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FACILITATING SOCIALIZATION AND PROBLEM-SOLVING
SKILLS OF THE MULTIPLY HANDICAPPED CHILD THROUGH PLAY

by
Irene Ann DiGilio

A THESIS

Submitted in partial fulfillment of the requirements
of the Master of Arts Degree in the Graduate Division
of Rowan College of New Jersey
May 1996

Approved by

Professor

Date Approved 5/7/96

Abstract

Irene A. DiGilio

Facilitating Socialization and Problem-Solving Skills of the Multiply Handicapped Child Through Play

1996

Dr. S. Jay Kuder

Special Education

The purpose of this study was to study the implementation of a program for the multiply handicapped child to improve their social skills and problem-solving ability. The subjects in this study were three females, fourteen, twelve and eleven years old, and one thirteen year old male. The program began with all the subjects being pretested for five days on their ability to socialize and problem-solve. The study ran for ten weeks. The subjects

were part of a one hour daily intervention with the teacher modeling the desired behavior. Each of the subjects was familiar with the table/board games. Data on the subjects ability to socialize and problem-solve was then collected again at the end of the ten weeks . The data showed that three of the four subjects made progress in all areas. The fourth subject only made progress in one area of problem-solving. The data also showed that those subjects that came from middle-class families made more progress than those subjects that were on public assistants. The most significant event in this study was that everyone made progress in their ability to ask for help.

Mini Abstract

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Dr. S. Jay Kuder
Special Education

The purpose of this study was to study the implementation of a program for the multiply handicapped child to improve his/her ability to socialize and problem-solve. Analysis of this study showed that three of the four subjects made progress in all areas. The fourth subject made slight progress in the area of problem-solving.

Table of Contents

Chapter	Page
One: Statement of the Problem.....	1
Two: Review of the Literature.....	7
Three: Experimental Design.....	25
Four: Analysis of the Data.....	36
Figure 1	37
Figure 2.....	38
Figure 3.....	39
Figure 4.....	40
Figure 5.....	41
Figure 6.....	42
Figure 7.....	43
Figure 8.....	44
Five: Discussion and Conclusion	45
References.....	51

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To all the children who have entered into my classroom, Thank you for allowing me to educate, play games with and enjoy your company. I've had a wonderful time with all of you.

This project is dedicated to
Andrew Wallace.
Thank-you for sharing your ideas
with me. And teaching me how
children play.

Changing The World One Game At A Time?

I tried to teach my child with words
they passed them by often unheard

I tried to teach my child with books
s/he only gave me puzzled looks

Dispairingly I turned aside
"How shall I teach this child?" I cried

Into my hands s/he put the key
come s/he said, "play with me."

Author Unknown

Chapter One

Statement of the Problem

In the course of my teaching experience I've seen children who used to play group games with peers now opt to play computer generated games and never choose to play games with their peers. Computer generated characters have become the child's playmate. Children play against a machine, thus eliminating the social interaction required for playing with friends. This age of technology has caused many developmental skills to go unmastered. According to Wesby (1980), the following skills are enhanced through play (1) play increases availability of information; (2) play facilitates mastery of skills and concepts; (3) play uses intellectual operations, which leads to mountains of cognitive processes; and (4) play promotes creativity.

The more technological society becomes, the harder it is

to develop a solid background in these skills. Social skills begin to develop at a very young age through play. Play has a great effect on the development of interpersonal skills. Through play children learn problem-solving and socialization skills. They also experience completeness by starting an activity and seeing it through to its end. Hi-tech toys do not promote the development of these interpersonal skills like the traditional play activities will. Children are no longer involved with other children, their play has changed from group to solitary play.

With the increasing demands for the academic achievement, play has become the forgotten subject in schools. Extensive educational mandates as well as accountability have forced schools to adopt an attitude of all work and no play for all children.

It has been my experience that handicapped children need to develop their play skills in order to develop their social skills. Through play the child feels more confident in

his/her abilities to express him/herself. Most of the children I have encountered are willing to try to play a game. Through this play they can develop the skills needed to participate in our world. It is important to look toward the adult world that our children will enter and for which they will be responsible one day. One key facet will be their ability to problem-solve thoughtfully. These situations will occur with great frequency and do so now as children proceed through their social and academic routines.

The skills children need to competently handle these situations are referred to as social problem-solving skills. These skills involve (1) core thinking skills seen as essential for successful problem-solving such as the ability to understand signs of one's own and others' feeling, the ability to decide on one's goal and the ability to think in long and short term consequences and the consequences for both oneself and others; (2) a set of readiness or learning to learn skills, which include the main areas of increasing self-control and

building social skills for group participation and social awareness; and (3) the ability to apply problem-solving skills through academic and interpersonal situations that occur throughout the day. (Elias & Clabby, 1989).

According to Elias & Clabby (1989) problem-solving skills fall into two categories: readiness and problem-solving . The readiness area of this program consists of two areas, self-control and social awareness. Self-control involves the following: the ability to listen carefully and accurately, follow directions, concentrate and follow through on tasks, keep calm or calm down when upset, and carry on a conversation without upsetting or provoking others. The problem-solving area involves the following: the ability to share feelings and tasks as part of a group, team or class, accept praise or approval, choose praiseworthy and caring friends, know when he/she needs help, and ask for help when it's needed.

The purpose of this project is to develop and implement a program to enhance the problem-solving and

socializations skills for Multiply Handicapped (MH) children through play. The teacher will model desired behavior, provide practice and encourage peer interaction. This study will examine the following hypotheses: (1) play will improve the students ability to problem-solve and/or (2) play will improve the students ability to socialize. It is expected that both hypotheses will be proven. These will be evaluated in an effort to asses the child's ability to problem-solve and socialize.

For the purposes of this study, problem solving will be defined as following directions and asking for help as appropriate. Socialization is defined as responding appropriately to the initiation of covervation and taking-turns. MH shall be defined according to the New Jersey Administrative Code Title 6, Chapter 28 Special Education Law. MH means the presence of two or more educationally disabling conditions which interact in such a manner that programs designed for separate disabling conditions will not

meet the students educational needs. All evident educational disabilities shall be documented. Eligibility for speech and language services as defined by this code shall not be one of the disabling conditions which forms the basis of classification of the pupil as MH. Evaluations by all specialists required in this code for the separate disabling conditions being considered for the determination of MH are required. In this project a program will be developed and implemented using interactive play to teach the social skills and problem-solving. The program will include table/board games, cooperation games, and team sports. Play will be monitored through a pre/post problem-solving and socialization check list.

This instrument will assess the MH child's ability to problem-solve and socialize by considering their ability in these areas: taking-turns, responding to someone's questions, remembering and following directions and asking for help when needed.

Chapter 2

Statement of the Problem

Children's social skills exemplify the way in which they understand, think-through, and respond to problem-solving situations. Elias and Clabby have identified five main reasons for addressing social skills in children. (1) We all make numerous decisions dally. Think about our morning routine, there are dozens of decisions made every time we get up. (2) All problem-solving skills require a similar process, such as deciding whether or not to smoke or to eat vegetables. Decisions must be made. (3) Too many children do not learn to be effective problem-solvers. Children usually learn these skills through their relationships with teachers, parents, siblings, and relatives. However, these skills are not being learned thoroughly or well in today's culture. These learning gaps can mean the difference between a bright or a cloudy future. The consequences of the behavior of seeing what

happens or waiting for someone else to take care of the situation are too harmful for too many children. (4) Children need preparation for problem-solving under real life pressure. Serious problem-solving often has to occur under stressful conditions. At these times, thinking processes are readily disrupted. (5) Critical thinking skills are necessary for social and academic growth. Schools should explicitly teach at least one problem-solving process and should provide children with academic and real world examples for problem-solving (Association for Collaborative Teaching and Thinking, 1988).

Children need our help to promote and build the kinds of social skills that they need to function in society. Focusing on these skills promote competent social living, and helps children envision a pathway for themselves in the future despite present difficulties (Elias & Clabby 1989). Children need opportunities in which they can safely carry out skills, where they can experience others' responses and become aware of their own feelings. Play provides an important opportunity

to safely risk, test, and adjust one's behavior; at the same time it can improve one's ability (Torbert, 1994).

Many children with moderate mental retardation are unable to effectively interact with their peers. Important skills such as play, speech, language and communication are developed and maintained in the context of social settings. Therefore, designing an intervention to facilitate interaction of these children with their peers is an important aspect of educational programming. The trend toward placing disabled students with non-disabled students has placed emphasis on social skill because of the opportunities for interaction and skill development afforded by integrated environments (Gaylord-Ross, Strenel-Campbell, Storey, 1986).

Promoting socialization skills should prepare children with mental handicaps to socialize with peers in a wide range of settings. Integrated educational or developmental settings benefit them by placing them in close

proximity to and interaction with normally developing peers of similar ages (Bricker, 1978). Integrated mentally handicapped children will receive the benefit of seeing normal children, thus acquiring age-appropriate skills through observation and imitation of developmentally advanced or normal children within their classroom. Social and communication skills are enhanced through interaction which would occur naturally in the classroom setting (Guralnick, 1981; Hartup, 1983). Also, the association with advanced or normal children might help give the mentally handicapped children a "push" to try a little harder to acquire certain skills.

Most attempts to improve the social skills of children are usually done through adult-mediated strategies (Jenson, Sloane, and Young, 1988), although there is much evidence that indicates that peer-mediated intervention can efficiently and effectively foster social interaction (Shafer, Egel, and Neef, 1989). For example, research has shown that peers can be used to imitate and sustain social-interactions,

model necessary social skills, and provide differential reinforcement of performance patterns (Haring, Rogers, Lee, Breen, Gaylord-Ross, 1986; Peck, Apollini, Cooke, and Raver, 1978; Sasso and Rude, 1987; Strain, Shores, and Timm, 1977; Young and Kerr, 1979).

One factor hindering maintenance of social skills is that many children who are MH are unable to acquire and adopt skills to correspond to changes in the performance demands of a situation. For example, Lancioni (1982) noted when non-mentally retarded peers selected activities, the children with mental handicap were often times excluded from interaction because they did not develop the necessary skills needed to participate in the new activity. This limitation may be overcome by training peers to assist the children in developing the necessary skill to alter the performance demands of play activities to correspond to their skill levels.

Researchers have used a cooperative method with peer integration programs involving severely disabled and non-

disabled students and have found this to be more beneficial than a nonstructured condition (Cole, 1986). To promote socialization and problem-solving in special education or MH students positive results have been obtained through structured interaction through play. After structured play, students can move more easily to unstructured, free play.

Teaching specific skills to special needs children, training peers to be intervention agents, and applying various experimental conditions or behavior management programs are types of intervention strategies for socialization skills. (Marshall, Keating, McDonald and Snart, 1986; Goldstein and Fewell, 1987; Goldstein and Strain, 1988). There are various types of toy and play materials that have been identified as having some influence on social skills of children who are MH. Social toys will be defined as toys that engage children in communicative play. Social toys may serve to enhance social skills, whereas isolated toys may teach specific skills.

Play is a subject that is often ignored in schools,

even though many children don't know how to play. As children get better at playing, their social skills get better; through play they learn to master emotional traumas and disturbances. Play helps to develop ego and cognitive growth (Isenberg & Quisenberry, 1988). Play involves physical activity, which fosters the development and refinement of children's gross and fine motor skills and body awareness. Using their body in physical exercise, they refine and develop skills enabling them to feel able bodied and confident. Through play children develop feelings of belonging and identify themselves as part of a group (ACEI, 1988).

Play is defined as an activity engaged in for the purpose of enjoyment (Webster's, 1989). The following criteria helps to also define play. Play is intrinsically motivating (Fewell, 1988; Garvey, 1977; Piaget, 1962). It results in positive affect and is pleasurable and enjoyable (Fewell, 1988; Garvey, 1977; Sutton-Smith, 1979). Play is nonliteral, it involves fantasy (Huizinga, 1976; Sutton-

Smith,1979). Play is flexible, suspending ordinary rules (Piaget, 1962; Sutton-Smith, 1976). Play is voluntary and spontaneous (Fewell, 1988; Garvey, 1977; Huizinga, 1976; Piaget, 1962; Sutton-Smith, 1979).

Through play children of all ages socialize and feel like contributing members of their group. Play with others allows children to match their behaviors and take into account different viewpoints. Play provides experiences in areas children need to develop: social skills, handling exclusion and dominance, and the ability to share power, space, and ideas with others (Fein, 1986; Rubin & Howe, 1986; Rubin, Maioni & Hornung, 1976; Rubin, Watson & Jamboor, 1978).

Evidence suggests a strong relationship between play and standardized intelligence test scores (Lieberman, 1977). Other data points to improved planning skills, problem-solving ability, academic skill, attitudes, creativity, divergent thinking, perspective thinking, memory, and language development (Similansky, 1968; Sylva, Bruner, and Genova

1976; Pepler, 1982; Dansky, 1980; Burn and Brainerd, 1979; Saltz, Dixon Johnson, 1977; Levy, Schaefer, and Phelps, 1986). The relationship of play to cognitive development is an important one, because various levels of play can lead to more complex and sophisticated behaviors.

Piaget once wrote "Play is not wasted time, but rather time spent building knowledge from previous experiences." (1962). Play behaviors typical to a developmental age provide a useful framework for understanding children's play and providing environments that enable children to play appropriately.

How children play is also important. Infants and toddlers engage in activities that stimulate their senses and develop motor skills. They explore objects and their own capabilities through simple repetitious play. While infants play alone or with playthings, toddlers play beside, but not with another child. Two children may play with similar toys, although their activities are unrelated. They concentrate on

their own needs, reflecting egocentric behavior with no concept of rules.

Young preschoolers have no explicit goal, nor do they make an effort to establish rules. Older preschoolers can play and work together in an activity that produces some material product or goal. Preschool children like to build and create with objects, take on roles, and use props to replace original objects. They re-enact and change events to match their personal needs (Isenberg & Quisenberry, 1988).

Primary grade children play formal and informal games with their peers, for example: hopscotch, jump-rope, board games, cards, computer games and even create their own games. Riddles, number games, secret codes, and messages enable children to practice and demonstrate vocabulary and numbers (Sutton-Smith, 1980). This type of play enhances their coordination and physical prowess, refines their social skills, and builds concepts such as cooperation and competition (Elfermann, 1971; Elkind, 1981).

In early adolescence, children's play becomes more organized and structured including formal rules. Winning has now become important to them, and they begin to internalize that winning means following the rules. This is the age where team sport participation emerges. As children grow in social awareness, the focus of their world changes from the family and school to the peer group. Through role taking and play they will better understand how they will fit into the significance and structure of their society (Damon, 1983).

Children's play depends largely on the materials, equipment, and role models available to them. Young children need early exposure to both visual and auditory stimuli. They are interested in colors, sizes, shapes, and sounds. They enjoy table toys that help stimulate matching, ordering, and comparing. This type of play helps to stimulate language, vocabulary, and concept building (McKee, 1986). Young children play with these materials by grouping them according to size,color, form, and texture. Clay, sand, and mud give children

opportunity to explore changes in form as they mold the substance (Langstaff & Sproul,1979). Adding water allows the children to observe changes in the substance. Older children build and form more complex shapes. Children are interested in things that help them understand spatial concepts, such as puzzles and blocks. Cups, pans, and cans can be filled with sand or water to develop a sense of volume (ACEI, 1988).

Imitative play is important to children's development. Children need to be able to dress up and act like people they know and or people they would like to be. They should be given this opportunity. Equipment that encourages such play includes housekeeping, furniture, dolls, dress-up clothes, utensils, blocks, vehicles, carpentry equipment and musical instruments. The freedom to use paints, clay, water and other art materials encourages imitation as well as conversation and creative expression of ideas and understanding (Franberg, 1987; Singer, 1986).

Cognitive, social, linguistic, and physical

development are all demonstrated in children's play.

Nintendo enhances fine motor and spatial skills; a tea party with friends provides a child with practice with language and social skills; toy dinosaurs help the child figure out the difference between Triceratop and Stegosaurus (Feitelson & Ross, 1973); McCune-Nicolich, 1981).

Most educators focus on the end product of play. For example, when a child is playing with blocks, they might ask "What is he/she building?" Does it matter as long as the child finds that play is enjoyable? It's a behavior that they keep choosing to do, because it's pleasurable and a natural reinforcer. Play is a legitimate learning medium deserving of encouragement (Jobling & Li, 1983).

Early childhood educators consider play to be a critical component of developmentally appropriate programs for children (ACEI/Isenberg & Quisenberry, 1988). Special education on the other hand is heavily influenced by behavioral objectives and principles that emphasize intervention through

direct instructional approaches (Anastasiow, 1988). Special education also views play as a break from learning. Play itself is a skill that must be taught (Li, 1983; Widerstrom, 1986). Special educators often reject play as nondirective and haphazard (Widerstrom, 1983).

Brian-Sutton-Smith 1987, stated, "Play abounds with opportunities to try on powers, risks, deceptions, skills and sharing these with others. Those who play have a festive spirit in their lives". All children should have the opportunity to experience this type of pleasure and to the best of their ability engage in this very important task of learning by play.

Several studies have evaluated the effects of the training programs on the social interactions of the mentally retarded individuals. The results of some of the studies are listed below.

Eichenger (1990) compared the social interactions between disabled and the nondisabled elementary school peers as a function of the way tasks were structured: individualistic

goal-structured vs. cooperative. Eichenger found that the cooperative conditions were associated with more social interaction during activities but not during free play. The cooperative condition produced an increase in positive social affect, cooperative play and vocalization. There was no generalization of positive social behavior noted during free play.

Goldstein, Wickstrom (1986) trained non-handicapped preschoolers to facilitate interactions with language delayed peers during free play activities. They found that the intervention resulted in higher rates of interactions for each of the handicapped children which persisted post-treatment. Although a decrease in non social utterances was noted for 2/3 of the subjects.

James, Egel (1986) investigated the effects of a sibling training program consisting of direct prompting and modeling on the occurrences of reciprocal interaction between non handicapped and handicapped siblings. The results showed

that direct prompting increased reciprocal interactions; levels of imitations and responses increased; reciprocal interactions generalized to play groups and other settings.

Peck, Apolloni, Cooke, and Rover (1978) assessed the effects of direct peer imitation training between retarded and non retarded preschoolers in naturalistic, free play situations. They also assessed the generality of social behavior changes achieved through peer imitation training under free field conditions. The levels of imitative responding increases as a result of the training procedure.

There were gains shown for all subjects under the training and non training conditions. Positive rates of social interactions increased for 2/3 of the subjects following the training procedure. They concluded that educational environments should be engineered to allow retarded preschoolers to interact with and imitate their normally developing peers.

Anderson, Grossman and Finch's (1983) study

had four techniques to improve the social skills of the mentally retarded. The first technique was behavior modification, the second was a deliberate arrangement of tasks. The third was modeling of desired behavior, and the fourth was the control of environmental factors. They found that a systematically designed recreation program did not result in a significant increase in social interactions of mentally retarded adults. Also, social interactions increased in the treatment sessions, but did not generalize to unstructured settings. Anderson, Grossman and Finch determined that generalization would only occur if the environments are manipulated to reflect program elements.

Because of the social nature of our world, good communication and problem solving skills are necessary for our children to be successful. When children develop their play skills, it helps them to develop their socialization and problem solving skills that will help them through out life.

Through my study of play I will attempt to develop

the subjects socialization and problem- solving skills by using board games. These children will attempt to develop their socialization skills which for this study is (1) turn-taking (with and without prompts) and (2) responding to someone's question. Problem- solving is considered (1) remembering and following directions (one step and multi step) and (2) asking for help when needed.

Chapter 3

Experimental Design

The subjects for this study were four children ages 11-14 who attend a Special Services school district.

Subject A lives with her mother and father and two older brothers. Subject A was a high risk birth in that she was born approximately two months prematurely. Subject A was not expected to live past six months of age. Subject A has had major surgery on her eyes to correct the cross-eyed affect and orthopedic surgery to correct hip dislocation and to lengthen the hamstrings in her legs to provide more mobility, and has had her ankle tendons cut for more flexion.

Subject A was born approximately two months premature. Subject A suffered a cerebral hemorrhage at birth and at this time was diagnosed as having cerebral palsy. Subject A stayed in the hospital for one month following her birth and then was transferred to a local hospital near her

home for one week until feeding instructions could be given to her parents. Subject A's early development was severely delayed. Born with very weak muscle tone, she did not sit until two years of age independently. Readiness skills are delayed due to Subject A's poor attention span and distractibility. Subject A is out of the classroom frequently because she needs physical therapy, occupational therapy, and speech services.

Subject A is a thirteen year old young lady who is currently placed in the Special Services Middle School MH:Cognitive Program. Subject A is classified as MH:NI-OH-CH. Subject A lives in a home in the north section of Cape May, New Jersey.

Subject B's family is comprised of a mother and a younger sister. Presently residing in North Wildwood, New Jersey. The mother is a full time homemaker and they currently receive SSI benefits due to subject B's medical problems.

Subject B is a twelve year old young man who is currently placed in the Special Services Middle School MH: Cognitive Program. Subject B is Classified as MH:PI-CH.

Subject B suffers from severe scoliosis which has required corrective surgery when he was three years old. He was scheduled for further surgery, but his parents never took him. Subject B also suffers from asthma for which he receives medication on an as needed basis. Subject B also receives speech therapy twice a week for articulation problems.

Subject C is a ten year old young lady who is currently placed in a Special Services Middle School MH:Cognitive Program. Subject C is classified MH:PI-CH. Subject C 's family is comprised of her mother and herself. They reside in a house in which they rent in Villas, New Jersey. Subject C's mother receives welfare assistance and is currently an active DYFS case. Subject C's mother is also a graduate of a Special Services School District.

Subject C is significantly less mature than her peers.

Social interaction with school peers is of poor quality primarily due to her impulsive nature and inappropriate attention getting behaviors. Subject C has a very flat affect and does not show feelings easily. She is not tuned into other people's feelings. Subject C is very stubborn and displays a temper. Subject C has poor listening skills, and is fearless, and is prone to try anything.

Subject D is a twelve year old young lady enrolled in a Special Services Middle School MH:Cognitive Program. Subject D is classified MH:NI-OH. Subject D lives with her mother, stepfather, and two brothers, one older and one younger. Subject D has spina binifa leaving her in a wheelchair, which she self propels. She would benefit from a motorized wheelchair, as it takes great effort for her to propel her chair. Subject D needs to be catherized once during the school day.

All of the subjects attend a Special Services School District . A special services school allows for these

particular subjects to receive daily therapies in physical, occupational and speech therapy. The student to teacher ratio is ten to one, or no more than fifteen students with one teacher and a teacher's aide.

These subjects attend a special services school because of the smaller teacher to student ratio. The sending districts are unable to educate these children for many reasons; for instance, the financial burden would be too great and the support staff would not be available.

All of the subjects live in Cape May County a resort area in which the population is low during the winter months and very high during the summer months. Most of the subject's parents have seasonal jobs or depend on public assistance. With the exception of fishing, the area has no industry. There are also no high-tech medical facilities for the parents of medically involved children, they must leave the county to get the medical treatment necessary for their children.

The study will take place in a classroom

approximately 75 X 40 feet. This classroom has a full bathroom, a cooking area, a game room, and an academic setting for the classroom activities. Each subject has his/her own work area and access to any other area in the room.

The subjects were pretested on their ability to problem-solve; which is defined as, remembering and following directions and asking for help when needed. The subjects will also be tested on their ability to socialize. Socialization will be defined as responding to someone's questions and taking - turns.

Testing consisted of observation. The subjects were observed on their ability to socialize and to problem-solve during a structured play situation. The subjects then received a rating scale number to correspond with their ability to do the task. The rating scale numbers are #1-no response, #2- inappropriate response, #3- appropriate response, and #4- independent appropriate response. The scores from this observation checklist were then gathered for

a five pretest days and five posttest days. At the end of the ten weeks the data was collected again using the same observation checklist and the same rating scale to see if the subjects did make any improvement in their ability to problem-solve and socialize.

The subjects all participated in a one hour daily structured play setting . The subjects were given the choice of two board games, with which they were familiar and knew how to play. The games consisted of Candyland, Disney's Favorite, Rubux, Don't Break the Ice, S'gettie Scatter and Chutes and Ladders. The subjects were then monitored on their ability to problem solve and socialize. In the beginning the teacher would have to remind the subjects of whose turn it was. And sometimes actively participate in the game with the subjects. As time went on the subjects ability to increase their skills and play the game improved, allowing the teacher to reduce her intervention. The subjects were able to play more independently.

Chapter Four

Analysis of Data

The purpose of this project was to develop and implement a program to enhance the problem-solving and socialization skills for multiply handicapped (MH) children through play. The teacher modeled desired behavior, provided and encourage peer interaction.

In this study, problem-solving was defined as asking for help as appropriate and following directions. Socialization was defined as responding to someone's question appropriately and taking-turns.

Subject A made progress in all areas of socialization and problem-solving. In the beginning of the study subject A gave inappropriate responses when taking turns. For example, when asked whose turn it was, she would state "my turn", when it was someone else's turn. At the end of the study she was able to give appropriate responses when taking turns. For example,

when asked whose turn it was, she would say "it's Tina's turn". Subject A, also made progress in responding to someone's question with prompts, moving up to responding to someone's question without prompts. In the area of problem-solving, subject A was able to remember and follow one step directions. But the area where subject A made the most progress was to ask for help when needed. Subject A more than doubled her ability to ask for help (see figure 1). For example, when the study began, subject A would sit there when she did not know the answer to the question Whose turn is it? But, by the end of the study she would ask the teacher for help, by either saying "Could you help me?" or just say "help, please". This was also measured through observation.

Subject B made progress in all areas of socialization and problem-solving. At the beginning of the study subject B was able to take turns with prompts. For example, when asked whose turn it was, he was able to state "It's Tracy's turn". At the end of the study he was taking turns without

prompts. For example, he would say "it's Tina's turn". Subject B made progress in responding to someone's question with prompts. He moved from inappropriate response to appropriate response. When other questions were asked, like do we have enough time to play this game? Subject B would shout out "Who cares". In the area of problem-solving, Subject B made little progress in remembering and following one-step directions. For example, I would tell subject B to roll the dice and move your game piece the correct number of spaces. Subject B would roll the dice only. In the area of asking for help when needed, he doubled his score (see figure 2). For example, subject B would not ask for help in the beginning but, at the end he was asking for help in everything.

Subject C make progress in all areas of socialization and problem-solving. Subject C started with the ability to give inappropriate responses in the area of taking turns with prompts and by the end of the study was able to give appropriate responses of taking turns without prompts. For

example, she said "It's Leslie's turn" but really it was Tracy's turn. By the end of the study subject C figured out that the game went in a circle and everybody got a turn. Subject C also made progress in the area of responding to someone's question with prompts. For example, the teacher would say "If Tracy just took her turn, who would come next?" Subject C could answer the question. In the area of problem-solving progress was made in the area of remembering and following one step directions and asking for help when needed made the most progress (see Figure 3). For example, at the end of the study subject C could now remember to roll the dice and move her game piece. She could also remember to ask for help when needed, by stating "Help me, please".

Subject D made no progress in the area of socialization, and made progress only in the section of problem-solving, asking for help when needed (see Figure 4). For example, subject D was sometimes able to ask for help by stating "help please".

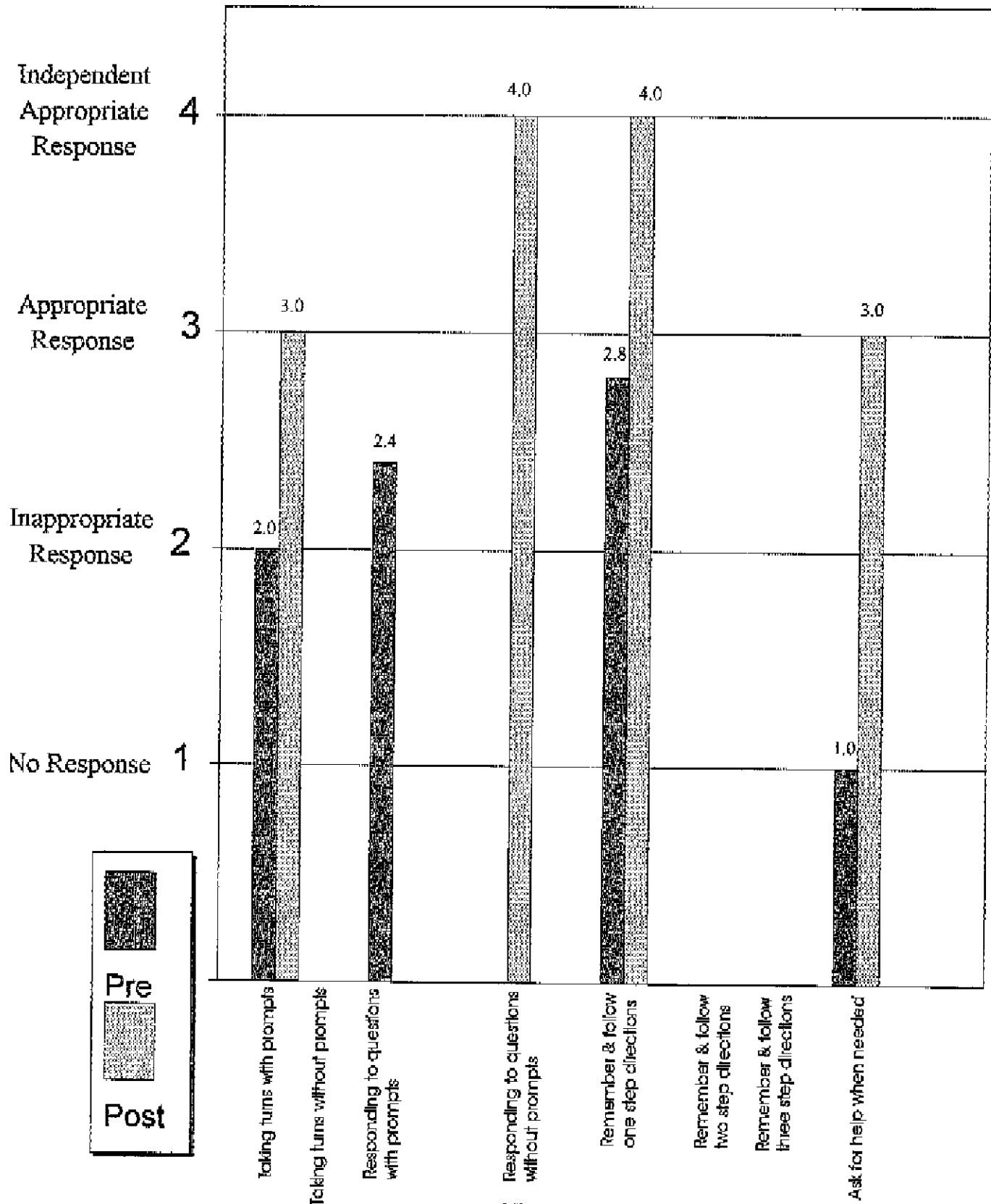
When comparing socio-economic status of the four subjects, those subjects who came from middle class families made progress in all areas of socialization and problem-solving. Those subjects who came from families with public assistance made some improvements in the areas of socialization and problem-solving, but not as much as those of the middle class. (see Figure 5 & 6).

When comparing gender of the subjects, the females made progress in all areas of socialization and problem solving, as did the male.

Overall, three of the four subjects made considerable progress in the program. One subject made only limited progress, but progress was still noted and there was no area of regression.

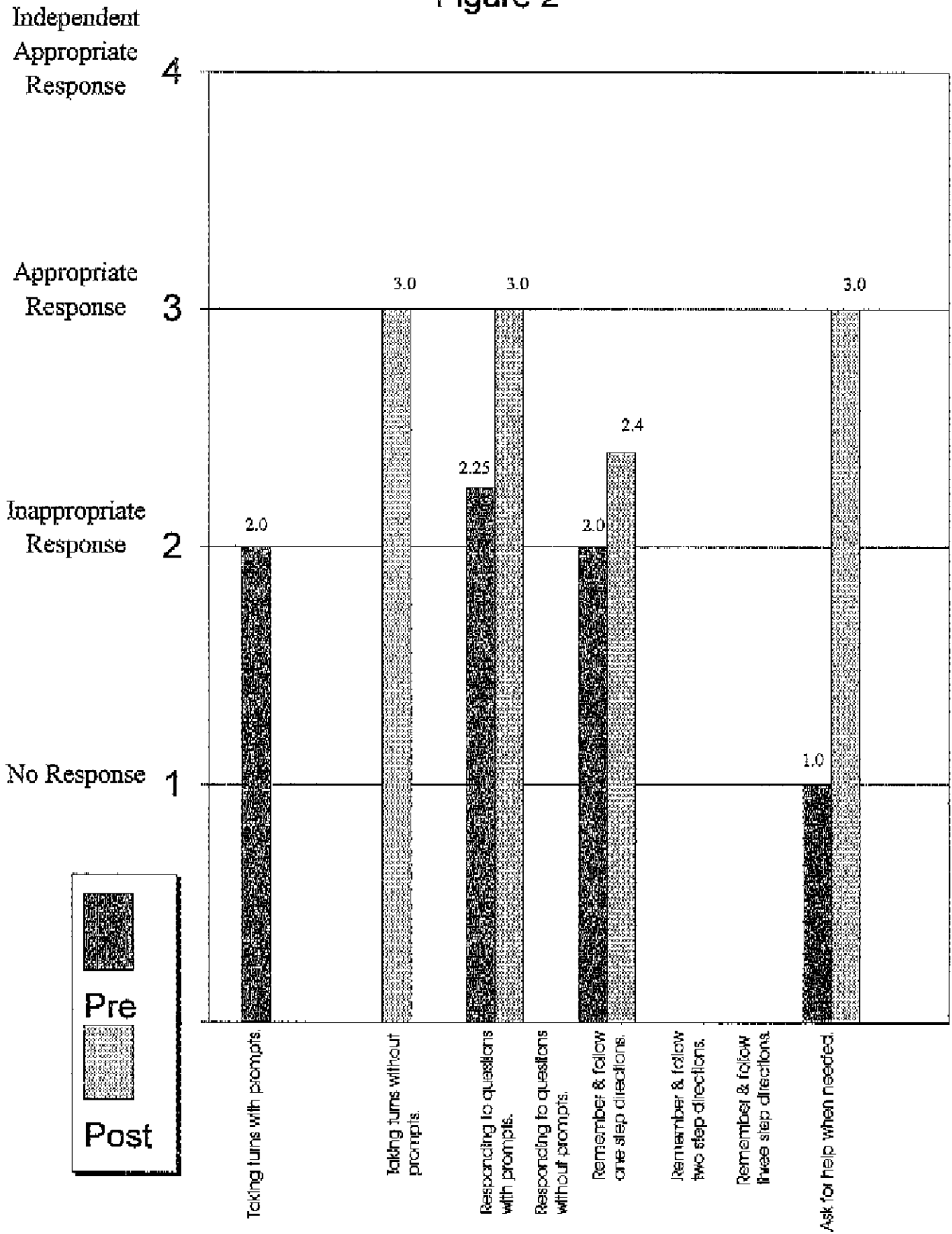
Subject A

Figure 1



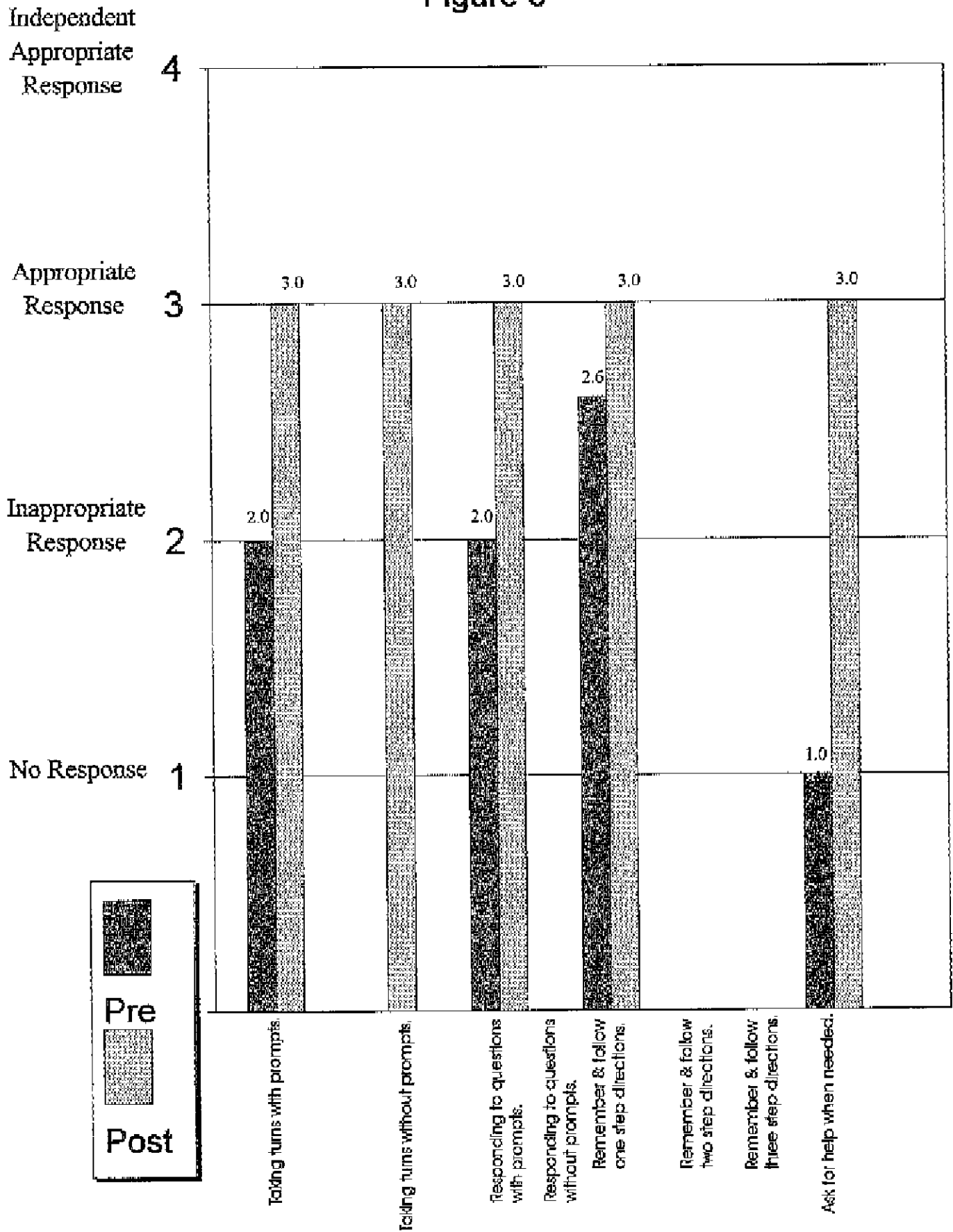
Subject B

Figure 2



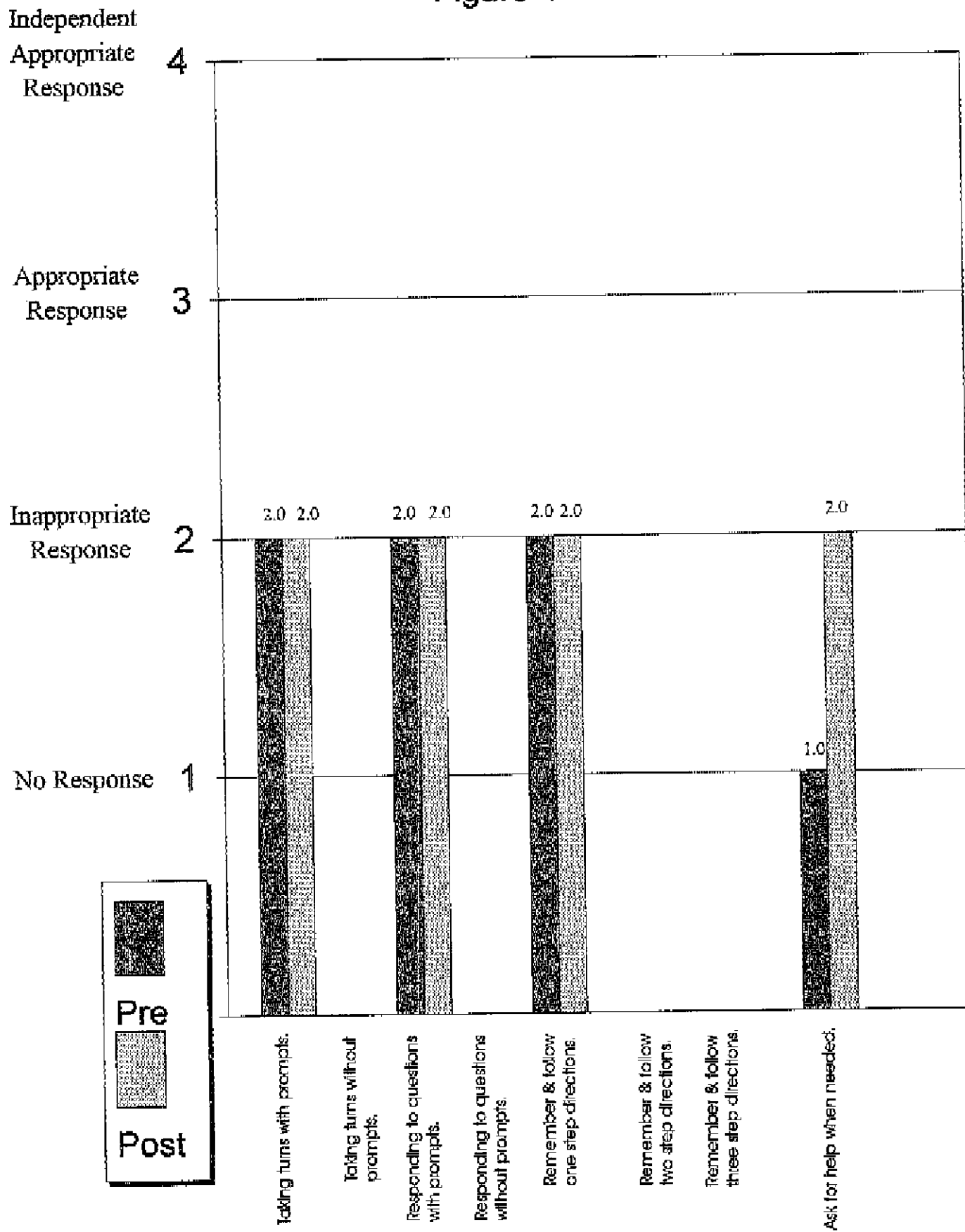
Subject C

Figure 3



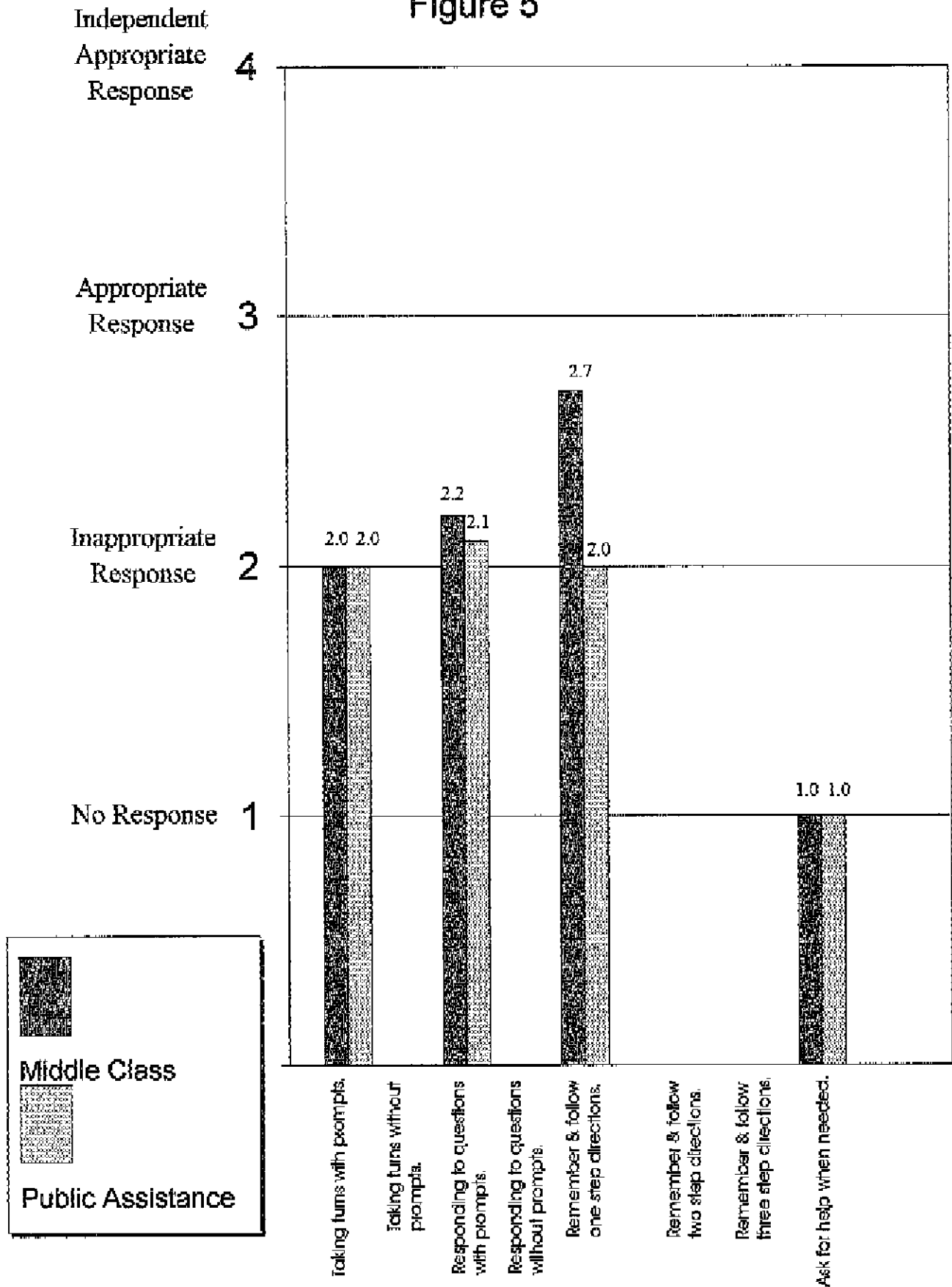
Subject D

Figure 4



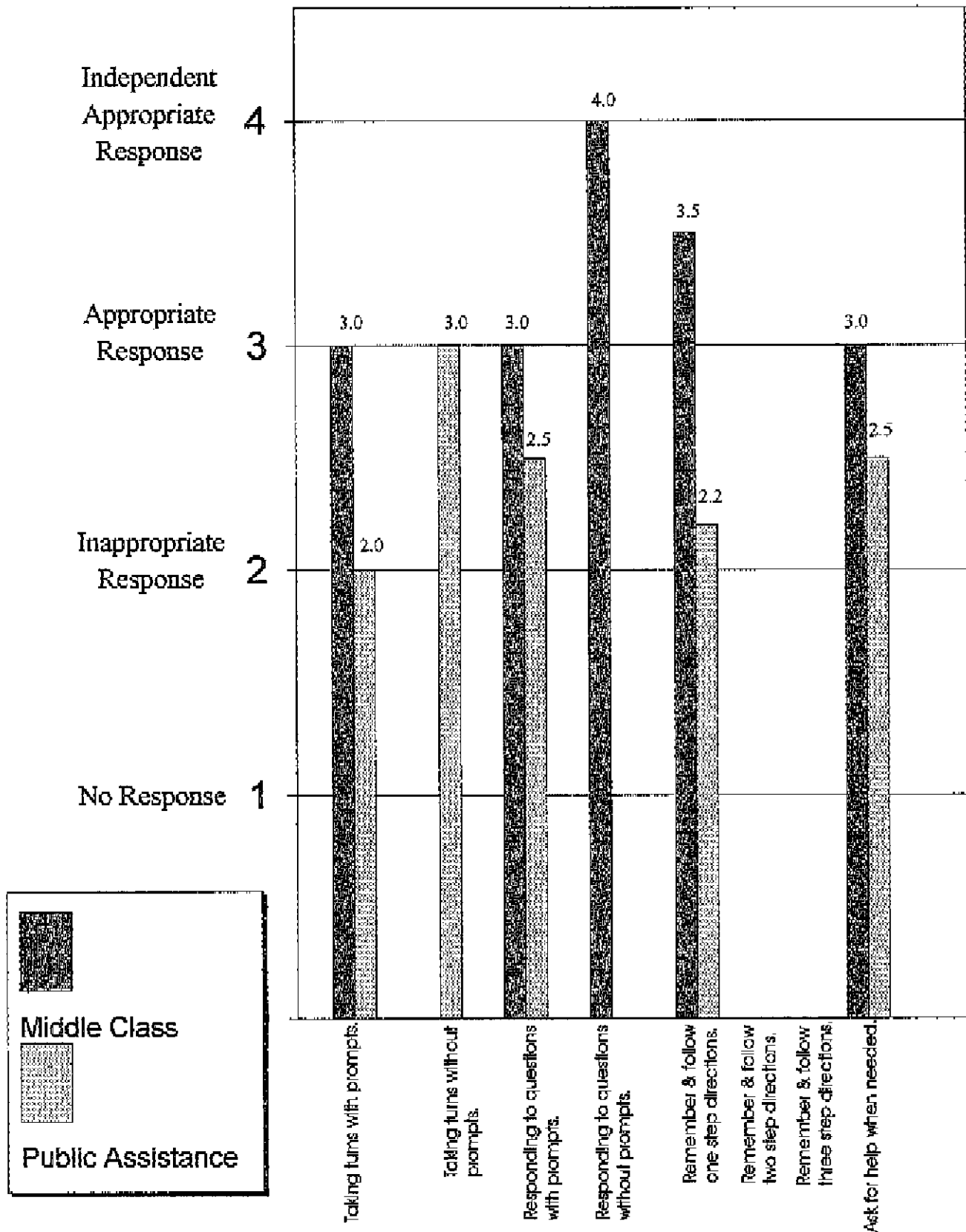
Social Economic Status Pre Test

Figure 5



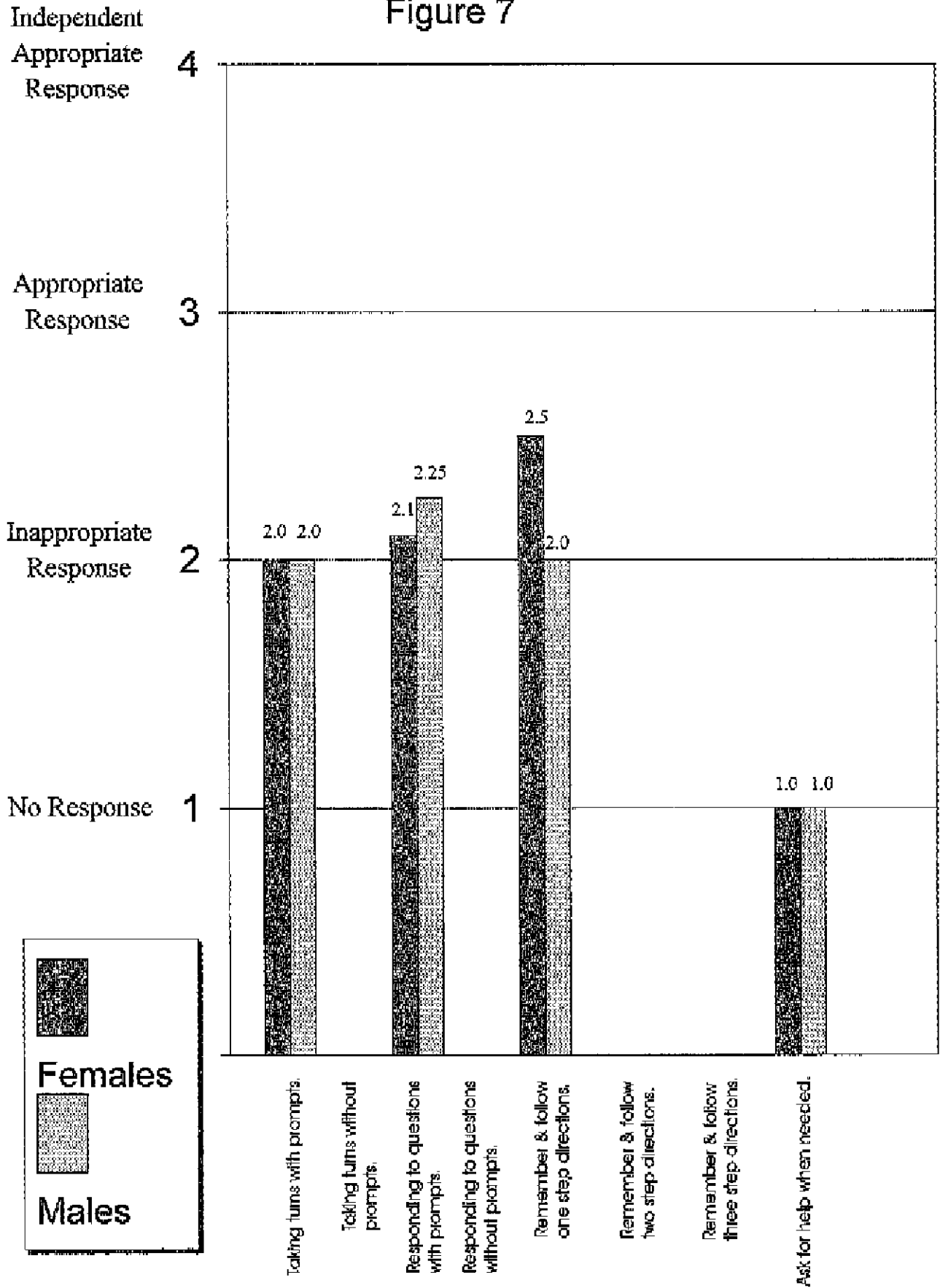
Social Economic Status Post Test

Figure 6



Gender Pre Test

Figure 7



Gender Post Test

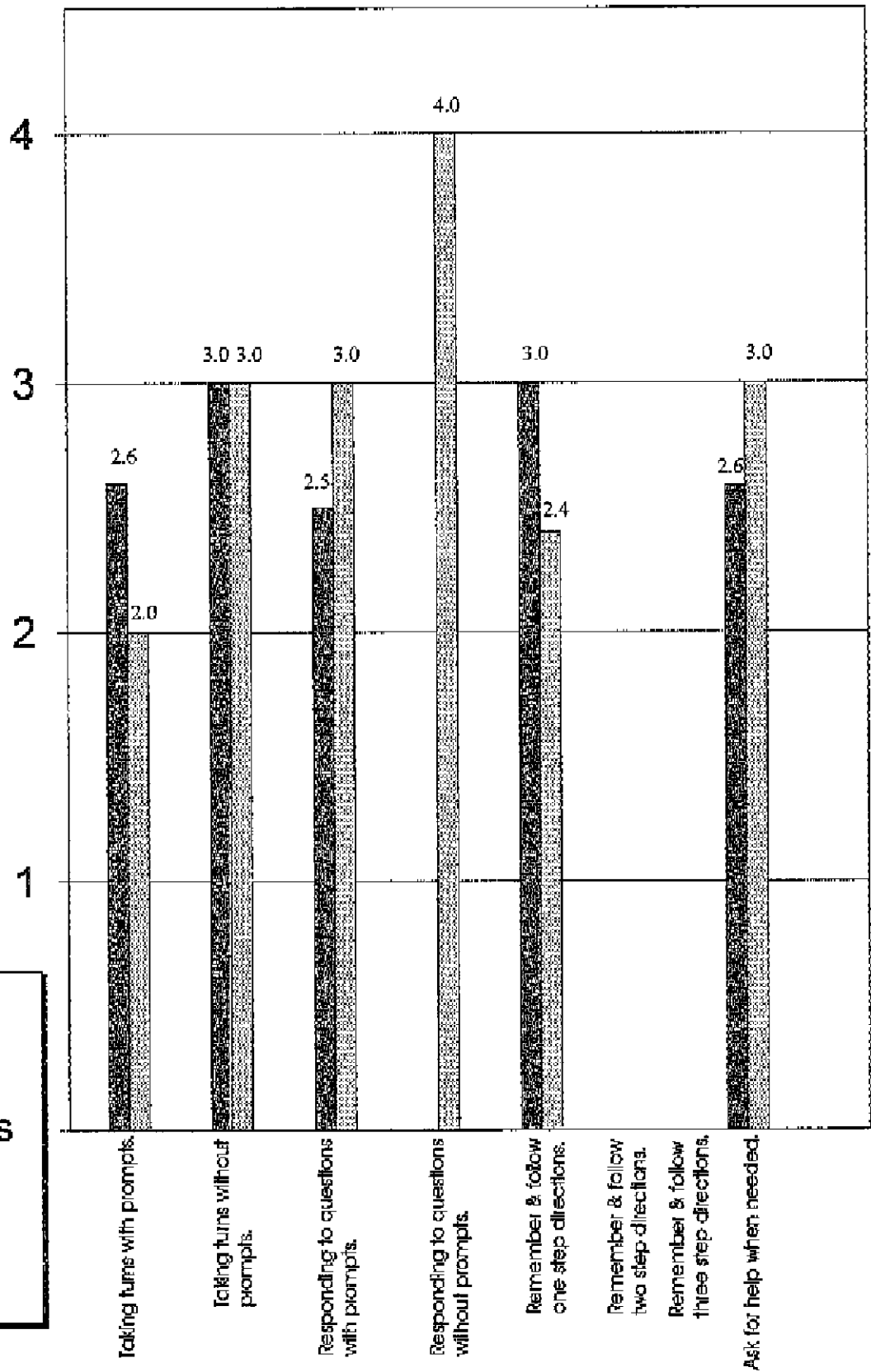
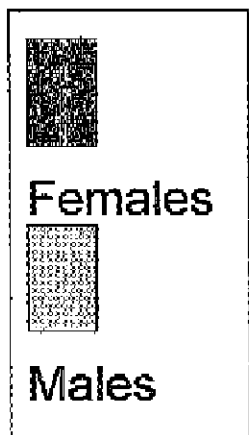
Figure 8

Independent
Appropriate
Response

Appropriate
Response

Inappropriate
Response

No Response



Chapter Five

Discussion and Conclusion

The purpose of this study was to develop and implement a program to enhance the problem-solving and socialization skills for multiply handicapped (MH) children through play. The teacher modeled desired behavior, provided and encouraged peer interaction. This study examined the following hypotheses: (1) play will improve the students ability to problem-solve, and (2) play will improve the students ability to socialize.

In this study I had hoped to see the children develop their socialization and problem-solving skills through play. Even though all four children either made progress or remained the same, it was not as much progress as I would have hoped the children would made. Never the less some progress was made. The multiply handicapped child poses several areas of concern, memory deficit, auditory processing,

motor control and knowing when to ask for help. Some MH children, I have observed, go through an exercise thinking they know what to do when they really haven't a clue.

The MH child needs a program that focuses on repetition. Although the data collected was positive for the four children, it might not have proven to be effective for all MH children because there are so many variables that could effect this program, like the combination of the disabilities that make up the MH classification. Eichenger 's (1990) study on social comparison interaction between the disabled and the non disabled peers, the social interaction produced a positive affect and vocalization during structured play time. But, there was no generalization of positive social interaction in unstructured play-time.

In my study, socialization skills either improved or remained the same during structured activities. While no data was collected during unstructured free time, I believe and have seen through observation that of the four children who

participated in this study three of them have been able to generalize socialization skills by taking turns and responding to someone's question and problem-solving, which included remembering and following one step directions and asking for help when needed. Of these areas responding to someone's question and asking for help when needed were generalized during free-play time.

My study does support Eichenger's findings of 1990 in the area of socialization increasing during structured play-time. But, during the unstructured play time, the four children made some progress in being able to generalize from structured to non structured activities. This is through observation only, there is no data to back my findings.

This study did have many limitations. First the group consisted of only four children. If the study had a greater number of participants, the outcome might have been different. Second, one child made a great deal of progress, however, I have had her as a student for four years prior to the

study. Was this my intervention or the four years of teaching that finally paid off? I think it was a combination of the study and the fact the that student was in my classroom program for the four years prior to the intervention. Third, I believe that the one child who made minimal progress might have made more progress if the study would have run for longer than 10 weeks. Fourth, a new student was added to our classroom during the intervention process. Although he was not included in the study, he did disrupt the study in his first few weeks in our classroom. I even had to move our structured time from the A.M. to the P.M. sessions. And lastly, would all the children have made progress if the study continued to be implemented in the A.M. session, when I believe they have more stamina? I'll never know.

It was important to increase the MH children's socialization and problem-solving skills so that they might be accepted "publicly" or within the realm of their guardians . It also helps to increase their self-esteem and makes the MH

child “feel good” about him/herself. With these skills the MH child can develop friendship, and possibly hold a job which they can be proud of themselves. They become a part of our work force and even though they will receive some type of assistance, they are employed and are not totally dependent on the system. But, most importantly they are productive within themselves. They have a purpose in life!

I would suggest that this type of intervention should be implemented in a regular elementary school using regular education children, because they could also benefit from this type of program with its focus on problem-solving and socialization skills. However, the problem-solving and socialization skills would have to be adjusted to meet the grade, age and maturity level of these children. This could be the ideal situation for my study, because these children of “normal” intelligence would be able to carry these skill through life. The population that was used in my study will always have someone supervising them and telling them what

to do. In a normal elementary school classroom, the children could be randomly divided into equal numbers of groups and which could determine if this study could be used in a broad scope with only minor adjustments to it.

In this study, the relationship between problem-solving and socialization skills through play proved that the MH child ability to learn new behaviors through continuous repetition and modeling of new behaviors could be affected positively.

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