oriented more to subject matter.

The consensus -- shared by the evaluators -- was that future training sessions should be more decentralized to achieve this. One session should be presented to all those program participants who are completely unfamiliar with the equipment, while other sessions be scheduled for each subject area to focus on the specific needs and tech-
niques of its personnel.

The respondents praised the training program for demonstrating excellent, varied, and imaginative lesson plans and creative uses of transparencies. The respondents also praised the follow up activities of the training program. During the course of the training sessions, teachers and other staff made suggestions and requests for specific transparencies. These were produced by the supervisor of the project and made available to the teachers. This follow up aspect of the program was found particularly beneficial by the evaluators since it connected training with the realities of classroom usage. Even though this follow up activity was beyond the original scope of the project, the product was of the very highest quality.

Conclusion

The data gathered in the course of the evaluation indicates that the training program in audio-visual techniques for teachers was well organized, useful, and fairly successful in achieving its objectives.

The extent of its success seems in some part to have been limited by factors beyond its control. The program was conducted too late in the school year to permit teachers to practice their newly acquired skills and to gain assurance and proficiency in their use (and to permit an empirical appraisal of the successfulness of the training).

There were also occasional shortages of equipment (due mostly
to inconvenient storage or nondelivery) which further decreased the teachers' opportunity for practicing what they had learned.

The lack of teaching experience of the majority of the teachers in the training program made them, in the opinion of the evaluators, less than the best targets for AV training. The reason for this is that ideally teachers should be in firm command of their craft before attempting to use the more exotic equipment and techniques inherent in the multimedia approach to teaching.

Beyond these observations the evaluator's appraisal of the program was generally positive. There was no doubt that the teachers emerged from the training sessions more knowledgeable about the potential of AV equipment for classroom use than when they had entered it. They also received basic instruction in the actual handling of the equipment. Given the time limitations of the program, it can be said it did a great deal to make the participants better equipped to utilize AV technology in classroom teaching.
This questionnaire is a follow-through to the Board of Education's Teacher Inservice Television and Audio-Visual Training Program held in March and April this year. You have had some time to think about what took place. This questionnaire will give you a chance to put some of these thoughts on paper. Your response will be helpful in measuring what was accomplished. It should also be of benefit to you in that it will provide a basis for designing future inservice training programs. Only the overall statistics will be included in the final report. Individual teachers will not be identified. The name of the respondent has been requested in order to have the total number of teachers participating in the program.

Mark the space below that is correct for you for each question. Mark only one answer for each question. You may omit any question which you would prefer not to answer, but please answer them all if you possibly can.

NAME

1. Your job title (closest approximation):
   A. Corrective Reading Teacher
   B. Corrective Mathematics Teacher
   C. Speech Therapy Teacher
   D. Other, please specify

2. As of June 1966, what was the total number of years of full-time teaching experience you have had? (Consider counseling as teaching experience.)
   A. None
   B. 1 or 2
   C. 3 or 4
   D. 5 to 9
   E. 10 to 14
   F. 15 to 19
   G. 20 to 29
   H. 30 or more
3. What type of teaching license do you have?
   A. Provisional Substitute
   B. Regular Substitute
   C. Regular Teaching License
   D. Other

4. Which parts of this inservice training program do you think are most helpful? Check the most appropriate classification.
   A. Instruction - Lectures
   B. Illustration of materials
   C. Classroom discussion
   D. Pace of learning
   E. Relevancy of learning

5. What is your present recollection of the primary objectives of the AV inservice training? (You may check more than one)
   A. To help me understand the disadvantaged.
   B. To prepare me in my specific work role.
   C. To prepare me to develop programs.
   D. To give me teaching skills
   E. Other

6. As you now see it, to what extent did the training program meet the above objectives you checked?
   A. Not at all
   B. Some
   C. 50-50
   D. Quite well
   E. Completely

7. In your work, how much of the ideas and methods will be used?
   A. All
   B. Much
   C. Some
   D. Little
   E. None

8. All things considered, how well did you like the AV Inservice training?
   A. Very well
   B. Fairly well
   C. Not so well
   D. Not at all
   E. I don't know
9. When you left the AV Training program, did you feel better qualified to do the job, or not at all qualified?
   A. Improved
   B. Not Improved
   C. Same

10. Did you feel the Inservice training was too long, too short, or about right?
    A. Too long
    B. Too short
    C. About right

11. Were there enough samples of AV materials to work with?
    A. Enough
    B. Not enough
    C. Uncertain

12. Were the readings, books AV materials, etc., useful in the training program.
    A. Useful
    B. Not useful
    C. Uncertain

13. In the order of frequency, indicate by number which piece of equipment you use most often in your teaching. (Number 1 for the most used).
    A. Overhead Projector
    B. Film Strip
    C. Tape Recorder
    D. Television
    E. Phonograph

14. What was the effect of increased use of TV and Audio-Visual equipment on pupil achievement? (Check all the appropriate answers.)
    A. Increase in reading ability
    B. Greater ability in drawing of inferences due to comparisons
    C. More purposeful practicing of skills related to art, music, etc.
    D. Increased ability to make concepts and use them in solving new problems.
    E. Increased skills in handling modern methods of communication
    F. Gain in skills as scored by the Iowa Tests
    G. Increased skills in oral expression
    H. Increase in creative efforts as follow through activities
    I. Increase in spelling ability
    J. Increase in mathematical skill
    K. Increase in speech skills
    L. No Increase
FROM YOUR TEACHING EXPERIENCE, WHAT IS THE EFFECT OF INCREASED USE OF AUDIO-VISUAL EQUIPMENT AND MATERIAL ON PUPIL INTERESTS AND ATTITUDES?  
(Check all the appropriate answers)

15. Has the intrinsic motivation of well-used AV tools resulted in greater interest as evidenced in the following ways?

   ___ A.  Asked more questions?
   ___ B.  Answered more questions?
   ___ C.  Participated more in discussions
   ___ D.  Practiced more skills?
   ___ E.  Read more books?
   ___ F.  Read a greater variety of books?
   ___ G.  Investigated more as individuals or in groups?
   ___ H.  Performed more experiments?
   ___ I.  Played more records and shown filmstrips in their free time in the classroom?
   ___ J.  Increased their work on follow-up activities?
   ___ K.  Related more out-of-school knowledge and skills to the curriculum?
   ___ L.  Showed a greater variety or a greater depth of interest in school subjects.
   ___ M.  Did not show increase?

16. Has a greater involvement of the pupils in the learning process been evidenced by a change of attitude toward school work? Have they shown:

   ___ A.  Increased attentiveness when listening or viewing?
   ___ B.  A greater willingness to practice skills or oral communication?
   ___ C.  An increased application to reading?
   ___ D.  More alertness and enthusiasm in problem solving?
   ___ E.  A more critical attitude toward his speech patterns?
   ___ F.  More appreciation of good records, TV programs, filmstrips, and books.
   ___ G.  More concentration with less random reactions?
   ___ H.  More purposeful self-direction in learning situations?
   ___ I.  An increased desire to serve on AV squads?
   ___ J.  Growth of self-expression?
   ___ K.  More imagination and creativity in his approach to learning?
   ___ L.  More responsibility for friendly cooperation in group activity?
   ___ M.  More curiosity and willingness to probe "in depth?"
   ___ N.  Greater personal and social adaptability?
   ___ O.  A more relaxed emotional pattern, yet a greater self-discipline?
   ___ P.  A development of a better self-image?
   ___ Q.  No Improvement
17. What subjects and/or topics would you like covered in future AV teacher inservice sessions?

__________________________
__________________________
__________________________
__________________________

18. Please include any comments you have about the training program, facilities, staff, and materials, etc.

__________________________
__________________________
__________________________
__________________________

19. Please indicate the strengths and weaknesses of the Workshop which you attended (List in order of importance).

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>WEAKNESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>A.</td>
</tr>
<tr>
<td>B.</td>
<td>B.</td>
</tr>
<tr>
<td>C.</td>
<td>C.</td>
</tr>
<tr>
<td>Type</td>
<td>Equipment</td>
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<td>---------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Overhead</td>
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<tr>
<td>D.D.#</td>
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<tr>
<td>O.H.#</td>
<td></td>
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<tr>
<td>Film Strip</td>
<td></td>
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<tr>
<td>D.D.#</td>
<td></td>
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<tr>
<td>O.H.#</td>
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<tr>
<td>Tape Recorders</td>
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<td>D.D.#</td>
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<td>O.H.#</td>
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<td>Screens'</td>
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<td>D.D.#</td>
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<td>O.H.#</td>
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<td>T.V.</td>
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<tr>
<td>D.D.#</td>
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<td>O.H.#</td>
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<tr>
<td>Phonograph</td>
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<td>D.D.#</td>
<td></td>
</tr>
<tr>
<td>O.H.#</td>
<td></td>
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</tbody>
</table>

**COMMENTS:**

__________________________________________________________________________

Initials  Date
Abbreviated outline of subject content for Inservice AV Teacher Training Program developed by the Bureau of AV Instruction of the Board of Education.

1. INSTRUCTIONAL TELEVISION

Distributed 6 Transparencies and Booklet: "Learning With Instructional Television"

A. Motivation - Showed kinescope of WNYE-TV program
   (2 min. excerpts of 5 good TV programs spliced in one film, or 5 min. excerpt from their award winning kinescope, "Places in the News")

B. Unique Qualities of ITV - Transparency

C. Patterns of ITV in New York City -
   WNYE-TV Channel 25 UHF
   WNDT Channel 13 VHF
   Schedule - Examine booklet, Pgs. A, B, C, D.
   Manual for Teachers
   - Examine front page--Transparency--back page (for points on utilization) of Manual--last page of booklet.

D. Setting up for Television in the Classroom -
   Filmstrip (same name) distributed with guide to NYC public schools in Fall of 1963.
   Location - TRANSPARENCY
   Types of Sets - TRANSPARENCY
   Tuning a Set - Demonstration
   Trouble Shooting--repair--transparency

E. Guidelines for Teachers
   Showed kinescope (T-V Teacher Training Series)
   "Using Television in the Classroom".
   Trainees were asked to observe good practices in TV lesson.
   Reinforce Learnings
   1. Trainees Answered
   2. Transparencies -
      Selection -
      Preparation
      During the telecast
      Follow-up Activities
      Evaluation
   3. Color slides - 10 classroom activities resulting from ITV.

F. The Supervisor's Responsibilities
   Getting the Sets in Action
   Maintenance--Repair Procedures
   Teacher Training
2. OVERHEAD PROJECTOR

Distributed five transparencies and booklet.

A. Motivation - Used Overhead Projector to introduce the teacher, using different colored pencils, previously prepared transparencies, ("The old way of doing things, Visual Acuity, etc.").

Used part of kinescope to show classroom use in teaching mathematics or to stimulate reading.

B. OVERHEAD PROJECTOR NOMENCLATURE

Transparency - to demonstrate parts. Point to parts on projector.

Overhead Projector - placement
Transparency - Keystoning

C. Advantages in using the overhead projector

Transparency

D. Preparation of transparencies.

Used pencils, ink, color, symbols, tapes, textures, etc. Techniques in use - opaque objects

Transparency - Transparent materials - plastics lucite, Overlay, Uncovering

Applications to various curriculum areas. Illustrate new courses wherever possible.

E. Sources of Materials

F. Use of Overhead Projector with Tapes

Records
Musical Instruments

G. Use of Overhead Projector in Team teaching

Large group instruction
3. FILMSTRIP PROJECTOR

Distributed 4 Transparencies and Booklets.

A. Motivation - Showed part of Kinescope on "Using filmstrip in classrooms". Project sections of various filmstrips in each curriculum area:
   Social Studies
   Language Arts
   Science
   Music

B. Planning to use filmstrips effectively - Transparency
   Criteria for selection--
   Types of filmstrips--
   How to use filmstrips with different pupil groupings

C. Advantages of Filmstrip Projection - Transparency

D. Patterns of Utilization - Transparency

E. Parts of a filmstrip projector - Simple maintenance - Transparency

F. Using the filmstrip in conjunction with (a) tape, (b) record, (c) overhead projector, (d) as a follow up to a motion picture.

G. Preparation of a filmstrip using
   35mm film & slides
   pen F ½ frame camera

H. Preparation of a script for a locally produced filmstrip.
   Need for Storyline
   Location
   Use in curriculum or to illustrate.
   Motivate or preview a lesson.
4. **PHONOGRAPH**

Distributed 4 Transparencies* and Booklet; "Teaching With the Phonograph"

**A. Motivation** - Played excerpts from selections of a few high quality records--in chosen fields--on various grade levels--suggestions--
- Carrot Seed
- Playtime with Music Required young child's response
- Meet the Instruments - record-charts
- Patrick Henry/Bill of Rights - dramatic record
- Camel Who Took a Walk - record, filmstrip, book
- Voices of the Satellites

**B. Planning to Use Records**
Selection - Very young
older grades
See pp. 2 and 5 of booklet for categories on BAVI Approved Lists. See BAVI Model List.

**C. Using Records with the Very Young - Transparency on Teacher-Pupil Relationship.** See Pre-K Curriculum Bulletin.

**D. Improving Listening Skills**
Set up Large Group—Listening Corner—Listening-Viewing Center
1. **Transparency** on placement of phonograph.
2. **Demonstrate** Record Player, Connection Box, Earphones as set up in a Listening Corner.

Getting the Class "Ready"
"During the Listening"
Follow-up activities
Evaluation -
Play a record—See pg. 7 for involving these teachers!

**E. Using the Multi-Media Approach —**
Play excerpt from Paul Revere & the Minute Men--Record, Filmstrip, Book
**Transparency** "Listening-Viewing-Reading" relationship

**F. Care of Records - Transparencies**

**G. Changing the Needle**
**Transparency**
**Demonstration**
H. Using the Record Player - Maintenance
   Transparency for Parts
   Demonstration on how to operate

I. Supervisor's Responsibilities
   Making the phonographs available
   Good Housekeeping
   Teacher-Training

5. AUDIO-VISUAL TAPES AND TAPE RECORDER

Distributed Transparencies and Booklet, "Audio Tapes & The Tape Recorder"

A. Motivation - Illustrated the use of various taped materials

B. Tape Recording Utilization (Transparency Activities on a Tape Recorder)
   Tape Recording & the Teacher
   Tape Recording & the Student
   Teacher Preparation
   Preparing the Student
   Suggested Activities in Various Subject Areas

C. The Tape Recorder & Its Operation
   Basic Controls - Transparency Controls on a T.R.
   Maintenance - Exposed tapeheads and pressure pads of a tape recorder. Show with brush & cleaning fluid technique for cleaning "heads."
   Threading the Tape Recorder - Transparency
   Preparing the Tapes

D. Tape Recordings
   Principle of tape recording
   Some important Facts on Audio Recording Tape - Passed around pieces of tape to illustrate oxide side and non-recording surface. Showed basic sizes of reels - 4", 5", & 7".
   Care of Tapes - Transparency - Also, the use of a silhouette technique showed steps on "splicing tape."

E. Variations of Tape Recorder & the Multi-Media Approach
   Transparency
The Tape Recorder & the Phonograph
(Showed set up & cables for recording disks into tapes)
The Tape Recorder & the Radio
(Showed set up & cables for recording radio programs on tape)  (Played an excerpt from a WNYE tape of a radio program.)
The Tape Recorder & Projectuals
(Showed a series of slides or a filmstrip with a pre-recorded narration) or (prepare a narration & present with transparencies you have been using to summarize proceedings.)
APPENDIX C

Staff List

Dr. James Morrison, Assistant Professor
St. Anselm's College
Manchester, New Hampshire

Karla Shepard
Research Assistant
Center for Urban Education