



RESEARCH ABSTRACTS

TELEVISION

MACLEAN, MALCOLM S., JR., and CRANE, EDGAR. *Content and Audience Response in ETV—Methods and Exploratory Runs.* A Progress Report to the Educational Television and Radio Center by the Communications Research Center, College of Communication Arts, Michigan State University, East Lansing, Michigan. October 1958. 159 p.

Purpose: To help producers of educational television programs determine what techniques best produce specified audience effects.

Procedure: Several methods for evaluating audience reactions were tried out. These were the program analyzer using a like-dislike scale, the Schwerin system, and the semantic differential. Two 30-minute kinescopes were presented over closed-circuit television to 148 selected viewers. The characteristics of the audience were analyzed. Test sessions lasted about three hours and included administration of a 20-item questionnaire, showing of the kinescope, and interviewing of the viewers. Answers to each question were analyzed. 69 semantic differential scales were used dealing with the performer, program, and the subject matter. Semantic differential profiles were prepared for the two films. Like-dislike profiles using the program analyzer were plotted for the two films. Group interview reactions were classified. A form was developed for analyzing the content of kinescopes. A plan was developed for evaluating other kinescopes of the Educational Television and Radio Center.

Results: Appendix A contains 38 pages of bibliography with abstracts on methods of sampling, audience types, and audience effects, methods of measuring audience reactions and variations within audio-visual materials. The audience was largely composed of housewives. 70 percent indicated they would watch a specified educational program as contrasted to a variety cavalcade. Using the semantic differential, useful programs were felt to be educational and controversial while useless programs were described as factual, neutral, educational, meaningful, simple, and easy to understand. Both kinescopes were rated as quite educational and informative and very slightly dull. Profiles of like and dislike ratings indicated that the kinescopes were monotonous with no extremely interesting parts. Group interviews indicated the program was too easy, repetitive, boring, and in certain parts presented too much to learn.—*L. Twyford*

JOINT COUNCIL ON EDUCATIONAL TELEVISION and the COMMITTEE ON TELEVISION OF THE AMERICAN COUNCIL ON EDUCATION. *Closed Circuit Television Installations in Educational Institutions.* 1785 Massachusetts Avenue, N.W., Washington 6, D. C. July 1958. 39 p.

Purpose: To compile information on the nature and uses of closed-circuit television facilities in educational institutions.

Procedure: A questionnaire was sent to accredited institutions of higher learning and to secondary and elementary schools known to have closed-circuit installations. Information was obtained on the origination points, type of equipment, reception points, subjects taught, grade level, number of students, reports available, and remarks.

Results: 133 closed-circuit systems used by 119 educational institutions were reported. Class instruction ranged from first grade through college post-graduate. A wide range of courses and subjects was covered. Reports were listed concerning television equipment installed, its application to course instruction, and evaluation of teaching by television. 21 military installations were listed that have used television.—*L. Twyford*

AUDIO

CUTLER, R. L.; McKEACHIE, W. J.; and McNEILL, E. B. "Teaching Psychology By Telephone." *American Psychologist* 13: 551-52; September 1958.

Purpose: To determine the practicability and effectiveness of presenting college level instruction by telephone.

Procedure: Two groups of 10 persons who volunteered for the experiment were matched for education, intelligence, and sex. Prior to the study the groups were given a content pretest, the Allport-Vernon Study of Values, the California "F" scale, an Attitudes Toward the Negro Questionnaire, and the Otis Self-Administering Test of Mental Abilities. An eight-week course in elementary psychology was designed and presented using a mixture of lecture-discussion, role playing, and demonstration methods. One group met face-to-face while the other group was taught by telephone. No text was used. An Executone speaker-microphone was installed in each home permitting intercommunication between telephone students.

Results: Both groups showed significant gains in knowledge and there was no significant difference in gain between the two classes. Both groups changed in the direction of more democratic attitudes but there was no difference between the groups. No significant changes occurred on the Allport-Vernon or the scale of attitude toward Negroes. All students were enthusiastic about the course. The authors were convinced that teaching by telephone is practical and more rewarding than television teaching.—*L. Twyford*

FILMS AND TELEVISION

FILM EVALUATION BOARD of ADVISORY BOARD ON EDUCATION and DIVISION OF MATHEMATICS. *The Use of Films and Television in Mathematics Education.* Publication 567. National Academy of Sciences—National Research Council, 2101 Constitution Avenue, N.W., Washington 25, D. C. December 1957. 20 p. \$1.

Purpose: To study the widespread and increasing interest in the preparation and use of films or televised lectures as applied to mathematics education. Also, to recommend a course of action appropriate for the Advisory Board on Education relating to such media.

Procedure: Six mathematicians accepted appointment to a Film Evaluation Board. They met for a three-day session at Pennsylvania State University and reviewed film research findings and television activities carried on there.

Results: The Board recommended the establishment of a standing committee to collect and classify mathematical presentations, to promote well-designed research, to promote participation of mathematicians, to assist in the development of realistic economic policies with reference to proprietary interests, and to study the economic impact of films and television on teaching and teachers. The Board recommended that quality presentations be employed. It recommended that an equitable dividend should accrue to all persons who participate in a presentation. Participation should be considered as an appropriate fraction of a teacher's academic duties. Not more than one-half of a scholar's time in a course of study should be taught exclusively by the media. Detailed considerations are given concerning instructor presentations and utilization of recordings of presentations.—*L. Twyford*

INSTRUCTIONAL MATERIALS

ALLEN, WILLIAM H. "Audio-Visual Communication Research." Prepared for the *Encyclopedia of Educational Research*. Third edition, to be published in January 1960. Report SP-36. System Development Corporation, 2500 Colorado Avenue, Santa Monica, California. September 20, 1958. 89 p.

Purpose: To prepare a comprehensive review of research to date on audio-visual aids such as motion pictures, filmstrips, television, radio, recording, graphic illustrations, school journeys, models, and demonstrations.

Procedure: Important research studies were selected and the principal findings were organized into appropriate categories.

Results: 343 research studies were listed as references and keyed into the text of the study. The introduction cited 77 studies. Under the heading of

effectiveness of audio-visual materials 6 general references were given, 17 on knowledge of facts, 18 on perceptual motor skills, 2 on concepts, 23 on motivation, interest, attitudes and opinions, 24 on filmstrips, 19 on pictorial illustration, 16 on graphic materials, 8 on field trips, 12 on three-dimensional materials, 11 on television, 39 on effectiveness of television teaching, 9 on use of kinescope recordings, 7 on student reactions to television teaching, 14 on radio and recordings. In the category of audience-learner characteristics 14 studies were cited on predisposition to acceptance, 7 on likes and interests, and 23 on intellectual ability, training, and prior knowledge. There were 17 on characteristics of the learning environment. 10 were described on teacher introductions and class preparation, 1 on student participation techniques, 6 on verbalization of response, 4 on perceptual motor responses, 10 on knowledge of results, 3 on mental practice, 2 on note-taking, 5 on class discussion, reviews, and summaries, 9 on repetitive use of films, 8 on miscellaneous techniques of use, and 27 on television presentation methods. Under the topics of administration of audio-visual programs 36 references are analyzed.—*L. Twyford*

WENDT, PAUL R. *Audio-Visual Instruction.* What Research Says to the Teacher, No. 14. Prepared by the American Educational Research Association in cooperation with the Department of Classroom Teachers, National Education Association, 1201 Sixteenth Street, N.W., Washington 6, D. C. December 1957. 32 p. 25¢.

Purpose: To draw from research material on audio-visual instruction that information which might be of most help to classroom teachers and to present it in concise form.

Procedure: Research literature was reviewed and the opinion of experts was obtained concerning its proper interpretation. The manuscript was reviewed by several specialists and revised on the basis of their comments.

Results: The report describes the nature of audio-visual instruction, the nature of the communication process, dimension of meaning, and function of audio-visual materials. Information is given on a continuum of materials, danger of oversimplification, learning facts, retention of facts, interest, vocabulary development, opinions and attitudes, problem solving, and skills. Under the topic of factors affecting the value of audio-visual instruction information is given on utilization, teaching by television alone, integration of materials, improvement of audio-visual materials, and instructional film research. The capabilities of various audio-visual materials are given for the motion picture, four ways to present a still picture, use of kinesthetic materials, graphic materials, field trips, and teaching by television. Teacher preparation and the problem of putting research evidence into practice is discussed.—*L. Twyford*