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The Effects of Toys, Prompts, and Flotation Devices on the Learning of Water Orientation Skills for Preschoolers with or without Developmental Delays

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by

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Title of Thesis Project: The Effects of Toys, Prompts, and Flotation Devices on the Learning of Water Orientation Skills for Preschoolers With or Without Developmental Delays

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Abstract

The work of children is play; and in that work, toys can be used to educate, provide enjoyment and help build the foundation of social skills. One of the guidelines from the National Association for the Education of Young Children (NAEYC) regarding developmentally appropriate practice is that children learn through interacting with their environment. The purpose of this study was to determine the effects of toys, prompts, and flotation devices on the learning of water orientation skills for preschoolers with or without developmental delays. The 42 participants (ages 3 - 5 yr., male/female) were volunteers from a community preschool aquatics program. They were pre- and post-tested with the Water Orientation Skills Checklist - Advanced (WOC-A) developed by Killan, Arena-Ronde, and Bruno (1987). The children were recruited to either the control-19 or intervention- 23 groups. The children received swimming lessons for 4 weeks, 30 minutes twice a week. The control group lessons consisted of demonstration and practice and the intervention group lessons consisted of environmental arrangements enhanced with toys, prompts, and flotation devices. The data were analyzed with the Mann-Whitney U test for nonparametric statistics. The findings demonstrated that with the Mann-Whitney z score of .33 at the .05 level, the toys, prompts, and flotation devices did not significantly enhance the preschoolers' learning of water orientation skills. An important finding, however, is that while the toys, prompts, and flotation devices did not enhance water skills, they also did not hinder the learning of swimming skills, as both groups' mean score of improvement was 11 points.

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CHAPTER I

INTRODUCTION

Toys and preschool children go together like peanut butter and jelly. When you mention the word *toy,* most will automatically think of a child to play with that toy. The fact that children learn through play and interacting with their environment is well documented. One of the guidelines from The National Association for the Education of Young Children (NAEYC) regarding developmentally appropriate practice is that young children learn by interacting with their environment. Structuring the environment in a way that allows for child-initiated activities which enhance the opportunity to learn through exploring, discovery and playing is the recommended appropriate practice (Block & Davis, 1996, Fulsom-Meek, 1993, Lowenthal, 1996, Satchwell, 1994, Wessel & Zittel, 1995).

Play is the work of children, and in that work toys can be used to educate, for enjoyment, and to help build the foundation of social behaviors. According to Piaget's theory (1952) in the sensorimotor or preoperational stage of cognitive development, children are developing "schemata" which are ways of learning; so the use of toys in working with these children would seem to enhance their education. Toys can help teach children the concepts of in/out, up/down, and the concepts of cause and effect from manipulating different items. Watching children play with toys, it is easy to see the pure enjoyment that they achieve. As children play and interact with peers, the foundation of their social behaviors is forming; the concept of sharing toys is only one example (Lowenthal, 1996).

The environment of water offers a unique opportunity within itself. For many

people it gives them the freedom of movement they have never felt. "Many ... experience their first measure of success in a water program" (YMCA, 1987a, p.6). Preschool aquatic programs were officially added to both the American Red Cross and YMCA learn to swim programs by 1988 (American Red Cross, 1988, YMCA, 1987b). Regardless of the child's age or ability, the benefits of involvement in aquatics programs are numerous. For examples: motor function can be improved and independent mobility can be achieved; for some, improved fine motor performance and speech have been documented benefits of participation in aquatic programs (Barnett, 1980, Smith, 1985); psychological and social benefits of experiencing success, improving one's confidence, acceptance by peers, and having fun all add to the positive experience one can attain in the water (American Red Cross, 1992, Doremus, 1992, Eichstaedt & Lavay, 1992, Langendorfer, 1989).

A child's world is one of movement and by providing a play environment that encourages the child to move freely and experience a wide variety of toys, it will encourage preschoolers to keep moving and learning. Aquatic instruction certainly involves movement; however, to follow the premise of NAEYC, it also needs to involve play and the use of toys in that play when working with preschoolers. Studies have been done to show the value of offering an environment full of opportunity to play and manipulate various items and toys in both the gym and classroom (Cowden &Torrey, 1990, Troster & Brambring, 1994). However, no studies have been done on environmental arrangement in the swimming pool. If the environment is changed from land to water, should the opportunities to play and manipulate various items and toys to enhance learning be offered in the aquatic environment? In exploring this concept, there

are several possibilities to consider; the first would be to determine the effect of using toys, prompts and flotation devices on learning water orientation skills for preschoolers.

Statement Of The Problem

Research shows the value of offering an environment full of opportunity to play and manipulate various items and toys for both the gym and classroom when working with preschoolers. However, there is no research on environmental arrangement in the swimming pool or exploring the effects of using toys, prompts, and flotation devices on learning water orientation skills for preschoolers.

Purpose Of The Study

The purpose of this study was to determine the effects of toys, prompts and flotation devices on learning water orientation skills for preschoolers with or without developmental delays.

Hypotheses

The use of toys, prompts and flotation devices will significantly influence the learning of water orientation skills by preschoolers. By using toys, prompts, and flotation devices, preschoolers will adjust quicker to their water environment and have a greater amount of skill improvement. The null hypotheses will show that there is no influence on preschoolers' water orientation skills by using toys, prompts and flotation devices.

Operational Definitions

1. Water Orientation Skills will be operationally defined to include these four areas: 1.1 Water entry and exit.

1.2 Breath Control - (a.) blows bubbles - mouth contacts water and exhalation produces bubbles and (b.) face submersion - forehead, eyes, nose, mouth, chin in water.

1.3 Flotation - front and back floats.

1.4 Buoyancy - (a.) body position in the water (wet up to waist) and (b.) recovery from floating position and Propulsion - swim 5 ft. using any propulsive movement without touching bottom

(Killian, Arena-Ronde, & Bruno, 1987).

2. Toys that were used included a variety of water-proof children's toys such as, various balls, balloons, sponges, sponge balls, various plastic toys, wash cloths, floating and sinking rings, hula hoops, straws, soap bubbles, and a Cabbage Patch doll.

3. Prompts included songs, simple word cues, and pictures.

4. A flotation device is any equipment that aids in buoyancy such as, but not limited to, noodles (i.e. long, narrow, flexible styrofoam), kickboards, and empty plastic gallon milk jugs.

5. Developmental delays are significant delays in development in one or more of the five domains: cognitive, physical, communication, social-emotional; and adaptive. Refer to Early Childhood Intervention Council of Monroe County (Appendix A) for guidelines on criteria eligibility for a developmental delay.

Assumptions

1. This study will assume that all the subjects will have had some previous water exposure and that some will have a fear of the water.

2. It will be assumed that all the subjects have the physical capabilities to obtain the water skills and that they can all process verbal instruction.

3. The study will work on the premise that all the subjects are motivated to play with these toys.

4. That other individuals helping with instruction will do an appropriate job.

Delimitations

1. The scope of this study was limited to preschoolers ages 3 to 5 years with or without disabilities and to the water orientation skills listed above.

2. Group sample was 42 subjects (23 intervention, 19 control) recruited from a community preschool aquatic program. Each group had five preschoolers who were developmentally delayed.

3. The swimming facility used in this study was an indoor, 6 lanes X 25 yards, "L" shaped pool, 3.5 to 11 feet in depth, with a connecting wading pool that measures 12 x 30 feet, 1.5 to 2.5 feet in depth.

4. The selection of toys, prompts and flotation devices were determined by the instructor and researcher, including, but not limited to, various balls, balloons, sponges, sponges balls, various plastic toys, wash cloths, floating and sinking rings, hula hoops, straws, soap bubbles, a Cabbage Patch doll, songs, simple word cues, pictures, noodles, and empty plastic milk jugs.

Limitations

1. Limitations of this study that could have affected the outcome were maturation that occurred for the subjects, the amount of water exposure the subjects have had, the degree of aquatic readiness for each subject, and any additional exposure and practice outside of the class time.

2. A limitation of the facility was the water temperature (82 to 86), and unforeseen shut downs of the swimming pool.

CHAPTER II

REVIEW OF LITERATURE

The purpose of this chapter is to review the literature on several topics related to toys and aquatic preschool programs. In that there is no literature about toys in the water, the majority of the review will be toys in others areas. In working with preschoolers, a review of the legislative mandates will be presented. Toys will be reviewed concerning the effects they have on preschoolers' play behaviors, and the benefits of placing toys in the teaching environment when working with preschoolers. The concept of environmental arrangement will be reviewed for both the gymnasium and the classroom with implications for the pool. Finally, literature review on aquatic preschool programs will cover history, training, and assessments for preschool water orientation skills.

LEGISLATION

For the past 25 years, laws have mandated that physical education be part of the education for individuals with disabilities with the passing of PL 94-142 (Education for all Handicapped Children Act) in 1975. In 1986, with the increasing number of infants and toddlers with disabilities, amendments to the law were made to include early intervention for children, with the passing of PL 99-457. Then in 1990, PL 94-142 and PL 99-457 were included in the reauthorizations of PL 101-476 and called the Individuals with Disabilities Education Act - IDEA. Recently, (1997) PL 101-476 has been amended again and is known as PL 105-17 IDEA - Amendments. Physical education under these laws is defined as "development of (a) physical and motor fitness; (b) fundamental motor skills and patterns; (c) skills in *aquatics,* dance, and individual and group games and sports ..." (Department of Health, Education, and Welfare, 1993, p.17,

italics added). Implementing and providing early intervention programs for preschoolers continues to be a challenge for many. However, by providing such programs it has been learned that preschoolers love to play and, in playing, enjoy the use of toys (Eason, 1991, Martin & Connor, 1991, McCubbin & Zittel, 1991).

TOYS AND PLAY BEHAVIORS

The effects of toys on play behaviors has been an interest of researchers for years. Malone and Stoneman (1995) compared 27 studies (from 1942 to 1992) that focused on toy play of preschoolers with mental retardation, concluding that some attention to methodology is needed to establish a true understanding of the play behaviors. Although the methodology varied, all 27 studies showed that toy play affected the development of young children with mental retardation (i.e. level of play, toy choice and play content, functional in nature, and engagement in imaginative play).

Cowden and Torrey (1990) placed isolate and social toys in the environment of preschoolers with developmental delays to explore their play behavior and toy preference. The overall toy preference was social toys (67%) over isolate toys (33%). The number one choice of social toys was the riding vehicle and for isolate toys it was play-doh. As for the play behavior, solitary play was the highest percent of play; overall, more time (83.8%) was spent in nonsocial play behaviors. One of the more interesting findings from this study was that a particular toy (isolate or social) may not elicit the particular play behavior associated with that toy. Troster and Brambring (1994) found that the preferred toys of blind infants and toddlers were noise-making objects and household objects. In regard to play behaviors, they found that older age preschoolers who are blind explored objects in their environment more frequently than did the sighted

children.

Using toys as teaching tools, Lifter, Sulzer-Azaroff, Anderson and Cowdery (1993) studied teaching play behaviors (developmentally appropriate-DA and age appropriate-AA levels) of preschool children with autism or autistic-like behaviors. The results demonstrated that the DA activities were acquired quickly, and were generalized to other toys. In contrast, the AA levels were not acquired except for one preschooler. If toys can teach play behaviors, it is reasonable to assume that toys could be beneficial in learning concepts in other areas.

TOYS IN TEACHING

Knowing that the work of a child is play, then the more varied environments and experiences that are offered to them as play will only enhance their growth and development overall. Payne (1993) put forth the ideas of using toys and games to teach art history to young children. By over-laying art history pictures onto puzzles, blocks, board and card games, dolls, masks and other toys, the children were exposed to the art as they played with familiar everyday playthings. The researcher indicated that the children became familiar with the art history and were able to recognize the pictures and identify the title and artist and talk about them with enthusiasm, all while having fun and playing.

Stein and Miller (1997) implied that the use of toys in teaching science generated interest, enthusiasm and an understanding of science concepts. Concepts such as potential and kinetic energy, crystallization, and continuous spectrum are just a few science concepts named in their article; concluding that the toys helped in relating science to the children's everyday life and world. Lowenthal (1996) recommended that a wide variety of toys will help in teaching social skills to preschoolers with disabilities.

Toys that encourage social interaction such as dolls, climbing equipment, balls, and boxes promote the most social play.

Patton and Mercer (1996) wanted to know where the toys were in the first and second grade classrooms; that the use of toys and play to learn somehow "magically transform" (p.10) as the child enters the first-grade. The authors suggested that child-initiated learning centers (i.e. writing center, sand and water center with a "water table", cooking center and creative arts center) are developmentally appropriate learning environments for the first grade. Whether teaching art, science, or social skills when working with preschoolers or young children, toys should be used as valuable tools in the arrangement of the environment.

ENVIRONMENTAL ARRANGEMENT

With the passing of Public Law (PL) 99-457 in 1986, early intervention programs were to be offered to preschoolers as well as infants and toddlers (Part H). The research had indicated that children with developmental delays who received early intervention programs would benefit significantly (Martin & Connor, 1991). Today the three recommended types of developmentally appropriate early intervention programs are structured routines, environmental arrangement, and activity-based programs. First, developed routines or structured environments that remain consistent for preschoolers will be of a great benefit and can help them focus their energies into learning. An example of a structured routine is a song every day that will direct the students through warm up, or having the students hug their ball until everyone has a ball and is ready for the activity. An example of a daily structured class schedule could include these segments; circle time, rhythms, skill development and closure (Fulsom-Meek, 1993,

Mold, 1993, Satchwell, 1994, Yongue, 1995).

Second, the systematic arrangement of the environment should elicit particular behaviors or skills that preschoolers need to develop (Lowenthal, 1996, Wessel & Zittel, 1995). In the Smart Start Curriculum (Wessel & Zittel, 1995), the use of different settings like sequence centers, play scenes and give-n-gets allow preschoolers to play in an environment that is designed to meet their goals and objectives in motor skill development. Finally, working from the whole child approach, the use of an activity-based approach, where everyday activities or planned activities are used, will offer the preschoolers the environment for learning. Activity-based environments first assess the preschooler and identify goals and objectives, then these goals and objectives are embedded in either a routine or planned child-initiated activity such as a learning center or small groups that will automatically facilitate the learning process (Block & Davis, 1996, Werner, 1994). In the aquatic environment, the use of one or all of these early intervention programs would be a valuable asset to the water adjustment of preschoolers.

AQUATIC PRESCHOOL PROGRAMS

This section will review literature in regard to the history and the components of aquatic preschool programs and assessment tools for water orientation skills.

History and Components

Although there was no official aquatic preschool program until 1972 when the YMCA developed and published the "Tadpole Program" (Langendorfer, 1990), many water agencies were involved in developing and implementing their own lessons for infants, toddlers and preschoolers. By 1988, the American Red Cross and the YMCA had both developed and published aquatic programs that offered lessons for the early

childhood population (American Red Cross, 1988, YMCA of the USA, 1987b). A wide range of activities can be offered in an aquatics program from water orientation, stroke development, water sports, diving, exercise, and underwater adventures. Consistent with the American Red Cross and YMCA, no matter what the water activity is, first and foremost proper safety procedures should be taught and a lifeguard should always be on duty. In teaching safety to preschoolers, the use of simple rules that remain the same such as never swim alone, no running, and the lifeguard is in charge should be used.

People of all ages come to the water for their first time with a variety of emotions from eagerness to apprehension; young children are no different in that respect. Water orientation for preschoolers with or without delays should include these four components: entering and exiting the water, breath control, getting the face submerged and basic swim skills. Regardless of the child's age or ability, the benefits of involvement in an aquatics program are numerous. With preschoolers, assessing their water skills will help in establishing which program will be most beneficial to them (American Red Cross, 1977, Carter, Dolan, & Leconey, 1994, Eichstaedt & Lavay, 1992, Langendorfer & Bruya, 1995, YMCA of the USA, 1987b).

Assessments

Assessment tools for water orientation skills apprise the student in a variety of ways and form an instructional or a research view. Doremus (1992) offered a Developmental Aquatic Assessment with 44 tasks that are scored as achieved (+), not achieved (--) and emerging (+/-). This tool assessed the typical components of aquatic skills (adjustment, entering/exiting, breath control, and movement in the water) and added the area of range of motion in the water to be assessed as needed by a therapist or

doctor. This assessment can be helpful in creating an individual program. However, this assessment tool has not been standardized or tested for validity.

Langendorfer (1995) first presented the Aquatic Readiness Assessment in 1989 and included the assessment in the book Aquatic Readiness - Developing Water Competence in Young Children. This tool has eight areas (orientation and adjustment, entry, breath control, buoyancy/flotation, body position, arm propulsion and recovery, leg action and combined movement) to assess, with each area having 3 to 5 levels of skill. The validity and reliability is established for each of the eight areas.

Killian, Arena-Ronde and Bruno (1987) developed the Water Orientation Checklist -Basic (WOC-B) and the Water Orientation Checklist-Advanced (WOC-A), to be used for atypical swimmers (autism, mental retardation and preschoolers). The two tools assess the same 13 tasks of water orientation with a rating scale of five levels (spontaneous, verbal, verbal with demonstration, physical guidance and objection). The WOC-A further offers a recording of successful and unsuccessful performance of each of the 13 tasks. The checklists' interobserver agreement was good (WOC-B, 87%; WOC-A, 80%) and found to be appropriate for assessing water adjustment skills for either instructional or research purposes.

SUMMARY

Although toys are a vehicle for child's play and recommended for the classroom and gymnasium, often toys are not part of an aquatics preschool program. Occasionally toys are mentioned in swimming books and articles that are about teaching aquatic skills and or in water games. However, little is provided for using toys in teaching water orientation skills to preschoolers. Exploring children's play behavior, interacting with

toys, and toy preference have been studied on land. However, no research has been concluded on the use of toys, prompts, and flotation devices in the process of water orientation for preschoolers with or without developmental delays.

CHAPTER III

METHODS AND PROCEDURES

The purpose of this chapter is to present the methods and procedures that were used to determine the effect of toys, prompts, and flotation devices on teaching water orientation skills to preschoolers with or without developmental delays. Specifically this chapter will include information on subject selection, setting, instrument and apparatus, and the procedures for collecting and analyzing data.

METHODS SECTION

Subjects

The 42 subjects were recruited from a preschool summer day-camp program that had aquatics as part of the program and from preschoolers enrolled in group swim lessons at a Jewish Community Center in western New York. The preschoolers were a mixture of gender, age three to five years, 10 with developmental delays and 32 without. The intervention group started with 25 subjects (15 girls, 10 boys), 7 subjects had delays in one or more of the five developmental areas. Two of the girls with delays withdrew from the day camp program. The control group of 20 subjects (10 girls, 10 boys) had 5 subjects with developmental delays, one girl without developmental delays withdrew leaving 19 subjects.

The subjects with developmental delays were determined by the guidelines from the Early Childhood Intervention Council of Monroe County (Appendix A) and from parent information. Informed consent to do the study was obtained from SUNY - Brockport Institutional Review Board (IRB). The parent or legal guardian signed an informed consent document, granting permission for their child to participate in the

study, to be pre-post tested on water orientation skills, and to be video taped during the testing and participation in the water classes. Refer to Appendix B for information on informed consent from both SUNY-Brockport IRB and the parents or legal guardians.

Setting

The swimming pool is indoors, 6 lanes X 25 yards, with a connecting 12 x 30 foot wading pool. The pool depth was 3 - 11 feet; wading pool is 1.5 to 2.5 feet. The water and air temperature range was (82- 86) and (86- 88) respectively. There was at least one lifeguard on duty at all times; and for the intervention/control classes of this study there were at least two lifeguards.

Instruments and Apparatus

The subjects were pre - post tested using the Water Orientation Checklist - Advanced (WOC-A) developed by Killian, et.al.(1987) that is displayed in Appendix C. This tool assesses 13 tasks in the areas of water orientation skills. Nine tasks assess the traditional water orientation areas of entry, breath control, submersion, floating and recoveries. The four other tasks assess skills such as walking to the pool edge, touching the water, duration in the water, and propulsive activity. The tool has a five-choice rating scale (spontaneous, verbal, verbal with demonstration, physical guidance, objection) allowing for a systematic recording of successful performances at the appropriate level on the rating scale. The WOC-A interobserver agreement ranged from 60-98% on the 13 different tasks observed. This instrument offers good interobserver agreement, has operational definitions, can be used to assess a variety of populations and has been determined appropriate for the use in research (Killian, et.al., 1987).

The video camera to record the sessions was a Panasonic Palmcorder PV-17, tapes were Maxell HGX Gold TC-30, and a Panasonic VHS Play Pak was used to view the sessions. The variety of toys and flotation devices included, but was not limited to, balls and rings (floating & sinking), soap bubbles, balloons, sponges, squirt toys, a variety of plastic toys, toy boats, inflatable toy animals, Cabbage Patch dolls, noodles, and plastic milk jugs. The cassette player for song prompts was a Quasar GX 3626 portable stereo system.

PROCEDURES SECTION

Two weeks prior to the start of the summer day camp program, the researcher administered the pre-test on an individually scheduled bases for all subjects. Each test was conducted at the pool setting, requiring between 20-30 minutes per subject. The subjects were told it was an opportunity to meet their swimming instructor and become familiar with the pool setting. In that the assessment has 13 different tasks, the researcher would ask to see a task (i.e. blowing bubbles) then allow some time to pass before asking to see another task, thus giving the subjects time for tasks to occur spontaneously and so that it did not feel like a drill for the subjects. The post-test was conducted by the researcher individually after the eight swimming lessons were completed, either as part of a ninth group lesson or on an individual bases to accommodate schedule conflicts.

The two groups were pre- and post-tested with the Water Orientation Checklist - Advanced (WOC-A) developed in 1987 by Killian, Arena-Ronde and Bruno. The pre- and post-tests were video taped for data collection and lessons from both groups were also video taped for documentation and possible further research. A pilot study was conducted in April/May 1998 to become familiar with the assessment tool, video taping,

and data collecting procedures.

Data Collection

The subjects were pre- and post-tested by the researcher while being video taped. The data were collected from the viewing of the video tapes by the researcher and recorded on the WOC-A checklist for both the pre- and post-test. A trained observer also randomly viewed the tapes to establish an interrater reliability.

Intervention

The treatment program was a 30 minute session twice a week for 4 weeks, a total of 8 lessons. Each session was designed to practice water orientation skills with toys, prompts and flotation devices to enhance the lessons. For example, breath control - bubble blowing for the intervention group was worked on by using balloons to blow around the pool, soap bubbles to blow, straws to blow air bubbles at the water surface, sponges soaked with water to blow bubbles on; then finally, using plastic boats and the prompt "motor lips", the subjects pretended to be the motor for the boats by blowing bubbles to make them go. The control group was given a demonstration and then practiced blowing bubbles, repeating their attempt several times throughout the lesson. The control group received the same amount of instruction as the intervention group. Refer to Appendix D for the lesson plans for both groups.

Experimental Design

This study utilized a pre-test/post-test randomized group design. One group served as a control, the other was exposed to an intervention program of environmental arrangement using toys, prompts, and flotation devices to teach water orientation skills. Times and dates for the pre-test were arranged on an individual basis during the last two

weeks of June 1998. Post-testing was conducted after the final week of the study, August 10 to 19, 1998.

Statistical Analysis

Data were analyzed with the Mann-Whitney *U* test for nonparametric statistics and followed Cooper and Heron for the interrater reliability.

CHAPTER IV

RESULTS AND DISCUSSION

The purpose of this chapter is to provide the results and discussion of this study's data that were collected. It will also include the interrater reliability results.

Results

The data were examined for the interrater reliability by an experienced aquatic instructor, certified by the American Red Cross, had 25 years of teaching swimming, has a masters in special education, and trained on the Water Orientation Checklist- Advanced (WOC-A). The interrater randomly viewed 20% (Cooper & Heron, 1987) of the assessments from each group (5 intervention, 4 control), agreements were 98 out of the 117. The interrater reliability was 83% which is considered reliable.

The purpose of this study was to explore the effects of toys, prompts, and flotation devices on learning water orientation skills for preschoolers. To analyze the data collected in a Mann-Whitney *U* test (Thomas & Nelson, 1996), there was a numerical value given to the five level scoring system of the WOC-A as indicated on Table 1. For each subject a numerical score was obtained on both pre- post-assessments. The Mann-Whitney *U* test was administered for both the pre- post-assessments with the pre-test having a *z* score of .05, indicating that the two groups were comparable at the beginning of this study. The post assessments' *z* score was .33 indicating no significant difference at the .05 level. Figures 1 and 2 show the calculation of the Mann-Whitney *U* test for the pre - post-assessments respectively.

Table 1

Numerical Value assigned to the WOC-A	
Spontaneous	5.0
unsuccessful	4.5
Verbal	4.0
unsuccessful	3.5
Demonstration	3.0
unsuccessful	2.5
Physical Guidance	2.0
unsuccessful	1.5
Objection	1.0

Discussion

Although the results did not demonstrate a significant difference, there was a slight change of the *z* score (.05 to .33); however; at .33, the probability ($p = .74$) is 74% chance that this change was not due to the toys, prompts and flotation devices. While the results with the Mann-Whitney U test showed no significant difference, perhaps if the data were analyzed by each of the 13 individual items on the WOC-A rather than as a whole, there might have been a difference demonstrated on certain tasks but not on others. For example, toys may have had a positive influence on entering the water and getting the face wet, but had no effect on back and front floating.

If the individual tasks were grouped as components of water skills- enter/ breath control/ flotation/ propulsion, such as fitness is assessed by components - the results may have demonstrated that the toys, prompts and flotation devices had a significant influence on the initial components. It was observed that during the first few weeks, the intervention group seemed to overcome the initial fear and apprehension of getting in, getting wet and getting the face wet (i.e.- enter and breath control components) faster than the control group, indicating that the toys, prompts and flotation devices seemed to

make a difference.

There are other factors that may have influenced the outcome such as the validity of the WOC-A and the time span and focus of the study. The validity of the instrument tool WOC-A has not been established, although it is published and the authors indicated it can be used in research. The fact that it has not been established with validity is a possible reason why the data does not show the desired effect. It needs to be mentioned that, at the time of the study, there was no assessment tool of water orientation skills for preschoolers with established validity. The WOC-A was a published assessment in the Adapted Physical Quarterly, it had criteria for the skills (i.e. blow bubbles- lips contact with water), and it used a rating scale instead of the pass/fail style of most assessments, so it was selected as the best tool available to use.

By doing a shorter study of only 3 weeks, rather than 8 weeks, and focusing on overcoming fears and apprehension of the water, the significant influence of toys, prompts, and flotation devices would have been evident as observed by the researcher. For example, a child crying on the edge of the pool fearful of getting in once given a toy to focus on, stops crying and before long the child is in the water apparently enjoying playing and getting wet.

This study was not designed to look at the hindrance of the toys, prompts, and flotation devices, however the data seemed to demonstrate that there was no hindrance in learning water orientation skills. All the subjects had some improvement, ranging from 41.5 to .5, the mean improvement for both groups was 11 points. Thus if using an environmental arrangement and enhancing the lesson with toys, prompts, and flotation devices does not interfere with the learning of water orientation skills, the question would

be why not use them? In keeping with the NAEYC guidelines and the supportive literature that children learn through interacting with their environment and playing with toys, why not bring more toys, prompts, and flotation devices into the water?

Figure 1. Calculation for the Mann-Whitney *U* Test / Pre - Test

Rank Scores for the Pre- Test.

Group I - Intervention

1,2,3,4,8,9.5,9.5,11,12,18.5,18.5,23,24,25.5,28.5,31.5,33,35,37,39,40,41,42 = 496.5

Group II - Control

5,6,7,14.5,.14.5,14.5,14.5,18.5,18.5,21,22,25.5,28.5,28.5,28.5,31.5,34,36,38 = 406.3

Calculate *U*

Group I - Intervention
(23)(19) + [23(23+1)/2] - 496.5 = 216.5
Group II- Control
(23)(19) + [19(19+1)/2] - 406.5 = 220.5

Calculate *z* Score

$$\frac{216.5 - 23 \times 19/2}{\sqrt{(23x19)(23+19+1)/12}} \qquad \frac{216.5 - 218.5}{\sqrt{(437)(43)/12}}$$

$$\frac{-2}{\sqrt{1565.}} \qquad z = -2./39.56 = \mathbf{.05}$$

Figure 2. Calculation for the Mann-Whitney *U* Test / Post-Test

Rank Score for the Post Test

Group I - Intervention

1.5,1.5,3.5,8,9,12,15,15,18,20,20,22,23,24.5,24.5,29,32.5,32.5,35,38,40.5,40.5,42 = 507.5

Group II- Control

3.5,5.5,5.5,5.5,7,10,11,15,15,15,20,26.5,26.5,29,29,32.5,32.5,36,38,38 = 395.5

Calculate *U*

Group I - Intervention
(23)(19)+ [23(23+1)/2] - 507.5 = 205.5
Group II - Control
(23)(19)+[19(19+1)/2] - 395.5 = 231.5

Calculate *z* Score

$$\frac{205.5 - 23 \times 19/2}{\sqrt{(23x19)(23+19+1)/12}} \qquad \frac{205.5 - 218.5}{\sqrt{(437)(43)/12}}$$

$$\frac{-13.}{\sqrt{1565.}} \qquad z = -13./39.56 = \mathbf{.33}$$

CHAPTER V

CONCLUSION AND RECOMMENDATION

The purpose of this chapter is to summarize the conclusion of this study, to offer recommendations for future studies, and to give suggestions of application of the findings.

Conclusion

Since exposure to the water environment and a child's readiness may be the two major components of the preschooler learning water orientation skills (Gallahue, 1995), providing an environment enriched with toys, prompts and flotation devices will offer an especially fun-filled approach to enhance learning in the aquatic environment. The results of this study demonstrated that toys, prompts, and flotation devices did not significantly enhance the preschoolers learning of water orientation skills; yet they did show that the toys, prompts, and flotation devices did not hinder the preschoolers' learning. The study was not designed to look at hindrance; however, with each group's mean improvement of 11 points, it would show that the toys, prompts, and flotation devices were not a distraction in the learning process. The intervention lessons developed in this study would provide a start for any preschool aquatic program in using an environmental arrangement approach and in following the practice and guidelines that are developmentally appropriate.

Recommendations

As mentioned in chapter one that many concepts could be explored about toys in learning water orientation skills, this study began with the physical skills. However, there are several other factors that need to be tested. Further research can be conducted

to support the idea that toys are needed in the preschoolers' aquatic environments. One suggestion is to look at the concept of fear and apprehensions that some preschoolers have about getting in the water. By doing a shorter study and assessing on a weekly basis, possibly at week three it would show that toys made a difference in overcoming one's fear. In this study, it was observed that toys appeared to help ease the child's fears within the first two lessons. Another suggestion would be to assess the quality of the lesson for the "fun-factor" (laughs, smiles, and enthusiasm) of the preschoolers when using toys, prompts, and flotation devices as compared to a traditional lesson.

Since the toys did not hinder the preschoolers from learning the water orientation skills, the question is why not bring the toys to the water? A key factor in bringing toys, prompts and flotation devices to the water is the training of the water safety instructors. Although the American Red Cross and the YMCA both have preschool aquatic programs, little or no time is spent in the certification courses on the appropriate practice of teaching young children. The more traditional approach of demonstration and practice is the teaching style the instructors are trained to use. If research can show the importance of appropriate practices, then a change can be made in the training of instructors.

The findings of this study provides an enhanced approach that can show water safety instructors another way or an additional way to accomplish the task of teaching preschoolers water orientation skills. The use of toys, prompts, and flotation devices provides the learners with an environmental arrangement that is developmentally appropriate for young children with or without disabilities and that allow for child-initiative activities in a preschool aquatic program.

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APPENDICES

APPENDIX A

Early Intervention Council Of Monroe County

ECICMC PHONE (716) 383-2293
EARLY CHILDHOOD INTERVENTION COUNCIL OF MONROE COUNTY

Eligibility Criteria

Preschool Student with a Disability

February 1998 Reviewed and Updated by ECICMC Standards and Guidelines Committee
3/16/98 Approved by ECICMC Standards and Guidelines Committee
5/5/98 Approved by ECICMC Executive Committee

Revised March 1994-ECICMC Task Force on Preschool Eligibility Criteria
Approved March 16, 1994-ECICMC Standards and Guidelines Committee
Approved March 17,1994-ECICMC Executive Committee

20 May 1993 - 20 June 1993 Comment and Review Period
Approved 7/28/93 ECICMC Standards and Guidelines Committee
Approved 7/22/93 ECICMC Executive Committee

ECICMC Standards and Guidelines Committee

Lois Benedict, Rochester Hearing & Speech Center	Lori Milazzo, BOCES #1
Claudia Birrittella, Churchville-Chili School District	Anne Reeves, Crestwood Children's Center
Kathy Buccieri, Private Practice	Pat Sarbadhikari, Monroe County DOH
Nancy Consol, Mary Cariola Children's Center	Micki Walsh, Monroe County DOH
Daphne Futerman, Rochester Children's Nursery	Cheryl Weaver, BOCES #1
Jill Mason, Gates Chili Central School District	Vicki Weaver, Stepping Stones Learning Center
Sheila McCarthy, Fairport Central School District	Ann Wendl, Rochester City School District
Mary Stazie-Reinhardt, BOCES #1	Laura Riddle, Rochester Hearing and Speech Center
Nancy Huffman, Chair, ECICMC Standards and Guidelines Committee	

This guidelines document was reviewed and revised by the ECICMC Standards and Guidelines with input solicited and received from the membership at large, chairpersons of Committees on Preschool Special Education, approved Evaluation Teams, and service providers.

Contents

Preschool Student with a Disability

The use of the word "student" in this document is consistent with NY State regulations as they are written. While many would prefer the word "child", regulatory language for the classification of children ages 3-5 with disabilities is "Preschool Student With a Disability". This document uses the words "child" or "children" in descriptive or interpretative contexts whenever possible.

Regulations state: 200.1 (ee)..."Eligibility as a preschool student with a disability shall be based on the results of an individual evaluation which is provided in the student's dominant language, not dependent on a single procedure, and administered by a multidisciplinary team in accordance with all other requirements as described in section 200.4 (b) (1) through (4) of this Part.

(1) Commencing July 1, 1993, to be identified as having a disability a preschool student shall either:

(i) exhibit a significant delay or disorder in one or more functional areas related to cognitive, language and communicative, adaptive, social-emotional or motor development which adversely affects the student's ability to learn. Such delay or disorder shall be documented by the results of the individual evaluation which includes but is not limited to information in all functional areas obtained by a structured observation of a student's performance and behavior, parental interview, other individually administered assessment procedures, and when reviewed in combination and compared to accepted milestones for child development, indicate:

(a) a 12 month delay in one or more functional area(s), or

* (b) a 33 percent delay in one functional area or a 25 percent delay in each of two functional areas, or,

(c) if appropriate standardized instruments are individually administered in the evaluation process, a score of 2.0 standard deviations below the mean in one functional area, or a score of 1.5 standard deviations below the mean in each of two functional areas; or

(ii) meet the criteria set forth in paragraphs (1), (2), (3), (5), (9), (10), (12), or (13) of subdivision (mm) of this section. "

* Note: Clarification from SED 7/93 interpreted "percent delay" to mean delay in months, not percentile performance.

This regulatory language means:

1. Preschool children ages 3-5 will be classified as **"Preschool Student with a Disability".** It is non-categorical terminology. Children would meet criteria stated in certain disability classifications (See Section 200.1 (mm) (1), (2), (3), (5), (9), (10), (12), or (13) for disability definitions) or demonstrate a significant delay or disorder in one or more functional areas (cognitive, language and communication, adaptive, social emotional, motor).

This regulatory language means cont.:

2. A preschool child (age 3-5) can be classified a **"Preschool Student With a Disability"** if he/she:

a. Meets the criteria set forth in these current disability classifications in the Part 200 regulations for school-age children:

Autistic	Orthopedically Impaired
Deaf	Other Health Impaired
Deaf-blindness	Traumatic Brain Injury
Hard of Hearing	Visually Impaired

OR

b. Has a significant delay or disorder in one or more of the five functional areas (listed below) related to child development which affect the preschool student's ability to learn.

- Cognitive
- Language and Communication
- Adaptive (Self-help skills, eating, toileting)
- Social-Emotional
- Motor

These are the five areas where a delay or disorder must be demonstrated according to the quantitative criteria (12 month delay, percent delay, etc.) in addition to information obtained through observation, parent interview, and clinical judgment to support the classification of a child as a "Preschool Student With a Disability". See the Addendum "Commonly Asked Questions" for more information.

ECICMC Guidelines for Identifying a Preschool Student who Has a Significant Delay or Disorder in the Functional Areas: Cognitive Development, Language and Communication Development, Social-Emotional Development, Motor Development and Adaptive Skills

These guidelines apply to identifying a student who has a significant delay or disorder in one or more functional areas related to child development that adversely affects a child's ability to learn. Determination of eligibility is based on a multidisciplinary evaluation considering information gleaned from assessments of cognitive development, language and communication development, social-emotional development, motor development and adaptive skills. It is not required that a child be evaluated in each of the five areas.

In addressing the five functional areas to be considered in demonstrating a delay or disorder which adversely affects a child's ability to learn this document follows a similar format for each area.

1. First, a working definition for the functional area is provided.

2. Then, factors, considerations and observable behaviors that would support or demonstrate the presence of a delay or disorder in the functional area are suggested. It is understood that standardized tests alone cannot assess the multifaceted, interactive nature of child development. The factors/considerations listed could serve as the basis for clinical judgement rationale, behavioral observation documentation, or parent interview information to support the classification as "Preschool Student with a Disability". For additional perspectives on "clinical judgement" see the Frequently Asked Questions section of this document.

3. Finally, measurement tools useful for the specific functional area are listed. Please note however, any mention of tests, developmental scales, or other measurement tools in this document is intended for purposes of example and information based on current use, practice and availability and does not constitute endorsement by ECICMC.

While each functional area is discussed separately in this document, it is understood that the multidisciplinary team would corroborate findings to determine if eligibility criteria as stated in regulation relative to months delay, percent delay, and standard deviation are met. Further, data collection to demonstrate delay or disorder within, for example, the functional area of "Language and Communication" might come from a social history, cognitive assessment, and adaptive scales in conjunction with quantitative testing scores in the area of language and communication. Or, a delay or disorder in the functional area of "Social-Emotional Development" might be supported by data collected in the assessment of language and communication. Useful information is also obtained through observing pre/post-testing interaction of the child with the parent, the team member, and the child's interaction with the surrounding environment.

Finally, it is important to remember we are attempting to demonstrate delays or disorders that would support the categorical classification, "Preschool Student With a Disability". The team's judgement is the outcome of its consideration of a number of factors including clinical judgement based on a team member's repertoire of experience, which substantiates the decision to consider the child eligible or ineligible for classification as "Preschool Student With a Disability".

Delay or Disorder in Cognitive Development

Definition: A child with a cognitive delay or disorder demonstrates deficits in intellectual abilities beyond normal variation for age and cultural background. This might include deficits such as:

-ability to acquire information
-problem solving
-reasoning skills
-ability to generalize information
-rate of learning
-processing difficulties
-memory delays

Factors, Considerations and Observable Behaviors that support or demonstrate the presence of a Cognitive Delay or Disorder

Measurable traits such as:

-overall delays in cognitive abilities
-significant discrepancies within skill development
-poor readiness skills in light of exposure to these skills
-patterns of observable behaviors such as distractibility, short attention span, impulsiveness, perseveration, low frustration tolerance, poor socialization skills, unusual activity level, ineffective use of learning modalities, poor organization, and difficulty with transitions

Measurement of Cognitive Delay or Disorder

Alpern-Boll Developmental Profile
Bayley Scales of Infant Development
Differential Ability Scales
Kaufman Assessment Battery for Children
Leiter International Performance Scale
Mullen Scales of Early Learning
Sewell Early Education Developmental Profile (SEED)
Stanford Binet, 4th Edition
Wechsler Preschool Primary Scales of Intelligence-Revised (WPPSI-R)

Delay or Disorder in Social-Emotional Development

Definition: A child with a delay or disorder in social-emotional development demonstrates deviations in affect and/or relational skills beyond normal variation for age and cultural background. These deficits should be exhibited over time, in various circumstances, and adversely affect the child's development of age-appropriate skills.

Factors, Considerations and Observable Behaviors that support or demonstrate the presence of a Social-Emotional Delay or Disorder

1. Observable behaviors: such as perseveration, inability to transition, difficulty separating, over-dependence or/lack of adherence to structure and routine and/or rigidity.

2. Patterns of difficulty in the following areas: relational difficulties such as trust building, aggressiveness, overly compliant, lack of age-appropriate self-control, oppositional/defiant behavior, destructive behavior, poor awareness of self and others, and/or inappropriate play skills for age.

3. Affect difficulties such as depressed/withdrawn, limited range of emotions, inappropriate emotions for given situation, low frustration, fearful/anxious, radical mood swings, and/or inappropriate fears.

Measurement of Social-Emotional Delay or Disorder

Alpern Boll Developmental Profile II
Behavior Assessment Scale for Children (BASC)
Burks Behavior Rating Scale
Caregiver Teacher Report Form
Child Behavior Checklist
Childhood Autism Rating Scale
Children's Apperception Test (CAT)
Conner's Behavior Rating Scale
Preschool and Kindergarten Behavior Scales
Test of Early Social Development
Vineland Adaptive Behavior Scales

Delay or Disorder in Motor Development

Definition: A child with a delay or disorder in motor development demonstrates a deficit in sensory registration/integration and/or the coordination of the large or small muscles of the body, in one or more areas which adversely affects the child's ability to learn or acquire skills relative to:

-onset/consolidation of functional motor development
-diminished quality in the execution of functional motor skills
-response to sensory input which falls outside the normal range of variation

Factors, Considerations and Observable Behaviors that support or demonstrate the presence of Delay or Disorder in Motor Development

Inabilities to purposefully use age appropriate learning/play materials and/or participate within a typical early childhood environment due to:

a. Ineffective or atypical approach to motor learning that interferes with the acquisition of and/or generalization of motor skills.
b. Atypical posture or movement patterns which may or may not be explained by medical diagnosis.
c. Behaviors suggestive of sensory integrative dysfunction such as difficulty responding appropriately to sensory input e.g. abnormal response to lighting changes, increased distractability to sound, hyper/hypo sensitivity to touch, fear of movement, etc.

Measurement of Delay or Disorder in Motor Development

Battelle Developmental Inventory Motor and Adaptive Domain
Developmental Programming for Infants and Young Children
Developmental Test of Visual Motor Integration (VMI)
DeGangi Test of Motor and Neurological Functions
DeGangi-Berk Test of Sensory Integration
Erhardt Developmental Prehension Assessment (EDPA)
Miller Achievement Profile
Motor Free Visual Perception Test
Peabody Developmental Scales Gross and Fine Motor
Purdue Perceptual-Motor Survey
Sensory Integration and Praxis Tests
Sewell Early Education Developmental Profile (SEED)
Southern California Sensory Integration Test

Delay or Disorder in Language and Communication

Definition: A child with a delay or disorder in language and communication demonstrates deficits beyond normal variation for age and cultural background which adversely affects ability to learn or acquire skills in one or more of the following areas:

- -receptive language
- -expressive language
- -articulation/phonology
- -pragmatics
- -fluency
- -oral-motor skills
- -voice

Factors, Considerations and Observable Behaviors that support or demonstrate the presence of a Language and Communication Delay or Disorder

1. Child does not use communication effectively with peers and/or adults.
2. Child cannot be understood by others in his environment.
3. Child exhibits severe or frequent frustration because of communication difficulties.
4. Child exhibits speech sound and/or phonological process errors that are numerous and not developmentally appropriate.
5. Child has difficulty understanding and using age appropriate vocabulary, concepts and/or conversation
6. Child demonstrates specific weaknesses in pragmatic language ability.
7. Child demonstrates difficulty processing auditory information.
8. Child demonstrates oral motor difficulty, difficulty swallowing/feeding, and/or apraxia.

Measurement of a Language and Communication Delay or Disorder

Arizona Articulation Proficiency Scale-Revised (AAPS-R)
Boehm Test of Basic Concepts-Preschool
Carrow Elicited Language Inventory (CELI)
Clinical Evaluation of Language Functions-Preschool (CELF-P)
Developmental Sentence Score (DSS)
Developmental Sentence Typing
Expressive One Word Picture Vocabulary Test-Revised (EOWPVT-R)
Goldman Fristoe Test of Articulation (GFTA)
Kahn-Lewis Phonological Analysis (KLPA)
Oral-Motor/Feeding Rating Scale
Peabody Picture Vocabulary Test-Revised (PPVT-III)
Preschool Language Scale-3
Receptive/Expressive Emergent Language (REEL)
Receptive One Word Picture Vocabulary Test (ROWPVT)
Reynell Developmental Language Scales--US Edition
Sequenced Inventory of Communication Development-Revised (SICD-R)
Structured Photographic Expressive Language Test-Preschool (SPELT-PRESCHOOL)
Stuttering Prediction Instrument
Stuttering Severity Instrument (SSI)
Test of Auditory Comprehension of Language-Revised (TACL-R)
Test of Language Development-2 Primary (TOLD-2 PRIMARY)
Test of Oral Structures and Functions
Test of Pragmatic Skills

Delay or Disorder in Adaptive Development

Definition: A child with a delay in adaptive skill development demonstrates difficulty learning or acquiring skills necessary for daily living. These difficulties occur over time, in a variety of situations, and impact the effectiveness in which a child is able to meet independent personal needs and social responsibility expected for his/her age and cultural group.

Factors, Considerations and Observable Behaviors that support or demonstrate the presence of an Adaptive Delay or Disorder

Adaptive behavior areas would include activities of daily living such as toileting, eating, dressing, and personal hygiene.

Measurement of Adaptive Delay or Disorder

Alpern-Boll Developmental Profile
Battelle Developmental Inventory
Behavioral Assessment Scale for Children (BASC)
Brigance Inventory of Early Development
Sewall Early Education Development Profile (SEED)
Vineland Adaptive Behavior Scales

Examples of Performance Criteria to Qualify at Various Chronological Ages

	If CA = 3 years (36 months)	If CA = 3 ½ years (42 months)	If CA = 4 years (48 months)
12 Months Delay =	Performance at 2 yrs. (24 months)	Performance at 2 ½ yrs. (30 months)	Performance at 3 yrs. (36 months)
33 Percent Delay =	Performance at 2 yrs. (24 months)	Performance at 28 mos.	Performance at 32 mos.
25 Percent Delay =	Performance at 27 mos.	Performance at 31.5 mos.	Performance at 36 mos.
2.0 Standard Deviation =	See test standardization data	See test standardization data	See test standardization data
1.5 Standard Deviation =	See test standardization data	See test standardization data	See test standardization data

APPENDIX B

Informed Consent Information

BROCKPORT

State University of New York
College at Brockport
350 New Campus Drive
Brockport, New York 14420-2919

Grants Development Director
(716) 395-2523/5118
FAX: (716) 395-5602

Date: April 7, 1998

To: Dr. Cathy Houston-Wilson
Cindy Clawson

From: Colleen Donaldson for
Institutional Review Board

Re: **Project IRB #98-38**

Your proposal TOYS IN PRESCHOOL AQUATICS: THE EFFECT OF TOYS, PROMPTS, AND FLOTATION DEVICES ON TEACHING WATER ORIENTATION SKILLS TO PRESCHOOLERS WITH AND WITHOUT DEVELOPMENTAL DELAYS has been approved. Accordingly, you may proceed with the work as proposed and approved. If this project continues beyond one year, federal guidelines require that the information below (items 1-6) will need to be provided to the IRB before the project can be approved for a second year. Please note also that if the project initially required a full meeting of the IRB (Category III proposal) for the first review, then continuation of the project after one year will again require full IRB review.

Information required by the IRB for continuation of the project past the first year includes the following:

1. number of subjects involved in year one
2. a description of any: adverse events or unanticipated problems involving risks to subjects or other, withdrawal of subjects from the research or complaints about the research during the previous year
3. a summary of any recent literature, findings, or new information about any risks associated with the research
4. a copy of the current informed consent document
5. a general summary of research findings from year one
6. reason why project needs to be continued into a second year.

Please contact Colleen Donaldson, Office of Academic Affairs, immediately if:

- the project changes substantially,
- a subject is injured,
- the level of risk changes.

A final report is due **September 30, 1998.**

SUNY BROCKPORT INSTITUTIONAL REVIEW BOARD
Human Subjects Research Review Form

Project Number:

Directions: Please type or neatly print.

TO: Colleen Donaldson, Chair of IRB, Academic Affairs, 6th Floor Allen, SUNY Brockport, 350 New Campus Drive, Brockport, N.Y. 14420-2919 (716) 395-5118.

FROM: Investigator(s) name(s) Cinoy A. Clawson

Department and Phone Number Physical Education and Sport

Project Title: Thesis Proposal - Toys in Preschool Aquatics

The effect of toys, prompts, & obstacle courses on teaching water orientation skills to preschoolers with and without developmental delays.

1. **College Status** (for each investigator):
   Faculty/Staff _____
   Undergraduate Student _____
   Graduate Student X

2. **If the principal investigator is a student, list name, department, and local telephone number of faculty supervisor. Please note that the Faculty/Staff Supervisor must indicate knowledge and approval of this proposal by signing this form.**
   Faculty /Staff Supervisor's name: Dr. Cathy Houston-Wilson
   Department and phone number: 395-5352

3. **Check appropriate category of research project (complete after reviewing guidelines):**
   Category 1 (Exempt Review) ____; Category II (Expedited Review) X
   Category III (Full Review) _____

4. **The Principal Investigator must sign this form.** (If the P.I. is a student, their faculty/staff supervisor must also sign this form).
   I certify that: a) the information provided for this project is accurate; b) no other procedures will be used in this project; c) any modifications in this project will be submitted for approval prior to use.

Cinoy A Clawson — 12-3-97

1. Signature of Investigator **Date**

I certify that this project is under my direct supervision and that I am responsible for insuring that all provisions of approval are complied with by the investigator.

2. Signature of Faculty/Staff Supervisor **Date**

3. Signature of Department Head or Designee **Date**

SUNY Brockport Institutional Review Board

PROJECT INFORMATION

1. This study is to explore the effects of toys, prompts, and flotation devices on teaching water orientation skills to preschoolers with or without developmental delays. The subjects will be from a community preschool aquatics program. All subjects will be pre and post-tested with the Water Orientation Checklist Basic WOC-A developed by Killian, Arena-Ronde and Bruno (1987). The treatment program will be for 4 weeks, 30 minute lessons twice a week. The treatment lessons will be designed to practice water orientation skills with toys, prompts and floatation devices to enhance each lesson. The control group lessons will be for the same duration as the treatment group. A comparison of the two groups will be conducted to determine if toys, prompts, and flotation devices affected the learning process of the preschoolers.

2. There will be a total of 42 subjects (23 treatment, 19 control) of preschoolers, male and female, ranging from 3 to 5 years old, with or without developmental delays. The subjects will be from a summer day camp and group swimming lessons at the Jewish Community Center of Rochester.

3. The subjects will participate on a volunteer basics with permission of their parents or legal guardians.

4. NA

5. The financial obligation will be incurred by the researcher.

6. A trial study will be carried out in May of 1998. Pre-testing will be the last two weeks of June, the swim lessons will be from June to August with the post-test administered during the final week of the study.

7. The WOC-A will be the testing instrument, see appendix C.

8. Each subject will be assigned a number for the purpose of collecting information, their names and personal information will be known only by the researcher and will not be used in the written report. The subjects name, age (DOB), gender, developmental delays (if any), and parent or legal guardian signature will be indicated on the informed consent document. The informed consent information will be maintained until the data of the pre- and posttest is completed and then will be destroyed in an appropriate way (i.e. shredding).

9. See attachment: Parent cover letter and Statement of informed consent.

10. Permission has been obtained from the Jewish Community Center to conduct the study, see attached written statement.

11. NA

Parental Cover Letters

April 1998

Dear Parents

HI, my name is Cindy. I have worked at the Jewish Community Center in the aquatic department teaching swimming lesson, lifeguard training, and water aerobic for the last four years. I am currently working on my masters degree from SUNY Brockport in Early Childhood Adapted Physical Education, I am a certified water safety instructor, I have over 20 years of experience in teaching swimming lesson for the American Red Cross.

I will be doing a research study on the effects of toys, prompts, and floatation devices on teaching water orientation skills to preschoolers this summer at the JCC. I would like to invite your child to participate in my study. The study will be conducted during the aquatics time of the Camp Yeladim, each lesson will be designed to practice water orientation skills using toys, prompts, and flotation devices to enhance the lesson. There will be a pre and post evaluation of your child water skills. The only requirement of your time will be to schedule the pre-evaluation session, the post evaluation will be administered during the final week of the study. Participation is volunteer, your child will receive the swim lesson for Camp Yeladim regardless of their participation in the study.

Please read and sign the Statement of Informed Consent and return it to me by May 30, 1998. If you have any questions please feel free to contact me at the JCC or call me at home [redacted]. Thank you for your time and support. I look forward to working with you child this summer.

Sincerely,

Cindy A. Clawson

PLEASE READ -- INFORMATION

ABOUT

FREE SWIMMING LESSONS

June 1998

Dear Parents:

Hi, my name is Cindy Clawson. I am currently working on my masters degree from SUNY Brockport in Early Childhood Adapted Physical Education. This summer I will be doing a research study at the Jewish Community Center concerning the effects of toys, prompts, and flotation devices on the teaching of water orientation skills to preschoolers. I am a certified water safety instructor and I have over 20 years of experience in teaching swimming lessons for the American Red Cross.

I would like to offer you and your child **free swimming lessons,** for participation in the control group of my study. This would involve a set of 8 to 10 lessons from July 6 to August 14, as well as a pre and post evaluation of your child s water skills, which will be video taped. The pre evaluation will be scheduled during the last two weeks of June and the post evaluation after the lessons end in August. There will be both morning and evening classes that will be offered to meet your time availability. Participation is voluntary; your child will receive traditional swimming lessons in small groups of 3 or 4, and you may observe at all times if you wish to do so.

You will be asked to sign a Statement of Informed Consent if you choose to have your child participate. Please contact me at [redacted] by June 29th with any questions and to sign up; space is limited. Thank you for your time and support.

I look forward to working with your child this summer.

Sincerely,

Cindy A. Clawson
[redacted]

STATEMENT OF INFORMED CONSENT

This summer I will be doing a research study in the aquatic department. The purpose of this research is to explore the effects of toys, prompts, and floatation devices on teaching water orientation skills to preschoolers with or without developmental delays. This research project is also being conducted in order for me to complete my masters thesis for the Department of Physical Education and Sport at the State University of New York College at Brockport.

In order for your child to participate in this study, your informed consent is required. Although this study poses no risk in and of itself, the fact that the children are participating in an aquatic program is an inherent possible risk. Your child's name and any information that you give in this study will remain confidential and will be known only to me. I will be video taping all of the swimming lessons as well as the pre/post skills evaluation. Each child will be assigned a number for the purpose of collecting information, and no names will be used in the written report.

The possible benefit from your child being in this study could be that information will be learned that would allow for the training of aquatic instructors to emphasize the use of toys, prompts, and floatation devices when teaching preschoolers. Another possible benefit for your child could be in the learning of water orientation skills.

Your participation is this study is completely voluntary. You may change your mind at any time and leave the study without leaving the aquatic program your child is in, even after the study has begun. The only requirement of your time is to schedule a time and day for the pre-skill evaluation during the last two weeks of June. I will call you to establish a time and day that is best for your schedule.

You are being asked to make a decision about whether or not to participate in this study. If you wish your child to participate, and you agree with the statement below, please sign in the space provided. If you have any questions, you may contact Cindy A. Clawson at 671-8612.

I, _____, having read (or had read to me) and understood the information provided in this form, agree for my child _____ to participate as a subject in this project.

_____ _____

Signature Date

Child's Age: _____ Date of Birth: _____ Gender: _____

Developmental Delays (if any) _____

_____

Jewish Community Center of Greater Rochester
1200 Edgewood Avenue • Rochester, NY 14618 • tel (716)461-2000 • tty 461-3037 • fax 461-0805

March 13,1998
15 Adar 5758

SUNY, Brockport
Institutional Review Board:

Cindy Clawson has been given permission to do a research study with groups of children here at the Jewish Community Center. I understand that she will be giving swimming lessons to two different groups. One group will be given the intervention program and the second group will be the control group. I also understand that this study will be done during the summer of 1998.

The information from this study will be used for her thesis. Ms. Clawson will also be responsible for providing a permission statement that will explain her study to the parents/guardian of the children.

Starr Trexler
Director of Aquatic

APPENDIX C

Water Orientation Skills Checklist Advanced
WOC-A

From: Adapted Physical Activity Quarterly, (4), p. 35.

THE WATER ORIENTATION CHECKLISTS

Directions for the Water Orientation Checklist-Basic (WOC-B): The following 13 items are assessed using a five-choice rating scale. The observer records only successful performances by circling an "s" on the appropriate level of the rating scale. Rating scale choices use the following abbreviations and operational definitions:

- Spontaneous (SP): a behavior in which a subject performs one of the 13 tasks prior to an instructor's verbal directions.
- Verbal (VB): the subject performs the specified task after the instructor's verbal directions.
- Verbal with demonstration (DMO): the subject performs the specified task after the instructor's verbal directions and visual cues.
- Physical guidance (PG): the instructor manipulates the subject's body through the specified task; verbal directions and visual cues accompany manipulation.
- Objection (OBJ): the subject is unwilling to attempt the task; this response involves both passive and active objection.

Directions for the Water Orientation Checklist-Advanced (WOC-Adv): The following 13 items are assessed by recording both successful and unsuccessful performances on each level of the five-choice rating scale. For each item it is possible to record several unsuccessful performances prior to recording a successful performance. The observer records performance by circling one or more abbreviations. The following abbreviations and operational definitions are used:

- Successful (s): the subject performs the task as defined.
- Unsuccessful (u): the subject demonstrates an overt motor response in which he or she attempts but fails to perform the specified task.
- Passive objection (p): the subject fails to attend to the task, says "no," or shows no overt motor response.
- Active objection (a): the subject demonstrates pulling away, running away, tantrum, self-abuse, verbal yells or screams.

Item		*WOC-B*	*WOC-Adv*	
1. The instructor holds the subject by the hand as they walk to a predetermined location 8 ft. from the pool. Instructor then releases subject's hand and subject proceeds towards the pool:	SP	s	s	u
	VB	s	s	u
	DMO	s	s	u
	PG	s	s	u
	OBJ	obj	p	a
2. The subject touches the water with either hand or foot:	SP	s	s	u
	VB	s	s	u
	DMO	s	s	u
	PG	s	s	u
	OBJ	obj	p	a
3. The subject enters the pool by placing both feet in shallow water:	SP	s	s	u
	VB	s	s	u
	DMO	s	s	u
	PG	s	s	u
	OBJ	obj	p	a
4. The subject remains in pool throughout the observation:				
a. spontaneously				
b. exits, returns after verbal direction				
c. exits, returns after verbal direction with demonstration				
d. exits, returns with physical guidance				
e. exits, and objects to returning to the pool				
5. The subject attains a sitting, squatting, or horizontal position (wet up to waist) in the water:	SP	s	s	u
	VB	s	s	u
	DMO	s	s	u
	PG	s	s	u
	OBJ	obj	p	a
6. The subject blows bubbles (mouth contacts water and exhalation produces bubbles):	SP	s	s	u
	VB	s	s	u
	DMO	s	s	u
	PG	s	s	u
	OBJ	obj	p	a
7. The subject submerges entire face (forehead, eyes, nose, mouth, chin) in water:	SP	s	s	u
	VB	s	s	u
	DMO	s	s	u
	PG	s	s	u
	OBJ	obj	p	a
8. The subject performs a back float (ears in water, arms and legs extended, mouth and nose out of water, feet not touching the bottom):	SP	s	s	u
	VB	s	s	u
	DMO	s	s	u
	PG	s	s	u
	OBJ	obj	p	a
9. The subject performs a back float recovery (attaining a standing position without face submersion):	SP	s	s	u
	VB	s	s	u
	DMO	s	s	u
	PG	s	s	u
	OBJ	obj	p	a
10. The subject performs a prone float (face submersion, arms and legs extended, feet not touching the bottom):	SP	s	s	u
	VB	s	s	u
	DMO	s	s	u
	PG	s	s	u
	OBJ	obj	p	a
11. The subject performs a prone float recovery (attaining a standing position without turning over):	SP	s	s	u
	VB	s	s	u
	DMO	s	s	u
	PG	s	s	u
	OBJ	obj	p	a
12. The subject performs a turnover from back to prone float (without touching bottom):	SP	s	s	u
	VB	s	s	u
	DMO	s	s	u
	PG	s	s	u
	OBJ	obj	p	a
13. The subject swims 5 ft. (any propulsive movement without touching bottom):	SP	s	s	u
	VB	s	s	u
	DMO	s	s	u
	PG	s	s	u
	OBJ	obj	p	a

Note unusual behavior _____

_____

APPENDIX D

Lesson Plans

Lesson #1 INTERVENTION

Swim **Lesson Plan**

Program Objective(s)

ENTER/Safety

Getting Wet

Blow Bubbles

Game Activities

Finger Play Rules / ENTER safely

♪ song - Wash your hands & Body Parts

Talk to the Fish

Teacher C A Clawson

Date(s) _____

Unit No. _____

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
5m	Rules / Safety <Finger Play> ① NEVER SWIM ALONE - ONE finger up ② NO RUNNING - two fingers up ③ Lifeguard is in charge - three fingers up	
5m	ENTER - Get IN Safely <turn on stomach & slide IN> - Get Wet ♪ WASH your hands	sponges
3m	EXPLORE THE POOL <FOLLOW THE LEADER - walking → water - ARM Action	
15m	Activities ♪ Body Parts ≈ cue cards for different parts ♪ Rain is falling all around ≈ water CAN & sponges to make rain • Big Kick / Little Kick on edge of pool • Talk to the Fish ≈ plastic fishes	CUE CARDS WATER CANS/sponges Plastic fishes
2m	Play Time Closure- ♪ My HEAD, My SHOULDERS, My KNEES, My TOES -	

Repeat faster each time

(continued on next page)

Lesson #1 Control

Swim **Lesson Plan**

Program Objective(s)

ENTER / Safety
Getting Wet
Blow Bubbles

Game Activities

Demo / Discussion
WARM up / Body Parts
Demonstration/Repeat

Teacher C A Clawson
Date(s) _____
Unit No. _____

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
3m	ENTER Get IN safely Rules	
3m	EXPIORE THE POOL Walk → water ARM ACTION	
2m	WARM UP - Demo for students splash water on your face, arms, head, shoulders	
15m	Activities ← Demonstration • Blow bubbles <repeat • Kicking on edge <repeat - Big Kick/Little kick & Red light Green light • Body Parts <Demo Get wet EARS, HANDS, LIPS, NOSE, EYES, Forehead	
5m	FREE TIME	
2m	'Circle Hop' - GAME *see back	
	EXIT	

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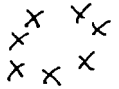
Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
GAME	Circle Hop  Hop around IN circle - stop - do a skill get body parts wet / blow bubble VAR. Holding hands hop in place	

Evaluation: How effective will these lesson activities and settings be in helping children attain/progress toward attainment of objective? _____

_____

_____

_____

_____

Note: What variation, changes if any, or helpful comments can you make to improve effectiveness of the lesson plan? _____

_____

_____

_____

Lesson # 2 INTERVENTION

Swim **Lesson Plan**

Program Objective(s)

Breath Control
- Submerger face
- blow bubbles

Back Float

Game Activities

WASH CLOTHS / Body Parts
- TAIK TO FISHES
- RINGS / sponges

Molly the Dolly

Teacher CA Clawson

Date(s) _____

Unit No. _____

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
2m	RULES - FINGER Play #1 NEVER SWIM ALONE < one finger up	
3m	ENTER / GET WET ♪ WASH your HANDS	SPONGES
7m	Play Scene WASH CLOTH • ? Where CAN you put wash cloth on your body chest / head / face / etc • Holding WASH CLOTH At surface - hold breath & quickly put face in wash cloth	WASH CLOTHS
12m	Skill ACTIVITIES NOODLES Floating Rings / SPONGES WASH CLOTH TAIK to the Fish Molly the Dolly < to Demo BK FLOAT & INST • Colors of flags • ABC • count to #3/5/10	NOODLES / cut in half Floating Rings Sponges Wash cloths Plastic fishes Molly the Dolly < Cabbage Patch Doll Color flags
4m	GAME ♪ Body Parts	Cue Cards of Head / Body Parts
2m	END ♪ My HEAD, My SHOULDERS, MY KNEES, MY TOES / & faster	

(continued on next page)

Lesson #2 Control

Swim **Lesson Plan**

Program Objective(s)

Breath Control
Arm Action
Back Float

Game Activities

Submerge face
Blow Bubbles
Move → Pool
& INSTRUCTOR

Teacher C A Clawson
Date(s) _____
Unit No. _____

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
2m	ENTER / EXPLORE • Move → Pool - ARM ACTION < Reach & Pull, Big Arms	
2m	Breath Control • Getting face wet < Demo • Blow bubbles	
5m	Wall Work • Bounces • shoulders, hair, ears in water • Kicking < Big K / little K & Red Lt / Green Light	
10m	BACK FLOAT < repeat x 3 > ARM ACTION < X 3 > Walk & Arm Action ♪ pull pull pull your Arms *see back	
3m	GAME "Circle Hop"	
3m	COMBO SKILLS ARMS & legs & Inst	
5m	FREETIME / EXIT	

(continued on next page)

Lesson Plan *(continued)*

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
	♪ Pull Pull Pull your Arms (TUNE Row Row Row your Boat Pull Pull Pull yar Arms in the swimming pool Merily Merily Merrily Swimming really Cool	

Evaluation: How effective will these lesson activities and settings be in helping children attain/progress toward attainment of objective? _____

_____

_____

_____

_____

Note: What variation, changes if any, or helpful comments can you make to improve effectiveness of the lesson plan? _____

_____

_____

_____

Lesson #3 INTERVENTION

Swim **Lesson Plan**

Program Objective(s)

Arm Action

Breath Control

Game Activities

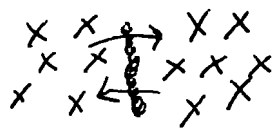
THROW/RETRIEVE
♪ Pull Pull Pull yar Arms
SPONGE SPLASH

WASH CLOTH PLAY

Teacher C A Clawson

Date(s) _____

Unit No. _____

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
2m	Rules <finger play #1 #2 #3 Lifeguard is in charge	
3m	ENTER/GET WET ♪ WASH your Hands	SPONGES
15m	Play Scene • ARM ACTION - ♪ Pull Pull Pull your Arms ∈ two sponges - Throw & Retrieve <Reach/Pull> WASH CLOTH Play • FACE wet • Hold Breath BK FLOAT ∈ Molly Dolly NOODLES	SPONGES WASH CLOTHS Molly the Dolly - Cabbage Patch Doll NOODLES
8m	Give N Get <Clean up your pod> "Sponge Splash" Junk Yard Dogs' 	Sponges Balls
2m	CLOSURE/EXIT ♪ Itsy Bitsy spider ∈ plastic spider ring.	Plastic Spider Ring

(continued on next page)

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
	Pull Pull Pull your Arms · Row Row Row your Boat in the swimming Pool Merrily Merrily Merrily swimming really cool	

Evaluation: How effective will these lesson activities and settings be in helping children attain/progress toward attainment of objective? _____

Note: What variation, changes if any, or helpful comments can you make to improve effectiveness of the lesson plan? _____

lesson #3 Control

Swim **Lesson Plan**

Program Objective(s)

Arm / Leg Movement
Breath Control
Back Float

Game Activities

Demo & Phy. Assistant
Balloon Cheeks
C INSTRUCTOR SUPPORT

Teacher CA Clawson

Date(s) _____

Unit No. _____

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
1m	ENTER	
2m	Get Body Wet • Bounces on wall • Bend Knees/bk of head, ears under water • FACE (splash water on eyes, head	
11m	ARM ACTION: (repeat several times ♪ Pull, Pull, Pull your Arms - Reach & Pull (cue words Kicking: • on Wall - Count to 10 - Red lt. / Green light COMBO: ARM & Legs C Inst. holding them up BACK FLOAT: X 2 C instructor support Breath Control: Demo - face IN Balloon Cheeks	
5m	FREE TIME	
5m	GAME 'Circle Hop'	
	EXIT	

(continued on next page)

Lesson #4 Intervention

Swim **Lesson Plan**

Program Objective(s)

Arm Action
Underwater Exploration
Breath Control

Game Activities

♪ Pull Pull Pull your Arms
Musical Hoops <Hula Hoop>
Floating Rings / Blowing Bubbles
Activities

Teacher CA Clawson
Date(s) _____
Unit No. _____

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
2m	Rules/Safety <Finger Play> #1 NEVER SWIM ALONE	
5m	ENTER Wall Work - x xxxx • Get Shoulders wet/ bk of head - ears IN • Kicking <Big Kick/Little Kick, Green Light/Red Light> ♪ Wash your hands	SPONGES
8m	Group Activities <Back/Fort Across Pool> x2 Arm Action = two sponges <one way> → Reach/Pull ♪ Pull Pull Pull your Arms • By color of sponges - when to go Hop or Blow bubbles <back across> ←	SPONGES
13m	Play Scene • Hula Hoops • Floating Rings face in center of Ring • Beach Ball / Ping Pong Ball straws Blowing Bubbles (different sport ball) UNDERWATER EXP. • Hula Hoops ♪ Musical Hoops When music stop go under water to get inside hoop	Hula Hoops Music / Cassette Player Floating Rings Beach Balls Ping Pong Ball Straws
2m	CLOSURE - ♪ Itsy Bitsy Spider	Plastic Spider Ring

(continued on next page)

Lesson #4
Control

Swim **Lesson Plan**

Program Objective(s)
Breath Control
- holding breath
Underwater EXPLORATION

Game Activities
Face in water
DEMONSTRATION
Going UNDER

Teacher CA Clawson
Date(s) _____
Unit No. _____

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
2m	Rules & Safety - Disscussion	
4m	ENTER - Safely • Get parts of face/head wet • Get shoulders under water • Get Hair wet	
6m	Review - ARM & KICK. Action ☆ NOODLES	NOODLES - Cut in ½
8m/6m	Breath Control Demo - Putting whole face in - encourage students/repeat Demo - Going Under - encourage students to go under BACK Float ☆ instructor ☆ noodles	
4m	FREE TIME EXIT	

(continued on next page)

Lesson #5 INTERVENTION

Swim Lesson Plan

Program Objective(s)

Arm Stroke / Swim
Breath Control
Kicking

Game Activities

♪ Old McDonald ♪ Swimmie Wimmie
Hula Hoops - RINGS - Balls/STRAWS
NOODLES

Teacher CA Clawson
Date(s) _____
Unit No. _____

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
3m	Rules / Safety #1 NEVER SWIM ALONE ≤ stories of why #2 NO RUNNING < Deck wet #3 Lifeguard IS IN charge	
3m	ENTER / Get wet ♪ if your happy AND you know it...	SPONGES
8m	Group Activities < FARM ANIMALS > ♪ Old McDonald Animals → ENTER → → → EXIT ↓ BASKET for Animals • ARM STROKE → EXIT walk b/k, ENTER Get ANIMAL → ARM STROKE/SWIM ARCASS	Cassette player ♪ music tape - old McDonald Plastic FARM ANIMALS
13m	Play Scene • NOODLES Kicking/BK Float • Floating & Sinking Rings Breath Control • Hula Hoops underwater exploration • BALLS/STRAWS Blow Bubbles	NOODLES - cut in ½ Rings - Float/SINKing Hula Hoops Ball - Beach/Ping Pong STRAWS
3m	Closure ♪ Swimmie Wimmie <Hokey Pokey> *see back	

(continued on next page)

Lesson Plan *(continued)*

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
	♪ Swimmie Wimmie Put your Right Hand in/Put your lft Hand out Put your Rt Hand in and splash it all about you Do the Swimmie Wimmie (STROKE ACTION) And turn yourself around That's what it's all about Continue left hand, right foot, left foot, lips, face, whole self	

Evaluation: How effective will these lesson activities and settings be in helping children attain/progress toward attainment of objective? _____

Note: What variation, changes if any, or helpful comments can you make to improve effectiveness of the lesson plan? _____

Lesson #5 Control

Swim **Lesson Plan**

Program Objective(s)

Combo Skill

Breath Control

Game Activities

NOODLES & E INST. support

Arm Action / Kicking

DEMO - Balloon Checks

WET FACE

Teacher CA Clawson

Date(s) _____

Unit No. _____

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
3m	ENTER / Get Wet • Bending knees <knees on bottom> shoulder wet / bk head / ears under	
3m	Wall Work • Bounces x10 • Hop → shoulder IN • Kicking	
14m	ARM ACTION x2 • Pull Pull Pull BACK FLOAT x2 - count to 5 Hold Breath • Balloon Cheeks Mouth / Nose IN • FACE WET <DEMO> Water IN your face/eyes	
8m	COMBO SKILL - NOODLES <ARM & Leg Action> - E Inst. <1 to 1>	NOODLES
2m	END - Ring Around the Rosie EXIT	

(continued on next page)

Lesson #6
INTERVENTION

Swim Lesson Plan

Program Objective(s)
Arm / Leg Movement
Breath Control
Deep Water EXPLORATION

Game Activities
♪ Old McDonald ♪
NOODLES
Rings - Pick Up
Aqua Step in deep water to stand on
T INST. Help

Teacher C A Clawson
Date(s)
Unit No.

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
2m	Rules ? What is the #1 swimming rule	
5m	ENTER Wall Work • Knees Bent / shoulder in → bkhead → ears in • Kicking < Big Kicks / Little Kicks ♪ if your happy AND you know it...	Sponges
6m	Activities ♪ Old McDonald move ANIMALS → pool / USE VAR. movement - Arm Action - Blow Bubbles - Hop	CASSETTE Player plastic farm ANIMALS
7m	• NOODLES KICK BK FLOAT • RINGS Breath Control • Deep Water EXPLORATION	NOODLES / cut in ½ Floating & Sinking Rings Aerobic Aqua Step
7m	Give-N-Get "Sponges Splash"	Sponge BALLS
3m	Closure - ♪ 'Swimmie Wimmie' *See back	

(continued on next page)

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
	♪ Swimmie Wimmie Put your Rt Arm in / Put your Rt Arm out Put your Rt Arm in AND splash it all about Do the swimmie Wimmie <ARM ACTION> AND TURN yourself around That's what its all about. Do Left ARM / Lips / FACE / legs / WHOLE SELF	

Evaluation: How effective will these lesson activities and settings be in helping children attain/progress toward attainment of objective? _____

_____

_____

_____

_____

Note: What variation, changes if any, or helpful comments can you make to improve effectiveness of the lesson plan? _____

_____

_____

_____

Lesson #6
CONTROL

Swim **Lesson Plan**

Program Objective(s)

Arm / Leg. Movement
Breath Control
Deep Water EXPLORATION

Game Activities

NOODLES / inst support
Demonstration
Aqua Step to stand on ∈ inst help

Teacher CA Clawson
Date(s) _____
Unit No. _____

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
3m	ENTER / Safely Rules - Discussion about swimming rules	
3m	Wall Work • Bend Knees – shoulders in → bk head → ears in • Bounce 10x	
10M	NOODLES (ARM / Leg Mvmt) • Kicking / ARM ACTION • FRT BK FLOAT ∈ Noodles & inst. • ∈ inst. holding up x3 per student	NOODLES
5m	Breath Control • Blow bubbles ≤ Demonstration • FACE Wet ≤	
6 in	Deep Water EXPLORATION - STAND on step - ∈ inst	Aerobic Aqua Step
3m	FREETIME EXIT	

(continued on next page)

Lesson #7 INTERVENTION

Swim **Lesson Plan**

Program Objective(s)
Front/Back Float
Combo Skill
Deep Water EXPLORATION

Game Activities
Milk Jugs
NOODLES / Hungry Hippo
Aqua Step & CINST.

Teacher CA Clawson
Date(s) _____
Unit No. _____

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
3m	Rules/Safety ? What is the #2 & #3 swimming Rules	
1m	ENTER ♪ if your happy...	
11M	ACTIVITIES • Milk Jugs -Front/Back Fl -Kicking • NOODLES -ARM/Legs • Rings/Toys -underwater exploration • Big Pool Deep Water Aqua Step	Milk Jugs NOODLES - cut ½ Rings (that sink Toys Aqua Step
5m	Play Time - st use equip. as they wish	Plastic Hippo NOODLE Pieces
6m	Give-N-Get Hungry Hippo (swim stroke to pick up noodle pieces	
3m	Closure ♪ my Head, My Shoulder, My Knees, My Toes X faster each time EXIT	

(continued on next page)

Lesson #7 Control

Swim Lesson Plan

Program Objective(s)

Front / Back Float

Arm/leg Action

Game Activities

Demo → inst support

NOODIES / INST. support

Teacher C.A Clawson

Date(s) _____

Unit No. _____

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
2M	ENTER - safely	
5m	Wall Work - GET WET • Bend Knees < shoulders → bk head → ears. (hold count 5) • Kick Red/Green light & Big/Little Kicks • Blow Bubbles - repeat x 5	
15M	FRONT FLOAT < Demo c INST. repeat x 3 BACK FLOAT c INST Count 5/10 NOODIES < independently / c INSTructor • Kicking • Arm / leg Action Combo • FLOATING Breath Control FACE WET - splash - submerge face	NOODIES
5m	FREE TIME	
3m	Activities 'Circle Hop' SKILLS - Blow bubbles, face IN/chin IN, ARM STROKE, HAIR WET, EARS WET EXIT	

(continued on next page)

INTERVENTION
Lesson #8

SWIM Lesson Plan

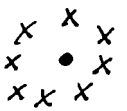
Program Objective(s)

Turnover
ARM & Leg Combo.
Deep Water EXPLORATION

Game Activities

Inst. Support
NOODIES / Hungry Hippo
Jumping IN

Teacher CA Clawson
Date(s) _____
Unit No. _____

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
2m	Rules - Finger Play #1 NEVER SWIM ALONE #2 NO RUNNING #3 Lifeguard is in charge	
3m	ENTER ♪ if your happy and you know it <Adv. skills> *see back	Sponges
15m	Play Scene Toys/Molly the Dolly / Milk Jugs/NOODIES TURNOVER • Kicking BK-FLOAT/Ft FLOAT • combo skills Deep Water Exploration ♪ clean up * • Jump in	Toys molly the Dolly milk Jugs NOODLES
6m	GAME Hungry Hippo 	NOODLE Pieces Plastic Hippo
3m	END ♪ my head, my shoulders, my knees, my toes / x faster ♪ Iitsy Bitsy Spider	Plastic spider Ring
1m	EXIT	

(continued on next page)

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
	♪ IF your HAPPY - - - clap your hands, wet your faces, hop up & down, get hair wet, ARm Action → pool, kick feet on wall, hop like frogs, blow bubbles, go underwater, wash your tummy, shout Hooray. ♪ CLEAN UP SONG clean up clean up everybody everywhere clean up clean up everybody do their share	

Evaluation: How effective will these lesson activities and settings be in helping children attain/progress toward attainment of objective? _____

Note: What variation, changes if any, or helpful comments can you make to improve effectiveness of the lesson plan? _____

CONTROL
Lesson #8

Swim **Lesson Plan**

Program Objective(s)

TURNOVER

Arm & Legs - COMBO

Game Activities

Demo/ Inst. help

NOODLES / Inst. help

Teacher CA Clawson

Date(s) _____

Unit No. _____

Time	Diagram and Assessing/Instructional Activity Settings and Game Activities	Equipment
2m	ENTER • Rules/Safety Discussion • Get wet to shoulder <kneeling on bottom>	
6m	Wall Work <Review> -Blow bubbles x 5 • Kicking <Red light/Green light> • Get wet - bk of head - ears • Bounce x 10	
3m	MOVE THROUGH WATER • ARM ACTION → pool • RUN IN Water	
7m	SKILL <NEW> • TURNOVER - BK FLOAT/FR FLOAT	
7m	COMBO SKILLS -Noodles - E Inst.	Noodles
5m	FREETIME /EXIT	

(continued on next page)