

TRAINING DESCRIPTIVE COMMUNICATION SKILLS IN  
EDUCABLY MENTALLY HANDICAPPED PRE-ADOLESCENTS

by

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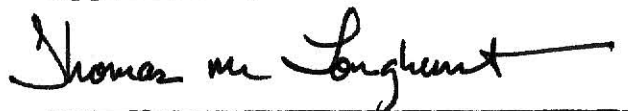
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## INTRODUCTION

Most elementary school children enjoy playing word games (Twenty Questions, I'm Thinking of an Object . . . , etc.) and activities like Show and Tell. In each of these the child is required to provide information which will lead to an object's identity or give it an accurate description.

In order to successfully join a word game a child needs both conceptual and socio-linguistic skills. But as Muma (1975) has stated, by the age of eight, children "have essentially acquired the grammatical and referential machinery of their linguistic community. However, they are not very adept at using this machinery." Language-based games are therefore developmentally important for they are precursors to, and practice for, the more sophisticated communication interaction that will come later.

Most preschool teachers experience daily the ordinary "Show and Tell" presentation by a kindergartner: "I play with this. My mom bought it for me. I like it." There is generally a good deal of subjective and associative material in such presentations, but very little objective descriptive information about the item itself. Much of Piaget's (1926) work suggests that this early egocentrism of a child

decreases as the child develops cognitively. This decrease in egocentrism is partially a result of the development of a role-taking ability (Flavell, et al., 1968).

There have been numerous studies which support the thesis that if a child is unable to take into account the listener's abilities and limitations by putting himself in the role of the listener, there will likely be a barrier in the communication circuit (Flavell, 1966; Flavell, et al., 1968).

Thus one important aspect of the role-taking skill is the speaker's on-going language adjustment in a speaker-listener relationship. Several studies have tested the communication skills of a speaker when the listener is either younger, older or the same age (Shatz and Gelman, 1973; Andersen and Johnson, 1973). It appears from these studies that children do somewhat modify their language to be more appropriate for various listeners. The listener by this evidence is a vital component of communication.

However important role-taking is in the word games, in order to play well a child must also know a good deal about certain kinds of concepts. In order to provide an appropriate set of descriptions for elephant in the game, "I'm thinking of an object ...", a child would have to know how to apply (among others) the concepts of size, shape, color, function and classification. Some children erroneously think elephants are only from zoos or are as big as their fathers. Often such conceptualizations reflect early egocentrism, and as

children develop conceptually they are able to provide more accurate suitable descriptive data.

It is clear that communication is not just one dimensional. A child needs a myriad of abilities in order to successfully participate in communication tasks, even with simple childhood guessing games. He is required to understand and apply linguistic rules, know concepts and relations, take into account his listener's limitations and utilize feedback during the communication process.

The ability to communicate effectively is crucial if one is to be integrated into society. Yet it is a common observation by speech/language clinicians that children with language problems have a poor ability to describe certain objects. Retarded children, especially, have a great deal of difficulty in this regard.

Because of problems noted during the administration of the Verbal Expression subtest from the Illinois Test of Psycholinguistic Abilities which requires a child to describe five objects, a language intervention project was conducted by the present investigator.

The project involved five children from an educably mentally handicapped classroom. Principles outlined by McCaffrey (1976, 1977) served as the basis for the language training program. He feels a language program should be purposeful and practical to the individual, and because language is functional it should not be presented in only one

context but in a variety of contexts. Furthermore, rather than have training limited to just a student-teacher relationship, other students should be allowed to participate, serve as models, exchange roles and provide feedback. Also, the clinician should become a modifier of the language rather than an overseer. The tasks should also be flexible, geared to the needs of the child and integrated into his everyday communicative system. Some specific intervention techniques were derived from Muma (1975, 1978) and Longhurst and Reichle (1975).

The purpose of the present investigation was to see if the object descriptions provided by the five subjects would improve following an intervention program patterned after these principles.

## METHOD

### Subjects

Five students from an educably mentally handicapped classroom served as subjects. There were four males and one female ranging in chronological age from 9-4 to 12-3 years with a mean of 11-3 years. The Peabody Picture Vocabulary Test (Dunn, 1959) was administered to the subjects. Their mental ages ranged between 7-9 and 10-2 with a mean of 8-8.

### Procedures

A pre-test was individually administered in a 5' x 10' special reading room to the five subjects. Ten items were

selected as the pre- and post-test items. Five of these were from the Illinois Test of Psycholinguistic Abilities Verbal Expression subtest (nail, ball, button, envelope and block) and five were additional common items found in the subjects' environment (scissors, sock, fork, key and pencil). All of the objects were selected because they are common household items which most children can be expected to have seen or handled. Five objects out of the ten were randomly chosen for the pre-test (envelope, block, button, key and pencil) and the other five were used during the post-test (sock, fork, scissors, ball and nail).

The following instructions were presented verbally to the subjects by the experimenter: There is an object in each one of these cans. I am going to turn my chair around so I will not be able to see what is in the can. I want you to open the can, pick out the object, and without telling me its name, describe it to me so I might be able to guess what it is. I will then give you another can with another object in it. You are to describe that object and then continue until you describe the objects in all of the cans. The objects presented to the five subjects varied in order according to a latin square design.

Each session was tape recorded. All of the descriptions were later transcribed exactly as they were given by the subjects. A clean transcript excluding specific naming of the objects, grammatical reformulations and nonfluencies was then prepared.

There was a total of 25 descriptions provided by the five subjects. These descriptions were randomized and separated into five sets of objects, five descriptions per set. A set of descriptions could, therefore, include five different objects but not necessarily five different describers. A set of directions plus the five descriptions followed by a blank were typed, duplicated, and presented to a group of college students in basic public speaking classes who served as "naive judges." The judges were requested to write down what they thought was being described.

### Intervention

A five day intervention program was carried out by the experimenter in the educably mentally handicapped classroom. The experimenter worked with all five of the subjects for a 30 minute period each day. On the first day the subjects took turns being encoders and decoders. Animal pictures from the Peabody Articulation Deck served as stimulus objects. Two subjects sat back to back at desks and each had an identical set of five different animal pictures displayed in front of him. The encoder had to select one animal and describe it using three clues. The decoder was to guess the identity of the animal based on the information given by the encoder. The experimenter and subjects discussed why some descriptions were more appropriate or better than others. For example, which piece of information provides a more descriptive clue for cow, "four legged", "gives milk", or we have one at home?"

On day two the same procedure was used as on day one except food cards from the Peabody Articulation Deck served as stimuli. There was also a review since on the first day two of the subjects were absent.

During day three the experimenter talked to the subjects about categorizing and classifying objects, animals and places. An orange was presented to one of the subjects, who was instructed to tell the other members in the class something about it. The orange was then passed to another subject, who added another attribute, and so on to the rest of the group. The descriptions included: "orange," "round," "like a baseball," and "you can eat it." These were written down on the blackboard under general headings: shape, color, function, comparison and size. After this procedure each subject drew a card out of a can and described it according to the various categories listed on the blackboard. The other subjects served as the audience and guessed the objects.

On day four the format was changed to the game of "Twenty Questions." Each subject took turns selecting a card picturing an object, an animal or an edible item. The other subjects became the inquisitors, each asking questions about the item in an attempt to pinpoint its identity.

Day five was spent reviewing various ways in which one can describe objects, animals and places. The experimenter then began describing a certain item and, after each clue, asked the subjects if they knew what it was. When one of the

subjects guessed the identity a discussion was initiated about which clue or combination of clues provided the necessary information. The subjects described a number of real objects to practice their newly learned skills.

### Post-Test

During the following week, a post-test was given to each of the subjects. Another set of five common objects was presented to the subjects in the exact same manner as during the pre-test. The same room, tin containers and set of instructions were used as in the pre-test. Again, the descriptions were recorded, transcribed, and duplicated with the same set of instructions as on the pre-test descriptions. These were given to an entirely different group of college students who also served as "naive judges". The results were recorded and analyzed.

### Data Analysis

A total of 25 descriptions were collected from the five subjects for both a pre-test and post-test. The descriptions were randomized five per page, but not necessarily five different subjects per page. There were five typed sheets with descriptions, each duplicated 16 times. Seventy-nine college students who served as "naive judges" responded to the questionnaire on the pre-test and a different group of 80 students on the post-test.

The answers were tabulated and scored in the following

manner: a correct response consisted of either the exact naming of the object ("pencil", "envelope", "block", "button", "key", "scissors", "sock", "nail", "ball", and "fork") or variations such as "jacks ball", "shears", "rubber ball", "finishing nail", "shingle nail", "master key" and "super ball". An incorrect response was regarded as a completely different object named, an empty blank or an answer which was considered at gross variance with the object. The number of correct and incorrect responses were totaled for the pre-test and the post-test. The correct and incorrect responses for each subject were also computed for both the pre-test and post-test.

## RESULTS

Table 1 shows the percentage of correct responses out of 395 from the 79 judges during the pre-test, which was 30.6. On the post-test, 400 responses were collected from 80 judges with 73.7 percent correct for the mean. A paired t test (Ferguson, 1966, p. 169) was used to compare these means. They were significantly different ( $t=7.73$ ,  $df=4$ ,  $p=.0015$ ).

Each subject showed an increase in the number of descriptions judged correctly between the pre-test and post-test. The differences between the two tests ranged from 24 percent to 53.6 percent, with an average overall for the five subjects of 43.1 percent.

TABLE 1

Mean Pre-Test and Post-Test Percent Correct and Difference  
for the Five Subjects

Subject	Pre-Test	Post-Test	Difference
1	67.0	91.0	24.0
2	26.6	78.8	52.2
3	26.6	63.8	37.2
4	25.3	73.8	48.5
5	76.0	61.3	53.6
Total Mean	30.6	73.7	43.1

**THIS BOOK  
CONTAINS  
NUMEROUS PAGES  
WITH THE ORIGINAL  
PRINTING BEING  
SKEWED  
DIFFERENTLY FROM  
THE TOP OF THE  
PAGE TO THE  
BOTTOM.**

**THIS IS AS RECEIVED  
FROM THE  
CUSTOMER.**

## DISCUSSION

This study reports on an intervention program designed to train five children from an educably mentally handicapped classroom to describe objects in a way that would result in more accurate identifications by listeners. Post-training scores were considerably higher and significantly different from pre-training scores.

The subjects' post-training descriptions were not necessarily longer than those in pre-training. In fact, in some cases they were shorter. But the subjects did improve in describing characteristics which were more salient to the listener. Although a linguistic analysis was not made, a few comments can be made about some of the subjects' descriptions. In the pre-test many descriptions pointed to certain features of the items, but they were very general and could apply equally to many other objects. The following is an example of a description of a key: "It's short and has little hole in it; kind of round and has little swirly things; it has kind of a long thing and it's metal." While this provides a lengthy discourse about the object, it is too vague and lacks specific information.

Other examples include: "It's round; got two holes" (a button). "It's long" and "something big and it's white" (an envelope). "It's square and it's green" and "it's square; it's got four corners; it's green" (a toy block).

Examples from the post-test include the following:  
"You can eat with it" (a fork); "This you can cut paper with it" (scissors); "You can pound them into boards" and "You can hammer it in" (a nail); "It's blue and you wear them with your shoes" (a sock); "Round, different color, you can bounce it, play catch with it" (a ball). These descriptions are more accurate and applicable to the particular object.

The intervention program was based on principles outlined by McCaffrey (1976, 1977), which were briefly discussed in the introduction. He states that communication-based curricula should be based on the following guidelines.

First, the communicative process should be organic, i.e., intervention should deal with components as they are naturally integrated into a functional linguistic system. The subjects in the current study were applying concepts in relationship to a series of items. They also had to consider how others perceived their descriptions. This method is more organic than, for example, using flashcards and having children name the colors, shapes and sizes.

Second, intervention must be human, people interacting with each other. Working with a group of children as in this program is much more stimulating for the participants and generates a greater range of communication activity. Observing children interacting with each other during communication activities can reveal much more information than in a one-to-one therapy session. A child has many more opportunities for interaction at a variety of levels.

Third, modeling is a viable teaching technique. It was observed that some of the lower functioning students would use the concepts introduced by the previous describer. One child, for example, described a cow saying it had, "Four legs, mooed and gave milk" and the next describer talked about a lamb and said it, "Had four legs, baaed, had wool on it." It appeared as though the children had learned from one another.

Fourth, practice is important. McCaffrey says language should be purposively used in a variety of ways so that it can more easily be available for future use. The children had the opportunity to describe objects, food items and animals. Sometimes picture stimuli were used and at other times the actual item which gave variety to the tasks. The procedures were also changed each day in order to avoid a drill-type approach.

Integrating 'talking' and 'listening' is McCaffrey's fifth principle. All five subjects had the opportunity to be both a listener and speaker throughout the program. During the "Twenty Questions" game the person who guessed the identity of the item was able to chose an object and answer the questions. Other times children chose a partner and while one described an object the other one guessed. Later the roles were reversed.

The sixth principle is match-up, which consists of providing activities that match the needs of the participants. The language material employed during the five day intervention

period was sufficiently flexible to meet the needs of the participants. On day one and two the children sat back to back with identical cards before them. Then one of them described a card. It was observed that this task was too simple for the children. It was altered to make it more challenging by lessening the degree of likeness between the objects or removing all of the cards.

Feedback and acceptance are the seventh and eighth principles. The group itself provided a great deal of verbal and visual feedback to the individual participants. The students would say, "Tell us more about the object", "That was too easy", "That was a dumb description". Positive feedback was encouraged by the teacher over negative feedback. Acceptance, according to McCaffrey, is the premise that utterances made in a natural context are made for a purpose and are to be accepted by the clinician rather than monitored. It is important to take note of feedback and interaction among the children because these utterances may afford some information about the language problems. Children would often incorrectly guess the identity of the object and by analyzing the answer, it was possible to pinpoint the area of confusion.

The ninth guideline involves the orientation of a program based on principles, processes and ideas, rather than on specific products. In other words, a part of speech is not taught in isolation but rather integrated into a

natural context in a variety of ways. An area that this program dealt with was the application of descriptive concepts. These were not discussed individually, but rather how they applied to a variety of objects in a number of different ways.

The last principle is child-task orientation, that is, providing learning situations which are child oriented, employ problem solving and help children rely on themselves and their peers. Children usually like games, especially guessing type activities. Although this program was a learning situation, it was centered around an enjoyable activity and all the children participated for the full 30 minutes each day.

There have been a number of communication games in recent years; the Barrier Game emanating from the work of Glucksberg and Krauss (1968) and Flavell, et al. (1968). This type of game has also been used with retarded children in studies by Longhurst (1974), and Longhurst and Berry (1975). And Muma (1978) discusses other such games; the Over-the-Shoulder Game, the 'Who' Game and the Add-on Game.

Communication is an extremely complex process involving successful interacting between speaker and listener. Training of communication skills should include such components as: listener-speaker relationships, role-taking skills, peer interaction, contextual setting and stimuli, all of which can be introduced in various ways.

The results of this research indicate that the intervention program used in this study was successful in improving certain

descriptive language skills in five children from an educably mentally handicapped classroom. However, since there were only five subjects it is not conclusive that this will be true for all programs. The principles used in this program should, however, aid in applying similar techniques in schools with children who are learning communicative-linguistic skills.

## SELECTED BIBLIOGRAPHY

- Andersen, E.S., and Johnson, C.E. Modifications in the speech of an eight-year old as a reflection of age of listener. Stanford Occasional Papers in Linguistics, Stanford, University, 1973.
- Dunn, L.M. Peabody Picture Vocabulary Test. Minnesota: American Guidance Service, 1959.
- Ferguson, G.A. Statistical analysis in psychology and education. New York: McGraw-Hill, 1966.
- Flavell, J.H. Role-taking and communication skills in children. Young Children, 1966, 1, 164-177.
- Flavell, J.H., Botkin, P.T., Fry, C.L., Wright, J.W., and Jarvis, P.E. The development of role-taking and communication skills in children. New York: Wiley, 1968.
- Glucksberg, S., and Krauss, R. What do people say after they have learned how to talk? Studies of the development of referential communication. Merrill-Palmer Quarterly Behavior and Development, 1967, 13, 309-316.
- Longhurst, T. Communication in retarded adolescents: Sex and intelligence level. American Journal of Mental Deficiency, 1974, 78, 607-618.
- Longhurst, T., and Berry, G. Communication in retarded adolescents: Response to listener feedback. American Journal of Mental Deficiency, 1975, 80, 158-164.
- Longhurst, T., and Reichle, J. The applied communication game: A comment of Muma's communication game: Dump and play. Journal of Speech and Hearing Disorders, 1975, 40, 315-319.
- McCaffrey, A. Talking in the classroom: How can we teach children to use language? Paper presented at the Speech and Hearing Association Convention, New York, 1976.
- McCaffrey, A. Talking in class: A non-didactic approach to oral language in the elementary classroom. Quebec Francais, 1977, 25.
- Muma, J. The communication game: Dump and play. Journal of Speech and Hearing Disorders, 1975, 40, 296-309.

- Muma, J. Language handbook. New Jersey: Prentice-Hall, 1978.
- Piaget, J. The language and thought of the child. New York: Harcourt and Brace, 1926.
- Shatz, M., and Gelman, R. The development of communication skills: Modifications in the speech of young children as a function of listener. Monographs of the Society for Research in Child Development, 1973, 38 (5, Serial No. 152).

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## Abstract

### TRAINING DESCRIPTIVE COMMUNICATION SKILLS IN EDUCABLY MENTALLY HANDICAPPED PRE-ADOLESCENTS

An intervention program was developed to train descriptive communication skills in five students from an educably mentally handicapped classroom. A pre-test consisting of describing five common objects was administered individually to all five subjects. The descriptions were transcribed, randomized and typed on five separate pages with five descriptions per page. College students who served as "naive judges" wrote what object they thought was being described for each description.

The educably mentally handicapped students then participated in a five day classroom intervention program. Each day for 30 minutes the students played various communication games which incorporated role-taking, concept development and speaker-listener relationship awareness. Ten principles outlined by McCaffrey served as a guide for the structure of the program.

After the intervention period, a post-test was administered which consisted of describing five different common objects. These descriptions were also presented to another set of "naive judges". The number of correct responses between the pre-test and post-test were compared using a paired t test. The difference between the pre-test and post-test means was significant.

It was concluded that this intervention program was successful in improving the descriptive communication skills of the five educably mentally handicapped students. The relationship of this intervention program to the ten principles outlined by McCaffrey was discussed.