PSYCHO-PEDAGOGY OF GAME IN SWIMMING TEACHING AT PRESCHOOL AGE

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Abstract

The game is the physical and mental activity that contributes most to the formation and development of the child's personality, especially at pre-school age. The variety and creativity of the game reflect the mental, emotional and health status of the child. In terms of swimming instructional activity, the implementation of the game in learning to swim is beneficial at all developmental stages of pre-schoolers, in varying weights depending on the developmental stage of the children. The movement games are grouped in the preschool activity on two levels: the 3-5 years level and the 5-7 years level. The research aims to investigate how two groups of children aged 3-5 years and 5-7 years learn to swim by adapting traditional didactic movement games to aquatic games, aiming to assimilate knowledge, skills and motor skills at the two levels of development of the pre-schoolers.

The water games can be used for beginners, initiated, advanced or all these levels, as well as for large groups, even groups, 2 or more children. Water has about 12 times the resistance of air, making every movement in water a real exercise. On top of that, twater provides both buoyancy and support for the body.

Keywords: child, early age, motor development, play, skill, training, water

1. INTRODUCTION

Preschool age (part of early childhood) is referred to in the literature in different ways[1]:

- Alvarez (3-15 years, second childhood),
- Claparède (early childhood to 6-7 years, period of general intellectual interests),
- Cruchet (middle childhood, 2 to 7 years),
- Chircev (early childhood, 3 - 6/7 years),

[1] **Badea**, E., Caracterizarea dinamică a copilului şi adolescentului, EDP, R.A. Bucureşti, 1993

- Debesse ("little faun" age, 3 - 7 years),
- Erikson (sense of initiative stage, 3 - 6 years),
- Gessell (stage of cooperation – socialization, 3 - 6 years, stage of extreme attitude crisis, 6 - 7 years),
- Lacassagne (third childhood, 2 - 7 years),
- Leontiev (preschool stage, 3 - 6 years),
- Nagy (subjective interest, 2 - 7 years),
- Piaget (stage of internalization of action schemas into representations and emergence of semantic function, 2 - 4 years, stage of articulated representational regulations, 4 - 7 years),
- Springer (second childhood, 2 - 10 years),
- Verrier (early childhood, 0 - 7 years),
- Wallon (stage of constitution of self-consciousness, 4 - 5 years, stage of differentiation of social behaviour),
- Șchiopu, Verza (second childhood, 3 to 6 years).

The activity of play remains by far the most important contributor to the formation of personality. Play is considered as a free physical or mental activity, which is accomplished only due to the pleasure it provokes, says J. Chateau[2].

Playing 'family games' is intensely projective and, according to the authors Ursula Șchiopu and Emil Verza[3], very important because it is the main stage of a child's life and the social nucleus in which the whole of social life is condensed and sensitively reflected. This game mirrors the habits, atmosphere, style of communication and affection in the tensions that occur in the family, the events that pass through it.

At 3 years of age, play is still linked to objects, but the child's role takes shape, profile, it differentiates as such in the role of doctor or prince, integrates into a subject or as a family episode. At 4, play is no longer isolated, the child has a partner, older or younger than him, according to whom he respects the rules of play or imposes his own. At the age of 5, play with the subject and role takes on a very important developmental

[2] **J. Chateau**, „Copilul şi jocul", E.D.P., Bucureşti, 1970
[3] **Şchiopu, U., Verza**, E., Psihologia vârstelor, EDP, R.A. Bucureşti, 1997

role, adapting to the role possibilities of the partner is evident, as is the ability to feed the subject.

Particularly interesting are the professional roles of 5–6-year-old children (doctor, shop assistant, children's theatre cashier, etc.). The child uses elementary professional characters taken from professions that are practiced in public or are in contact with the public.

Through these games, the child approaches the world of professions and work, interpreting positive and negative roles, thus structuring moral and social relationships.

Games are based on imitation, which at this age is creative. Play meets the need of creating not only the personality, but also the self in relation to life and its various facets. Analysis of play reflects the child's mental, emotional and health status. At the age of 4, movement games are developing (ball games, circle games, complicated tricycle rides, etc.); at the age of 5, they are interested in games with cubes, doll's houses, and dolls begin to interest boys, who see them as 'babies'; at the age of 6, games with earth and water and 'dress-up' games (girls dress up in their mothers' clothes, boys are 'redskins', 'cowboys', etc.).

Play with rules becomes prominent, and a representative one is "hide and seek":

- In the young pre-schooler, hiding and running to the counting place are essential , but they are executed uncoordinatedly and unrelatedly to the conduct of play partners, their conduct is still egocentric;

- The middle pre-schooler is observed to be overzealous in hiding, looking for the most complicated places, to the detriment of prioritizing reaching the batting place;

- In the older pre-schooler, it is possible to identify an orientation towards facilitating the rules of the game (hiding close to the batting place and speculating about reaching it before the one who is looking for the others).

The pre-school period is dominated by the need for play in which mental combinations, imaginative representations (symbolic games) and complex forms of experience are acted out. The entire pre-school period is influenced by the socialization of the subjects of play and the socialization of roles. Games contain numerous subjects and structures that are passed down from generation to generation of children. The rules refer to the role behaviours in the role-playing game, the obligation to stay in the role

in order to allow the partner to reply. Obligatory rules also refer to the child's obligation to participate in the game after he has engaged so as not to spoil the game. This rule becomes active especially after the age of 5, when a child who violates it is labelled as unreliable or clumsy.

Play takes on increasingly complex psychological roles: formative, relaxing (exclusively expansive - projective), facilitating children's adaptation to the more complex aspects of their environment, humanizing, preparing children for life.

Unlike the other games, which in kindergarten are selected by preschool groups (small, medium, large), the games used in physical education activities are grouped into 2 age levels:

- 3-5 years level;
- 5-7 years level.

Physical education activities are aimed at the harmonious development of the body, the development of motor skills, motor abilities, and so on.

For both age levels, there are various exercises and games for:

- recognizing and naming different body parts:
- knowing the motor possibilities of different body parts (segments): head and neck joint movements ("We look at the floor, we look at the ceiling" versus "Let's pick apples, let's pick strawberries);
- movements of upper, lower limbs, trunk (trunk extension - "The swimmer" versus "Dwarves and giants");
- perception of spatial components and appropriate orientation:
- direction, distance, positions, actions on the spot, actions while moving (on-signal start-stop walking: "Stop" versus "You stop and then start");
- perception of temporal components in the execution of movements ("Knock, knock, get in place" versus "1-2,1-2 you all do the same as us");
- harmonious physical development (for instance upper limbs - "Stretching the elastic" versus "Propeller");
- development of motor skills - speed, dexterity, endurance, strength - (for dexterity, exercises and games with and without objects - "Ball through the tunnel" versus "Bowling");

- motor skills:

- basic motor skills: walking, running, running, jumping, throwing - catching (running in a straight line - "Highway" versus "Athletes in a Contest");

- utility motor skills: balancing, crawling, pulling and pushing, weight carrying, climbing, climbing (pulling and pushing - "The Carriage" versus "The Defective Truck");

- elements specific to different sports - rhythmic gymnastics, acrobatics, swimming, skating, skating, tobogganing, skiing, and so on (side rolling - "Sunbathing" versus "Pancake").

Since in our country the preparatory class has been moved to primary education, and children are referred to primary education, no longer being considered as preschool, we have adapted the groups in the present study to 3–4-year-olds and 5–6-year-olds respectively.

We observe that games and exercises at the 5-6 age level increase in complexity compared to those at the 3-4 age level, pre-schoolers assimilate knowledge, skills and motor skills in the first level and develop them in the second, entering primary education with a fairly large baggage of motor skills and skills, along with knowledge of motor skills.

According to Megitt, C. (2012)[4], Sheridan, M. (2014)[5] between the ages of 3 and 4, children experience significant development in both gross motor skills (involving large muscle groups) and fine motor skills (involving precise hand and finger movements). Below there is a general overview of typical abilities at this stage.

Gross Motor Skills (Large Movements)

Children aged 3 to 4 are typically able to:

- run more confidently and with better control;
- climb stairs using alternating feet;
- hop on one foot for a few steps;
- jump down from a low step;
- catch a large, soft ball when it's gently thrown;

[4] Megitt, C. (2012). **"Child Development: An Illustrated Guide"** (Heinemann)
[5] Sheridan, M. (2014). **"From Birth to Five Years: Children's Developmental Progress"** (Routledge)

- pedal a tricycle;
- dance, tiptoe, and walk along a straight line;
- throw a ball overhead with greater aim and coordination.

Fine Motor Skills (Small, Precise Movements)

At this age, children are often able to:

- hold a pencil correctly using a tripod grasp;
- draw basic shapes like circles, lines, and crosses, and begin to sketch simple human figures;
- use scissors to cut along straight or curved lines;
- turn book pages one at a time;
- stack blocks to build towers of ten or more;
- dress and undress with minimal assistance, managing large buttons and zippers;
- use a spoon and fork with increasing skill.

At ages 5 to 6, children reach a significant stage in their motor development as they prepare to enter the school environment. Their movements become more coordinated, controlled, and purposeful, and their overall body awareness and balance show marked improvement. Below there is an overview of typical motor skills at this age:

Gross Motor Skills (Large Movements)

By 5–6 years old, children are typically able to:

- run with greater speed, coordination, and control;
- hop on one foot and then switch to the other (alternating feet);
- climb, roll, and perform simple twirls or spins;
- follow basic dance steps or simple choreographed movements;
- throw, catch, and hit a ball with improved accuracy;
- walk along a straight line or balance beam with control;
- use more complex playground equipment (e.g., slides, swings, climbing ropes).

Fine Motor Skills (Small, Precise Movements) are studied by Nurjannah, S. R., Hidayat, N., & Suparman, E. (2022)[6].

At this stage, children generally can:

- hold a pencil with a stable tripod grasp;
- write large letters and numbers, though occasional reversals are common;
- cut out more intricate shapes using scissors;
- begin tying shoelaces or fastening small buttons, sometimes needing assistance;
- color within the lines and draw with greater pressure and control;
- assemble jigsaw puzzles with 20 or more pieces.

2. METHODOLOGY

When it comes to early childhood swimming teaching, the game plays a central role—often more significant than any other factor—alongside the strong competitive spirit typical of children at this age. Aquatic games can be effectively used across all skill levels, from beginners to advanced swimmers, and are suitable for a variety of group sizes, whether large groups or smaller groups of two or more children.

Taking into account the developmental characteristics of different age groups, we have tailored swimming teaching programs that incorporate play and competition-based learning methods appropriate for each group. The objective of this research is to assess how children in different age categories acquire the motor skills and competencies involved in learning to swim. These include introduction to water skills, floating, gliding, and the partially or fully of at least two strokes — freestyle and backstroke —through didactic and movement games adapted to their developmental level.

For each age group, our focus has been on fostering skills and confidence in the aquatic environment. Because water offers approximately 12 times the resistance of air, every movement becomes a meaningful exercise. Furthermore, water supports the body

[6] Nurjannah, S. R., Hidayat, N., & Suparman, E. (2022). **Problematics of improving fine motor abilities of children aged 5–6 years.** ***ResearchGate.***

and provides buoyancy, reducing the effective body mass as children submerge. This allows them to train without placing excessive strain on their joints, bones, or muscles, creating an ideal setting for physical development through swimming.

We incorporated several core principles from the Learn to Swim program, introduction to water skills, fundamental aquatic skills, diving, vertical and horizontal floating, gliding, and fundamental of freestyle and backstroke, as well as underwater exhalation.

Each group of children participated in exercises specifically adapted to their psychomotor development level. These activities were delivered in the form of games to encourage engagement and learning through play.

Balance

Photo no. 1. 3-4 year-old children exercising balance

Photo no. 2. A 5-6 year-old child exercising balance

For balance development, one of the activities involved using a floating carpet:

The children in the younger age group manage to get on a floating carpet with a larger surface area, where they try to keep their balance, enjoy their success and, when they slip off the carpet, try to get back on, a game they really enjoy.

Older children have to climb on a more rigid mat; they have to climb up from the water and stand for at least 5 seconds. The game is also very popular, the children become very competitive, they all want to balance standing on the mat.

Aquatic breathing

Photo no.3. 3-4 year-old children blow the ball between the arms

Photo no. 4. A 5-6 year-old child blows the ball and keeps it

In this exercise, younger children played a game called **"Blow the Ball."** As part of the activity, they practiced color recognition by identifying and naming the colors of balls from a colored bag before choosing one. This added a didactic element to the movement-based game, and many children were eager to demonstrate their knowledge of colors — even in multiple languages — which they expressed with pride. The children then blew the ball across the water's surface without touching it, simultaneously practicing free leg movement.

For older children, the exercise was more advanced. They blew into the ball while performing the flutter kick (cradle foot movement) with a kickboard held beneath their arms. This version required greater coordination, as they had to keep the ball within the space formed by their hands and the board. It served as both a competitive and engaging method for practicing controlled exhalation, effectively preparing them for proper underwater breathing techniques.

Diving

Photo no. 5. A 3-4 year-old child diving half face

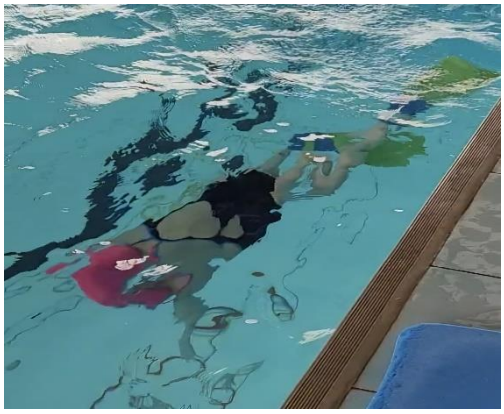

Photo no. 6. A 5-6 year-old child diving whole body

Toddlers often manage to blow air into the water only partially, as they are typically hesitant or afraid of fully submerging their faces. To help them overcome this fear, we use a playful activity called **"How Many Toes in the Water,"** which gently encourages them to lower their faces into the water in a fun and non-threatening way.

In contrast, older children are eager to dive and have already developed confidence with underwater exhalation. They enthusiastically retrieve objects from the bottom of the pool — such as hoops and sticks — turning the exercise into an enjoyable and skill-building activity.

Stroke development

Photo no. 7. A 3-4 year-old child learning basics of backstroke

Photo no. 8. 5-6 year-old children exercising free and back

Children in the small group work on maintaining a horizontal position, either on their front (ventral) or back (dorsal), while coordinating leg movements and attempting basic arm actions.

In the large group, children practice full stroke technique. They focus on lateral breathing during freestyle and work on coordination and rhythm in the backstroke.

3. RESULTS

The children successfully acquired the targeted aquatic skills and abilities, in alignment with the psychomotor characteristics specific to each age group. The sessions were enjoyable, with children responding positively to the playful and relaxed approach to learning. As anticipated, the playful methodology proved effective — demonstrating that learning to swim can indeed be a rewarding and enjoyable experience.

Water games come in many forms. According to Kim Rodomista[7], they can be categorized into several types:

- **Imaginative games** – e.g., *"What Do I Make Everyone Do?"*, *"What Am I?"*
- **Tag games** – e.g., *"Jellyfish Bite"*, *"Underwater Tag"*, *"Marco Polo"*
- **Individual games** – e.g., *"Limbo"*, *"Underwater Bowling"*, *"Ducks and Sharks"*
- **Team games** – e.g., *"Water Balloon Volleyball"*, *"Catch the Thief"*, *"Octopus Race"*
- **Classic water games** – e.g., *"Cat and Mouse"*, *"Graveyard"*, *"Wash and Run"*
- **Racing games** – e.g., *"Chase the Ball"*, *"River Crossing"*, *"Smelly Feet"*

4. DISCUSSION AND CONCLUSIONS

Beginning with the initial hypothesis that motor development varies by age group, we implemented a range of exercises tailored to the acquisition of aquatic skills such as balance, breath control, diving, and basic swimming techniques. Each age group was assigned specific game-based exercises appropriate to their level of psychomotor development.

Attempting to reverse these roles highlights the importance of this differentiation: more complex tasks can be overly challenging for children aged 3–4, while 5–6-year-olds, who typically exhibit more advanced motor skills, may find the

[7] **Rodomista, K.**, 101 Cool Pool Games for Children, Bang Printing, Minnesota, USA, 2006.

simpler tasks too easy. In the latter case, although they might complete the activities with ease, they may experience stagnation in learning proper swimming techniques due to a lack of challenge.

Conversely, for the younger group, overly difficult exercises could diminish their enjoyment, potentially leading to fear of water or even refusal to attend swimming lessons. Despite dividing the children into two broad age groups, individual differences remain significant. Some younger children may show advanced abilities and adapt quickly, while some older children may struggle with foundational skills and require more time.

This variation underscores the importance of a flexible, individualized approach. While age-specific structuring is useful, every child is unique. Therefore, swimming lessons should be engaging and enjoyable for all — incorporating fun exercises, games, and friendly competitions — to encourage consistent participation and foster a love for swimming.

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