

A COMPARATIVE STUDY OF THE RELATIONSHIP BETWEEN SELECTED
GRADUATE EDUCATION COURSES AND PUBLIC SCHOOL
TEACHER'S COMMITMENT TO THE USE OF
EDUCATIONAL MEDIA

by

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TABLE OF CONTENTS

| | Page |
|--|------|
| LIST OF TABLES | iv |
| Chapter | |
| 1. INTRODUCTION | 1 |
| Statement of the Problem | 1 |
| Purpose of the Study | 1 |
| Hypothesis | 1 |
| Background and Significance of the Study | 2 |
| Definition of Terms | 4 |
| Limitations of the Study | 4 |
| Basic Assumptions | 5 |
| Procedures for Collecting Data | 6 |
| Procedures for Treating Data | 6 |
| 2. REVIEW OF RELATED LITERATURE | 8 |
| 3. METHODS AND PROCEDURES | 18 |
| Collection of the Data | 18 |
| The Media Utilization Checklist | 18 |
| Procedures Used for Evaluation and Comparison of Media Utilization | 20 |
| 4. EVALUATION AND COMPARISON OF DATA AND FINDINGS | 22 |
| Evaluation of the Educational Media Utilization Checklist | 23 |
| Evaluation of Individual Educational Media Utilization Checklist Elements | 23 |

| | Page |
|--|------|
| 5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS | 37 |
| Summary | 37 |
| Conclusions | 39 |
| Implications | 42 |
| Recommendations | 43 |
| Recommendations for Further Study | 43 |
| BIBLIOGRAPHY | 45 |
| APPENDIX | 47 |

LIST OF TABLES

| Table | Page |
|--|------|
| 1. The Number of Responses Made by Group A and Group B to Utilization Checklist Elements | 24 |
| 2. Mean Responses and Computated t Values for Group A and Group B to Utilization Checklist Elements | 26 |

Chapter 1

INTRODUCTION

Statement of the Problem

The problem of this study was to determine if a significant relationship existed between an experienced public school teacher's selection of courses for graduate study at Kansas State University and the utilization of educational media by the teacher in teaching-learning processes.

Purpose of the Study

The purpose of this study was to determine if a significant difference existed between the degree of commitment towards utilization of educational media by experienced public school teachers with graduate study in educational media courses and the degree of commitment of experienced public school teachers with graduate study in education courses other than educational media. The comparative degrees of commitment were determined by teacher response to a questionnaire evaluating the use of educational media in teaching.

Hypotheses

Two basic hypotheses stated in null form were tested: 1) Experienced public school teachers who have been enrolled in graduate educational media courses exhibit no significant difference in total mean response to a utilization checklist evaluating commitment towards the use of educational media in their teaching situations than experienced public school teachers without coursework in graduate educational media, and 2) Experienced public school

teachers who have been enrolled in graduate educational media courses exhibit no significant difference in response to individual elements of the utilization checklist evaluating commitment towards the use of certain educational media in their teaching than experienced public school teachers without previous coursework in graduate educational media.

Background and Significance of the Study

The use of educational media in the public school classroom has broadened extensively within the last ten to fifteen years. Technological advances have provided greatly improved devices and techniques leading to the acceptance of educational media as integral parts of the educational process rather than "just aids" to learning.

With improved materials more readily available it has become essential for the classroom teacher to become aware of current devices and educational media through graduate study or in-service education. In addition, teachers have begun to recognize the increased effectiveness of instruction that can be derived from enriching the learning process through the use of educational media and methods.

Educational media have come to be accepted as valuable forms of communication in teaching. Varying forms of educational media have been found to be essential for effective independent learning programs as well as for group instruction. Conclusive evidence has shown that proper use of educational media can improve learning in both group and individual situations while reducing personnel requirements and instructional time. (Kemp 9:5)

A review of related literature revealed that although extensive research had been devoted to the relationships of specific media devices to isolated learning processes, little research had been completed encompassing the

utilization of all forms of educational media by public school teachers. The importance of determining the full extent of commitment to educational media utilization was found to be necessary in providing teachers with adequate knowledge and skills for more effective application of educational media in teaching. Foster (4:11) stated in 1959 that information regarding available materials, education in utilization skills, and adequate teacher preparation were major factors in teacher utilization of educational media.

The potential for broader utilization of technology in education has been enormous. As Hoban (7:122) cited, "technology is not just machines and men. It is a complex, integrated organization of men and machines, of ideas, of procedures, and of management." Teachers should come to recognize the influence that graduate study or in-service education can have upon improving instruction with educational media. Supporting this viewpoint, King (10:131) found that a direct positive relationship existed in Oklahoma schools between provisions for in-service education and teacher utilization of educational media. A positive relationship also existed between school district commitments to educational media and teacher utilization.

No evidence was found indicating a previous study undertaken to determine if a significant relationship existed between graduate study in educational media and commitment by teachers to classroom utilization of educational media. Since the importance of trained, competent teachers who have the knowledge of preparing capable educational media assisted instruction had been shown to be essential for optimum use of media, it was determined to be of equal importance to investigate the type of study and training necessary for greatest teacher commitment to using educational media to improve teaching and learning. It was the significance of educational media education that was

important in this study. The type of graduate study undertaken by the teacher was considered to be an influencing factor upon utilization of educational media in the classroom.

Definition of Terms

Commitment to Utilization of Educational Media referred to the frequency with which available educational media materials and methods were incorporated into the classroom environment by teachers.

Educational Media or Media included all instructional equipment and materials excluding books which may have been used in the teaching-learning process of education. These materials were traditionally referred to as audio-visual materials.

Instructional Technology referred to the researched developments into new fields of inquiry and to the improved application of a constantly enlarging spectrum of media and materials to the processes of instruction.

In-Service Education was considered to be the presentation of educational media devices, materials, and methods that took place in an instructional format under the auspices of the school district.

Utilization of Educational Media referred to the planned integration of educational media into teaching-learning processes and activities.

Limitations of the Study

This study was limited to two groups of experienced public school teachers attending Kansas State University during the spring and summer sessions of 1972. One group of teachers had been enrolled in graduate educational media courses while the other group of teachers had been enrolled in graduate education courses other than educational media.

Limitations were also put upon this study by the ten major aspects that were selected for evaluation concerning utilization of educational media by teachers in public schools. Each major aspect included several elements. Concise statements of those elements follow:

1. The role of educational media in instruction and provisions for in-service education.
2. Use of educational television, including dissemination, and depicted current events.
3. Use of the television video tape recorder for self-evaluation and retention of performance.
4. Use of teaching machines and/or programmed learning materials in subject matter reinforcement, and learning of information and skills.
5. Use of recordings to enhance impressions and to provide musical and narrative experiences.
6. Use of opaque materials for group observation, and to project small pictures and three-dimensional objects.
7. Use of overhead transparencies for projection of wholes from parts, illustrations, and for immediate presentation of written matter.
8. Use of slides to document, reduce in size, and store subject matter.
9. Use of filmstrips to present sequential information and to provide for individual frame discussion.
10. Use of motion picture films for more effective presentation, verbalization of motion, review, summarization, and for small group instruction.

Basic Assumptions

The following assumptions were made in this study: 1) that every involved teacher had the majority of media included in this study available

for classroom use, 2) that since the subjects for both groups were randomly selected, all extraneous factors such as age, experience, subject taught, and size of school district were equal for both groups, and 3) that both sample groups would have been exposed to various forms of educational media, but that exposure to educational media was greater for those teachers who had been enrolled in graduate media courses.

Procedures for Collecting Data

Subjects for this study were selected randomly from experienced public school teachers enrolled in graduate education courses at Kansas State University during the spring and summer sessions of 1972. The teachers were individually polled regarding the use of educational media in teaching. The instrument of evaluation was a revised form of the King evaluative checklist regarding utilization of educational media in teaching originally designed by Totten and Fulton. The teachers were differentiated by the type of graduate educational course in which they were enrolled. Two groups were determined from the polled subjects. Group A consisted of those teachers enrolled in graduate educational media study, while Group B was made up of teachers enrolled in graduate education courses other than educational media.

The checklist responses of both groups were compared to determine if a significant difference existed between educational media usage practices of group A and group B.

Procedures for Treating Data

Arithmetic means were determined for each element of the checklist administered to both group A and B. Tabulation of the sum of element means for each group provided data for computation of a total average mean response

to the utilization checklist for both group A and group B. The statistical t-test was used to determine if a significant difference existed between the total average mean response of group A and group B and between the mean responses of each sample group to individual checklist elements. An alpha level of .05 was used to determine the critical value of comparison to each tabulated t value. The degrees of difference computed were the influencing factors in testing the stated hypotheses of this study.

Chapter 2

REVIEW OF RELATED LITERATURE

Numerous studies have been completed concerning varying aspects of educational media. Some have dealt with administrative concerns, media personnel, or standards of evaluation, while other studies have been restricted to individual media devices and their effects upon isolated behaviors.

The research reviewed and included in this study, ranged from factors of use pertinent to a specific geographical region or school system to aspects of media utilization reported on a nationwide basis or encompassing groups of school systems. However, no previous study has dealt specifically with the relationship of use of educational media to previous graduate education study.

Koon and Noble (12), in 1936, surveyed 8,806 school systems, in cooperation with the American Council on Education. The school systems were asked to respond to questions dealing with difficulties handicapping progress and use of educational media as well as important needs of media. The respondents cited the following as handicaps to progress: 1) lack of funds, 2) inability of teachers to obtain materials when needed, 3) lack of trained teachers, 4) improper correlation of materials with course of study, 5) lack of understanding of media values, and 6) lack of media information regarding sources. In rank order the respondent needs were determined to be the following: 1) a federal plan to assure uniform size and quality of equipment, 2) demonstrations by visual instruction experts, 3) lesson plans correlating media and courses of study, 4) motion pictures produced specifically for instructional purposes, and 5) establishment of visual instruction centers for the purpose of media education.

A status survey reporting upon the extent to which media education was being used in city school systems was published in December of 1946 by the Research Division of the National Education Association (14). A questionnaire consisting of 29 media utilization items was distributed to superintendents of schools in all cities over 2,500 in population. Of the 1,037 school systems reporting, 164 had either a full time or part time media director. Sixteen per cent of the school systems had provided special media departments for their staff. The reported range of facilities varied widely. All of the respondents emphasized the need for a central resource area to insure extensive teacher involvement. The results of the report indicated that elementary teachers in larger school systems and secondary teachers in smaller systems were more extensively committed to the use of educational media. Seventy-five per cent of the respondents reported that too little use was being made of media in their respective school systems. The following were reported to be serious obstacles to media use: 1) lack of teacher interest, 2) lack of specially trained media directors, 3) delayed purchase of essential equipment, 4) lack of adaption of buildings for media education, 5) lack of funds, 6) lack of centrally located media agencies, 7) lack of sources for renting or borrowing media materials, 8) board of education indifference, and 9) administrative opposition or indifference.

A survey of media facilities, equipment, and utilization procedures was completed in 1951 by the state of Connecticut (3). Two forms were used to obtain statewide information regarding the status of media instruction activities in the public schools. Form B was sent to school principals to collect information that could be used in formulating statewide programs of media instruction. The returns indicated the need for increased amounts of equipment

and materials as well as the need to intensify workshops and teacher education activities. The first portion of Form A was used to obtain information relating to the actual amounts of equipment and materials available in each school as well as the amount of time devoted to media education activities by school coordinators. The concluding portion of Form A requested administrators to determine obstacles to the development of media programs. The obstacles included: 1) lack of funds, 2) difficulty in obtaining materials and equipment at the appropriate time, 3) lack of media supplies within districts, and 4) lack of trained teachers in the effective use of media materials. Upon reviewing the responses, the State Department of Education recommended that full time media directors be provided for districts of 5,000 or more pupils, that more media assistants be provided, and that committees of teachers be formed to evaluate media programs on a continuous basis.

The National Education Association, Research Division (15), published the results of a second survey regarding the status of media education in urban school districts during the school year 1953-54. The responses to the 1955 survey indicated that eleven per cent more of the school districts had incorporated media departments since the completion of the 1946 survey. Indications were that the number of full time media directors had increased as well as the number of in-service education programs. Statistics also suggested that education of new classroom teachers in the use of media materials had continuously improved and that teachers were being involved in the selection of equipment and materials. The following were the ranked responses of those surveyed regarding services provided by media departments:

- 1) obtaining requested free and rental materials, 2) consultations on using media materials, 3) up-to-date information concerning new and available

materials, and 4) selection and purchase of materials and provisions for operators and equipment for school use. The statistics indicated that districts with formal media departments rated higher than those without and that higher ratings were achieved by the more populated districts.

In 1959 Foster (4) prepared a bulletin to promote effective use of media materials in the elementary school. Included in the bulletin were philosophies, resource units, listings of available materials, and the general effectiveness of media utilization. Over 200 Indiana teachers responded to a questionnaire on planning for the use of media materials. Four important aspects of media planning were determined: 1) a clear understanding of pupils, 2) information about materials, 3) skill in using materials, and 4) adequate teacher and pupil preparation for using the materials selected.

A Language Arts Laboratory was established during the summer of 1961 by the Great Cities School Improvement Program (6) in order to improve reading ability and other skills through the utilization of varying forms of educational media. All involved pupils were 14 years of age or older. The California Reading Test and oral reading analysis were given to each student at the beginning and end of the term. A variety of instructional materials were utilized in order to improve instruction and motivation. The tape recorder was estimated as the most useful mechanical aid used in oral reading for evaluation and diagnostic analysis. The tape recorder was also used for teacher in-service education. Other media utilized included the opaque projector, filmstrip projector, and reading accelerator which increased some student reading rates of fictional materials by as much as 250%. Overall gains made in test results were encouraging.

A nationwide questionnaire sample survey was completed by Godfrey (5) in

1962 and published in 1964. The survey included administrators, teachers, and media specialists in 247 school districts. Responses were obtained regarding resources in the schools, use of resources by teachers, and opinions of educators concerning use, problems, and future plans for use of media. All of the schools involved in the survey had a variety of materials and facilities including at least one 16 mm projector, slide-filmstrip projector, and record player with the majority of schools having at least one tape recorder, opaque projector, television set, and overhead projector. The findings indicated that: 1) 86% of the teachers used some media material at least once during the fall semester of 1961-62 more often as a supplemental teaching aid rather than an integral part of the teaching process, 2) the majority of respondents had had in-service training or college course instruction in the use of media, 3) elementary teachers were more likely to use media materials more frequently than secondary teachers with science, foreign language, and music teachers being the most frequent users at the secondary level, 4) regardless of grade taught, the most frequently used media materials consisted of films, filmstrips, and records or tapes. Of these, records and tapes were used more frequently by 20% of the teachers, 5) while administrators wanted to expand use of present and new materials, teachers were satisfied with present levels of use and were less inclined to try newer media, and 6) suitability of materials, facilities, time, and preparation were identified by both administrators and teachers as hinderers to effective use of media.

Knowlton (11) in 1963, conducted a correlational study to obtain data which could be useful in encouraging more extensive use of media materials in high schools. Two random samples of teachers were selected. The normative sample consisted of 50 participants in the 1959 National Science Foundation

Summer Institute. The non-normative sample consisted of teachers from all departments of six Indiana high schools. Responses were gathered regarding conventional media materials as well as the newer forms of media, particularly films. The information obtained included channels of communication, teacher attitudes, and cognitive dissonance. The results of the study revealed that: 1) attitudes toward the use of films do not relate to media aids in general, and 2) the particular subject taught is an important factor in channels of communication and utilization of media aids.

In a study by Wayne (20) 8,422 secondary and elementary teachers completed a questionnaire including information regarding in-service education, use of audio-visual aids including number of times and suggested situation, difficulties encountered, and plans for future use. The responses determined that users of aids varied sharply for subject and grade level taught. Elementary teachers who used any medium ranged from 88% to 96% while at the secondary level, science teachers ranked highest in use with 95%. Mathematics teachers were lowest with 45% use. The frequency of use data showed that the most popular medium were motion pictures and filmstrips with teachers of art, mathematics, science, social studies, grades 4-6, and grades 7-9. For teachers of english, music, and grades K-3, records were most popular while foreign language teachers used tapes and records most frequently. Findings also indicated that those teachers with previous specialized training used a greater proportion of media aids than their untrained colleagues. Teachers were most familiar with the slide-strip and film projectors as well as the tape recorder. They felt least familiar with the overhead and opaque projectors. Most of the difficulties encountered by regular users and less frequent users of media materials were related to time and preparation, availability, and

condition of equipment. This study was completed during the fall semester of 1961.

A study by the Bureau of Social Science Research, Incorporated, (2) was published in December 1965 as a final report in a series of four. The report summarized the changes in status of availability and use of media in the public schools during a period from 1961 to 1964. Approximately 3,000 school districts were regionally grouped. From these a sample of 240 districts was drawn for the 1964 study. Data was obtained from the schools regarding inventories of equipment and materials. A positive correlation was found between a superintendent's assessment of his program and an increase or decrease of media inventory. Gains were shown in the total amounts of media available. Included in the utilization portion of the study were instructional television, overhead projectors, language laboratories, programmed texts, and teaching machines. Elementary teachers reported the use of all types of equipment, except tape recorders, more frequently than secondary teachers. Reports of discontinued use of any equipment were confined mainly to instructional television. The statistics indicated that the districts with the higher populations were the more innovative and more technically advanced.

Tobias (17) tested 179 teachers from all grade levels enrolled in graduate education courses during the spring and summer of 1965. The teachers were asked to rate their attitudes toward 16 terms describing instructional media on six 7 point semantic differential scales. The attitude responses included good-bad, worthless-valuable, fair-unfair, meaningless-meaningful, wise-foolish, and disreputable-reputable. Included in the terms were examples such as teaching machines, programmed texts, filmstrips, audiovisual education, educational technology, and educational television. The order of appearance

of each term was varied throughout the randomized arrangement. The scores for each of the terms were intercorrelated, and subjected to a principal components factor analysis. Three factors were yielded: 1) programmed instruction, 2) traditional teaching aids, and 3) audiovisual devices. Factors 1 and 3 reflected the content areas from which the terms were drawn and the degree to which it connotated replacement of the teacher's function by machine. Factor 2 appeared to reflect the degree to which teachers felt that a device was likely to be used by them. The means of all terms having a major loading on any one factor were found. Similarity occurred between factors 1 and 3, while factor 3 varied significantly, indicating the devices loading on this factor were viewed more positively by teachers. The significance of difference between means using a Kruskal-Wallis one way analysis of variance was 34.05 significant beyond the .01 level. The findings indicated that teachers have significantly less favorable attitudes towards terms that directly denote automation than terms that do not.

In 1967 Bloodworth (1) directed a nationwide study that was designed to encourage further effective use of educational technology by locating various types of programs of new or improved methods of instruction for visitation purposes. A questionnaire was sent to 12,229 school systems as well as state departments of education, officers of state audio-visual associations, and members of state survey teams. Data was collected concerning the use of media in innovative public school programs. Fulton's instrument for self-evaluating an educational media program was used in determining the quality of media programs. The study indicated that full time media specialists influence greater use of media, many innovative programs are an effect of federal funds, less than 20% of the schools employed a media director, and media centers under

the direction of librarians without media training tend to be print-oriented with little dissemination of information to teachers regarding use of media materials in instruction. Recommendations included: 1) that states meet biennially to update media information concerning uses of educational technology, 2) that federal funds be made available through a national agency, and 3) that reports be made to those involved in school plant planning regarding school architectural designs that had been influenced by use of media.

King (10), in 1969, conducted an appraisal survey of Oklahoma public schools in an attempt to show a relationship between the level of sophistication of the media programs and the teacher utilization of selected educational media. Fulton's checklist for evaluation of educational media programs and Totten and Fulton's checklist for evaluating the use of educational media in teaching were revised by King and used as the measurement instruments. The evaluative checklist for media programs was completed by 302 superintendents or educational media directors. The revised utilization checklist was completed by 245 of the randomly selected public school teachers. In reference to all phases of media programs, schools with the smallest enrollment were found to be "weak" or "neither weak nor strong." More positive attitudes were obtained as the school enrollment increased for both the evaluative checklist and the utilization checklist. Teachers in the larger schools reported a stronger commitment to various forms of media. The findings indicated that media production, facilities, financing, and staffing in the Oklahoma public schools were generally inadequate. Recommendations included that administrators and faculty members work together in evaluating and revising local media programs, that in-service education and prospective teacher training be provided, that procedures be improved for distribution of materials, and that media

budgets, appropriate physical facilities, and increased media personnel be priority items in all schools.

The various literature investigated, indicated influencing factors upon teacher use of educational media as well as strong support in favor of in-service training or college preparation in educational media. The studies reflected numerous viewpoints and methodology. Hyer (8) in 1972 questioned the reliability of nationwide studies when she stated "there are no highly reliable national statistics available about the adoption of innovations by the public schools in the United States." Regardless of her statement, an attempt was made to represent the different aspects included in the scope of this study and to encompass all major areas that have been used as indicators of media utilization in previous investigations.

Chapter 3

METHODS AND PROCEDURES

Collection of the Data

This study was an investigation of the relationship of graduate education courses to experienced teacher's commitment to use of educational media. For determining if a relationship existed, data was needed from two groups:

A) experienced public school teachers who had been enrolled in graduate educational media courses and B) experienced public school teachers who had been enrolled in graduate education courses other than those dealing specifically with educational media.

The teachers involved in this study were chosen randomly by personal contact with the investigator. Each teacher was an experienced public school educator in either media or non-media education courses offered at Kansas State University during the spring and summer sessions of 1972. A total of 100 teachers were involved in this study with fifty teachers comprising each sample group.

Each teacher was individually asked to respond to questionnaire elements found in a revised form of King's instrument for Evaluating the Use of Educational Media.

The Media Utilization Checklist

The Evaluative Checklist for Evaluating the Use of Educational Media was originally developed by Herman L. Totten and W. R. Fulton for use in a doctoral study at the University of Oklahoma. The checklist was constructed by the jury method. Data regarding the validity of the criteria and the utilization check-

list were contained within the dissertation. (Totten, 18)

King's utilization checklist in revised form was used to collect data needed to compare the degree of teacher use of educational media of sample groups A and B. Teacher judgments were obtained based upon the extent of use in the teaching-learning process.

The revision of the King utilization Checklist consisted of including additional information regarding the television video tape recorder as well as altering the format of the criteria and elements presented. One revision regarding the video tape recorder was made to include retention of information due to the expanded availability and use of such equipment since the original Totten and Fulton checklist was designed. (Nelson and others, 16) The checklist format was altered in order to shorten the overall length and to reduce the time necessary for completion of responses. The responses required were altered only in structural design.

The revised utilization checklist was used to obtain responses from sample groups A and B regarding the use of twenty media elements included in this study. Criteria was provided for each element illiciting a response. A total of 100 utilization checklists were completed by the teachers.

Each utilization checklist element provided for one of four possible responses from the teacher ranging from 1--never, referring to a situation in which no criteria were met and no apparent utilization of media was made, 2--rarely, representing usage that was far below the criteria relating to proper utilization, 3--occasionally, referring to usage that falls below the criteria relating to proper utilization, and 4--often, representing the optimum criteria level relating to proper utilization.

The following was a representative element from the revised King utilization checklist:

Use of Opaque Materials to Enlarge Small Size Still Pictures
and to Project Three-Dimensional Objects.

In my teaching situation, opaque materials are _____ ☐1 ☐2 ☐3 ☐4
used to enlarge small size still pictures to a large
scale on various surfaces for reproduction or to project
three-dimensional objects.

NEVER--1, RARELY--2, OCCASIONALLY--3, OFTEN--4

Procedures Used for Evaluation and Comparison of Media Utilization

The data utilized for comparison of media usage and commitment in this study was that obtained from the responding teachers involved in both sample groups A and B. An evaluative judgment was made for each of the twenty utilization elements by the teachers.

Responses indicated by 1 , were judged as being never committed to the use of educational media. Those responses indicated by 2 , were judged as being seldom committed to the use of educational media. Responses indicated by 3 , were judged as being occasionally committed to the use of educational media. Responses indicated by 4 , were considered to be strongly committed to the use of educational media.

Point rankings were assigned to each possible response. A response of Never was equal to one point, a response of Rarely was equal to two points, a response of Occasionally was equal to three points while a response of Often was equal to four points. From these point rankings, a mean response for each individual checklist element was found for both group A and group B. A total average mean response was also tabulated for each group.

From the previously tabulated means of group responses, a statistical comparison of group A responses and group B responses was made to determine if any significant difference existed between total average mean responses or between mean responses of the teachers involved in the study to individual checklist

elements. The statistical t-test was computed to test the validity of both null hypotheses. The t values were tabulated from data obtained from the computed means for each group. The t values were then compared to a predetermined alpha level of .05. The relationships between the t values and the critical alpha level value were the factors used in determining significant difference between commitment of group A and group B towards utilization of educational media in their classrooms. (Turnes and Robb, 19:96) The resultant data and conclusions were included in chapters 4 and 5.

Chapter 4

EVALUATION AND COMPARISON OF DATA AND FINDINGS

The data collected for this study was used to evaluate and compare the educational media utilization practices of experienced public school teachers.

The evaluation of educational media utilization in the classroom was organized around ten major aspects of educational media utilization: 1) General, which dealt with the role of educational media in instruction, 2) Educational Television, 3) Television Video Tape Recorder, 4) Teaching Machines and Programmed Learning Materials, 5) Recordings, 6) Opaque Materials, 7) Overhead Transparencies, 8) Slides, 9) Filmstrips, and 10) Motion Picture Films. Each aspect contained one or more elements relating to the commitment of experienced public school teachers to educational media utilization in instruction.

The evaluation of educational media utilization in instruction was based upon criteria developed by Totten and Fulton. These criteria, upon which the utilization checklist used in this study was based, preceded each checklist aspect. The criteria appear in the Appendix.

Comparison was made of data collected from two sample groups. Group A consisted of fifty experienced public school teachers who had been enrolled in graduate educational media coursework. Group B consisted of fifty experienced public school teachers without previous coursework in graduate educational media. A comprehensive evaluation of the findings was made by comparing the total mean response of Group A to the total mean response of Group B. An evaluation of the findings was also made by comparing each groups mean response to individual elements of the utilization checklist. The means of the two

groups were then compared by applying the statistical t-test to determine if a significant difference between means existed. An alpha level of .05 was used to establish the critical level for rejection or retention of the two null hypotheses.

EVALUATION OF THE EDUCATIONAL MEDIA UTILIZATION CHECKLIST

The first null hypothesis to be tested stated that the total mean response to the utilization checklist by experienced public school teachers who had been enrolled in graduate educational media courses was not significantly different from the total mean response of experienced public school teachers without previous coursework in graduate educational media. Table 1 shows the number of responses from both sample group A and sample group B to each element choice. A comprehensive mean for each sample group was found. The mean response of group A was 31.9. The mean response of group B was 29.36. A statistical comparison of means was made by applying the t-test to the tabulated data. The calculated t value was -1.028. Rejection of the null hypothesis based upon an alpha level of .05 required a value greater than 2.023. Therefore the original hypothesis was retained. There existed no significant difference between the means of group A and group B in response to the utilization checklist regarding commitment towards the use of educational media in teaching-learning processes.

EVALUATION OF INDIVIDUAL EDUCATIONAL MEDIA UTILIZATION CHECKLIST ELEMENTS

The second null hypothesis to be tested stated that the mean responses to individual elements of the utilization checklist by experienced public school teachers who had been enrolled in graduate educational media coursework were not

Table 1

The Number of Responses Made by Group A
and Group B to Utilization Checklist
Elements

| Major Checklist Aspects* | | Group A Responses | | | | Group B Responses | | | |
|--------------------------|----|-------------------|--------|---------------|-------|-------------------|--------|---------------|-------|
| | | Never | Rarely | Occasion-ally | Often | Never | Rarely | Occasion-ally | Often |
| General Use | A. | 0 | 2 | 17 | 31 | 0 | 7 | 18 | 25 |
| | B. | 8 | 24 | 13 | 5 | 13 | 16 | 19 | 2 |
| Educational Television | A. | 16 | 15 | 15 | 4 | 35 | 4 | 9 | 2 |
| | B. | 16 | 14 | 14 | 6 | 35 | 6 | 7 | 2 |
| | C. | 23 | 16 | 9 | 2 | 36 | 8 | 6 | 0 |
| Video Tape Recorder | A. | 21 | 14 | 6 | 9 | 41 | 3 | 2 | 4 |
| | B. | 19 | 14 | 11 | 6 | 31 | 9 | 8 | 2 |
| Teaching Machines | A. | 16 | 8 | 15 | 11 | 11 | 20 | 12 | 7 |
| | B. | 18 | 8 | 12 | 12 | 11 | 13 | 17 | 9 |
| Recordings | A. | 7 | 13 | 23 | 7 | 6 | 4 | 20 | 20 |
| | B. | 10 | 14 | 19 | 7 | 8 | 19 | 12 | 11 |
| | C. | 13 | 21 | 11 | 5 | 10 | 15 | 13 | 12 |
| Opaque Materials | A. | 9 | 14 | 19 | 8 | 16 | 12 | 15 | 6 |
| | B. | 6 | 19 | 17 | 8 | 15 | 9 | 12 | 15 |
| Transparencies | A. | 2 | 5 | 12 | 31 | 5 | 9 | 14 | 22 |
| Slides | A. | 17 | 9 | 14 | 10 | 22 | 12 | 9 | 7 |
| Filmstrips | A. | 1 | 5 | 15 | 29 | 1 | 2 | 13 | 34 |
| Motion Picture Films | A. | 2 | 5 | 20 | 23 | 6 | 5 | 8 | 31 |
| | B. | 2 | 11 | 17 | 20 | 6 | 9 | 11 | 24 |
| | C. | 23 | 9 | 12 | 6 | 37 | 6 | 5 | 2 |

(*Refer to the Appendix for individual utilization checklist information.)

significantly different from the individual mean responses of experienced public school teachers without previous coursework in graduate educational media. A comparison of the means of responses for both sample group A and sample group B was made for each checklist element. A statistical comparison of means was made by applying the t-test to the tabulated data. Rejection of the null hypothesis based upon an alpha level of .05 required a value greater than 2.447. The mean responses to each checklist element for both groups and the computed t values are found in Table 2.

The data for each checklist element were as follows:

I. General

The General section of the utilization checklist contained two educational media utilization elements relating to the commitment of experienced public school teachers towards utilization of educational media in their classrooms.

Element I-A: The Role of Educational Media in Instruction

The data and evaluation. Element I-A of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to which they met the criteria relating to their commitment towards the role of educational media in improving instruction. The mean response of group A was 44.75. The mean response of group B was 42.00. The calculated t value was -.076. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding the role of educational media in instruction.

Element I-B: Provisions for In-Service Education in the Use of Educational Media.

The data and evaluation. Element I-B of the utilization checklist was

Table 2

Mean Responses and Computed t Values for
Group A and Group B to Utilization
Checklist Elements

| Major Checklist Aspects and Elements* | | Group A Means | Group B Means | Computed t Values |
|---------------------------------------|----|---------------|---------------|-------------------|
| General Use | A. | 44.75 | 42.00 | - .076 |
| | B. | 28.75 | 27.50 | - .087 |
| Educational Television | A. | 26.75 | 19.50 | - .75 |
| | B. | 27.50 | 19.00 | -1.05 |
| | C. | 22.50 | 17.50 | - .56 |
| Video Tape Recordings | A. | 25.75 | 17.25 | - .89 |
| | B. | 26.00 | 20.25 | -1.00 |
| Teaching Machines | A. | 30.25 | 28.75 | - .14 |
| | B. | 29.50 | 31.00 | .13 |
| Recordings | A. | 32.50 | 38.50 | .73 |
| | B. | 30.75 | 31.50 | - .059 |
| | C. | 27.00 | 31.75 | .46 |
| Opaque Materials | A. | 31.50 | 27.25 | - .36 |
| | B. | 31.75 | 29.75 | - .12 |
| Transparencies | A. | 43.00 | 38.25 | - .14 |
| Slides | A. | 29.25 | 25.25 | - .58 |
| Filmstrips | A. | 43.00 | 45.00 | .049 |
| Motion Picture Films | A. | 43.50 | 41.00 | - .073 |
| | B. | 38.75 | 38.25 | - .02 |
| | C. | 25.25 | 18.00 | .96 |
| | | Average Means | | t Value |
| | | 31.90 | 29.36 | -1.028 |

(*Individual checklist elements may be found in the Appendix)

designed to elicit judgmental responses from teachers regarding the extent to which their school met the criteria relating to the commitment towards providing for in-service education in the use of educational media. The mean response of group A was 28.75. The mean response of group B was 27.50. The calculated t value was $-.087$. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding provisions for in-service education in the use of educational media.

II. Educational Television

Section II of the utilization checklist contained four educational media utilization elements relating to the commitment of experienced public school teachers towards utilization of educational television in their classrooms.

Element II-A: Dissemination of Information by Educational Television

The data and evaluation. Element II-B of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to which they met the criteria relating to their commitment towards dissemination of information by educational television. The mean response of group A was 26.75. The mean response of group B was 19.50. The calculated t value was $-.75$. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding dissemination of information by educational television.

Element II-B: Pictorial Current Events Depicted by Educational Television

The data and evaluation. Element II-B of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to which they met the criteria relating to their commitment towards the use of educational television for depicting pictorial current events. The mean

response of group A was 27.50. The mean response of group B was 19.00. The calculated t value was -1.05. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding the use of educational television for depicting pictorial current events.

Element II-C: Use of Educational Television to Reach Widely Dispersed Audiences

The data and evaluation. Element II-C of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to which they met criteria relating to their commitment towards the use of educational television to reach widely dispersed audiences. The mean response of group A was 22.50. The mean response of group B was 17.50. The calculated t value was -.56. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding the use of educational television to reach widely dispersed audiences.

III. Television Video Tape Recorder

Section III of the utilization checklist contained two educational media utilization elements relating to the commitment of experienced public school teachers towards utilization of the television video tape recorder in their classrooms.

Element III-A: Use of the Television Video Tape Recorder to Retain Performances

The data and evaluation. Element III-A of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to which they met the criteria relating to their commitment towards the use of the television video tape recorder to retain performances. The mean response of

group A was 25.75. The mean response of group B was 17.25. The calculated t value was $-.89$. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding the use of the television video tape recorder to retain performances.

Element III-B: Self-Evaluation Through the Use of the Television Video Tape Recorder

The data and evaluation. Element III-B of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to which they met the criteria relating to their commitment towards self-evaluation through the use of the television video tape recorder. The mean response of group A was 26.00. The mean response of group B was 20.25. The calculated t value was -1.00 . Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding self-evaluation through the use of the television video tape recorder.

IV. Teaching Machines and Programmed Learning Materials

Section IV of the utilization checklist contained two educational media utilization elements relating to the commitment of experienced public school teachers towards utilization of teaching machines and programmed learning materials in their classrooms.

Element IV-A: Use of Teaching Machines and/or Programmed Learning Materials in the Immediate Reinforcement of Subject Matter

The data and evaluation. Element IV-A of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to which they met the criteria relating to their commitment towards the use of teaching machines and/or programmed learning materials in the immediate

reinforcement of subject matter. The mean response of group A was 30.25. The mean response of group B was 28.75. The calculated t value was $-.14$. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding the use of teaching machines and/or programmed learning materials in the immediate reinforcement of subject matter.

Element IV-B: Use of Teaching Machines and/or Programmed Learning Materials in Learning Routine Skills and Factual Information

The data and evaluation. Element IV-B of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to which they met the criteria relating to their commitment towards the use of teaching machines and/or programmed learning materials in learning routine skills and factual information. The mean response of group A was 29.50. The mean response of group B was 31.00. The calculated t value was $.13$. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding the use of teaching machines and/or programmed learning materials in learning routine skills and factual information.

V. Recordings

Section V of the utilization checklist contained three educational media utilization elements relating to the commitment of experienced public school teachers towards utilization of recordings in their classrooms.

Element V-A: Use of Recordings to Enliven, Enhance, and Vivify Impressions of Materials

The data and evaluation. Element V-A of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to

which they met the criteria relating to their commitment towards the use of recordings to enliven, enhance, and vivify impressions of materials. The mean response of group A was 32.50. The mean response of group B was 38.50. The calculated t value was .73. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding the use of recordings to enliven, enhance, and vivify impressions of materials.

Elements V-B: Use of Recordings to Provide Realistic Musical and Unique Narrative Experiences, to Capture Original Sounds, and to Overcome Barriers of Time and Distance

The data and evaluation. Element V-B of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to which they met the criteria relating to their commitment towards the use of recordings to provide realistic musical and unique narrative experiences, to capture original sounds, and to overcome barriers of time and distance. The mean response of group A was 30.75. The mean response of group B was 31.5. The calculated t value was .059. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding the use of recordings to provide realistic musical and unique narrative experiences, to capture original sounds, and to overcome barriers of time and distance.

Element V-C: Use of Tape Recordings for Self-Evaluation and Improvement, and the Reporting of Pre-recorded Information

The data and evaluation. Element V-C of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to which they met the criteria relating to their commitment towards the use

of tape recordings for self-evaluation and improvement, and the reporting of pre-recorded information. The mean response of group A was 27.00. The mean response of group B was 31.75. The calculated t value was .46. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding the use of tape recordings for self-evaluation and improvement, and the reporting of pre-recorded information.

VI. Opaque Materials

Section VI of the utilization checklist contained two educational media utilization elements relating to the commitment of experienced public school teachers towards utilization of opaque materials in their classrooms.

Element VI-A: Use of Opaque Materials for Non-Transparent Materials to Be Used for Group Observation and Economy of Time

The data and evaluation. Element VI-A of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to which they met the criteria relating to their commitment towards the use of opaque materials for non-transparent materials to be used for group observation and economy of time. The mean response of group A was 31.50. The mean response of group B was 27.25. The calculated t value was $-.36$. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding the use of opaque materials for non-transparent materials to be used for group observation and economy of time.

Element VI-B: Use of Opaque Materials to Enlarge Small Size Still Pictures and to Project Three Dimensional Objects

The data and evaluation. Element VI-B of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to

which they met the criteria relating to their commitment towards the use of opaque materials to enlarge small size still pictures and to project three dimensional objects. The mean response of group A was 31.75. The mean response of group B was 29.75. The calculated t value was $-.12$. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding the use of opaque materials to enlarge small size still pictures and to project three dimensional objects.

VII. Overhead Transparencies

Section VII of the utilization checklist contained one educational media utilization element relating to the commitment of experienced public school teachers towards utilization of overhead transparencies in their classrooms.

Element VII-A: Use of Overhead Transparencies to Show Development of Wholes from Parts or the Cumulative Growth of a Whole, to Write on Projection material at the Time of Projection, or to Present Illustrations While the Teacher Is Facing the Class

The data and evaluation. Element VII-A of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to which they met the criteria relating to their commitment towards the use of overhead transparencies to show development of wholes from parts or the cumulative growth of a whole, to write on projection material at the time of projection, or to present illustrations while the teacher is facing the class. The mean response of group A was 43.00. The mean response of group B was 38.25. The calculated t value was $-.14$. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding the use of overhead transparencies to show

development of wholes from parts or the cumulative growth of a whole, to write on projection material at the time of projection, or to present illustrations while the teacher is facing the class.

VIII. Slides

Section VIII of the utilization checklist contained one educational media utilization element relating to the commitment of experienced public school teachers towards utilization of slides in their classrooms.

Element VIII-A: Use of Slides for Reduction in Size for Easy Storage and Retrieval and to Document Field Trips and Laboratory Experiments

The data and evaluation. Element VIII-A of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to which they met the criteria relating to their commitment towards the use of slides for reduction in size for easy storage and retrieval and to document field trips and laboratory experiments. The mean response of group A was 29.25. The mean response of group B was 25.25. The calculated t value was $-.58$. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding the use of slides for reduction in size for easy storage and retrieval and to document field trips and laboratory experiments.

IX. Filmstrips

Section IX of the utilization checklist contained one educational media utilization element relating to the commitment of experienced public school teachers towards utilization of overhead transparencies in their classrooms.

Element IX-A: Use of Filmstrips for Photographs of a Sequential Nature and for Discussion of Individual Frames

The data and evaluation. Element IX-A of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to which they met the criteria relating to their commitment towards the use of filmstrips for photographs of a sequential nature and for discussion of individual frames. The mean response of group A was 43.00. The mean response of group B was 45.00. The calculated t value was .049. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding the use of filmstrips for photographs of a sequential nature and for discussion of individual frames.

X. Motion Picture Films

Section X of the utilization checklist contained three educational media utilization elements relating to the commitment of experienced public school teachers towards utilization of motion picture films in their classrooms.

Element X-A: Use of Motion Picture Films to Enhance Lecture, to Provide Motivation and for Effective Presentation of Material

The data and evaluation. Element X-A of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to which they met the criteria relating to their commitment towards the use of motion picture films to enhance lecture, to provide motivation and for effective presentation of material. The mean response of group A was 43.50. The mean response of group B was 41.00. The calculated t value was -.073. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding the use of motion picture films to enhance lecture, to provide motivation and for effective presentation of material.

Element X-B: Use of Motion Picture Films for Verbalization and Motion, for Modification of Time, and for Review and Summarization

The data and evaluation. Element X-B of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to which they met the criteria relating to their commitment towards the use of motion picture films for verbalization and motion, for modification of time, and for review and summarization. The mean response of group A was 38.75. The mean response of group B was 38.25. The calculated t value was $-.02$. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding the use of motion picture films for verbalization and motion, for modification of time, and for review and summarization.

Element X-C: Use of Eight Millimeter Cartridge Silent Motion Picture Films for Small Groups or for Individual Instruction and for Inexpensive Local Production

The data and evaluation. Element X-C of the utilization checklist was designed to elicit judgmental responses from teachers regarding the extent to which they met the criteria relating to their commitment towards the use of eight millimeter cartridge silent motion picture films for small groups or for individual instruction and for inexpensive local production. The mean response of group A was 25.25. The mean response of group B was 18.00. The calculated t value was $-.96$. Therefore the null hypothesis was retained. There was found to be no significant difference between means of groups A and B regarding the use of eight millimeter cartridge silent motion picture films for small groups or for individual instruction and for inexpensive local production.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Within the context of this chapter, conclusions were derived at based upon the major findings. Implications were drawn from these conclusions and subsequent recommendations were made relevant to this study.

Summary

The purpose of this study was to determine if a significant relationship existed between experienced public school teachers commitment towards the use of educational media in teaching-learning processes and previous graduate educational media coursework completed by the teachers. One hundred teachers enrolled in graduate study at Kansas State University during the spring and summer of 1972 responded to a written questionnaire. Judgmental responses were obtained from fifty experienced public school teachers previously enrolled in graduate educational media coursework and fifty experienced public school teachers without previous coursework in educational media. Totten and Fulton's Utilization Checklist in revised form was used to gather data relating to the level of educational media utilization by the teachers in their classrooms. The instrument used appears in the Appendix.

A statistical comparison of the total responses to the checklist was made between the two sample groups. Statistical comparisons were also made between responses of each group to individual elements of ten major aspects relating to educational media utilization found within the checklist. The ten aspects of educational media utilization were: 1) General, 2) Educational Television, 3) Television Video Tape Recorder, 4) Teaching Machines and Programmed Learning

Materials, 5) Recordings, 6) Opaque Materials, 7) Overhead Transparencies, 8) Slides, 9) Filmstrips, and 10) Motion Picture Films.

The evaluation of the utilization checklist was based upon criteria submitted with each major aspect within the checklist. The responses were made by the teachers based upon relative frequency of classroom use in relation to the established criteria. Point rankings were assigned to each of the four response categories as follows: Never used--1 point, Rarely used--2 points, Occasionally used--3 points, and Often used--4 points. Based upon the number of responses and the point rankings for each category, a total point value and mean for each checklist element was obtained for each sample group. Utilizing the t-test and an established alpha level of .05, a comparison was made between total mean group responses and mean responses for each element of the checklist to determine if a significant difference between group responses existed.

Tabulation of the data revealed a total mean response of 31.9 for group A or those experienced public school teachers previously enrolled in graduate educational media coursework. The total mean response for group B or those experienced public school teachers without previous coursework in graduate educational media was 29.36. The t-test provided a t value of -1.028 with the alpha level of .05 equal to a critical value of 2.023. Therefore the null hypothesis was retained. There was no significant difference indicated between total mean responses of group A and group B towards commitment of educational media utilization in their classrooms.

The data for each individual element of the utilization checklist revealed means ranging from 22.50 to 44.75 for group A and from 18.00 to 45.00 for group B. The determined t values ranged from -.02 to -1.05. The comparative alpha level of .05 remained at a critical value of 2.447. Therefore the null

hypothesis was retained for each checklist element. There was no significant difference between mean responses of group A and group B to individual checklist elements relating to the teachers commitment towards the utilization of educational media in their classrooms.

Conclusions

Although no significant statistical difference existed between total responses of groups A and B or between responses of groups A and B to individual utilization checklist elements, wide variances between means and t values did exist for certain checklist elements. Conclusions based upon these variances were drawn by comparing the total average means obtained for each sample group and by comparing the mean responses to individual checklist elements for groups A and B.

Several checklist elements were determined to have much higher means than the total average mean response of 31.90 for group A or 29.36 for group B. Those checklist elements generally indicating greater commitment towards the utilization of certain educational media by both sample groups were:

1. Commitment towards the general role of educational media as a means of improving instruction. (Group A mean--44.75, Group B mean--42.00)
2. Commitment towards the use of motion picture films to enhance lecture, to provide motivation and for effective presentation of material. (Group A mean--43.50, Group B mean--41.00)
3. Commitment towards the use of filmstrips for photographs of a sequential nature and for discussion of individual frames. (Group A mean--43.00, Group B mean--45.00)
4. Commitment towards the use of overhead transparencies to show development of wholes from parts or the cumulative growth of a whole, to write on

projection material at the time of projection, or to present illustrations while the teacher is facing the class. (Group A mean--43.00, Group B mean--38.25)

Other checklist elements were determined to have much lower means than the total average mean response for either group A or group B. Those checklist elements generally indicating lesser commitment towards certain educational media utilization by either sample group were:

1. Commitment towards the use of educational television to reach widely dispersed audiences. (Group A mean--22.50, Group B mean--17.50)

2. Commitment towards the use of eight millimeter cartridge silent motion picture films for small group or for individual instruction and for inexpensive local production. (Group A mean--25.25, Group B mean--18.00)

3. Commitment towards the use of the television video tape recorder to retain performances. (Group A mean--25.75, Group B mean--17.25)

4. Commitment towards self-evaluation through the use of the television video tape recorder. (Group A mean--26.00, Group B mean--20.25)

Group B also indicated variances from the total average mean response in two other areas. Those checklist element responses generally indicating greater commitment to certain educational media utilization by group B were:

1. Commitment towards the use of recordings to enliven, enhance, and vivify impressions of materials. (mean of 38.50)

2. Commitment towards the use of motion picture films for verbalization and motion, for modification of time, and for review and summarization. (mean of 38.25)

Those checklist element responses generally indicating lesser commitment by group B to certain educational media utilization were:

1. Commitment towards pictorial current events depicted by educational television. (mean of 19.50)

2. Commitment towards dissemination of information by educational television. (mean of 19.00)

Several *t* values obtained from *t*-test tabulation of checklist elements for each sample group were found to be nearer the critical value of 2.447 while other *t* values were minimal in comparison. Those checklist elements indicating greater difference between mean responses of group A and mean responses of group B were:

1. Commitment towards depiction of pictorial current events by educational television. (*t* value of -1.05)

2. Commitment towards self-evaluation through the use of the television video tape recorder. (*t* value of -1.00)

3. Commitment towards the use of eight millimeter cartridge silent motion picture films for small group or for individual instruction and for inexpensive local production. (*t* value of .96.)

Those checklist elements indicating a minimal degree of difference between mean responses of group A and mean responses of group B were:

1. Commitment towards the use of motion picture films for verbalization and motion, for modification of time, and for review and summarization. (*t* value of -.02)

2. Commitment towards the use of filmstrips for photographs of a sequential nature and for discussion of individual frames. (*t* value of .049)

3. Commitment towards the use of recordings to provide realistic musical and unique narrative experiences, to capture original sounds, and to overcome barriers of time and distance. (*t* value of .059)

Implications

Several implications were inferred from an analysis of the data and conclusions that could not be substantiated as accountable judgments. The implications that appeared pertinent to this study were:

1. Although both sample groups were favorably committed towards the role of educational media in improving instruction, those experienced public school teachers with previous graduate coursework in educational media appear to be generally more committed towards the use of a variety of educational media in their classrooms.

2. Experienced public school teachers with previous graduate educational media coursework tended to make greater use of educational television and the television video tape recorder in their classrooms. Two factors may have accounted for this. 1) Several teachers indicated to the investigator a lack of availability of either of these forms of equipment in their teaching situations. 2) Because of the more recent development of these forms of equipment to practical application in teaching, many teachers may not have been familiar with procedures and functions in utilizing the equipment.

3. There appeared to be a greater tendency on the part of experienced public school teachers without previous graduate coursework in educational media to use those materials readily available without preparation on the part of the teacher.

4. Greater commitment by school to providing for in-service education might have encouraged the use of less familiar materials by the teachers and provided opportunities for the teachers to prepare original forms of educational media.

Recommendations

Based upon the data obtained from this study and conclusions drawn, the following recommendations are proposed:

1. That greater commitment be made by schools towards acquiring an expanded variety of educational media for classroom utilization.
2. That teachers work together to combine knowledge and skills in integrating educational media into teaching-learning situations.
3. That teachers take steps to acquire and incorporate educational television and video tape recorders into the total school instructional program.
4. That in-service education relating to the utilization of educational media be periodically provided for all teachers.
5. That teacher preparation program requirements as defined by institutions of higher education be reinforced by requiring all prospective teachers to include educational media coursework in their programs of study.
6. That institutions of higher learning involved in teacher preparation include provisions to assist in-service teachers in preparation and utilization of educational media through graduate course offerings, workshops, and institutes.

Recommendations for Further Study

It is recommended that the following studies be undertaken to expand upon the present collection of knowledge in order to insure effective utilization of educational media:

1. That a comprehensive study be undertaken to investigate teacher utilization of educational media in relation to availability of materials and equipment.

2. That a study be conducted to determine the type of educational experiences necessary to provide pre-service teachers with competent skills and knowledge for the utilization of educational media in teaching-learning situations.

3. That a further study be completed to compare the commitment towards utilization of educational media by those teachers having undergraduate coursework in educational media with those teachers never acquainted with educational media education in undergraduate study.

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APPENDIX

EVALUATIVE CHECKLIST

AN INSTRUMENT FOR EVALUATING THE USE OF EDUCATIONAL MEDIA IN TEACHING

by

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Revised by Kenneth L. King

Present form presented by Janet S. Ballard

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This instrument is based on the assumption that the proper use of educational media as an integral part of the instructional program will bring about an improvement of instruction. Effective use of educational media is greatly facilitated by their availability. The status of the use of this instrument should greatly facilitate such an evaluation by providing useful guidelines for making judgments concerning use.

The term educational media as used in this instrument means all equipment and materials traditionally called audio-visual materials and all of the newer media such as television, overhead projectuals, and programmed materials. Likewise, the terms media and educational media are used interchangeably to mean both instructional equipment and instructional materials.

Criteria have been included at the beginning of each set of items in the instrument. The validity of your judgments will be greatly enhanced if careful study is made of the criteria before responding to the items.

Introduction to Evaluate Checklist

Each statement has a blank space in which one of four words that most nearly represents the situation in your teaching position could be inserted. The four choices are: NEVER, RARELY, OCCASIONALLY, and OFTEN which correspond in sequence to the numbers 1, 2, 3, and 4. After you have carefully studied the criteria, indicate the number of the appropriate word by inserting an X over one of the boxes provided to the right of the statement.

EXAMPLE:

In my teaching situation, I _____ make use of educational media.

☐ 1 ☐ 2 ☐ 3 ☐ 4

NEVER--1, RARELY--2, OCCASIONALLY--3, OFTEN--4

I. GENERAL

CRITERIA

oEducational media should be used when they contribute to the clarity of a particular lesson and, subsequently, to the improvement of instruction.

oContinuous in-service education in the use of educational media, including new instructional devices and materials, should be carried on as a means of improving instruction.

A. The Role of Educational Media in Instruction

In my teaching situation, I _____ use educational media as a means of improving instruction.

☐ 1 ☐ 2 ☐ 3 ☐ 4

B. Provisions for In-service Education in the Use of Educational Media

In my teaching situation, there is _____ in-service education in the use of educational media or new instructional devices.

☐ 1 ☐ 2 ☐ 3 ☐ 4

II. EDUCATIONAL TELEVISION

CRITERIA

oEducational television should be used to disseminate information from sources that are not readily available.

oEducational television should be used to present live current events as they are happening when the pictorial aspect of the presentation enhances learning.

oEducational television should be used for:

- a. in-service education when a unit of material is of such a nature that it lends itself to mass dissemination to widely dispersed audiences;
- b. learning groups which are sufficiently large to justify the cost.

A. Dissemination of Information by Educational Television

In my teaching situation, educational television is 1 2 3 4
 _____ used to disseminate information.

B. Pictorial Current Events Depicted by Educational Television

In my teaching situation, educational television is 1 2 3 4
 _____ used to depict current events even though the pictorial aspect may be valuable or might enhance learning.

C. Use of Educational Television to Reach Widely Dispersed Audiences

In my teaching situation, educational television is 1 2 3 4
 _____ used for in-service education or to disseminate information to widely scattered audiences even though the learning groups are large enough to justify the cost.

III. TELEVISION VIDEO TAPE RECORDER

CRITERIA

oThe television video tape recorder should be used:

- a. to record performance and to witness such performance through immediate playback;
- b. to retain information lectures, demonstrations, or programs for future and repeated use;
- c. to accomplish self-evaluation of students and teachers of what is seen and heard.

D. Use of the Television Video Tape Recorder to Retain Performances

In my teaching situation, the video tape recorder is _____ used to retain information lectures, demonstrations, or programs for future and repeated use.

☐ 1 ☐ 2 ☐ 3 ☐ 4

E. Self-Evaluation Through the Use of the Television Video Tape Recorder

In my teaching situation, the video tape recorder is _____ used to witness performance through immediate playback or for self-evaluation of students and teachers.

☐ 1 ☐ 2 ☐ 3 ☐ 4

IV. TEACHING MACHINES AND PROGRAMMED LEARNING MATERIALS

CRITERIA

oTeaching machines and/or programmed learning materials should be used when:

- a. the diversity of ability levels is present;
- b. immediate reinforcement of subject matter can be accomplished as satisfactorily as by the teacher.

oTeaching machines and/or programmed learning materials should be

- a. the learning of routine skills;
- b. the learning of factual information when such information can be presented in a logical and sequential manner;
- c. the enhancement of individual instruction.

A. Use of Teaching Machines and/or Programmed Learning Materials in the Immediate Reinforcement of Subject Matter

In my teaching situation, teaching machines and/or programmed learning materials are _____ used even though the diversity of ability levels is present and the immediate reinforcement of subject matter could be accomplished as satisfactorily as by the teacher.

☐ 1 ☐ 2 ☐ 3 ☐ 4

B. Use of Teaching Machines and/or Programmed Learning Materials in Learning Routine Skills and Factual Information

In my teaching situation, teaching machines and/or programmed learning materials are _____ used in the learning of routine skills and factual information or to enhance individual instruction.

| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

V. RECORDINGS

CRITERIA

oRecordings should be used when repeated audio experiences enliven, enhance, and vivify impressions of the materials presented.

oRecordings should be used to provide students with:

- a. realistic and accurate musical experiences;
- b. unique and accurate narrative experiences;
- c. original sound reproduction;
- d. particular voices of the past in order to overcome time and distance when these voices enhance the learning process.

oTape recordings should be used:

- a. as a self-evaluation and improvement tool which can record and play back the voices of students and teachers to serve as models to be listened to, noted, and emulated or improved upon;
- b. to store prerecorded information and dramatize historical episodes with vividness and a sense of reality.

A. Use of Recordings to Enliven, Enhance, and Vivify Impressions of Material

In my teaching situation, recordings are _____ used to enliven, enhance, and vivify impressions of material being presented.

| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

B. Use of Recordings to Provide Realistic Musical and Unique Narrative Experiences, to Capture Original Sounds, and to Overcome Barriers of Time and Distance

In my teaching situation, recordings are _____ used to provide realistic and accurate musical and unique narrative experiences, to capture original sounds, and to

| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

overcome barriers of time and distance when particular voices enhance the learning process.

C. Use of Tape Recordings for Self-Evaluation and Improvement, and the Reporting of Prerecorded Information

In my teaching situation, tape recordings are _____ used for student self-evaluation and improvement, and to report prerecorded information.

| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

VI. OPAQUE MATERIALS

CRITERIA

o Opaque materials should be used when non-transparent materials will contribute:

- a. group observation and/or evaluation;
- b. economy of time when it is unfeasible to prepare material for use with another medium.

o Opaque materials should be used to:

- a. enlarge small size still pictures to a large scale on various surfaces for reproduction;
- b. project three dimensional objects.

A. Use of Opaque Materials for Non-transparent Materials to Be Used for Group Observation and Economy of Time

In my teaching situation, opaque materials are _____ used for non-transparent materials shown for group observation and/or evaluation or for economy of time when it is unfeasible to prepare material for use with another medium.

| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

B. Use of Opaque Materials to Enlarge Small Size Still Pictures and to Project Three Dimensional Objects

In my teaching situation, opaque materials are _____ used to enlarge small size still pictures to a large scale on various surfaces for reproduction or to project three dimensional objects.

| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

VII. OVERHEAD TRANSPARENCIES

CRITERIA

oOverhead transparencies should be used when:

- a. it is necessary to show the development of a whole from separate parts or the cumulative growth of a whole;
- b. it is desirable to write or mark on the projection material at the time of projection;
- c. the teacher wishes to present illustrations while facing the class.

- A. Use of Overhead Transparencies to Show Development of Wholes from Parts or the Cumulative Growth of a Whole, to Write on Projection Material at the Time of Projection, or to Present Illustrations While the Teacher is Facing the Class

In my teaching situation, overhead transparencies are _____ used to show development of wholes from parts or the cumulative growth of a whole, to write or mark on the projected material at the time of projection, or to present illustrations while the teacher is facing the class.

☐ 1 ☐ 2 ☐ 3 ☐ 4

VIII. SLIDES

CRITERIA

oSlides should be used when:

- a. it is desirable to reduce material for the purpose of easy storage and retrieval for future use;
- b. it is desirable to document field trips and laboratory experiments.

- A. Use of Slides for Reduction in Size for Easy Storage and Retrieval and to Document Field Trips and Laboratory Experiments

In my teaching situation, slides are _____ used to reduce material for the purpose of easy storage and retrieval for future use or to document field trips and laboratory experiments.

☐ 1 ☐ 2 ☐ 3 ☐ 4

IX. FILMSTRIPS

CRITERIA

oFilmstrips should be used when motion is not essential and when it is desirable to stop and discuss individual frames.

A. Use of Filmstrips for Photographs of a Sequential Nature and for Discussion of Individual Frames

In my teaching situation, filmstrips are _____ used when motion is not essential or when it is desirable to stop and discuss individual frames.

| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

X. MOTION PICTURE FILMS

CRITERIA

oMotion picture sound films should be used when:

- a. the experience presented vicariously contribute to the lecture;
- b. they provide student motivation;
- c. they present the material more effectively than the teacher can.

oMotion picture sound films should be used when:

- a. the combination of verbalization and motion are essential to the learning process;
- b. the modification of time, size, and space is needed;
- c. summarization and review are needed.

oEight millimeter cartridge silent motion picture films should be used:

- a. when cost is a factor in procurement;
- b. when sound is not essential;
- c. mainly for small group and individual instruction.

A. Use of Motion Picture Films to Enhance Lecture, to Provide Motivation and for Effective Presentation of Material

In my teaching situation, motion pictures are _____ ☐1 ☐2 ☐3 ☐4
used to enhance lectures, to provide student motivation,
or to present material more effectively than the teacher
can.

- B. Use of Motion Picture Films for Verbalization and Motion, for Modification of Time, and for Review and Summarization

In my teaching situation, motion picture films are _____ ☐1 ☐2 ☐3 ☐4
used when verbalization and motion are essential
to the learning process, when modification of time,
size, and space is needed, or for the purpose of review
and summarization.

- C. Use of Eight Millimeter Cartridge Silent Motion Picture Films for Small Group or for Individual Instruction and for Inexpensive Local Production

In my teaching situation, eight millimeter cartridge
silent motion picture films are _____ ☐1 ☐2 ☐3 ☐4
used for small
group or individual instruction, when inexpensive
local production is desirable, or when sound is not
essential to the learning process.

HAVE YOU EVER BEEN ENROLLED IN A GRADUATE EDUCATIONAL MEDIA COURSE? yes no

(Circle One)

A COMPARATIVE STUDY OF THE RELATIONSHIP BETWEEN SELECTED
GRADUATE EDUCATION COURSES AND PUBLIC SCHOOL
TEACHER'S COMMITMENT TO THE USE OF
EDUCATIONAL MEDIA

by

JANET SUE BALLARD

B. S., Kansas State University, 1968

AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

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MASTER OF SCIENCE

College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1973

ABSTRACT

This study was undertaken to determine if a significant difference existed between the commitment towards utilization of educational media by experienced public school teachers who had been enrolled in graduate coursework in educational media and the commitment of experienced public school teachers without previous coursework in graduate educational media. Each sample group was composed of fifty teachers enrolled in graduate education courses at Kansas State University during the spring and summer of 1972.

Totten and Fulton's checklist for evaluating the use of educational media in teaching, in revised form, was used to collect the data. A comparison was made of the total mean response for each sample group and of the mean response to individual checklist elements by each group. The statistical results were obtained by tabulation of the t-test at an alpha level of .05.

The results indicated that there was no significant difference between the total mean response or between the mean response to individual checklist elements by experienced public school teachers previously enrolled in graduate educational media coursework in comparison to experienced public school teachers without previous coursework in graduate educational media. Graduate coursework in educational media was not found to be a determining factor for commitment towards utilization of educational media by experienced public school teachers.