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AUTHOR Chen, Milton  
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ABSTRACT

Since verbal responses are a salient and easily documented index of acquisition of learning skills, a project was undertaken in 1972 to collect and analyze the verbal response of viewers of "The Electric Company." A data collection instrument was designed to tally: (1) reading of print on a television screen; (2) spoken anticipation of print to appear on the screen; (3) instruction-related verbalization; (4) oral participation in songs; and (5) irrelevant verbalization. Data were collected during the course of 60 shows, and results were correlated with factors such as: viewing conditions, pre- and postviewing reinforcement activities, and production format. This report discusses the results in detail.

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VERBAL RESPONSE TO "THE ELECTRIC COMPANY": QUALITIES OF PROGRAM MATERIAL AND THE VIEWING CONDITIONS WHICH AFFECT VERBALIZATION

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Milton Chen

The Children's Television Workshop

September, 1972

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## I. INTRODUCTION

With the support of the Spencer Foundation and the Children's Television Workshop, this project was undertaken during the summer of 1972 to collect and analyze data on the verbal responses of viewers to "The Electric Company." The basic research strategy was similar to that employed by Dr. Langbourne Rust in his attribution study of attentiveness to "The Electric Company," with the exception that this study employed field observations specifically designed to generate data on the verbal responses of viewers. Working from the data, lists were compiled of those bits which elicited the highest and lowest amounts of verbalization. These lists were then refined into three sets of program segments: one for each of those consistently eliciting the highest and lowest amounts of response, and a third list for bits which elicited both high and low responses on different occasions.

The premise from which this study operates is that overt, verbal responses are a salient and easily documentable signal of potential learning and acquisition of learning skills from the program material. The verbal response which the program elicits from its viewers should clearly be a major concern in the production of episodes for "The Electric Company," since oral recitation is a fundamental technique in the acquisition of reading skills. Overt responses are certainly not the only indication of the learning processes which are operative when children view television generally and "The Electric Company" specifically. Other covert types of learning may well be going on. Also, there may be instances where the teaching is more

effective when viewers are silent. Therefore, it should be stressed that bits discussed in this paper as "low-response" bits should not be considered "failures" or ineffective material. These bits should be scrutinized more closely for other educationally redeeming qualities.

Observations for this study were made in day care centers, settlement houses, and CTW viewing centers on the south and west sides of Chicago. The viewers had completed second grade reading instruction in June, 1972. Most of them (later referred to as "primary viewers") were eight years old. Seven, nine, and ten year olds were frequently present in the viewing group and will be referred to as the "secondary viewing group." Responses were recorded both on paper and on tape.

## II. DESCRIPTION OF THE METHODOLOGY

If one were to speak of "effects" in the relationship between children and television viewing, one helpful perspective would classify those "effects" as falling under one of three general rubrics: characteristics of the viewers, of conditions under which viewing takes place, and of the televised material itself. This study is an investigation of program segments of "TEC," not a study of children. As such, it exhibits a strong orientation toward characteristics of the viewing condition and the televised material. Certainly, the characteristics of viewers matter; different children respond differently to the same material; but a measurement or description of those factors lies beyond the scope of this study. Our only mention of some of these variables will be in connection with the previous familiarity of some viewers with "The Electric Company" and the initiation of a "helping response."

For these reasons, no pre- and post-tests of reading achievement were given and no rigorous psychological profiles of children were attempted.

Our goal in selecting a sample for this study was to construct the broadest possible base of different levels of reading achievement, different propensities toward various viewing behaviors, and different attitudes and enthusiasm for TEC. The fundamental strategy was to bring as many target-age children as possible to the television set and to analyze how TEC fared in the face of a myriad of different variables. The final lists of highest- and lowest-response bits represent an exercise in this empirical "survival of the fittest."

A. Data Collection

Two methods of data collection were used: (1) a data sheet designed to record verbalizations and to score them for different categories of verbal behavior, and (2) cassette tape recordings of subjects later transcribed to lend a more precise and comprehensive look at their verbal behavior.

1. Design of data sheet: formulating categories of verbal responses. The data sheet is presented in Appendix A. The parameters of the data sheet permit each observer to monitor the responses of three viewers for each bit and to score the response for a particular response category. The possibility of accomplishing both of these tasks in the short time periods allowed by the program segments was verified through initial piloting in the field. Rundown sheets listing the bits in order of appearance for each show were obtained. For each show, observers constructed data "booklets," each containing about twenty data sheets. The bit titles for the show appeared as the headings, ordered according to the rundown sequence.

The categories for which comments were scored are of special research interest. The initial categories which emerged from discussions with CTW staff were a good first effort at classifying the anticipated behavior, although only field observations could verify the relative frequency with

which the categories of behavior appeared and suggest appropriate revisions. The categories presented below are excerpted from the initial project proposal (see 'A Tentative Research Proposal').

CATEGORIES OF VERBAL BEHAVIOR  
EXHIBITED DURING VIEWING OF "THE ELECTRIC COMPANY"

Instructionally-  
Relevant  
Verbalization

1. Reading of print on the screen: The child reads or attempts to read print appearing on the screen, regardless of the timing of the voiceover.
2. Spoken Anticipation of Print to Appear on Screen: The child pronounces the word in anticipation of its appearance on the screen.
3. Instruction-Related Verbalization of Print: The child comments about print appearing on screen, but does not proceed to pronounce it (e.g., "that word begins with a g," or "That word has an 'oo' sound.>").
4. Story-Related Verbalization of Non-Printed Speech: The child verbalizes about plot, characters, setting, attractiveness of bit; or, he imitates the speech of characters.
5. Oral Participation in Songs: The child sings along with all or portions of a song.

Inrelevant  
Verbalization

6. Other-Than-Program-Related Verbalization: The child verbalizes in a manner unrelated to the instructional message of the program, i.e., comments directed toward other viewers and unrelated to "The Electric Company."

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The behaviors described by Category 2, "Spoken Anticipation of Print to Appear on Screen," were found to occur chiefly during "Monoliths" and "UCLA Band." Category 3 did not occur with any frequency, nor was it related to any particular bit. Also, category 4 was reworded to account for

the dominant reaction of trying to predict "what happens next" or demonstrating that one already knows "what is going to happen next." The rest of the categories appear to be fairly appropriate descriptions of their respective classes of behavior.

Category 1, "Reading of Print on the Screen," is certainly the most frequently occurring and educationally significant behavior of those encountered in this study. It is also the category which received the greatest amount of attention in judging a bit for verbal response. Observations indicated that a significant amount of vocalizing printed words could not actually be termed "reading;" much of it was repetition or mimicking of the voiceover (we know this because six- and seven-year-olds who could not read were reciting many words on "The Electric Company"). To filter out reading partially from mere imitation of voiceover, category 1 was split into two subcategories: Recitation of Words in Print "Before Voiceover" and "After Voiceover."

The final formulation of these categories of verbal behavior used for the greater part of this study is presented below.

CATEGORIES OF VERBAL BEHAVIOR  
OCCURRING DURING VIEWING OF "THE ELECTRIC COMPANY"

Instructionally  
Relevant  
Verbalization

1. Recitation of Print Before Voiceover: Viewer pronounces or attempts to pronounce words or letters appearing in print on the screen before voiceover pronunciation of the word.
2. Recitation of Print After Voiceover: Viewer chimes in with or repeats words after voiceover pronunciation of words or letters in print.
3. Verbal Anticipation of Print About to Appear on Screen: Viewer pronounces word in anticipation of its appearance on screen.
4. Instruction-Related Verbalization About Print, Exclusive of Attempted Reading: Viewer comments about print on screen, but does not attempt to pronounce it (e.g., "That word begins with a g," or, "That word has an 'oo' sound.").

5. Story-Related Verbalization of Non-Printed Speech: Viewer comments on plot, characters, setting, or attractiveness of bit; anticipates subsequent events; or repeats the speech (not appearing in print) of characters.

---

Irrelevant  
Verbalization

1. Other-Than-Program-Related Verbalization: Viewer comments on concerns unrelated to "The Electric Company," e.g., discussion of friends, other activities.

---

2. Tape recordings and transcriptions

A significant portion of the verbalizations of the subjects was almost inaudible to an observer placed only a few feet away; an observer could not position himself much nearer to the subjects without over-emphasizing his presence and making it very clear that he was listening closely to everything the subjects said. Inaudible in this context signifies not that the utterance was whispered (although that sometimes happened), but that the level of general room noise prevented an accurate perception of the remark. These comments were critical to the study, since they often included viewers' attempts to sound out words.

In order to establish some record of these "inaudible" remarks, a tape recording was made by hanging a mike in the center of three primary viewers. Subjects usually welcomed the chance to be taped, and, of course, many got fairly excited by the prospect. However, subjects' departure from normal verbalization was minimal, especially if Ss received an opportunity to hear their voices beforehand.

Transcriptions confirmed the suspicion that a significant number of comments had escaped our hearing. It is highly recommended that future

research investigating verbal behavior adopt the practice of tape recording, since it lends a fuller picture of the behavior and provides a more precise, permanent record for subsequent analysis.

B. Analysis for Highest and Lowest Response Bits

Following each day's observations, data sheets were reviewed jointly by both investigators in an effort to come to agreement on the bits eliciting the highest and lowest amounts of verbalization. Our goal was to nominate three bits from each show for both the highest- and lowest-response bits. Differences naturally arose between each observer's perceptions concerning the responses to any one episode, since each observer had monitored a separate group of three viewers. Those conflicts were resolved by turning to the data sheets and letting the viewers' comments speak for themselves. Frequently, however, the high response list would be pared down to five or six bits, all of which elicited response from four or five of the six subjects. In these cases, all of the bits were retained and nominated for the final list, since it was thought that to delete a short film or electronic bridge simply because of its shorter duration would prejudice the study against the shorter bits. For the same reason, no rankings of relative effectiveness of bits on the final list will be offered. The relative amount of verbalization represented by each bit on the final list is more a function of amount of print appearing in that bit or length of the bit.

It was hypothesized that, in judging bits for effectiveness in eliciting verbal response, one might have to choose between a bit generating a heavy amount of story-related verbalization and a bit characterized by more recitation of print. Observations indicate, however, that most bits which elicit a high level of story-related verbalization also elicit a high amount of instruction-related verbalization. During "Message Man," for example,

children spend a lot of time speculating on the impending disaster but also read the message in the process.

By this process, then, nominations were made from each of about 35 shows for the final lists of high- and low-response bits. The final list comprises bits which recurred in either the high-response or low-response list of nominations more than once, without appearing in the opposite list. A third list was created to accommodate those bits which appear on both lists.

C. Use of Reinforcement Activities

Researchers also investigated the effectiveness of different games, puzzles, and other activities which reinforce program lessons and their relationship to verbal response during the program. Experimentation was made to ascertain the relative efficacy of conducting such activities before, during, and after the program. During-viewing reinforcement consisted exclusively of sitting with viewers and asserting a strong oral participation in the program. Jack Roberts' The Last Word provided the chief resource for pre- and post-viewing activities. Discussion of these activities follows in the section entitled, "Characteristics of the Viewing Condition that Affect Verbal Behavior."

III. PRESENTATION OF FINDINGS

A. Highest- and Lowest-Response Bits for Each Show Observed

	<u>High Verbal Response</u>	<u>Low Verbal Response</u>
All Shows	Show Opening	
Show 25	Sign Song Take One Blend Review with Vismo	Quotations and Their Marks Film: Sound of e Film: Bennett Bookworm

High Verbal  
Response

Low Verbal  
Response

- |         |  |   |
|---------|--|---|
| Show 26 | Object Blending<br>Bridge - Bottle<br>Film: Buzz   | Grounded Giggle/Goggle Girls<br>Film: Princess & Frog<br>Mel Mounds and Brenda Bradley                      |
| Show 27 | Consonant t blending<br>Bridge - tot<br>Film: Do not bother<br>this giant person   | Song: Shoo Shoo Sunshine<br>er/ir/ur Graffiti Wall<br>Song: I'm In Love With a Giant                        |
| Show 28 | There's an E on the End<br>You Can Make Up A Word  | "All" Movie Set<br>Graffiti Wall: Walter<br>Theatre in the Dark   |
| Show 29 | Film: Jump!<br>Block Blending  | Wild Guess: Queen<br>Man on Street: tub-tube<br>Fargo: Basement Flooding                                    |
| Show 30 | Film: UCLA Band<br>"sight to sight"<br><u>fl</u> consonant blends  | Vi's Diner: Fred on Friday<br>Fight Song<br>Theatre in the Dark<br>Robot Showroom<br><u>fl</u> Platter Song |
| Show 31 | cuh-sss Contest<br>Simple Blending<br>Film: step back  | Man on Street: Cluck<br>Wallpaper Shtick<br>Vi's Diner: Sal for Sale  |
| Show 32 | Film: ch Split Screen<br>Cosby v. Cosby<br>UCLA Band: of<br>Film: Rob/Robe<br>Bridge - Bottle<br>Film: No Parking          | Film: Glob/Globe<br>Milkman - Leave One B<br>Fargo: The Cut Rob<br>Farmer's Song                            |
| Show 33 | Balloon Blending<br>Film: Sign Song<br>Film: Cowboy Ballad<br>Bridge - popcorn<br>Film: Do not bother<br>this giant person | <u>Pl</u> Scene: ease Play Plenty<br>Vi's Diner: piece of pie<br>Sign Shop: Sam's Pizza                     |
| Show 34 | Message Man: Pull String<br>Paper Towel Blend<br><u>th</u> Silhouette Blend<br>Winnie/Lorelei: <u>ing</u>                  | Film: <u>th</u> Snake Trainer<br>Film: I Am Jumping<br>Film: Pronouns<br>Song: You                          |
| Show 35 | Jigsaw Puzzle<br>Sign Song<br>Film: Parrot<br>UCLA: if/is<br>Bridge: zoo/zoom<br>Film: cool/pool/fool                      | Fargo: zug sketch<br>Giggle/Goggle Girls<br>Bridge: Prize<br>Lorelei: Ebenezer Poem                         |

High Verbal Response

Low Verbal Response

- Show 36      ChromaKey: Short i Blend  
Blends and Assemblies  
Song: E on the End

Show 37      Object Blend: Telestrator  
Bakery Blend  
Bridge: Hiccup

Show 38      Message Man: Do Not Bother  
Bridge: race/brace  
Consonant Blend Bitlets

Show 39      alk Monolith  
Sandbox Blending: x  
Bridge: ax/tax/taxi

Show 40      Message Man: Go Away  
Film: Lion King  
Message Man: duck

Show 41      Singing Sign Song  
Theatre in the Dark  
Beach Blending  
Fargo: Key's the Doormat  
Film: Cool/Pool/Fool

Show 42      Silhouette Blend  
Bridge: Test  
Sign Song

Show 44      Cheerleader Blending  
Bridge: Yellow  
Film: sh Sculptor  
Fe-Fi-Fo  
Song: Twin Bills: I Like You

Show 45      Vet, Van Blending  
Bridge: Vanilla  
Film: True Blue Sue  
Silent E Song

Show 46      MM.  
Cosby & Lorelei  
Glove Blending: f

Show 49      Film: night/bright  
Film: right on  
Film: Groggy Froggy  
Song: There's an E on the End

- Bump on Head: sh  
Crank and Kite  
Judy and Marks  
Sign Shop: out of o's
- Man in the Street: Third  
Ball Store  
Crank Call
- Surprise Her with a Fur  
Song: I'm In Love With a Giant  
Crank: or squhds  
Vi's Diner
- Film: Walk  
Film: the  
Crank Call  
Sight Word: the
- Film: Talking Dog MiniStory  
sk Mask Shop  
Giggle/Goggle Girls
- Film: Bend  
Garage Scene: nd  
nd Limerick  
Song: Bad Buckaroo Billy
- Skip the Slattern  
Sign Shop: Sam's Pizza  
Love of Chair
- Movie Set: You  
Shadow-shy Shortstop  
Song: Sneaver Song
- I'm In Love With A Giant  
Talking Dog MiniStory
- Film: I Agree  
Film: Frog Prince  
Film: Eel  
fl Platter Song  
Vowel Combin: Eye on the Ball
- Man on the Street: tub/tube  
Fargo: Desert Island  
On Sale: on





B. Final List

Highest-Response

Lowest-Response

Consonant Blends  
 Silhouette Blends  
 Song: E on the End  
 Lehrer's Silent E Song  
 Song: Sign Songs  
 Film: Message Man  
 Film: Bird on Car  
 Film: alk, all Monoliths  
 Film: Rita on the Run, ice cream  
 Film: parrot  
 Film: Cowboy Ballad  
 Film: UCLA Band  
 Film: cool/pool/fool  
 Bridge: bottle  
 Bridge: food bridges: vanilla  
                                   popcorn  
                                   crackerjacks  
 Bridge: Letter manipulating: race/brace  
                                   boom/broom  
                                   dinner/diner  
                                   ax/tax/taxi

Wild Guess  
 Man on the Street  
 Sign Shop  
 Crank Call  
 Giggle/Goggle Girls  
 Movie set: you, all  
 Vi's Diner  
 Song: I'm in love with a Giant  
 Song: fl Platter Song  
 Film: I Agree  
 Film: Walk  
 Film: Frog Prince  
 Film: Talking Dog Ministry

Bits Appearing in Both Lists

	<u>High</u>	<u>Low</u>
Theater in Dark	No can Do	What White Whale? Is that a flea? Say it isn't so.
Fargo	Key's Under the Doormat	The Cut Rob Basement Flooded Desert Island
Graffiti Wall	Bob's Stupid	Walter ir/er/ur
Lorelei	Rub your Leg Cosby & Lorelei Winnie & Lorelei	Ebenezer Poem

IV. ANALYSIS AND CONCLUSIONS

A. Characteristics of the Viewing Condition that Affect Verbal

Response

1. During viewing

a. Nature of viewing group: A helping response? The typical viewing group for this study was heterogeneous: in age, sex, race, and reading achievement. By virtue of ~~the~~ location of the observation sites, the viewers were almost exclusively lower and lower-middle class on a socio-economic scale. It should also be mentioned that viewers who came to watch the program had indicated a desire to do so; they either consented to view at the observer's suggestion or voluntarily offered to be selected for the viewing group. No one was forced to watch; furthermore, minimal discipline was enforced during the broadcast. Viewers were free to leave the room at any time.

Observers made sure that each group contained at least three children per observer who had recently completed second grade in June; most of them were eight years old. The responses of this "primary" viewing group constitute the focus of this study. In addition, what I will refer to as the secondary viewing audience, or all viewers not entering the third grade in September of 1972, were frequently present. Viewing groups ranged in size from four (all primary viewers) to twenty-eight (eight primary viewers, twenty secondary viewers). The majority of the observations were made with a group of about nine to eleven viewers, six being primary viewers.

Several insights emerge from this variance in the age and size distribution of the viewing groups; for, as might be expected, the level of verbal response often was enhanced when a large viewing group was present. However, the size of the viewing group alone does not substantially alter

the level of relevant verbalization elicited from any one viewer. Shy viewers remain shy in groups of eight and twenty-eight alike; verbally active viewers are not noticeably affected by group size. A group of twenty-eight does produce a higher decibel level, if you will; but most of the noise is everyone trying to quiet everyone else down.

The nature of the viewing group<sup>1</sup> is more responsible than any isolated size factor in explaining this heightened response, and can be described in terms of two related criteria: (1) the added presence of more skilled readers, who were generally older than the primary viewers; (2) the added presence of viewers who were more familiar with "The Electric Company." When the viewing group is enlarged to include more of these two types of viewers, a helping response is fostered. That is, these two classes of viewers brought skills which enabled them to read and repeat a greater amount of print exhibited during the program. By cueing in primary viewers to the print and acclimating them to the behavior of reciting during the program, these more knowledgeable viewers "helped" or assisted non-reciters in reciting words and learning song lyrics and melodies. Consequently, it appears that one strategy for encouraging more reading aloud is to place several key viewers in the viewing group, rather than simply to increase the size of the group. Our observations, while in large part substantiating the existence or viability of a helping response, found little evidence for the competing theory that viewers will be suppressed or "defused" from recitation or "not feel a need to recite" if others in the group are already performing the recitation.

b. Adult intervention. Observers for this study frequently intervened during viewing to investigate the positive or negative effects

---

<sup>1</sup>This discussion will constitute the only consideration in this paper of characteristics of viewers affecting verbal response; more rigorous methods would be needed to identify and document other viewer characteristics.

of their participation in the viewing dynamics. Specifically, observers sat on the floor or in chairs with viewers, and recited or sang along with the program, gave mini-lessons about words in print, and encouraged viewers to verbalize. It should be mentioned that observers adopted this behavior only after allowing a few days to develop a familiarity and friendship with the children (e.g., playing sports together, eating lunch together, engaging in reinforcement activities for "The Electric Company.").

The children came to view the observers as adult friends who reserved the right to discipline them for improper behavior. It was in light of this relationship, then, that observers intervened during the programs. The ensuing phenomena can be conceptualized in terms of a two-way communications thoroughfare. When the adult significantly increased his communication to the viewers during the program, he attracted a concomitant rise in the amount of verbalization and comments directed from viewers to him. The adult interjects himself between the viewer and the program, manifesting himself as a very potent distractor. Viewers turn their attention away from the program to ask questions, comment upon words and story-related concerns to the adult, or just to hear what a fellow viewer has to say to the adult in their midst. This phenomenon may not apply to teachers who may choose to enforce a different quality of discipline upon viewers. There, teachers may be able to intervene during viewing without distracting a significant amount of attention away from the program. Generally, however, these actions should be kept to a minimum.

2. Pre- and post-viewing reinforcement activities

a. Description and relative effectiveness. Working from the Show Index found in The Last Word, activities were selected which were especially relevant to the words and lessons presented on "The Electric



center of the players is one less than the number of players. Cards are passed until one player possesses four cards beginning with the same digraph. That player then reaches for a spoon in the center. All others follow likewise; the player left without a spoon must leave the game. The game is repeated until one person is left.

"Love of Musical Chairs," "Here Comes Sprayman," and "Easy Reader's Game" were all played as suggested in The Last Word; modifications were made where possible to include words which would appear on the show that day.

The great difficulty with crossword puzzles appeared to be that these seven-, eight-, and nine-year-olds were not accustomed to doing word puzzles. They encountered difficulty in mastering the ideas of "across" and "down," matching clues to the words, and printing the words in the correct squares. All this was considerably improved when the instructor conducted the activity by having the group work on the same clue at the same time. That practice got the puzzle done, but precluded the children's working the puzzle at their own pace and achieving personal success by correctly inferring words by themselves from letters of other words and word clues.

It has become apparent that several attributes enhance the pedagogical effectiveness of and children's willingness to engage in these activities. From a pedagogical standpoint, games should allow for both writing and recitation of the words contained in the games. This preferably should be done in unison, with the instructor making comments about the salient features of each word. This characteristic is effectively embodied in "Message Man Bingo II" and helps to explain the more frequent connections made by children between Bingo words and their appearance during the program. Children are most willing to play those games at which they have met some degree of success: "Word Bingo," "Spoons," and "Musical Chairs" all offer each player an equal chance of achieving a "winning" feeling during some

portion of play. Although the winning versus losing motif was de-emphasized by activity leaders, the relationship between some acknowledged success and the collective enjoyment exhibited by players was very much in evidence.

b. The effect of pre-viewing activities upon viewing behavior and recommended placement of reinforcement. Games and puzzles were played before viewing in order to determine in what ways rehearsal of words before the program would facilitate their recitation during the program.

We know that pre-viewing activities can affect viewing behavior during the program, judging from four indicators:

- (1) Viewer's utterances that "that word was in our game."
- (2) Verbal responses to certain bits which in the absence of reinforcement, would probably not have been elicited (e.g., a number of viewers quickly unscrambling a Fargo message, or singing along with songs).
- (3) Viewers holding Bingo cards while viewing and matching words on "The Electric Company" with words on their cards, or pointing to words written on a blackboard when those words appear on the television screen.
- (4) A post-viewing discussion which sought and received acknowledgment from viewers that they had recognized words on the program which had appeared in the game.

However, the pervasiveness of the effect of pre-viewing activities upon verbal response is difficult to ascertain and certainly lies beyond the realm of this study. One would need to investigate which words the viewers were unfamiliar with before viewing, conduct the activity, and then monitor the verbal response. Even then, one could not be certain that a lack of overt recitation was not the only indication of learning the word, that the response was not merely a



mimic of the voiceover, or that learning was durable. As Dr. Cazden suggests ("Prospectus For In-Classroom Research"), a significant amount of covert learning may be created when children view television and may remain unseen by research focusing upon overt responses.

Indicator (2) is a casual effort to duplicate some of the questions that would need to be answered if one were to document the extent of the effect of pre-viewing activities upon verbal response. Those questions point to some very complex, if not unknown, processes by which reading skills are acquired. For now, we must be content to answer that question of, "Is there an effect?" with, "Yes," and bypass the questions which logically follow: "What is the extent of it?" and "By what process does it take place?"

Teachers using "The Electric Company" in the classroom may inquire as to whether related activities should be conducted before or after viewing. Of course, the ideal arrangement is to conduct both pre- and post-viewing activities. To choose between the two involves a judgment of the placement of reinforcement for a greater long-term (longer than merely a verbal response to a program episode) pedagogical effectiveness.

First, teachers should try to introduce song lyrics and melodies before viewing; songs heard for the first time are perhaps the only portion of the program to which viewers may want to respond but are unable to and thus become frustrated through no fault of their own reading abilities.

This study recommends placement of reinforcement after viewing for several reasons. The first expresses a belief that "The Electric Company" serves as better introduction to the words and lessons in reading than word games. "The Electric Company" presents attractive visual action, interesting characters, and popular music in a package which excites and motivates children. On the other hand, word games and puzzles (except Bingo) are intrinsically

less exciting to children, and, frankly, often boring. Traditional work sheet exercises probably should not be used before or after viewing so that children will not come to associate "The Electric Company" with tedium and drudgery. There is a real paucity of colorful, slickly packaged and fun-to-play word games designed for children who are having trouble learning to read.

In reading instruction for those with reading disabilities, it makes sense to concern oneself with the attitudes and atmosphere in which children view such instruction as well as the actual instruction itself. Given that premise, viewing "The Electric Company" starts off the reading lesson on a joyful, nonpunitive footing and serves as an introduction to the world of reading superior to most word games. In addition, the follow-up activity can then allow the reading instructor to treat the reading deficiencies of each individual from a closer, more personal position which exceeds the capabilities of the television medium.

B. Characteristics of "The Electric Company" Affecting Verbal

Response

This section will analyze the final list of high and low response bits by stating attributes which appear to be controlling in either case. Also, the list of bits appearing on both lists will be studied for any explanations (e.g., response to preceding bits, specific material contained in individual sketches) for that phenomenon.

1. Attributes of high verbal response: involving or intriguing the mind of the target-age viewer<sup>1</sup>

One general characteristic of high-response bits is that they

<sup>1</sup>The show opening and closing sequence (The Last Word, Show Logo, and Theme) frequently elicited enthusiastic singing of the theme song and recitation of the last word. The effectiveness of these bits will not be analyzed in the following discussion, other than to say that they combine strong rhythm and rhyme with an obvious advantage of regularly introducing and concluding the program.

encourage the viewer to participate verbally by allowing his mind or cognitive capabilities to be involved in the program material. These bits speak directly to the cognitive capabilities of these viewers without overshooting or overestimating those capabilities and preferences. Productionwise, that means that the bits are paced at a rate at which target age viewers can operate and comprehend without becoming perplexed or confused. Also, words appearing in print are clearly stated and often repeated to some manner of cadence or rhythm. "Involvement" can also be facilitated when bits encourage viewers to guess or predict the next word or subsequent events.

a. Allowance for anticipation of next words and events. One of the most common behaviors of viewers of "The Electric Company" is to attempt to guess which word will appear next or what an ensuing event will be. One theme which creates this suspense and permits verbal anticipation is, of course, the "Message Man" bits. This behavior is also seen during other bits as well: consonant blends (where one letter written on a paper towel, shoe, balloon, or card is taken from the word and another letter is substituted to make a new word). Viewers often try to predict the new word while the change is being made; monoliths (beginning with the opening 2001 theme, viewers attempt to anticipate which word or sound will be formed); UCLA Band sequences (viewers rely upon words which have appeared in the few preceding bits in guessing the final word -- UCLA Band is therefore probably most effective when it follows bits which introduce the UCLA word). The general pattern of many high-response bits is that the greater portion of time is spent in some preliminary or tangential action cluing the viewer to the ultimate outcome or correct pronunciation of the word. While "Message Man" is scratching his head, "UCLA Band" members are scurrying around, and "2001 Monolith" music builds in volume, or a letter floats

around a word in an Electronic Bridge -- viewers are given a chance to anticipate, speculate, and interact with happenings on the TV screen and with other viewers. "Message Man" appears to be superior in this respect, since the print is introduced in the beginning and viewers rehearse it until the end of the bit. The final pronunciation of the words offers a built-in reinforcement for those bits, confirming correct recitations and correcting mistaken ones.

b. Internal repetition of words appearing in print

Bits in which the voiceover frequently repeats words in print also seem to be more effective in achieving a verbal response. Internal repetition is obviously helpful in enabling children to recognize and rehearse the correspondence between the spoken pronunciation and the printed representation of the word. "Parrot," "Monoliths," and "Cool Pool-Eool" exhibit this type of spoken repetition, as does "True Blue Sue," which received a high response, though not high enough to be presented on the final list.

Internal repetition is most effective when, as is frequently done on "The Electric Company," the repetition is spoken to some cadence or predictable rhythm. Thus, the next attribute, "Strong Rhythm and Rhyme," is very closely related to internal repetition. The two might be viewed as twin attributes; in fact, it would be difficult to say something repeated without generating some rhythmic sequence. However, for this study, in order for a segment to possess this particular attribute, the words which are repeated must also be portrayed in print, since it is believed that this cross-modal device is particularly effective in eliciting verbal response.

c. Strong rhythm and rhyme

This attribute is also discussed in Dr. Langbourne W. Rust's study of attentiveness to "The Electric Company." His definition is concise

and cogent:

Bits in which strong repetitive rhythm and rhyme occur together, for most or all of the segment in question. These qualities may be present in songs verse, or "jive" talk.

Dr. Rust uses the word "repetitive" to describe "rhythm and rhyme." This seems to fuse our two attributes of "internal repetition" and "rhythm and rhyme" into a single attribute. These two attributes remain separate in this study since it is believed that a bit, especially a song, can possess "strong rhythm and rhyme" without providing "repetition of words appearing in print," although, as stated above, the two do bear a special relationship to each other. High-scoring bits characterized by "strong rhythm and rhyme" include: "There's an E on the End," "Sign Songs," "Silhouette Blends," "Parrot: Who Is It?," "Cool Pool Fool," and "Cowboy Ballad."

d. Single letter and digraph manipulation

This attribute incorporates a very simple device typically seen in Electronic Bridges and some Consonant Blending segments: a word appears prominently on the screen and a letter is either inserted into or deleted from the word to produce a new and different word. It is difficult to put forward an argument explaining why viewers seem to respond verbally to this technique, but what will be termed "letter inserting" Electronic Bridges (ax/tax/taxi, race/brace, boom/broom, dinner/diner) seem to capitalize on this device. It is interesting to note that of all the low-response bits nominated for the final list, none of the Electronic Bridges (steam, prize, litter) demonstrate this brand of letter manipulation and insertion. Also, it will be suggested, though not very strongly, that this phenomenon seems to work best in Electronic Bridges, where the print appears at maximum size by itself, rather than in some films (dinner/diner, guitar, supper/super snake) where the same device is used but other competing and perhaps distracting

animated figures are present.

In line with the notion of presenting a word as a combination of elements, bits which go beyond manipulating single letters in and out of words to splitting up words into two components also elicit verbal response. Silhouette blends are the primary example of this technique, isolating the beginning digraph and then adding different endings to form a series of related words. The visuals (in which the digraph and ending originate from different silhouettes and are brought together), are neatly and effectively synchronized with the voice-over. The cross-modal interaction of audio and visual reinforcing each other combines "Internal Repetition of Print," "Strong Rhythm," and "Digraph Manipulation" into a segment which evokes a consistently high verbal participation.

e. Moving print

Print which exhibits some form of motion, as opposed to static print, is one further device which encourages verbalization. Electronic Bridges which squirm, shake, or slither across the screen demonstrate this attribute in its most salient form. As indicated in the previous section, the movement of print during silhouettes, by which components of words are visually transported across the screen to combine into a word, partially accounts for the success of that segment.

Eye-movement research conducted by Dr. Kenneth O'Bryan of the Ontario Institute for Studies in Education has indicated that viewers attend more closely to print which exhibits some form of motion. Our observations indicate that print in motion elicits a greater degree of overt recitation as well. The mechanisms by which it does so remain obscure at present, but judging from our data, one might marshal a theory to argue that print in motion involves or intrigues the child's senses more than static print.

One might begin to conceptualize the effect in terms of print in motion challenging, inviting, or enticing viewers to "nail it down" via a verbal recitation.

f. High-interest words and phrases

Words and phrases possess a higher probability of being recited if they manage to strike the fancy of young viewers, either by being fun to say (e.g., liniment; how now, brown cow; fe, fi, fo, fum) or by representing ideas and objects about which children care very much. Words may also achieve a high-interest status if children recognize them as being present in their own surroundings, as in "Traffic Sign Song." Food seems to be an attractive subject and a major concern for these target-age children. Electronic bridges for vanilla (ice cream), popcorn, crackerjacks, and pizza were enthusiastically recited. "Rita on the run: ice cream, pizza" also was enthusiastically received. In "Man on the Street: Hat," Lee Chamberlin's handful of fruit received the following requests from two viewers: "Give me an apple!" "Give me some grapes!"

2. Attributes of Low Verbal Response: Ignoring the Child's Abilities and Preferences

As discussed in the Introduction, the low response to some bits may be justified on the grounds that these bits were not designed to elicit a high degree of response and commentary but solely to solicit attention, and not necessarily verbal participation in a reading lesson. For example, a high verbal response is neither expected nor desired during portions of bits where Fargo is teaching how to extract learning by searching for context clues. Our discussion here will try to avoid consideration of those features or aspects of bits which can be pedagogically justified for their low response, and to search for more general qualities which would inhibit verbal response in any context. The general theme running throughout this set of attributes

is a failure to perceive accurately and speak to the experience and capabilities of target-age children. Material in these bits seems to pass over the heads of these viewers without any recognizable appeal, comprehension, or response. Some of the attributes, such as "small print," or "print on screen for insufficient time," are obvious and perfunctory. Others concern more major and substantive features implicit in the design of the program material. The latter qualities might be described as "adult conventions," or experiences which are a part of and appeal more to adult life, such as game shows (Wild Guess), news broadcasts (Man on the Street), and puns as a form of humor.

a. Print on screen for insufficient period of time

Obviously, verbal response will be truncated on those occasions when viewers are not permitted sufficient time to sound out and think about words appearing in print. The films "Walk" and "Talking Dog Mini-Story" are clear examples of two bits failures to provide sufficient time for viewers to pronounce words in print; the speech balloons vanish as quickly as the glib speech of the characters.

b. Rapid speech

This attribute is related to the first, since, if print disappears as soon as a character finishes pronouncing it, a rapid pronunciation will preclude viewer's recitation. There remain, however, instances where characters' speeches do not appear in print but are also spoken too rapidly. Our observations indicate that when children are prevented from comprehending the speech or the ideas which the speech communicates, their interest in the segment drops; consequently, their verbal responses diminish. The lyrics to "FL Platter" song are spoken too rapidly to allow viewers to grasp them.

Fargo's remarks and Best West's explanation of Wild Guess are further instances of rapid speech adversely affecting verbal response to the segment. Even when the speech is not intended to be intelligible, as in the group of films "I Agree," our impression is that viewers are somewhat confounded and refrain from responding when they are unable to make sense out of what is going on.

c. Visually static mono- and dialogue

Dr. Gerald S. Lesser has discussed the responses of children to television material wherein stationary character(s) are engaged in dialogue:

The forms of televised inaction that children almost always ignore are familiar. Most common is the "message monologue" where a single character appears on the screen, facing the camera from a more or less stationary position, telling the audience something (most in-school instructional television is forced to take this form due to insufficient funds; its failure to attract children's attention now is legendary). Adding another stationary character to give the first stationary character someone to talk with does not help much. Such segments remain heavily loaded with verbal content that is not integrated into any form of visual action. Soap operas generally follow this format with, for example, two women seated on a living-room sofa, sipping coffee (which is often the extent of the action), while discussing their misadventures or the unseen misadventures of their acquaintances. Although these soap operas are not designed for children, and the tolerance of most adults for sheer, second-hand gossip far exceeds that of children, the static quality of their visual conventions is an excellent example of televised inaction that will not hold children's attention.

"Man on the Street," "Giggle/Gargle Girls," and "Sign Shop" fail to receive much verbal response by virtue of their stationary characters speaking to each other. Again, viewers are not permitted to enter the conversation or speculate on future events and are left on the sidelines.

d. Use of adult conventions: too talky or too mature?

Many adult conventions, or aspects of adult life which adults accept and find appealing, have been incorporated into "The Electric Company:" game shows, soap operas, news broadcasts, news broadcast-type voices for characters who could conceivably have more interesting voices, and using

the telephone. The low verbal response to many of these bits may be a function of a "Comprehensible spoken script" attribute outlined by Dr. Rust.

Bits in which the spoken soundtrack alone is comprehensible, do not require the viewer to look at the screen to understand what is happening. Bits characterized by "comprehensible spoken script" typically involve a substantial amount of dialogue which does not permit the verbal participation of viewers.

However, there appears to be a more pervasive attribute running through a great many videotaped segments in which the members of the repertoire company adopt character roles. Many of these bits portray adults engaged in adult activities. One impression is that this type of "adult" sketch militates against verbal participation when the sketches present the viewer with foreign and unfamiliar circumstances. Certainly young viewers have experienced some exposure to these adult conventions, but our feeling is that young children do not view these aspects with any particular enthusiasm or attraction. The target audience appears to be more drawn to bits which are visually fun to watch (consonant blends, UCIA Band) and feature animated characters (Message Man, Bird on Car) rather than bits which try to develop a story-line built around adult concerns.

e. Verbal humor. Previous writings have established the preference of young viewers for visual, rather than verbal humor. Viewers' reactions to the visual antics, sight gags, and expectation-upsetting humor found in Message Man have substantiated the widespread appeal of slapstick, visually-active humor. Viewers also enjoyed the humor of bits employing pixilation, particularly "Rita on the Run: Hero" (a huge hero sandwich being carried out of a sandwich shop) and "Rita on the Run: Pizza" (Rita eating a pizza).

Most types of verbal humor, however, do not seem to elicit any



indications that children either understood the humor involved or found it funny. Puns and nonsequiturs frequently employed in Fargo, Wild Guess, and Movie Set do not evoke any noticeable, overt response, either laughter or comments about the joke. Bits which did evoke a humorous response to verbal gags include Lorelei's pronunciation of "cough" and "wolf man," "fe-fi-fo-fum," and "how, now, brown cow." Viewers, then, did find certain types of word play enjoyable and fun to recite, but these elements, unlike nonsequiturs and plays on words, are better described as "plays with words," words that are fun to say (liniment, fe-fi-fo-fum) or funny characters giving funny renditions of words.

3. Discussion of bits appearing on both high- and low-response lists

In this section, several explanations will be offered for those bits which received both high and low responses on different occasions. Part of the answer, of course, lies in the different preferences of different viewers; some like Fargo, some don't.

A great portion of the difference can be explained by previously-discussed attributes -- viewing conditions which were specific to each particular sketch of a program episode.

Pre-viewing reinforcement activities can, as noted earlier, direct recitation to certain words and phrases which probably would not have been recited, because children needed either help in decoding print or practice in scanning for context clues. The effect of using "liniment" in a Bingo game was clearly present during Lorelei's "rub your leg with liniment" segment, and verbal response to "Fargo: The Key is Under the Doormat" benefitted from practice in deciphering that and other Fargo messages prior to viewing.

The presence of high-interest words improved the verbal response.

to a Graffiti Wall episode using the sentence, "Bob's stupid," and to the Lorelei bit mentioning "the wolfman."

As for "Theater in the Dark," it appears that the differential response, rather than being attributable to specific program material, was produced by a helping response initiated by several viewers who liked to recite the speech balloons. Other viewers in the group who did not usually recite to "Theater in the Dark" chimed in after the first few balloons had appeared. Similar snowballing effects often were noted during "Love of Chair."

It seems plausible that the verbal response to the same segments might be differentially affected by the response to preceding bits. This effect, at least in this study, was difficult to perceive; it was difficult, by our methods, to pinpoint or isolate this effect from other more powerful and salient factors of the viewing condition or program material of the bits in question.

C. Some Comments, Hunches, Recommendations

Some adults who had worked closely with these children voiced an opinion that "The Electric Company" may have gone a bit too 'electric' by resorting to visual tricks to hold children's attention rather than forming a closer, more genuine bond between children and programs. It was suggested that a more explicit attempt could be made to portray friendliness, gaiety, and unity between characters, both within and between individual sketches.

Our observations indicate that in several cases, viewers responded favorably to and would like to see more "warmth" in the program. "Vi's Diner" is a curious segment in this respect; children watch it very closely without much overt response and seem to enjoy the Diner's atmosphere as a meeting place for different adult and younger characters. In discussing the program, viewers sometimes asked if Vi's Diner was next to Fargo's office and if Crank's calls to different people meant that they all knew each other.



Viewers also smiled at and enjoyed the camaraderie and togetherness of the segment in which Easy Reader receives presents from the rest of the cast members on his birthday.

Like all research studies, this one cannot avoid the conclusion that what is needed is more research, in this case, more research on the habits, preferences, and emotions of seven- to ten-year-olds. Our low response attributes suggest that while "The Electric Company" may have carefully targeted its curriculum to treat the reading abilities of seven- to ten-year-olds, it may have neglected to examine as carefully the comprehensibility and attractiveness of the program segments for seven- to ten-year-olds. A renewed attempt to speak more directly to the target-age viewer can improve upon the already joyous and enthusiastic response which children give to "The Electric Company."

<p>(SHOW # 46) Verbatim:</p>	<p>Message Man: Not Safe for Swimming</p>	<p>&lt; V.O.</p>	<p>&gt; V.D.</p>	<p>&lt; Print Comm. re Print</p>	<p>Comm. re Story</p>	<p>Songs</p>	<p>Irr.</p>
	<p>not safe not safe for swimming</p>						
	<p>no swimming, right Harvey? No swimming. It means not safe for swimming and you better not swim or you might get hurt.</p>						
	<p>Oh, trash! (laughing)</p>						
	<p>no swimming; no swimming Look what's going on! And the tide came over him and . . .</p>						
	<p>Cosby and Lorelei: Little Red Riding Hood</p>						
	<p>I'm on my way to grandmother's house</p>						
	<p>(laughing); Will I meet the Wolfman? (laughing); meet the Wolfman. I hop not.</p>						
	<p>(laughing) Will I meet the Wolfman? I'm on my way . . .</p>						

*Children's Television Workshop*

DATE: August 8, 1972

TO: Ed Palmer, Vivian Horner, Barbara Fowles, Sam Gibbon

CC:

FROM: Milt Chen

SUBJECT: A Spectrum of Reactions of Viewers to "The Electric Company"

Below is a list of motor and verbal behavior exhibited by seven and eight year old viewers of "The Electric Company". Verbalization may be going on at several different volume levels: shouting, normal speech tones, whispering, and inaudible mouthing of words. Also, one should keep in mind that recitation of words appearing in print on screen does not actually infer an ability to read those words; I have encountered seven-year-olds who freely recite words which also appear in print after the voice-over, but who cannot read.

1. Correctly pronouncing words appearing in print on screen, before, with, and after voice-over.
2. Mispronouncing words appearing in print on screen (e.g. "giant" with a hard "g").
3. Misreading words appearing in print on screen (e.g. taking "giant" to be "great").
4. Pronouncing part of a word (beginning digraph or first syllables) without proceeding to a complete pronunciation of the word.
5. Reciting a cluster of words, only some of which appear on the screen as print (e.g. in the film "Myrna", both the possessive "Myrna's" and the object possessed are spoken, although only the word "Myrna's" appears in print. To capitalize upon this behavior, perhaps both the possessive and the object possessed should appear in print.)
6. Anticipating words and letters before their appearance on screen (e.g. trying to guess monoliths)
7. After reciting a word, reciting off a group of words which rhyme (e.g. "sax; tax, max, wax")
8. Singing along with all or parts of a song, using the show's lyrics or a reasonable, intelligible facsimile.
9. Supplying unintelligible lyrics in an effort to sing along with songs (I have a tape of one fellow snorting to "Ho-Ho-Hi".)

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10. Naming objects or characters appearing or about to appear on screen and whose names do not appear as print.
11. More lengthy comments concerning the appearance, subsequent actions, or attractiveness of characters; other comments relating to the story line of the bit.
12. Talking specifically to characters, encouraging them to do certain things (e.g. "You should have stepped back" to Message Man: step back!)
13. Verbatim repetition of words and passages recited by the voice-over
14. Adjusting one's voice quality in order to mimic a character's voice (e.g. Lorelei, Crank, Ken Roberts in "Love of Chair")
15. Answering questions posed by the voice-over (i.e. questions posed during "Love of Chair")
16. The proclamation that "I've seen this before!"
17. "Yummy" or "Yummy" at the sight of food (e.g. pizza, cakes)
18. Asking tutors and older people how certain words are pronounced, what they mean.
19. Getting up to write words on the blackboard (very infrequent)
20. Laughing, grinning
21. Cheering, booing
22. Expressions of mock horror
23. Snapping fingers, clapping hands
24. Dancing, swaying to music
25. Gesturing in reaction to words (e.g. holding hands to ears at "Boom!", giving peace sign after "Peace" bridge)
26. Writing in air with finger, almost exclusively during bits when words themselves are shown being printed out.
27. Pointing at words on screen while reading them

The above list is comprised of behaviors which seem to be relevant to or elicited by features of "The Electric Company"; of course, a host of other activities unrelated to the program go on as well:

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1. Looking around because attention is no longer held by the program.
2. Attention is actively distracted by other sounds in the room, other children talking during the show, doors opening and closing.
3. Conversation unrelated to the program, about friends, what is going to happen after the show, telling jokes.
4. Arguing, fighting with others.
5. Yawning, sneezing
6. Getting up to get a game to play with, to go outside and play (infrequent)

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1. Looking around because attention is no longer held by the program
2. Attention is actively distracted by other sounds in the room, other children talking during the show, doors opening and closing.
3. Conversation unrelated to the program, about friends, what is going to happen after the show, telling jokes.
4. Arguing, fighting with others.
5. Yawning, snoring
6. Getting up to get a game to play with, to go outside and play (infrequent)

BIT #	Child #1	Child # 2	Child # 3	OTHER
15. EB: shadow	shadow	shadow shadow shadow	shadow	
16. Shoot #1 (Lee, Morgan)		shoot shot shoot	shoot	
17. sh Sculptor	I like this one.  shhhhh short	shhhhh me too. shhhh	shhhh shy	
18. Shoot #2				
19. EB: abstract	I like that one.	Oh, they were great.		
20. Fargo and Winnie: open syllable	(mumbling)  I bet you get wet.	All of it. I bet you  I bet you get wet. Yeah, I bet you get wet.	I be you get wet.  I Bet you get wet. I bet that you, get wet.  I want you ... to get wet.	
script: What don't you understand?	I bet you get wet.  I bet you get wet.	you get wet! I bet you get wet.		
21. FW				
22. Song: I be you ge we	Oh, I like this. yeah! I like that one in the middle, in the right on the left. (tries to sing along)	the kids!  (tries to sing along)		



BIT #	Child #1	Child # 2	Child # 3	OTHER
<p>23. EB; you/me/we/wet</p>	<p>you you me you we wet, oh, wet</p>	<p>you you me  we wet Oh, it's gonna be raining.</p>		
<p>24. Fe, Fi, Fo Bit</p>	<p>fi fod  fe fi fo fun fe fi fo fun  They're supposed to say "fe fi fo fun", right, Mr. Chen?</p>	<p>fed fid fod fe, fi, fo, fun fi  fe fi fo fun fe fi fo fun I smell the fe fi fo fun fe fi fo fun I smell the blood of an Englishman.  fe fi fo fun</p>	<p>fi  fe fi fo fun  fe fi fo fun, I smell the blood of an Englishman.</p>	
<p>25. EB: abstract</p>				
<p>26. Film: Don't Shout</p>	<p>(mumbling) Don't</p>	<p>Don't Don't Don't  Don't shou... Don't shout.</p>	<p>Don't</p>	
<p>27. Song? Sneaver Song</p>	<p>I like this. If you put an o; I like it when they sing</p>	<p>I, they gonna sing again. If you get a shot, you will have a shot. (mumbles) clam chowder clam chowder</p>		



#	Child #1	Child # 2	Child # 3	OTHER
<p>me/we/wet</p> <p>Fi, Fo</p> <p>t</p> <p>EB: abstract</p> <p>Film: Don't Shout</p> <p>Song! Sneaver Song</p>	<p>you</p> <p>you me</p> <p>you</p> <p>we</p> <p>wet, oh, wet</p> <p>fi</p> <p>fod</p> <p>fe fi fo fum</p> <p>fe fi fo fum</p> <p>They're supposed to say "fe fi fo fum", right, Mr. Chen?</p> <p>(mumbling)</p> <p>Don't</p> <p>I like this.</p> <p>If you put an e; I like it when they sing</p>	<p>you</p> <p>you me</p> <p>we</p> <p>wet</p> <p>Oh, it's gonna be raining.</p> <p>fod</p> <p>fid</p> <p>fod</p> <p>fo, fi, fo, fum</p> <p>fi</p> <p>fe fi fo fum</p> <p>fe fi fo fum</p> <p>I smell the</p> <p>fe fi fo fum</p> <p>fe fi fo fum</p> <p>I smell the blood of an Englishman.</p> <p>fe fi fo fum</p> <p>Don't.</p> <p>Don't</p> <p>Don't</p> <p>Don't shou...</p> <p>Don't shout.</p> <p>I, they gonna sing again.</p> <p>If you get a shot, you will have a shot.</p> <p>(mumbles)</p> <p>clam chowder</p> <p>clam chowder</p>	<p>fi</p> <p>fe fi fo fum</p> <p>fe fi fo fum, I smell the blood of an Englishman.</p> <p>Don't</p>	<p>HER</p> <p>I like an hc</p>



BIT #	Child #1	Child # 2	Child # 3	OTHER
<p>1. Show Opening and I.D. #49</p>	<p>singing, and laughing show 49  show 49 Be quiet everybody you The Electric Company</p>	<p>singing and laughing  show 49 show 49 you</p>	<p>show 49   ah, uh</p>	<p>✓</p>
<p>2. Reversal Blending: short sound of u</p>	<p>tubby, that's a fatso tub; what's his name is tub; but; but; but; but; but;  tubut  but; but I go on the bus, Mr. Chen sobuh sob</p>	<p>tub   but  be quiet</p>	<p>tub   but bus  P;P</p>	
<p>3. EB: pup/up</p>	<p>puh uhhhh  puh pub; pub; pub</p>	<p>P I hate Peter</p>	<p>pup; pup; pup</p>	
<p>4. Film: Groggy Froggy: pup/cup</p>	<p>the Groggy Froggy wake up!  cup</p>	<p>grogg</p>	<p>puh-up; puh-up  cup it; cup  pup; cup wake up; froggy froggy, wake up, froggy</p>	

BIT #	Child #1	Child # 2	Child # 3	OTHER
5. In His Cups: short u blending	<p>sup</p> <p>sup Oh, goody! Say y</p> <p>sub</p>	<p>Be quiet cup cup Ohhh, he's fixing that cup</p> <p>sub subway</p>	<p>No, you may not cup</p> <p>sup</p>	
6. Message Man: duck	<p>duck</p>	<p>a duck I hate Peter</p>	<p>duck duck suck duck this is what duck's supposed to be</p>	
7. Man on the Street: cluck	<p>cluck luk; luk; luk cluck The word is cluck</p>		<p>chicken pox</p>	
8. Film: Groggy Froggy; sucker/ ducker	<p>Groggy Groggy</p>	<p>Grog-Erog Froggy.</p>	<p>Grah-Frah</p>	
9. Judy's Wigs: light/lighter	<p>Oh, she's gonna try You like that one You like that one</p> <p>I like the last two ones - especially with the last one</p>	<p>No, I don't that</p> <p>I think the last one's better</p>		



Child #1	Child # 2	Child # 3	OTHER	OTHER
<p>sup</p> <p>sup</p> <p>Oh, goody!</p> <p>Say y</p> <p>sub</p> <p>duck</p> <p>cluck</p> <p>luk; luk; luk</p> <p>cluck</p> <p>The word is cluck</p> <p>Groggy Groggy</p> <p>Oh, she's gonna try</p> <p>You like that one</p> <p>You like that one</p> <p>I like the last two</p> <p>ones - especially</p> <p>with the last one</p>	<p>Be quiet</p> <p>cup</p> <p>cup</p> <p>Ohhh, he's fixing</p> <p>that cup</p> <p>sub</p> <p>subway</p> <p>a duck</p> <p>I hate Peter</p> <p>Grog-Erog</p> <p>Froggy</p> <p>No, I don't</p> <p>that</p> <p>I think the last</p> <p>one's better</p>	<p>No, you may not</p> <p>cup</p> <p>sup</p> <p>duck</p> <p>duck</p> <p>suck</p> <p>duck</p> <p>this is what</p> <p>duck's supposed</p> <p>to be</p> <p>chicken pox</p> <p>Grah-Frah</p>		

Child #1	Child # 2	Child # 3	OTHER	OTHER
<p>sup</p> <p>sup</p> <p>Oh, gooly!</p> <p>Say y</p> <p>sub</p> <p>duck</p> <p>cluck</p> <p>luk; luk; luk</p> <p>cluck</p> <p>The word is cluh</p> <p>Groggy Groggy</p> <p>Oh, she's gonna try</p> <p>You like that one</p> <p>You like that one</p> <p>I like the last two</p> <p>ones - especially</p> <p>with the last one</p>	<p>Be quiet</p> <p>cup</p> <p>cup</p> <p>Ohhh, he's fixing</p> <p>that cup</p> <p>sub</p> <p>subway</p> <p>a duck</p> <p>I hate Peter</p> <p>Grog-Erog</p> <p>Froggy</p> <p>No, I don't</p> <p>that</p> <p>I think the last</p> <p>one's better</p>	<p>No, you may not</p> <p>cup</p> <p>sup</p> <p>duck</p> <p>duck</p> <p>suck</p> <p>duck</p> <p>this is what</p> <p>duck's supposed</p> <p>to be</p> <p>chicken pox</p> <p>Grah-Frah</p>		