An observational evaluation study was made to code 3-, 4-, and 5-year old children's responses and behavior to daily TV lessons. The AEL program, Around the Bend, used a format paced to permit children to respond to instructions. It included a number of different programming techniques (animation, film segments, visitors, art and crafts, animals, audio and perceptual discrimination material, puppets, models and 3-D objects, music, and stories). The key to providing interesting and appealing programming seems to be based upon variety and the use of short segments. Programs that rated high were those that contained a collection of programming techniques that were identified in the ten categories as generating high degrees of unelicited responses from children. (WCM)
Children's Reactions To Segments of a Children's Television Series

TECHNICAL REPORT NO. 34

Appalachia Educational Laboratory, Inc.
Charleston, West Virginia
Children's Reactions To Segments
of a Children's Television Series

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Technical Report No. 34
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Introduction

Home-Oriented Preschool Education (HOPE), as developed by the Appalachia Educational Laboratory (AEL), is a three-part approach to education for 3-, 4-, and 5-year-old children. It includes the use of home intervention, group experience, and televised instruction.

The first component requires a trained paraprofessional to go into the home of each child in an assigned region to deliver weekly instructional materials and to interact with parents and children for perhaps 30 minutes each week. In the second component, the child attends a two-hour group session once each week. In the third component, televised lessons are used to introduce basic skill instruction, encourage the desire for learning, and provide new experiences for young children. The 30-minute lessons are broadcast, usually on regular commercial channels, into children's homes five days a week. The television component is central to this report.

Television was the dominant component for developing the child's sustained interest. It was thus necessary to produce a program which not only kept up interest, but which also provided a balance of activities necessary for optimum learning.

The AEL television program, Around the Bend, used a format paced to permit children to respond to instructions. It included a number of different programming techniques.

An evaluation procedure was developed by AEL which involved obtaining data by having home visitors record children's responses to the daily TV lessons. The paraprofessional observed the child in his home and coded his behavior into a number of categories. This report presents the findings from that study.
Brief Review of Previous Research

Research on the viewing habits of children has been conducted using observational rating scales,\(^1\),\(^2\),\(^3\) mechanical recording devices,\(^4\) or paper and pencil interest inventories. Each technique has both advantages and disadvantages. For example, a mechanical recording device has as its prime disadvantage the presence and consequent distraction of the apparatus itself. Some techniques have used time intervals which may or may not coincide with the television segments and, hence, do not provide information which is directly related to the attention of children to various types of presentations.

A study of children's attention to different television presentations was conducted by Palmer et al.\(^5\) After reviewing various evaluation procedures, Palmer and his associates selected an observer rating scale, with a periodic distractor introduced during the programming. The authors were thus able to delineate an interest-level for each particular program segment.

Sproul\(^6\) used *Sesame Street* as a program stimulus and videotaped children

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in single and group viewing sessions. Although the viewing time was about
81, it is difficult to determine whether this figure could be applied to
the entire series because only one Sesame Street program was used.

Hilliard\(^7\) indicated that, although age levels have been used as
primary determinants in designing individual programs for children,
there are more specific techniques which should be used. These techniques,
however, do not deal specifically with types of presentations. For example,
he suggested that if one wants to present an educational program, one
should avoid simple repetition of material that children viewing the
program may have gotten in school. Hilliard indicated that a television
script writer may--on any show--add puppets, marionettes, live actors,
film, tape, standard electronic devices, or special electronic tricks.
However, the relative contribution of each technique to the success of a
program is not indicated.

Much of this research was done in a relatively "artificial" environment,
in which a child was seated in front of a television set, was observed by an
unfamiliar adult, and was not provided with a setting similar to the one
where actual viewing would occur. The variables attended to in many of these
studies was either attention span or eye contact. Almost no research has
attended to the types of programming techniques which hold children's attention
and hence, produce enthusiasm and/or interaction.

\(^7\)Hilliard, R. L. Writing for television and radio: 2nd Ed. New York:
Hasting House, 1967.
Method and Procedure

An evaluation of the three components of the early childhood education project was undertaken to discover effective changes in instructional procedures. An observational system (described in detail by Miller\(^8\)) was used to provide data on children's reactions to the Around the Bend television lessons. Much of the data collected dealt with the visual attention of children during the viewing of the teletcass lessons. These data were collected in an attempt to determine possible program content and techniques associated with high interest.

The television program was designed to establish a strong personal relationship between the performer and the young viewer at home. This personal relationship and the tendency of preschool children to react overtly during the teletcass made it possible to use an observational system to evaluate the effect of each programming technique on children's behavior.

The observational system was designed to provide the observer opportunity to code children's behavior responses to both elicited and unelicited stimuli. Table I presents a verbal description of the categories which were designed for observing children's behavior and also the basic rules for coding responses.

The first three categories pertain to children's behavior responses which were elicited by the TV program, while categories four through seven deal with children's behavior responses which were not elicited by the TV program.

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<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NVR</td>
<td>Physically Responds to Suggestions, Directions, or Questions: The viewer dances, points, or moves as suggested or directed by the television &quot;teacher&quot; or shakes his head yes or no to a question.</td>
</tr>
<tr>
<td>VR</td>
<td>Verbally Responds to Suggestions, Directions, or Questions: The viewer responds by saying something: repeating a poem, words, or letters; answers yes or no.</td>
</tr>
<tr>
<td>NR</td>
<td>No Response to Suggestions, Directions, or Questions: The viewer does not comply as requested by the television &quot;teacher&quot; either physically or verbally.</td>
</tr>
<tr>
<td>V. Enthus.</td>
<td>Verbal Enthusiasm: The viewer says something that indicates he is excited about something in the program. This can be a sound of glee as well as an intelligible word.</td>
</tr>
<tr>
<td>NV Enthus.</td>
<td>Non-verbal Enthusiasm: Physical reactions such as the clapping of hands that indicate the viewer is excited about something in the program.</td>
</tr>
<tr>
<td>V Reg.</td>
<td>Verbal Indication of a Reactive Reaction: The viewer yawns aloud, says words or makes sounds that indicate disgust, boredom, or a negative feeling about the program.</td>
</tr>
<tr>
<td>NV Reg.</td>
<td>Non-verbal Indication of a Negative Reaction: The viewer looks away from the television screen, leaves the room, plays with a toy or engages in other actions indicating disgust, boredom, or a negative reaction to the program.</td>
</tr>
</tbody>
</table>

**Ground Rules:**

1. Whenever verbal and non-verbal behavior occur simultaneously, the tally is placed in the verbal category.

2. When the television "teacher" requests the viewer to engage in a sequence of behavior or say a sequence of words or letters, doing the whole sequence results in only one tally.

3. When the observer is not sure the television "teacher" has requested an overt response, no tally is made in the first three categories. If, despite the vagueness of the "teacher's" remark the viewer responds, this behavior is coded in category 4 or category 5.

4. The observer initially encourages the viewer to watch the program with her but does not coerce him. However, despite the actions of the viewer, the observer watches the whole program and gives the impression of being quite interested in it.
The home visitor was assigned to watch the television program with a different child each day. A different child was observed each day so that over a period of time a representative sample was obtained. As unobtrusively as possible, each home visitor coded the behavior of the child she was observing according to the defined categories, using a standardized code sheet. (See Appendix A for the code sheet.)

The 28-minute television program was divided into five, five-minute intervals and one, three-minute interval as indicated by the rows on the coding sheet. The columns indicate the categories of behavior. Every time the television "teacher" made a suggestion, asked a question, or attempted to elicit a response from the viewer, the home visitor made a tally in one of the first three columns. This tally indicated whether the viewer responded verbally, non-verbally, or not at all. The remaining four columns represented viewer behaviors that were not elicited. A tally was made in the appropriate column each time one of these behaviors occurred. To the right of the matrix were the numerals 0, 1/4, 1/2, 3/4, and the word ALL. At the end of each five-minute interval, the paraprofessional circled the figure that most closely represented the amount of time the viewer had his eyes on the television screen.

At the bottom of the code sheet was a place to write remarks. This area was used to describe unusual circumstances occurring during the program such as prompting by the mother, a paddling, or anything that had a significant positive or negative effect on the viewer. Reactions, in behavioral terms, to specific segments were also written here.

Although much data were generated by using such an observational system, this report deals only with the data obtained from columns four through seven.
on the code sheets, i.e., the data which gives an indication of which types of presentations "turned children on" (non-elicited responses) rather than the data which forced children to react ( elicited responses).

It should be noted that the data were taken from observing only a small number of viewings of each television program. When a particular programming technique was used on several occasions and that technique consistently rated high or low on amount of enthusiasm elicited, a decision regarding the continued use of the techniques could be made, objectively and reliably.

The television program studied in this report was produced by AEL and broadcast in black and white via a commercial station into the test homes. There were 115 broadcasts analyzed.

The objective of this report is to identify those programming techniques which engaged and sustained the attention and interest of the viewer during the broadcasting of *Around the Bend*. The main emphasis is on the identification of both the high attentiveness and the low attentiveness areas of programming techniques.

Since each 28-minute television program was divided into time segments (five five-minute and one three-minute intervals), information pertaining to each segment (and hence a particular programming technique) can be obtained. The data presented are the proportions of unelicited positive behavior to total unelicited behavior (enthusiasm ratio). High enthusiasm was defined to be where over 90% of the viewers' unelicited responses were positive. Similarly, low enthusiasm was defined to be where less than 50% of the unelicited responses were positive.
Results

Analysis of the data indicated that there were ten (10) major techniques of presentation used on Around the Bend. The areas identified were:

1. Animation
2. Film
3. Visitors
4. Arts and crafts
5. Animals
6. Audio and perceptual discrimination
7. Puppets
8. Models and 3-D objects
9. Music
10. Stories

Each of these ten (10) major areas will be presented and discussed in terms of the types of segments within each of the major areas which produced high degrees and low degrees of enthusiasm.

1. Animation

Simple animation was used primarily to teach and familiarize the viewer with letters and numerals. This technique was expanded to give life to stories and to provide motion and action to concepts and charts.

Segments that ranked high in interest:

a. Letters or numerals writing themselves to show the correct method of writing. (Objects such as buttons, blocks, or coins were lined up and added per frame.)
b. Charts with several letters appearing and the child asked to identify a specific letter. These specific letters (answers) "popped-out" or changed colors to indicate correct answers.

c. Animated figures or objects appearing in a rhythmic pattern to be counted. Numbers then appeared beside objects to reinforce numeral recognition.

d. Series of rockets with specified letters written on their sides. Specific letter requested "blasted off" screen.

e. Cartoon animations of the cyclic nature of water and the seasonal changes of a tree.

f. Animated lumps of clay changing into recognizable shapes.

g. A log house constructing itself, one log at a time.

h. Shapes (such as circles, triangles, etc.) drawing themselves.

i. Simplified animated stories using cut-out figures manipulated frame by frame.

j. Objects such as toys, blocks, and dolls marching across the screen (pixilation).

**Segments that ranked low in interest**

a. Animated collage construction (this was an add-on picture).

b. Animated cycle on the rainbow (used special effects).

There were several program techniques that produced a very positive reaction in children almost every time they appeared on screen and one of these was animation. The mean enthusiasm ratio was 98.6. The style used was a simple form without complicated detailed art work or cluttered backgrounds shot frame by frame (on 16mm film).
There were two kinds of animation used. One was simple line drawings or cut-outs with the focus on objects or characters. The second form is better known as "pixilation" and involved the use of 3-D objects positioned frame by frame to create movement. Each technique seemed to have equal viewer acceptance.

The length of most animations was about 15-30 seconds, except when used to illustrate a story. These ran about four or five minutes.

The continuous use of certain types of animation, such as the "pop-out" charts, seemed capable of eliciting a physical response (pointing to answers on screen) because the children knew that there was time allowed to respond before the answer appeared.

2. Film Segments

16mm film was used to bring the world outside the studio to the young viewer.

Film segments that ranked high in interest:

a. Segments showing children engaging in such activities as playing and making things
b. Segments showing animals, especially young animals with their mothers
c. Segments showing Patty (the television teacher) actively involved in things, such as riding on carnival devices, on a bus, or in a car
d. Segments showing people, such as the blacksmith or glass-blower
e. Short segments of children singing
f. Segments showing children getting haircuts, shopping, or at school
9. Films narrated by puppets or children

Film segments that ranked low in interest

a. Segments that took tours of facilities, such as libraries, markets, or art galleries
b. Long nature films, such as winter walks and spring walks
c. Filmed trips to the dairy farm (over 20 minutes long), to the ocean, or state parks

The data showed that there were many very high-interest film segments, especially those which showed activities that children enjoyed doing or seeing others do. The mean enthusiasm ratio for these segments was 92.6. There were indications for a need to very carefully plan films to keep them to reasonable lengths. Segments over five or six minutes began to show drastic drops in interest. The mean enthusiasm ratio for these segments was 44.9.

Most of the film used was silent and had music and narration added on in the studio. These films generally seemed to have scored lower than the films that had sounds recorded on location.

In narrative films, narrations by puppet characters and children seemed to rate higher than those either an unidentified adult or by on-camera personalities. Upon analyzing the use of film content, it seems that field trips to facilities (such as bakeries, libraries, art galleries, etc.) didn't hold children's interest as much as did those films which included a story line and/or followed someone through such facilities where the focus was on an individual or individuals.

Because of the lack of editing equipment in the television studio, film segments were used as substitutes for "in-studio" work when costume and/or scenery changes were required. This use of films seemed to have no different effect on children than did those segments actually done in the studio.
3. Visitors

Throughout the series there were numerous occasions on which support people "visited" the television teacher. Most were staff members considered as regulars.

Segments which ranked high in interest

a. Visit with Tom, during which he drew for the children
b. Visit with Dick, during which he showed puppets
c. Visits from Linda or Pam, during which they would help Patty do things
d. Group visits for special occasions such as a birthday, Halloween, or Christmas party
e. Appearance of children (who were used as on-camera audiences for musicians or as film subjects)
f. Visit of musician or craftsman (whether in the studio or on film)

Segments which ranked low in interest

a. Patty visiting Tom in workshop to watch him make things
b. Dick showing animals in the barn
c. Long visits that involved a lot of dialogue between Patty and visitor and which showed little else

The television program was established around one main character. There were frequent appearances by support characters and infrequent "new" visitors on the program. These people were all grouped into the same major category.

It is quite clear that what the visitor did when on camera was of more significance than who he was. For example, the visits on camera by Dick received high ratings when he showed or discussed puppets, but his visits received low ratings when he presented animals.
Interest in visits of other support characters seemed also to depend on what they did. Tom received high ratings when drawing pictures, but he received low ratings when working in a workshop or demonstrating something.

Children as visitors had strong appeal, if the segments weren't too long. But it must be noted that the viewers became more passive as the children on camera increased their involvement.

There seemed to be no pattern or trend toward the acceptance by the viewing children of one type of visitor over another based on such characteristics as age, sex, occupation, costuming, etc.

An interesting response was recorded when a group of visitors appeared together for a party, such as at Christmas or Halloween. The enthusiasm scores were high, and informal feedback indicated that the excitement of the group of visitors seemed to be transmitted to the viewers and that it often carried over after the program was over.

Analysis of the data indicates that the mean enthusiasm ratio was 100.0 for those segments with visitors which ranked high. However, for those segments ranking low in interest, the mean enthusiasm ratio was 33.0.

4. Arts and Crafts

Demonstrations of arts and crafts were used on the series to introduce children to a variety of experiences, both in motor skills and in creative expression.

Segments that ranked high in interest

a. Working with clay or play-dough

b. Construction of collages by Patty

c. Construction of paper bag masks and finger puppets
d. Making of Holiday decorations
e. Fingerpainting
f. Drawing done on-camera by Tom
g. Paper sculpturing
h. Sponge painting
i. Showing of other children's artwork
j. Short sessions of coloring accompanied by music

Segments that ranked low in interest

a. Construction of box house and furniture
b. Discussions of paintings and of trip to art gallery
c. Construction of paper airplanes

Activities in which the children were asked to use their hands directly with such materials as clay, dough, paste, finger paints, and materials of different textures received the highest degree of interest and enthusiasm. The mean enthusiasm ratio for such activities was 94.4. The use of brushes, scissors, and tools seemed to be of less interest. Activities which involved a "step-by-step" instruction or required controlled use of materials scored lower. The mean enthusiasm ratio for such activities was 39.8.

The placing of these types of activities in the daily program format seemed to have some bearing on the attention given to the rest of the program. Early introduction of arts and crafts activities into the programs made it hard to get children to stop working on such activities and go back to viewing the rest of the program. If the activities were placed nearer the end of the program and carried over into the closing (encouraging them to continue working after the program went off the air), many of the children would continue to work and not even be aware that the program had ended. The late placement also
needed to cause children to become restless while waiting for the anticipated activity to begin.

As noted, the activities that seemed to have the most appeal are those which involved tactile expression. These are also the messiest type and need to be well developed, because most children who are going to work alone at home are either in their living room or family room and not at a table as demonstrated in the studio.

5. Animals

There were a variety of animals used on the series, and the feedback data showed a high interest in them.

**Animal segments that ranked high in interest**

a. Film segments of young animals
b. Animals that were active on camera (eating or playing)
c. On-camera activity by Patty's pet cat, Muffin

**Animal segments that ranked low in interest**

a. Animals that were inactive (sleeping or lying around)
b. Segments in which two adults discussed the animals for long periods of time
c. Animals that were confined to cages or aquariums

It was not possible to compile a listing of animals presented and compare them by categories, such as wild animals vs. domesticated, large vs. small, or common vs. exotic. A factor that was obvious in connection to interest in the animal on camera was the animal's performance. Animals that were lazy or sleepy (often because of the hot TV lights) and inactive animals
had little appeal, but frisky or playful animals or those that were active (such as playing or eating) ranked high in interest.

Animals restricted by cages or aquariums were low in appeal but those who were on leashes or placed in a small area (such as a fenced yard) were more appealing.

There was also a strong interest in animal families, especially mothers with their young. Another strong interest area was animals considered to be pets of the on-camera talent or their visitors.

The high interest segments had a mean enthusiasm ratio of 89.6, whereas the low interest segments had a mean enthusiasm ratio of 33.0.

6. Audio and Perceptual Discrimination Materials

The television lessons were responsible for the introduction of many basic skills and concepts, and there were many simple materials used.

Segments that ranked high in interest

- a. Letters and numerals written on a large tablet or cards
- b. Flash cards, giving the viewer a chance to recognize specified letters or numerals.
- c. Tape recorder or record playing sound to be identified
- d. Around the Bend game which required recognition of colors and shapes
- e. Letters and numerals selected with the "help" of puppets
- f. Cut-outs to associate tools with jobs (i.e., axe with fireman)
- g. Perception lessons done by Patty and Roy puppet together
- h. Jack-in-the-box and/or model train to introduce letters
i. Discrimination games using simple objects for terms (same/different and large/small)

j. Numerals and letters formed from clay

k. Games of "what is it?" using partially exposed or unusual angle shots

l. Counting exercises in animation or by the puppets

Segments that ranked low in interest

a. Teaching of "sets" using small objects on table

b. Extended review lessons on letter recognition in which more than three letters were used consecutively

One of the HOMEP program objectives was the recognition of letters, numerals, and geometric shapes. To provide situations in which these could be discriminated, the on-camera talent often worked with materials found in the home. Relying on demonstrations at Patty's kitchen table and supported by small, interesting toy objects, lessons were successfully taught on these concepts.

Games that involved such skills as identifying colors, shapes, and amounts were created and playing on camera with the viewer at home.

The use of tape recorders and record players seemed to be effective in getting the viewer to listen to sounds for purposes of identification and discriminations. The mean enthusiasm ratio for such activities was 91.3.

The sorting of objects was only acceptable when it was developed as a part of the plot in the show, such as finding enough objects of
the same color to send to someone. When a sorting activity was presented as a straight learning exercise, the attention and interest was low. The mean enthusiasm ratio for segments which ranked low in interest was 40.0.

7. Puppets

Puppets received an important place in the A&E children's television series because of their demonstrably universal appeal.

Puppet segments that ranked high in interest

a. Puppets singing
b. Magic Hollow episodes and stories
c. Patty doing cognition activities with Roy puppet
d. Professor with his word machine
e. Algie used by Patty to help find letters of the alphabet
f. Puppets narrating film trips
g. Puppets joining in exercises or musical activities
h. Stories acted out by hand puppets (especially Magic Hollow characters)
i. Showing how to make puppets
j. Puppet skits of quiz shows such as "What's that Song?"

Puppet segments that ranked low in interest

a. Marionettes used to act out songs or stories
b. Construction of shadow and finger puppets
c. Fingerplays

Puppets have already proven their value in television, and the data collected on puppets in our study substantiate this fact. Because of time and space and the need for variety, many types of puppets were presented
on Around the Pond. These types included hand puppets, marionettes, rod puppets, shadow puppets, and finger puppets. Puppets were used individually as well as in groups, such as in Magic Hollow. Certain puppets provided someone for on-camera talent to react to; other puppets provided comic relief or a musical change of pace, while still other puppets presented entire short stories or episodes.

The puppets with the strongest appeal were those who were continually involved in short stories, such as the residents of Magic Hollow who had time to develop a predictable personalities.

The construction of bag puppets or stocking puppets also ranked high in interest.

One puppet in particular was used to elicit strong verbal responses from the viewer by being involved in games and discussions with the on-camera talent and by giving delayed responses to answers so that the viewer could answer first. The mean enthusiasm ratio for such segments was 97.9.

There were few negative responses recorded for the puppets, but the interest tended to be much lower for stories acted out with marionettes or shadow puppets. The mean enthusiasm ratio for these segments was 58.8.

8. Models and 3-D Objects

On many occasions models and an array of objects were used on the series.

Segments that ranked high in interest

a. Jack-in-the-Box, introducing letters and numerals
b. H-O gauge model train
c. Rubber figures used to discuss family relationships
d. Stuffed animals
e. Mechanical toys
f. Large model of Patty's neighborhood, especially when things on it were manipulated.

g. Scale model house, trucks, etc, used as symbolic representatives from which to discuss the large world.

h. Scientific instruments, such as telescope or tuning fork being demonstrated.

Segments that ranked low in interest:

a. Small toys and objects used for comparison of size or to establish "sets".

b. Objects that were discussed for long periods without the introduction of new ones.

Throughout the television series there were frequent opportunities to use objects or models to teach. The range of presentation types that were appealing and interesting to children was vast, but several types were used with enough consistency to be rated.

Those segments with high interest appeal included the use of mechanical things, such as model trains, cars, and boats. The unwrapping of packages (surprise element) and the use of such things as a jack-in-the-box which had a predictable action were also appealing. The viewing of sets of things (like a model town or a series of similar objects, such as circus animals) were appealing to children unless the objects were presented one at a time. The idea of putting together something was also appealing if the length of time for the activity was short. The mean enthusiasm ratio for such activities was 100.0.

The use of the Around the Bend neighborhood model (that showed the homes of all the television personalities) was interesting only when cars or figures were manipulated in the scene. To just discuss things in such a
model produced very low levels of enthusiasm. The mean enthusiasm ratio for segments ranking low in interest was 50.0.

9. **Music**

Music was an integral part of the telecast in both a direct way and as background to other activities.

**Music segments which ranked high in interest**

a. Songs that had a strong beat and rhythm
b. Musical instruments played on camera
c. Singing of nonsense-word songs by frog puppet
d. Film segments showing children singing
e. Marching to music (when reinforced by showing puppets marching, film clips of marching bands, etc)
f. Songs sung by "Muppet-style" puppets
g. Visitors singing during parties
h. Playing of xylophone of Orff instruments on simple songs
i. Teaching of new songs by Patty
j. Use of animated objects or models while listening to records, *(i.e., train while playing Little Red Caboose)*

**Music segments which ranked low in interest**

a. Songs pantomimed by performer while in costume, (Princess, etc.)
b. Songs acted out by marionettes
c. Moving to mood music except when in Raggedy Ann segments
d. Ballet dancing
e. Filmed segments of folk dancing
Music was used not only to support other techniques; it also became an activity for viewer involvement. The singing of simple songs by the children along with the on-camera talent generated enthusiasm, especially if the talent took the time to go over the words and melody with the children. In many of the songs the children were not only asked to sing, but also to clap out the rhythm. Responses to this technique were more enthusiastic than when there were not others on the screen doing it too. When the action was carried on by others on the screen, the viewer had a tendency to sit and be entertained instead of participating. The most impelling type of singing was Call-and-response. These songs were written so that the child could respond at the proper time with a familiar phrase.

There was also a strong interest exhibited by the children in watching musicians play their instruments, unless they played too many songs (usually more than two). Children also seemed to enjoy doing activities, such as coloring or fingerpainting, to music. They also enjoyed marching and parading or playing along on home-made instruments.

The most talked about music were Arlo Guthrie nonsense songs pantomimed by a frog puppet. These short and silly songs became a much anticipated part of the series. The mean enthusiasm ratio to these types of musical activities was 98.0.

The children didn't seem too interested in moving (dancing) to music except when there were specific instructions, such as "bending like a tree in the wind" or "soaring like a bird." They also didn't enjoy songs which were pantomimed by performers. The mean enthusiasm ratio for these segments was 46.8.
10. Stories

On most of the programs, a story was read. The responses and interest to these stories were as varied as the production methods used.

**Story segments that ranked high in interest**

a. Stories in which Patty would pause to make comments or ask questions during the reading

b. Stories acted out in costume

c. Stories in which Patty would use appropriate character voices, such as a baby voice during parts of the dialogue being read

d. Stories with simple illustrations or shot with slides if the pictures tended to be cluttered

e. Stories in which the illustrations were shot from camera cards, so there could be zooms and movement across the illustrations.

f. Original stories written by various show personalities when authorship identified beforehand

g. Stories acted out by Magic Hollow characters

h. Stories involving considerable emotion or mystery

**Story segments that ranked low in interest**

a. Stories read by characters in costume

b. Stories dramatized by marionettes

c. Long stories

d. Stories after which Patty asked a lot of questions
Most of the stories used on Around the Bend were from books and were simply presented by someone sitting and reading to the camera. In order to vary the way a story was read, a series of techniques were used, including camera shots over the reader's shoulder to view the illustrations. Other techniques included making slides of each illustration and cutting to them or mounting the pages of the story book on camera and panning with the reader. The types of stories that seemed to rank highest were those involving mystery, or sentimentality.

Original stories created by the program staff met with a large degree of success when the stories' authorship was identified. Stories acted out by the Magic Hollow characters were also well received. The mean enthusiasm ratio for such story presentations was 97.2.

The clarity of the pictures and length of the story had a direct bearing on interest levels. Stories with detailed and complicated pictures had lower visual appeal. Long stories were often broken up by pausing for comments or asking questions, but asking questions at the end of the story wasn't a satisfactory technique. The mean enthusiasm ratio for this story presentation technique was 39.2.
Summary

The production of a children's television program which elicits interest, responses, and active participation from its young viewers must be constructed of segments that provide a variety of high interest materials and techniques. The proper use of these segments implies that programming techniques must be identified and then implemented so that proper evaluations as to the receptivity of the techniques can be conducted. The early childhood education program (HOPE) of the Appalachia Educational Laboratory provided such an opportunity.

Television is young as a medium, and it is continually growing. Each year great strides are being made in technique improvements. The techniques identified and discussed in this report are not intended to be examples of the only ones being used on children's television; they represent those basic techniques used in the production of AEL's Around the Bend television series. The order in which the techniques were discussed is not significant; the frequency for their usage was dependent upon the existing curriculum.

The key to providing interesting and appealing programming seems to be based upon variety and the use of short segments. Programs that rated high were those that contained a collection of programming techniques that were identified in the ten categories as generating high degrees of unelicited responses from children.
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**REMARKS:**