A panel was formed for the purpose of evaluating those attributes of instructional film and instructional television programs which affect learning behavior. This is the fourth of a series of general, special, and varied reports of a project whose aim is to examine the "Conditions, Requirements, and Variables Affecting the Quality of Complex Learning Mediated by Instructional Materials." The panel found the exercise so far rewarding that they recommended that additional panels of target audiences, educational specialists, content specialists, production specialists, and media specialists should be set up as a system of evaluation for instructional television and film programs. The meetings are fully documented. (EM 007 926, EM 007 927, and EM 007 928 are related documents.)
DESCRIPTION OF A PRACTICAL PROCEDURE
FOR ASSESSING
INSTRUCTIONAL FILM AND TELEVISION
PROGRAMS
DESCRIPTION OF A PRACTICAL PROCEDURE
FOR ASSESSING
INSTRUCTIONAL FILM AND TELEVISION
PROGRAMS

C. R. Carpenter: Project Director
Marlowe Froke: Chairman, Assessment Panel

The Pennsylvania State University
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214 Burrowes Building
University Park
Pennsylvania 16802
814-865-2567

U. S. Office of Education
Project Number OEI-7-071142-4372
Andrew Molnar: Project Coordinator

August 12, 1968
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREFACE</td>
<td>iii</td>
</tr>
<tr>
<td>PANEL MEMBERS</td>
<td>vi</td>
</tr>
<tr>
<td>STEERING COMMITTEE MEMBERS</td>
<td>vi</td>
</tr>
<tr>
<td>PROCEDURE</td>
<td>1</td>
</tr>
<tr>
<td>INSTRUCTIONAL TELEVISION PROGRAM NOMINATIONS</td>
<td>2</td>
</tr>
<tr>
<td>FILM NOMINATIONS</td>
<td>4</td>
</tr>
<tr>
<td>FINAL SELECTIONS OF TELEVISION AND FILM PRODUCTIONS</td>
<td>6</td>
</tr>
<tr>
<td>METHOD OF ASSESSMENT</td>
<td>7</td>
</tr>
<tr>
<td>TABULATION OF RESULTS OF EVALUATION</td>
<td>9</td>
</tr>
<tr>
<td>EXPLANATION OF TABULATION</td>
<td>10</td>
</tr>
<tr>
<td>SUMMARY OF PANEL DISCUSSION</td>
<td>12</td>
</tr>
<tr>
<td>EVALUATION FORM, PANEL COMMENTS, AND PANEL RECOMMENDITIONS FOR CHANGES</td>
<td>15</td>
</tr>
<tr>
<td>PANEL COMMENTS ON FORM AS A BASIS FOR ASSESSMENT</td>
<td>29</td>
</tr>
<tr>
<td>PANEL REVISION OF FORM</td>
<td>30</td>
</tr>
</tbody>
</table>
PREFACE

This is the fourth of a series of general, special, and varied reports of the Project: Conditions, Requirements, and Variables Affecting the Quality of Complex Learning Mediated by Instructional Materials. This special report is, as its title indicates, the "Description of a Practical Procedure for Assessing Instructional Film and Television Programs."

Ideally, the quality or effectiveness of instructional materials is measured in terms of the degree to which they stimulate, arouse, shape, and investigate learned changes in human behavior. It has been argued in General Report Number I of this Project that a great many sets of different conditions affect learning and that the intrinsic or potential quality of the immediate stimulus materials, such as recordings on films or videotapes, represent important but narrow-band influences in learned behavioral changes. This line of argument holds, furthermore, that the general quality of such materials, even though accurately measured, cannot be expected to have very high correlations or close relations with affected learned behavior.

It is important, nevertheless, within the area of instructional materials production, selection, procurement, and use to have good judgmental evaluations of the stimulus materials, factors, and components which affect learning behavior. Furthermore, the practical procedures for assessing the factors of quality of instructional materials must be reasonably economical. Accordingly, however desirable it is to determine their effectiveness by actual tests of the extent or degree to which they, and they alone, influence learned behavior in the direction of instructional objectives, this costly and time-consuming procedure is simply not practical.
under most present conditions of producing, selecting, and procuring film and television programs. Perhaps this approach will become practical when the nation has developed a system of applied theory of instruction and implemented its use with the necessary funds, trained people, and networks of production facilities superbly designed for the purpose of producing and assessing instructional materials of high quality.

Practices and procedures currently used for evaluating instructional television and film programs extensively use human judgments, both of individuals and judging panels. The judgmental schedule form is not new; it has been under occasional development for twenty years and, as this report shows, it needs further improvement. Program series for National Educational Television and for The National Center for School and College Television are selected and approved on the basis of the evidence from human judgments. In this, the assessment and evaluation procedures correspond more closely to those used in the fine arts than those used in the field of the sciences of learning. In reality, instructional program materials are often selected merely from written descriptions and from limited sample viewing rather than by means of systematic assessment with direct observations of special judging panels and adequate sampling of programs. Thus, the practical and the useful procedures should be accepted for development and improvement until the ideal operational evaluations can be achieved.

During the discussions at the twelve seminars conducted by this Project on the topic, Factors Affecting the Quality of Instructional Materials,* it became evident again and again that references needed to be made to

*General Report No. 1 of this Project
direct observations, analyses, and assessments of instructional units and programs. Accordingly, the Project staff undertook to develop and test once again the form which is described in this paper and which is intended to serve as a guide for judgments about the estimated effectiveness of instructional materials. The hope was, also, to identify the specific factors that contribute to the general characteristic of quality in programs already judged to be good or superior.

A small panel of media specialists was selected and given the responsibility for conducting the evaluation accordingly. It is noteworthy that these specialists who invested the time required to test, study, and report on the procedure found the task rewarding and well worth the effort. Use of the evaluation form has training values.

The judging of athletic performances and of exhibitions of art has been developed into human precision performances. Is it not possible to develop similar judgmental precision about the quality factors of instructional materials?

C. R. Carpenter
Project Director

University Park, Pennsylvania
August 12, 1968
PANEL: ASSESSING INSTRUCTIONAL FILM AND TELEVISION PROGRAMS

Panel Members

Marlowe Froke, Chairman; Director, Division of Broadcasting*
E. Arthur Hungerford, Associate Professor, Speech*
Donald Johnson, Associate Director, Division of Instructional Services*
Dennis Sherk, In-School Service Coordinator, Division of Broadcasting*

Steering Committee

C. R. Carpenter, Chairman; Research Professor, Psychology and Anthropology*
George A. Borden, Assistant Professor, Speech*
Samuel Dubin, Director, Planning Studies, Continuing Education*
Marlowe Froke, Director, Division of Broadcasting*
E. Arthur Hungerford, Associate Professor, Speech*
Donald Johnson, Associate Director, Division of Instructional Services*
Merrill E. Noble, Professor and Head, Psychology Department*
Stanley F. Paulson, Professor and Head, Speech Department*
Warren Seibert, Distinguished Visiting Professor, Educational Psychology*
(on leave - Head, Instructional Media Research Unit, Purdue University)
Dennis Sherk, In-School Services Coordinator, Division of Broadcasting*
William Rabinowitz, Professor and Head, Educational Psychology Department*
Wendell I. Smith, Head, Psychology Department, Bucknell University

*Members of The Pennsylvania State University faculty.
PROCEDURE

Since the development of high-quality educational programs is of great importance to this Project, the Steering Committee decided that a number of existing educational television and film programs considered to be exceptionally well produced should be studied in order to determine which elements in each contribute to the estimated high quality of the program. Two other tasks were undertaken: first, to test once again and make suggestions for the improvement of the form for evaluating film and television programs; second, to study the needs for developing related procedures for using the form in practical conditions of the selection, procurement, and production of instructional programs.

Nominations of such programs were collected from participants of the Project Harvest Seminars as well as from members of the Steering Committee.

Nominations included the following television programs:

CODE FOR CLASSIFICATION OF INSTRUCTIONAL TELEVISION PROGRAMS AND FILMS

<table>
<thead>
<tr>
<th>Age Level</th>
<th>Subject Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Informal Education, Children</td>
<td>A Literature</td>
</tr>
<tr>
<td>2 Pre-school</td>
<td>B Science</td>
</tr>
<tr>
<td>3 Primary (1-3)</td>
<td>C Art</td>
</tr>
<tr>
<td>4 Intermediate (4-6)</td>
<td>D Music</td>
</tr>
<tr>
<td>5 Junior and senior high (7-12)</td>
<td>E Language</td>
</tr>
<tr>
<td>6 College and university</td>
<td>F Math</td>
</tr>
<tr>
<td>7 Adult - Instructional and Training</td>
<td>G History</td>
</tr>
<tr>
<td>8 Adult - General</td>
<td>H Geography</td>
</tr>
<tr>
<td></td>
<td>I Driver Education</td>
</tr>
</tbody>
</table>
## INSTRUCTIONAL TELEVISION PROGRAM NOMINATIONS

<table>
<thead>
<tr>
<th>Name of Program</th>
<th>Produced by</th>
<th>Age Level</th>
<th>Subject Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mister Roger's Neighborhood</td>
<td>WQED, Pittsburgh</td>
<td>1</td>
<td>M</td>
</tr>
<tr>
<td>Cover to Cover</td>
<td>WETA, Washington</td>
<td>4</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Jay Robbins</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pocketful of Fun</td>
<td>21&quot; Classroom</td>
<td>2</td>
<td>CD</td>
</tr>
<tr>
<td></td>
<td>Boston</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Let's Investigate</td>
<td>&quot;</td>
<td>4</td>
<td>B</td>
</tr>
<tr>
<td>Children's Literature</td>
<td>University of Nebraska</td>
<td>3</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Dolores &amp; Bob Dudley</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biology series</td>
<td>Dade County School System, Miami, Fla.</td>
<td>5</td>
<td>B</td>
</tr>
<tr>
<td>Meaning in Art</td>
<td>WPSX, Penn State</td>
<td>3</td>
<td>C</td>
</tr>
<tr>
<td>Roundabout</td>
<td>WETA, Washington</td>
<td>2</td>
<td>M</td>
</tr>
<tr>
<td>Stepping into Rhythm</td>
<td>WVIZ, Cleveland</td>
<td>3</td>
<td>D</td>
</tr>
<tr>
<td>All About You</td>
<td>21&quot; Classroom</td>
<td>3</td>
<td>K</td>
</tr>
<tr>
<td>Tell Me a Story</td>
<td>WQED, Pittsburgh</td>
<td>3</td>
<td>A</td>
</tr>
<tr>
<td>You and Eye</td>
<td>KQED, San Francisco</td>
<td>4</td>
<td>C</td>
</tr>
<tr>
<td>Wordsmith</td>
<td>KQED, San Francisco</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>Meet the Arts</td>
<td>21&quot; Classroom</td>
<td>3/4</td>
<td>C/D</td>
</tr>
<tr>
<td>Patterns in Arithmetic</td>
<td>University of Wisconsin</td>
<td>4</td>
<td>F</td>
</tr>
<tr>
<td>World of Change</td>
<td>21&quot; Classroom</td>
<td>4</td>
<td>B</td>
</tr>
<tr>
<td>Americans All</td>
<td>KRMA, Denver</td>
<td>4</td>
<td>G</td>
</tr>
<tr>
<td>Geography for Grade 4</td>
<td>KRMA, Denver</td>
<td>4</td>
<td>G</td>
</tr>
<tr>
<td>Sportsmanlike Driving</td>
<td>South Carolina ETV</td>
<td>5</td>
<td>I</td>
</tr>
<tr>
<td>Franklin to Frost</td>
<td>University of Michigan</td>
<td>5</td>
<td>A</td>
</tr>
<tr>
<td>Parlons Francais</td>
<td>Heath de Rochemont</td>
<td>4</td>
<td>E</td>
</tr>
<tr>
<td>Name of Program</td>
<td>Produced by</td>
<td>Age Level</td>
<td>Subject Area</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>-------------------------</td>
<td>-----------</td>
<td>--------------</td>
</tr>
<tr>
<td>Meteorology 300</td>
<td>WPSX, Penn State</td>
<td>6</td>
<td>B</td>
</tr>
<tr>
<td>Sons and Daughters</td>
<td>WITF, Hershey</td>
<td>5</td>
<td>K</td>
</tr>
<tr>
<td>Places in the News</td>
<td>WNYE, New York</td>
<td>4</td>
<td>J</td>
</tr>
<tr>
<td>Secondary Development Reading</td>
<td>WQED, Pittsburgh</td>
<td>5</td>
<td>E</td>
</tr>
<tr>
<td>Pennsylvania History and Government</td>
<td>WITF, Hershey</td>
<td>5</td>
<td>G</td>
</tr>
<tr>
<td>Alive and About</td>
<td>WEDH, Hartford</td>
<td>4</td>
<td>B</td>
</tr>
<tr>
<td>American Historic Shrines</td>
<td>WNDT, New York</td>
<td>4</td>
<td>G</td>
</tr>
<tr>
<td>Health--Your Decision</td>
<td>WETA, Washington</td>
<td>5</td>
<td>K</td>
</tr>
<tr>
<td>Come Read to Me a Poem</td>
<td>WNYE, New York</td>
<td>4</td>
<td>A</td>
</tr>
<tr>
<td>Many Sounds of Music</td>
<td>WPSX, Penn State</td>
<td>5</td>
<td>D</td>
</tr>
<tr>
<td>Adapted Physical Education</td>
<td>WPSX, Penn State</td>
<td>7</td>
<td>L</td>
</tr>
<tr>
<td>American Civilization by its Interpreters</td>
<td>University of Texas</td>
<td>6</td>
<td>G</td>
</tr>
</tbody>
</table>
The Educational Film Library Association provided a list including the "Best Ten" educational films produced since 1959. These were selected by the membership of the Association. The following list also includes additional films which received a large number of votes:

Nominations included the following films:

<table>
<thead>
<tr>
<th>Name of Film</th>
<th>Producing Company</th>
<th>Distributing Agency</th>
<th>Age Level</th>
<th>Subject Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>AN OCCURRENCE AT OWL CREEK BRIDGE</td>
<td>University of Southern California</td>
<td>University of Southern California</td>
<td>5,6,8</td>
<td>A,M,N</td>
</tr>
<tr>
<td>THE RED BALLOON</td>
<td>Albert Lamorisse</td>
<td>Brandon Films</td>
<td>1,2,3,4</td>
<td>N,C</td>
</tr>
<tr>
<td>SEARCH FOR ULYSSES</td>
<td>Carousel</td>
<td>Carousel Films, Inc.</td>
<td>1,4,5,6,8</td>
<td>A</td>
</tr>
<tr>
<td>UNIVERSE</td>
<td>National Film Board of Canada</td>
<td>McGraw-Hill</td>
<td>1,5,6</td>
<td>B,N</td>
</tr>
<tr>
<td>THE GOLDEN FISH</td>
<td>Columbia Picture Corporation</td>
<td>Brandon Films</td>
<td>1,3,4</td>
<td>A,C</td>
</tr>
<tr>
<td>DISCOVERING COLOR</td>
<td>Film Associates of California</td>
<td>Film Associates of California</td>
<td>3,4</td>
<td>C</td>
</tr>
<tr>
<td>RAINSHOWER</td>
<td>Dimension Films</td>
<td>Churchill Films</td>
<td>1,3,4,5</td>
<td>A,C</td>
</tr>
<tr>
<td>LOUVRE</td>
<td>National Broadcasting Company, TV</td>
<td>Encyclopedia Britannica Films</td>
<td>5,6,8</td>
<td>C,G</td>
</tr>
<tr>
<td>NIGHT AND FOG</td>
<td>Argus, Inc.</td>
<td>McGraw-Hill</td>
<td>6,8</td>
<td>N,G</td>
</tr>
<tr>
<td>PADDLE TO THE SEA</td>
<td>National Film Board of Canada</td>
<td>McGraw-Hill</td>
<td>3,4</td>
<td>A,H,M</td>
</tr>
<tr>
<td>Name of Film</td>
<td>Producing Company</td>
<td>Distributing Agency</td>
<td>Age Level</td>
<td>Subject Area</td>
</tr>
<tr>
<td>------------------------------</td>
<td>--------------------------------</td>
<td>-----------------------------</td>
<td>-----------</td>
<td>--------------</td>
</tr>
<tr>
<td>NEW YORK, NEW YORK</td>
<td>Francis Thompson</td>
<td>Campus only</td>
<td>4,5,6,8</td>
<td>A,C,N</td>
</tr>
<tr>
<td>CITY OF GOLD</td>
<td>National Film Board of Canada</td>
<td>McGraw-Hill</td>
<td>5,6,8</td>
<td>A,G,N</td>
</tr>
<tr>
<td>PRINTS</td>
<td>ACI Productions</td>
<td>ACI Productions</td>
<td>4,5,6,8</td>
<td>C</td>
</tr>
<tr>
<td>FISHING ON THE COAST OF JAPAN</td>
<td>International Film Foundation</td>
<td>International Film Foundation</td>
<td>4,5,6,8</td>
<td>G,C,D</td>
</tr>
<tr>
<td>SYMMETRY</td>
<td>Contemporary Films</td>
<td>McGraw-Hill</td>
<td>5,6,7,8</td>
<td>B,C,F,N</td>
</tr>
<tr>
<td>PIGS</td>
<td>Churchill Films</td>
<td>Churchill Films</td>
<td>1,2,3,4</td>
<td>C,A</td>
</tr>
<tr>
<td>HAILSTONES &amp; HALIBUT BONES</td>
<td>Fine Arts Productions</td>
<td>Sterling Educational Films</td>
<td>1,2,3,4</td>
<td>C,A</td>
</tr>
<tr>
<td>CHILDREN OF THE WAGON TRAIN</td>
<td>Young America Films</td>
<td>McGraw-Hill</td>
<td>4,5,6,8</td>
<td>G</td>
</tr>
<tr>
<td>SETTLING THE GREAT PLAINS</td>
<td>McGraw-Hill</td>
<td>McGraw-Hill</td>
<td>4,5,6,8</td>
<td>G</td>
</tr>
<tr>
<td>HUMAN REPRODUCTION</td>
<td>McGraw-Hill</td>
<td>McGraw-Hill</td>
<td>4,5,6,8</td>
<td>K,L</td>
</tr>
<tr>
<td>TRUE STORY OF THE CIVIL WAR</td>
<td>Camera Eye Pictures</td>
<td>McGraw-Hill</td>
<td>5,6,8</td>
<td>G,M</td>
</tr>
<tr>
<td>LEARNING DISCRIMINATIONS AND SKILLS</td>
<td>McGraw-Hill</td>
<td>McGraw-Hill</td>
<td>6,7</td>
<td>B</td>
</tr>
<tr>
<td>PHOEBE: STORY OF PREMARITAL PREGNANCY</td>
<td>National Film Board of Canada</td>
<td>McGraw-Hill</td>
<td>5,6,7</td>
<td>K,L</td>
</tr>
</tbody>
</table>
FINAL SELECTIONS OF TELEVISION AND FILM PRODUCTIONS

From the nominated lists of titles of the instructional television and film programs, the following subjects were selected for study and evaluation:

TELEVISION

<table>
<thead>
<tr>
<th>Series</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>All About You</td>
<td>Getting the Message</td>
</tr>
<tr>
<td>World of Change</td>
<td>Motion</td>
</tr>
<tr>
<td>Meaning in Art</td>
<td>Do You Recognize?</td>
</tr>
<tr>
<td>Cover to Cover</td>
<td>Wind in the Willows</td>
</tr>
<tr>
<td>Patterns in Arithmetic</td>
<td>Arithmetic I</td>
</tr>
<tr>
<td>Children's Literature</td>
<td>Tobias</td>
</tr>
</tbody>
</table>

FILM

| Pigs                          |
| Symmetry                      |
| True Story of the Civil War   |
| Universe                      |
| Hailstones and Halibut Bones  |

The evaluation form or judgmental schedule that was used was first developed by the Penn State Instructional Film Research Program during the 1950's and has been modified many times in many ways since it was first developed. The latest form was being used by The National Center for School and College Television. This form was modified by the Project's Steering Committee and circulated to seminar participants and consultants for suggested modifications. The final form used for testing in the Project appears on page 30 of this Report.
METHOD OF ASSESSMENT

The Steering Committee named three faculty members of The Pennsylvania State University as a subcommittee for conducting the test evaluations. They were Marlowe Froke, Chairman, Director, Division of Broadcasting,* E. Arthur Hungerford, Associate Professor, Speech;* Dennis Sherk, In-School Service Coordinator.*

The following instructions were given to the subcommittee:

1. At each evaluation session, one or more members of the subcommittee should be present.

2. All three members of the viewing panel should use the same form and agree on each item. For each program viewed, there should be only one completed form.

The Steering Committee agreed to add Donald Johnson, Associate Director, Division of Instructional Services,* to the subcommittee and several other interested persons were invited to attend each of the evaluating sessions. They were Thurston Reeves, Director, Audio-Visual Services;* Daniel Smith, Executive Director, Allegheny Educational Broadcast Council; and Robert Dudley, Assistant Director, Division of Broadcasting.*

Evaluation sessions were held on May 27, 29, and 31, 1968. All subcommittee members and evaluators attended the first session only. Mr. Reeves was absent from the remaining two sessions.

At the first subcommittee meeting, it was decided that this would be the procedure for evaluation:

*The persons are members of The Pennsylvania State University faculty.
1. Identification of program.

2. Viewing of program.

3. Completion of the evaluation form by each evaluator.

4. Preparation of the composite evaluation form by evaluators based on their individual evaluations.

For purposes of interpretation, the results of the judgments were tabulated. Point values ranging from 4 to 0 were assigned to the five-point scale in questions 1 through 13, and 15 through 19. Question 14 was a two-point scale with values of 4 and 0 assigned. DNA--Does Not Apply--was not included in the scale; a separate tabulation was made of these responses.

Because of the broad range of applicability of the evaluation instrument to the specific television and film programs, no statistical significance other than as a means for general observations could be given to the tabulation.
| PROGRAM               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | Total Ave. |
|-----------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----------|
| **Arithmetic I**      | 17| 23| 14| 18| 12| 17| 20| 13| 14| 15| 14| 13| 8| 8| 14| 5| 0| 0| 0| 234 | 39.0 |
| **Motion**            | 8 | 7 | 3 | 5 | 7 | 8 | 2 | 4 | 10 | 12 | 8 | 10 | 7 | 4 | 6 | 6 | 0 | 0 | 4 | 11 | 18.5 |
| **Do You Recognize?** | 22| 23| 16| 22| 20| 20| 21| 24| 24| 20| 18| 21| 17| 24| 21| 12| 8 | 0 | 22| 355 | 59.2 |
| **Wind in the Willows** | 17| 17| 17| 14| 10| 18| 11| 17| 18| 17| 18| 21| 20| 19| 18| 0 | 0 | 0 | 16| 285 | 47.5 |
| **Tobias**            | 22| 24| 22| 11| 23| 19| 23| 20| 13| 23| 23| 26| 28| 25| 17| 0 | 0 | 0 | 22| 362 | 51.7 |
| **Getting the Message** | 20| 21| 14| 17| 14| 17| 18| 15| 17| 14| 15| 19| 23| 12| 20| 13| 0 | 0 | 18| 287 | 47.8 |
| **Symmetry**          | 21| 23| 15| 18| 16| 0*| 15| 24| 17| 2*| 19| 13| 7| 7| 10| 17| 0 | 0 | 0 | 21| 231 | 33.0 |
| **Pigs**              | 20| 23| 21| 21| 9*| 0*| 15| 25| 22| 9*| 19| 17| 0*| 4| 6| 18| 0 | 0 | 0 | 23| 246 | 35.1 |
| **True Story**        | 19| 15| 16| 17| 14| 15| 8| 22| 11| 18| 22| 20| 19| 4| 6| 16| 0 | 0 | 0 | 19| 266 | 38.0 |
| **Universe**          | 19| 25| 21| 22| 17| 20| 13| 25| 27| 23| 23| 21| 0| 7| 18| 0 | 0 | 0 | 22| 322 | 46.0 |
| **Hailstones and**    | 11| 14*| 16| 13| 0*| 18| 8*| 14| 15| 17| 15| 18| 18| 0| 7| 6| 2 | 0 | 0 | 16| 202 | 28.9 |
| **Halibut Bones**     | 10| 14| 16| 13| 0*| 18| 8*| 14| 15| 17| 15| 18| 18| 0| 7| 6| 2 | 0 | 1 | 2.3 | 36 | 28.9 |
**EXPLANATION OF TABULATION**

A summary of the tabulation is as follows: The left-hand listing identifies the title of the television or film program, whether it was a television program (T) or a film program (F), and the number of evaluators. Columns numbered 1 through 19 refer to the questions in the evaluation instrument. For all programs the top number in the listing is the number of points scored by each program on the question with the point value on the scale multiplied by the number of evaluators ranking the program. The bottom number is the number of DNA--Does Not Apply--responses.

In column 19 an effort was made to show an average score for each program on question 19 which was, "What is your overall evaluation of the lesson?" The average was determined by taking the total points scored by the program on question 19 and dividing the number of evaluators.

The next to the last column reports the total points scored above the line, and the total number of DNA responses below the line. The last column is the average number of points for each program. It was arrived at by dividing the total number of points scored on the questions by the number of evaluators.

The asterisks following some numbers indicate a reservation about the applicability of this item of the form for the specific program being evaluated. For example, the program, "Symmetry," scored 0 points on questions 6, 13, and 14. Question 6 concerned vocabulary level, question 13 concerned personality of the teacher, and question 14 concerned the length of time of the teacher on the screen. In the program, "Symmetry," there was no spoken voice, and a teacher never appeared on camera. It is probably...
impossible to develop a general form for structuring judgments which is equally applicable to all kinds of specific programs.
SUMMARY OF PANEL DISCUSSION

Generally, the programs assessed which received the highest scores were highly visual and of good production quality. It was discussed at length, however, whether such qualities necessarily meant that the programs were of high quality as means for learning. For instance, Arithmetic I is more effective as a learning device than some of the other television programs which were evaluated, even though its production quality was below average. The instructor in Arithmetic I appeared before the camera with conventional classroom aids such as the blackboard for the entire length of the program. The simplicity of the presentation, however, did not detract from the rich flow of substantive concepts that were presented.

There was general agreement that the overall technical and production quality of instructional television and film has increased significantly in the last four or five years. Part of the explanation for this improvement can be attributed to the development of organizations for identifying and distributing good instructional television productions. Some of these are the Great Plains Instructional Television Library, the Eastern Educational Network Instructional Service, and the National Center for School and College Television.

A lack of understanding of the uses of instructional television and film sometimes leads to a misunderstanding of quality production. A program or series should include in its statement of objectives information about the educational strategies of its use. For instance, instructional television can be used effectively as a distribution mechanism for instruction presented through another medium, i.e., the conventional classroom.
If it is used specifically in this manner, the output should not be evaluated against other different uses of instructional television. Used as means of distribution, instructional television could be rated high in quality. The potential uses of instructional television and the varied production elements which it includes make it impossible to evaluate television as a narrow-band medium.

Generally, the production values of the film units were judged to be superior to those of the instructional television units. An effort should be made to identify more clearly the "art" of instructional television as distinct from the "art" of film. Once the unique characteristics of instructional television are distinguished from those of film, there might be laid a foundation upon which to build instructional television programs which are uniquely appropriate in education. Two significant characteristics of instructional television can be identified: (1) its use as a distribution device for large bodies of material, e.g., the hardware for distributing materials from one point to another; and (2) its use as a program production device for instructional materials that can be distributed both by television and by other means.

Although instructional television production personnel can learn a great deal from their counterparts in film production, instructional television has the potential for becoming firmly established in the educational system due to the added features of supplementary instructional program materials and in-service teacher training. On the elementary level, a major system for the use of instructional televised units has been developed.
RECOMMENDATIONS

The panel made the following recommendations: A system of evaluation for an instructional television and film program should include separate assessments by (1) panels of audience for which the program is intended, (2) panels of educational specialists, (3) panels of content specialists, (4) panels of production specialists, and (5) panels of media specialists. The judgmental form used should be adapted and differentiated for these and other specific groups of evaluators.
IQ-TV FORM FOR EVALUATING THE INSTRUCTIONAL EFFECTIVENESS
OF FILMS OR TELEVISION PROGRAMS

NOTE: THIS IS THE FORM THAT WAS USED BY THE PANEL. IN THE BLOCK AFTER
EACH QUESTION, THE COMMENTS BY THE PANEL ARE NOTED. WHERE THE PANEL RECOMMENDED CHANGES IN THE QUESTION, THE REWORDED QUESTION FOLLOWS.

Name of film or
Name/number of program

Title of Series

Produced by

Distributed by

Date of viewing

This form has been designed to study the factors and elements in a unit of instructional material which contribute most significantly to its achievement of excellent quality. For the purposes of this evaluation, quality is defined as those factors which produce the desired behavioral changes in the target population.

Please circle the term which represents your best judgment of the degree to which the program satisfies each criterion. Feel free to add any comments which will help to describe the reasons for your evaluation. If you believe the criterion does not apply, please encircle DNA.

I. OBJECTIVES

1. Are the instructional objectives as stated or implied in the lesson clear to the viewer?

   Very clear  Clear  Adequate  Unclear  Very unclear  DNA

   What are the objectives?

   How are they stated?  By whom?

COMMENTS:
PANEL COMMENTS:

The instructional objectives were not clearly stated in most of the programs reviewed. This led to difficulty in answering all parts of this question.

It was suggested that program objectives would be more explicit if titles of programs clearly reflected the principal objectives of the program or program unit. Statements of objectives could also be included in the beginning of units. Although this procedure may not be artistically appropriate, it would have educational merit.

2. Does the content of the program relate closely to the main objectives, or are there many irrelevancies?

Very closely Closely Adequately irrelevancies Many irrelevancies DNA

COMMENTS:

PANEL COMMENTS:

Unless program objectives are clearly stated, it is difficult to judge the relation of the content to the objectives.

II. CONTENT

3. Does the amount of time taken to develop each concept, procedure, or example seem appropriate or inappropriate for the intended audience?

Highly appropriate Somewhat appropriate Acceptable inappropriate DNA

COMMENTS:
PANEL COMMENTS:
The answer to this question could come only from the audience for which the program was intended. This question gives added emphasis to the necessity for pretesting of instructional materials and retesting during production. Information on effects on learning should be available to panels of judges.

4. Is the content organized and so structured as to facilitate learning?

Very well Well Adequately Poor Very poorly DNA

COMMENTS:

PANEL COMMENTS:
This is a good question for learning specialists and producers.

5. Is the material based on expert up-to-date professional information?

Contains latest Very Adequately obsolete Very knowledge up-to-date up-to-date information obsolete DNA

COMMENTS:

PANEL COMMENTS:
Some of the programs had purely artistic value, e.g., Tobias and Wind in the Willows. In these television programs, professional information is not a factor to be considered.
6. Is the vocabulary level appropriate for the intended audience?

Highly Very Appropriate In-
appropriate appropriate level appropriate inappropriate DNA

COMMENTS:

PANEL COMMENTS:

This is a good question for learning specialists in particular and needs to be considered in all productions.

III. PRESENTATION OF MATERIAL

7. Does the presentation provide for optimum repetition of the main ideas? (e.g., Summaries of main points from time to time and at end; repetition with variation.)

Optimum Adequate Some Too little little or repetition repetition repetition or too much far too much DNA

COMMENTS:

PANEL COMMENTS:

This question could best by answered by members of the target audience in a pretest or production test situation.

8. Does the presentation effectively utilize the visual channel of communication? (e.g., Uses appropriate pictures, film clips, demonstrations, diagrams, etc.)

Highly Above Moderately Below effective average effective average Ineffective DNA

COMMENTS:
PANEL COMMENTS:

It is difficult to rank productions that use few visuals but use them effectively.

PANEL RECOMMENDED CHANGE:

8. Does the program effectively use appropriate pictures, film clips, demonstrations, diagrams, and other graphics? (Numbers and kinds of visuals are not as important as the way in which they are used to support the instruction.)

Highly Above Moderately Below
effective average effective average Ineffective

DNA

COMMENTS:

9. Is the visual presentation clearly perceivable by use of good lighting, appropriate camera shots, sharpness of details, pointers, suitable backgrounds, etc?

Highly Clearly Barely Unperceivable
perceivable perceivable Acceptable perceivable able

DNA

COMMENTS:

PANEL COMMENTS:

The question is not clear as to whether emphasis should be placed on a technical and engineering evaluation or on a production and effects evaluation.
9. Is the video-photographic presentation clearly perceivable by use of good lighting, appropriate camera shots, sharpness of details, pointers, suitable backgrounds, etc? (This does not require a highly technical or engineering evaluation but rather a judgment as to whether or not the program or film is perceptually clear.)

Highly perceivable
Clearly perceivable
Barely perceivable
Unperceivable
Acceptable
Perceivable

DNA

COMMENTS:

10. Is the audio intelligible?

High intelligibility Above average Intelligible
Low intelligibility Below average Intelligible

DNA

COMMENTS:

PANEL COMMENTS:

Unless a technical evaluation by audio specialists is desired, a five-point scale is unnecessary for this question. For many items of technical quality, the scale should be "go-no go" relative to established technical standards.

PANEL RECOMMENDED CHANGE:

10. Is the audio intelligible?

Satisfactory
Unsatisfactory

DNA

COMMENTS:
11. Is there an appropriate integration of visual and audio?

<table>
<thead>
<tr>
<th>Excellent</th>
<th>Good</th>
<th>Poor</th>
<th>Very poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>integration</td>
<td>integration</td>
<td>Adequate integration</td>
<td>integration</td>
</tr>
</tbody>
</table>

COMMENTS:

PANEL COMMENTS:
This is a good question for production personnel and learning specialists.

12. Does the presentation give the impression of enthusiasm, sincerity and authenticity?

<table>
<thead>
<tr>
<th>Very sincere</th>
<th>Sincere</th>
<th>Satisfactory</th>
<th>Insincere</th>
<th>insincere</th>
</tr>
</thead>
</table>

COMMENTS:

PANEL COMMENTS:
This asks for three different judgments.

PANEL RECOMMENDED CHANGE:
12. Does the presentation give the impression of authenticity?

<table>
<thead>
<tr>
<th>Authentic</th>
<th>Lacks authenticity</th>
</tr>
</thead>
</table>

COMMENTS:
13. Do the personality, voice, and appearance of the teacher or teachers add to or detract from the effectiveness of the presentation?

<table>
<thead>
<tr>
<th>Adds</th>
<th>Neutral in</th>
<th>Detracts</th>
<th>Detracts</th>
<th>DNA</th>
</tr>
</thead>
<tbody>
<tr>
<td>greatly</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adds somewhat effects</td>
<td>somewhat</td>
<td>greatly</td>
<td>DNA</td>
</tr>
</tbody>
</table>

COMMENTS:

PANEL COMMENTS:

Many instructional television and film programs are and should be produced without the appearance of a teacher. Also, most instructional films use commentators.

PANEL RECOMMENDED CHANGE:

13. Do the personality and appearance of the teacher or teachers add to or detract from the effectiveness of the presentation?

<table>
<thead>
<tr>
<th>Adds</th>
<th>Neutral in</th>
<th>Detracts</th>
<th>Detracts</th>
<th>DNA</th>
</tr>
</thead>
<tbody>
<tr>
<td>greatly</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adds somewhat effects</td>
<td>somewhat</td>
<td>greatly</td>
<td>DNA</td>
</tr>
</tbody>
</table>

COMMENTS:

QUESTION ADDED BY PANEL:

13a. Do the characteristics and quality of the instructor's or commentator's voice add to or detract from the effectiveness of the presentation?

<table>
<thead>
<tr>
<th>Adds</th>
<th>Neutral in</th>
<th>Detracts</th>
<th>Detracts</th>
<th>DNA</th>
</tr>
</thead>
<tbody>
<tr>
<td>greatly</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adds somewhat effects</td>
<td>somewhat</td>
<td>greatly</td>
<td>DNA</td>
</tr>
</tbody>
</table>

COMMENTS:

14. Does the teacher appear on camera for an appropriate amount of time?

| Optimum amount of time | Too much or too little | DNA |

COMMENTS:
PANEL COMMENTS:

If a teacher is a good television teacher, an appropriate amount of time for him to appear on camera might be the total time of the program. The question should include an estimate of the amount of time the instructor appears on the screen.

PANEL RECOMMENDED CHANGE:

14. Does the teacher appear on camera for an appropriate amount of time?

Optimum amount

Approximate percentage of time

Too much

Too little

DNA

COMMENTS:

IV. LEARNER STIMULATION

15. Are the techniques designed to provide viewer participation successful or unsuccessful?

Highly successful

Moderately successful

Barely successful

Partially successful

Totally unsuccessful

unsuccessful

DNA

COMMENTS:

PANEL COMMENTS:

Some questions were raised as to what was meant by the term, participation. Interpretation ranged from the programming of responses to the factor of potential involvement. The term should be clarified.
IV. LEARNER STIMULATION

15. Are the techniques designed to provide viewer participation successful or unsuccessful? (Participation means students using work sheets, devices, and other ways of involving them actively in the instruction.)

Highly successful  Moderately successful  Barely successful  Partially successful  Totally unsuccessful  unsuccessful DNA

COMMENTS:

16. Does the presentation motivate the student to go beyond the actual lesson by further reading or study?

Very high motivation  High motivation  Adequate motivation  Low motivation  Very low motivation DNA

COMMENTS:

PANEL COMMENTS:

The phrase, by further reading or study, is limiting.
The results of the motivation should be included in the answer.

PANEL RECOMMENDED CHANGE:

16. Does the presentation motivate the student to do supplementary work and study on the problem? (If so, specify under COMMENTS what the learners might do.)

Very high motivation  High motivation  Adequate motivation  Low motivation  Very low motivation DNA

COMMENTS:
V. LEARNER ACHIEVEMENT

17. Is any testing incorporated into the presentation to measure the learners' achievement?

Occurs at appropriate intervals to provide feedback

Too much testing Too little testing No testing DNA

COMMENTS:

PANEL COMMENT:

In some instructional television lessons, questions are included in the production. In others, sets of questions are developed to be asked in situations of use. These questions are usually based on supplementary written materials that are made available before the telecast.

PANEL RECOMMENDED CHANGE:

V. LEARNER ACHIEVEMENT

17. Is any testing incorporated into the presentation or presented by the classroom instructor to the students following the telecast to measure the learners' achievement? (Note under COMMENTS how testing is included.)

Appropriate testing Too much testing Too little testing No testing DNA

COMMENTS:
18. Is there a procedure for reporting the knowledge of test results?

Extremely good feedback procedure. Moderately Adequate Poor No feedback DNA

PANEL COMMENTS:

Most of the instructional television lessons reviewed are used as enrichment or supplementary material by classroom teachers. This question only reflects the presence or lack of a direct reporting procedure incorporated into the television lesson.

PANEL RECOMMENDED CHANGE:

18. Is there a procedure for reporting the knowledge of test results? (Under COMMENTS, specify what type and to whom reported.)

Yes No DNA

COMMENTS:

VI. GENERAL EVALUATION

19. What is your overall evaluation of the lesson?

Above Below
Outstanding Average Average Very poor DNA

COMMENTS:

PANEL COMMENTS:

With no exception, the overall evaluation of the unit related directly to the evaluations of the items identified earlier in the form.
VI. GENERAL EVALUATION

19. What is your overall evaluation of the unit?

<table>
<thead>
<tr>
<th>Above</th>
<th>Below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding</td>
<td>average</td>
</tr>
</tbody>
</table>

COMMENTS:

20. What other criteria are applicable to this lesson? Use these criteria for further evaluation of the unit.

____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________

If possible, obtain facts on utilization, i.e., number of schools presently using the lesson or series, how often, etc.

PANEL COMMENTS:

Other criteria for evaluation are these:

1. Conditions of use of the television program or film
2. Effectiveness of film "grammar"
3. Stimulation of active responsive learning
PANEL RECOMMENDED CHANGE:

20. What other criteria are applicable to this unit? Use these criteria for further evaluation of the unit. If information is available, note here facts on utilization, i.e., number of schools presently using the lesson or series, how often, etc.

EVALUATED BY:

NAME ______________________

TITLE ______________________

AFFILIATION ______________________

MAILING ADDRESS ______________________
PANEL COMMENTS ON FORM AS A BASIS FOR ASSESSMENT

This judgmental form is valuable for determining general assessments of instructional television and film programs. However, highly specialized evaluation forms appropriate for statistical and objective evaluation should be developed. It was agreed that, although an important advance has been made with the development of the Project's form, Evaluating Instructional Effectiveness of Films or Television Programs, much work remains to be done in the field of practical evaluation and dependable measurement in instructional media. Form reliabilities must be established and results of panel evaluation validated against actual learning gains. Furthermore, much more work needs to be done to develop and perfect the procedure for using the panel of judges method for training media people, for developing media teams, and for guiding production personnel.

REVISION OF EVALUATION FORM

The following is the revised form, Evaluating the Instructional Effectiveness of Films or Television Programs, which incorporates the changes recommended by the panel.
FORM FOR EVALUATING THE INSTRUCTIONAL EFFECTIVENESS
OF FILMS OR TELEVISION PROGRAMS

Name of film or
Name/number of program ________________________________

Title of Series _________________________________________

Produced by ___________________________________________

Distributed by __________________________________________

Date of viewing _________________________________________

This form has been designed to study the factors and elements in a unit of instructional material which contribute most significantly to its achievement of excellent quality. For the purposes of this evaluation, quality is defined as those factors which produce the desired behavioral changes in the target population.

Please circle the term which represents your best judgment of the degree to which the program satisfies each criterion. Feel free to add any comments which will help to describe the reasons for your evaluation. If you believe the criterion does not apply, please encircle DNA.

I. OBJECTIVES

1. Are the instructional objectives as stated or implied in the lesson clear to the viewer?

Very clear  Clear  Adequate  Unclear  Very unclear  DNA

What are the objectives? _________________________________

____________________________________________________

How are they stated?  By whom? _________________________

____________________________________________________

COMMENTS:
2. Does the content of the program relate closely to the main objectives, or are there many irrelevancies?

Very closely Closely Adequately Many irrelevancies DNA

COMMENTS:

II. CONTENT

3. Does the amount of time taken to develop each concept, procedure, or example seem appropriate or inappropriate for the intended audience?

Highly appropriate Somewhat Appropriate Acceptable inappropriately inappropriate DNA

COMMENTS:

4. Is the content organized and so structured as to facilitate learning?

Very well Well Adequately Poor Very poorly DNA

COMMENTS:

5. Is the material based on expert, up-to-date professional information?

Contains latest knowledge Very Adequately obsolete Very up-to-date information obsolete DNA

COMMENTS:
6. Is the vocabulary level appropriate for the intended audience?

<table>
<thead>
<tr>
<th>Highly appropriate</th>
<th>Very appropriate</th>
<th>Appropriate</th>
<th>Inappropriate</th>
<th>Very inappropriate</th>
</tr>
</thead>
</table>

COMMENTS:

III. PRESENTATION OF MATERIAL

7. Does the presentation provide for optimum repetition of the main ideas? (e.g., Summaries of main points from time to time and at end; repetition with variation.)

<table>
<thead>
<tr>
<th>Optimum repetition</th>
<th>Adequate repetition</th>
<th>Some repetition</th>
<th>Too little repetition or too much far too much repetition</th>
</tr>
</thead>
</table>

COMMENTS:

8. Does the program effectively use appropriate pictures, film clips, demonstrations, diagrams, and other graphics? (Number and kinds of visuals are not as important as the way in which they are used to support the instruction.)

<table>
<thead>
<tr>
<th>Highly effective</th>
<th>Above average effective</th>
<th>Moderately average effective</th>
<th>Below average effective</th>
<th>Ineffective</th>
</tr>
</thead>
</table>

COMMENTS:

9. Is the video-photographic presentation clearly perceivable by use of good lighting, appropriate camera shots, sharpness of details, pointers, suitable backgrounds, etc.? (This does not require a highly technical or engineering evaluation but rather a judgment as to whether or not the program or film is perceptually clear.)

| Highly perceivable | Clearly perceivable | Barely perceivable | Unperceivable | Acceptable perceivable | Unperceivable able |
|--------------------|---------------------|--------------------|---------------|------------------------|

COMMENTS:
10. Is the audio intelligible?
Satisfactory  Unsatisfactory  DNA
COMMENTS:

11. Is there an appropriate integration of visual and audio?
Excellent  Good  Poor  Very poor  integration  integration  Adequate integration  integration  DNA
COMMENTS:

12. Does the presentation give the impression of authenticity?
Authentic  Lacks authenticity  DNA
COMMENTS:

13. Do the personality and appearance of the teacher or teachers add to or detract from the effectiveness of the presentation?
Adds greatly  Neutral in  Detracts  Detracts greatly  Adds somewhat  effects  somewhat  greatly  DNA
COMMENTS:

14. Do the characteristics and quality of the instructor's or commentator's voice add to or detract from the effectiveness of the presentation?
Adds greatly  Neutral in  Detracts  Detracts greatly  Adds somewhat  effects  somewhat  greatly  DNA
COMMENTS:
15. Does the teacher appear on camera for an appropriate amount of time?

<table>
<thead>
<tr>
<th>Optimum amount</th>
<th>Approximate percentage of time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too much</td>
<td>Too little</td>
</tr>
</tbody>
</table>

COMMENTS:

IV. LEARNER STIMULATION

16. Are the techniques designed to provide viewer participation successful or unsuccessful? (Participation means students using work sheets, devices, and other ways of actively involving them in the instruction.)

| Highly successful | Moderately successful | Barely successful | Partially successful | Totally unsuccessful |

COMMENTS:

17. Does the presentation motivate the student to do supplementary work and study on the problem? (If so, specify under COMMENTS what the learners might do.)

| Very high motivation | Very high Adequate | Low low motivation |

COMMENTS:

18. Is any testing incorporated into the presentation or presented by the classroom instructor to the students following the telecast to measure the learners' achievement? (Note under COMMENTS how testing is included.)

| Appropriate testing | Too much testing | Too little testing | No procedure |

COMMENTS:
19. Is there a procedure for reporting the knowledge of test results? (Under COMMENTS, specify what type and to whom reported.)

Yes
No

COMMENTS:

VI. GENERAL EVALUATION

20. What is your overall evaluation of the unit?

Above Below
Outstanding average Average average Very poor

COMMENTS:

21. What other criteria are applicable to this unit? Use these criteria for further evaluation of the unit. If information is available, note here facts on utilization, i.e., number of schools presently using the lesson or series, how often, etc.