Journal of Physical and Outdoor Education
Vol. 7 No. 2, August 2025, pp. 251-262

SWIMMING LEARNING MODEL IN DEVELOPING MOTOR SKILLS OF CHILDREN AGED 3-6 YEARS

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Abstract

This study aims to examine the effect of swimming learning models on the motor development of children aged 3-6 years. Through the literature review method, this study analyzed various sources that discuss the effect of swimming learning on children's gross and fine motor skills. The results showed that implementing routine swimming interventions for six weeks was able to significantly improve gross and aquatic motor skills. This study also highlights the importance of effective learning models to improve children's learning processes and the role of parents and teachers in supporting motor development. Although a number of studies have shown positive aspects, more in-depth research is still needed regarding the long-term effects and transfer of swimming skills to everyday situations. Methodological shortcomings and objective measurements are the main obstacles in this study. Therefore, recommendations are directed at the development of more comprehensive methods and testing in a broader context.

Keywords: Learning, Swimming, Children's Motor Skills

INTRODUCTION

Swimming is one of the established sports and is one of the goals of physical education in schools. This is because swimming has many benefits, including it can help the growth and development of the body, socialize and interact with others, increase self-confidence, and can be used as a recreational activity because cold stimuli can refresh the body and feelings. Learning to swim can also increase students' knowledge about effective and efficient movement, the properties of water, swimming theory and others. Because of some of the benefits mentioned above, swimming has now been included in the world of education from elementary to high school. Based on this description, the author is very interested in making an article about learning to swim at school age.(Ramadhan et al. n.d.)(Zahra et al. n.d.)

In addition to the right learning method, another factor that affects success in the process of learning basic swimming technique skills is the age group. A child's appearance is also influenced by the age factor. The age factor has different levels of development in capacity. Each age group has different physical, mental and social capacities caused by environmental factors. This difference has implications for the learning process. Children

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who have higher age stages also have higher cognitive aspects.(Kartikasari et al. 2023) (Wawan, Prawira, Prabowo, and Febrianto 2021)

Learning to swim aims to provide an experience of fun water activities, learning to swim not only provides physical benefits in terms of fitness and swimming skills, but can also make a significant contribution to the development of children's confidence. Through fun experiences, learning to swim can be a strong foundation to build good confidence in their future (Mulyana et al. 2024)(Laksana Putra and Rahmat n.d.)

Swimming is one of the sports that is favored by the community to maintain and improve health. Swimming can be enjoyed by young children, adults and even the elderly. In ancient countries, swimming served to educate and train the younger generation for the defense of the country. The first stage of swimming training follows the natural laws of buoyancy and gesture. Swimming does not dictate the pattern of the arms or legs, which should be done as long as it can float and move anywhere. Swimming can also be enjoyed by everyone, regardless of gender, age, male, female, old, young and anyone who can. From the opinions of the experts above, it can be concluded that swimming is a water sport that everyone can enjoy in their free time and can be done in freshwater, salt water or in the sea. Swimming consists of four styles, namely freestyle, breaststroke, backstroke, and butterfly. (Lu, Zhang, and He 2022) (Septiani et al. 2016). (Literacy Sports et al. 2020) (Bagus Endrawan et al. 2023)

Physical education, sports and health have special characteristics in the form of physical (physical) activities. Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have intelligence, religious spiritual power, self-control, personality, learning takes place According to swimming, swimming is a sport that has been known since prehistoric times. Swimming is a sport that is carried out in the water by performing certain movements or styles including butterfly, backstroke, breaststroke and freestyle. According to swimming, there have been several kinds of movements or styles. noble morals, as well as the skills needed by himself, the people of the nation and the state. So that in implementing the principles of the implementation of education, it must be in accordance with Law No. 23 of 2003. Education is one of the most important things in human life, which is a process of developing all aspects and personality of human beings that includes their knowledge, values and attitudes, skills. Physical education is essentially an educational process that utilizes physical activity to produce a holistic change in the quality of the individual (The effect of swimming learning methods on physical condition in children 2024) (Maharani et al. 2024) (Cahaya and Retno 2023) (Wawan et al. 2012) (Islam et al. n.d.) (Pratt, Duncan,

and Oxford 2024)

The physical benefits of learning to swim are very diverse. Swimming helps strengthen muscles, improve flexibility, and body coordination. In addition, this activity is also good for children's heart health. When learning to swim, children also learn to regulate breathing and increase lung capacity, all of which are good for their overall health. From a mental side, swimming also has many benefits. These activities can help reduce stress and anxiety, improve mood, and improve children's sleep quality. In addition, swimming also trains children to focus and discipline, as well as increase their confidence along with the progress made in learning swimming techniques (Kano et al. 2024) (Bramantha n.d.)

The purpose of this research is How the swimming learning model can affect children's motor development The type of learning model that is effective in improving children's motor skills through swimming.

METHODS

This type of research is library research, which is a series of research related to the method of collecting library data, or research whose research object is explored through various literature information (books, encyclopedias, scientific journals, newspapers, magazines, and documents). This study adopts a systematic literature review approach to investigate the influence of swimming training on children's motor skill development. The type and method in this Literature Review research is using Systematic Literature Review. This approach allows for a thorough analysis of the literature relevant to the research topic, providing a solid theoretical foundation (Learning et al. 2024)

The data sources used in this study are secondary, coming from previously published literature. These data sources include articles and scientific journals that discuss the influence of swimming training on children's motor skills. The data collection method applied in this study is the documentation method. Data were obtained through the analysis of literature and documentation relevant to the research topic. Information from the literature was then organized and extracted to support the synthesis of the findings (Sinclair and Roscoe 2023).

Article searches are carried out systematically using search engines such as Google Scholar, sage journal, taylor & farancis, sciendirect, reseachgate and academia.edu. The selected keywords covered key aspects of the research topic, such as "swimming learning model" and "developing motor skills in children aged 3-6 years." Relevant articles are then selected based on the inclusion and exclusion criteria that have been set. These journals must also be scholarly with a peer review process to ensure the validity and credibility of

the findings. The journal being reviewed must meet certain criteria to ensure quality and relevance. This criterion involves articles that are the results of empirical research or case studies, in Indonesian and English, focus on early childhood, and discuss the topic of swimming training and motor skills development**.**

RESULTS AND DISCUSSION

Table 1

Yes	Author,Year,Title	Article title	Research results
1	Desti Kartikasari1∗, Lilis Komariyah2, Alit Rahmat 2023.	Psychological Aspects of Learning to Swim: Systematic Literature Review	The results of the study show that physical education (penjas) provides a framework to manage the psychological aspects of learning to swim
2	Asrori Yudha Prawira, Eko Prabowo, Fajar Febrianto, 2021,	Early Childhood Swimming Sports Learning Model: Literature Review	Of the 10 journals, there are 5 journals that do not examine swimming games directly, some discuss gross motor, modification games and abilities. Some important things obtained from several journals include the identification of early childhood swimming sports learning methods by describing effective methods from several related studies in a systematic manner that can be used as a reference for early childhood swimming sports learning.
3	Jenal Abidin, Esa Eryani, Fitria Himatul Aliyah, Ila Mustakimah, Nuri Andiani Putri,2023,	SWIMMING SPORTS LEARNING METHODS IN IMPROVING GROSS MOTOR SKILLS AT PGRI KINDERGARTEN MERPATI BABAKAN PANGANDARAN	The swimming sports learning method applied at Kindergarten PGRI Merpati Babakan Pangandaran has succeeded in improving the development of children's gross motor development. Of the total 23 students observed, most were in the "Starting to Develop" (MB) category, which was 12 students or 52.2%. In addition, there are 3 students who have developed according to expectations (BSH) and 3 students who have developed very well (BSB).
4	Kurnia Rusli1, Syamsul Bahri Thalib2, Andi Ihsan3, Hasnah 4,2024,	Project Based Learning Freestyle Swimming Learning Model	The results of this study show that it is necessary to develop a Project-Based Learning Freestyle Swimming Learning Model to improve Freestyle Swimming Skills. The results of the validity and reliability test showed that the Project Based Learning Freestyle Swimming Learning Model, learning tools and research questionnaires were declared to be very valid and reliable based on the assessment of experts and trials. Furthermore, the results of the practicality test also stated that the Project-Based Learning Freestyle Swimming Learning Model proved to be very practical based on the results of observations carried out by learning and student and lecturer response questionnaires. The Project Based Learning Freestyle Swimming Learning Model and effective learning tools are used based on limited and extensive trials.
5	Shinta Della Bestari1*,2024,	The Benefits of Learning to Swim for Students' Motor Development	shows that learning to swim has different impacts depending on the age of the child. In early childhood (4-6 years), swimming mainly focuses on gross motor development, such as balance and body coordination skills. Meanwhile, in elementary school children, in

			addition to gross motor skills, swimming also has a positive impact on fine motor skills, such as hand dexterity and movement precision skills
6	Resta Laksana Putra1, Carsiwan2, Alit Rahmat3,2024,	INCREASE CONFIDENCE THROUGH LEARNING SWIMMING: A SYSTEMATIC LITERATURE REVIEW	The results of research conducted systematically can be concluded that swimming learning can increase confidence in all groups, ages and levels of education. Learning to swim can be used as a medium to increase self-confidence.
7	I Bagus Endrawan1, Martinus2, Zusyah Porja Daryanto3, M. Fransazeli Makorohim4,2023,	DEVELOPMENT OF SWIMMING LEARNING MODELS THROUGH ADOBE FLASH CS6 APPLICATION MEDIA	The results of this study are presented in the form of a swimming learning model for teachers. Material experts call this product in the good category with a share of 84.6%. Application experts stated that this product is included in the good category with a percentage of 90.62, although in the group assessment of 87.5 in the field group assessment of 90.90%, from the data it can be concluded that this application model can be used as a reference for teachers in learning swimming materials and the result of this research is the application of class XI swimming materials for high school students.
8	Agus Mulyana1, Anggista Dwiana Pingkan2, Delis Yulianti3, Farah Fauziah Luthfiatunnisa4, Queeny Qolbi Ash Shidiqqa5, Ruzaina Sabirah6, Siti Fatimah Azzahra7,2024,	BENEFITS OF LEARNING TO SWIM FOR CHILDREN'S GROWTH AND DEVELOPMENT IN PRIMARY SCHOOL	Learning to swim in elementary school has an important role in supporting children's growth and development. Swimming provides various benefits, including helping to improve physical aspects such as strength and endurance, as well as social aspects such as interaction and cooperation with friends. In addition, swimming can also increase confidence and become a fun and refreshing activity, thus contributing positively to the overall quality of life of children
9	Abrian Adri Nyoman1, Randi Kurniawan2, Anggun Permata Sari3, Pudia M Indika4,2024,	THE EFFECT OF SWIMMING PRACTICE ON CHILDREN'S MOTOR SKILL DEVELOPMENT: SYSTEMATIC LITERATURE REVIEW	The results of a literature review show that swimming training can contribute positively to children's general motor skills. The results showed a significant improvement in swimming ability, as well as a statistically significant improvement in balance. These findings suggest that an efficient swimming training program can improve a child's motor skills and swimming ability. The findings of these findings include improvements in swimming ability, balance, coordination, and muscle strength. This research provides in-depth insights into the relationship between swimming training and children's motor skills development, presenting a comprehensive picture to support further understanding in this area.
10	Muhammad Faisal Lutfi Amri1, June Isnanto2, Al Ilham3 ,2022	,FREESTYLE SWIMMING LEARNING MODEL FOR BEGINNERS	Freestyle swimming models can be created and used for Physical Health and Recreation Education learning as well as to improve the abilities of beginner freestyle swimmers. Data on the effectiveness of freestyle models for beginners that have been carried out and developed are obtained freestyle swimming models developed by beginners.
11	Padli1,* , Firunika Intan Cahyani1 , Syahril Bais1 , Amin Akbar2 , Heru Andika1 , Dony Darma Sagita3,2025,	Understanding Motor Skill Growth in Children Ages 3-6 Years: Parenting Perspectives from a Mixed Methods Approach	The results show that although most parents are aware of the benefits of motor activities for children's growth and development, many of them still do not consider these activities important and prioritize academic activities as the main means of children's success. In

			addition, there is a tendency that children's motor activities receive less attention because of the perception that these activities are less important than academic activities
12	Kazuki Matsuzaki1,7, Hirotaka Sato1 , Kyoko Minato1 , Mayumi SugiuraOgasawara8 , Shinji Saitoh9 and Michihiro Kamijima,2024	Effect of initiation period and frequency of swimming continuation on the development of motor competence in children up to 3 years of age: the Japanese environment and the study of children	The pattern and frequency of swimming pool use during the age of 1 to 3 years are related to children's motor development.
13	Lauren Sinclair and Clare M. P. Roscoe ,2023	Swimming against Basic Movement Skill Development in Children (3–11 Years*): Literature Review*	The results support that swimming has the potential to have a positive impact on FMS in children aged 3–11 years, but the available evidence is still limited and requires further research for stronger confirmation
14	Nicole A. Pratt 1 , Michael J. Duncan 2,* and Samuel W. Oxford ,2023,	The Impact of 6-Week Swimming Intervention on Gross Motor Development in Elementary School Children	The results showed that a six-week swimming intervention program significantly improved children's general motor ability and aquatic motor ability. Specifically, there was an improvement in the performance and process aspects of the Gross Motor Motion Assessment (TGMD-3) and the Acoustic Motor Assessment (AMP) after the intervention compared to the control group. This improvement was reflected in a significant increase in scores from pre- to post-intervention, with greater effectiveness in the intervention group.
15	Carola Minkels1,2* , John van der Kamp2 , Ralph de Vries3 and Peter J. Beek1,2025	Learning to swim in children aged 5 to 12 years: a comprehensive review of evidence-based motor learning methods	The results of this study show that video-based learning methods can improve children's swimming skills, but more research is still needed to assess the sustainability and transfer of these skills in real-world situations and high-risk environments.

From the results of the analysis listed in table 1 in this study, it shows that physical education provides a framework to manage psychological aspects in swimming learning.

From the analysis listed in table 2 in this study, it shows that a direct examination of swimming games discusses gross motor, modified games and abilities. Some important things obtained from several journals include the identification of early childhood swimming sports learning methods by describing effective methods from several related studies in a systematic manner that can be used as a reference for early childhood swimming sports learning.

From the results of the research listed in table 3, it shows that The learning of swimming sports applied at Kindergarten PGRI Merpati Babakan Pangandaran has succeeded in improving the development of children's gross motor skills. Of the total 23 students observed, most were in the "Starting to Develop" (MB) category, which was 12 students or 52.2%. In addition, there are 3 students who have developed according to expectations (BSH) and 3 students who have developed very well (BSB).

From the research results listed in table 4, that The results of this study show that it is necessary to develop a Project-Based Learning Freestyle Swimming Learning Model to improve Freestyle Swimming Skills. The results of the validity and reliability test showed that the Project Based Learning Freestyle Swimming Learning Model, learning tools and research questionnaires were declared to be very valid and reliable based on the assessment of experts and trials. Furthermore, the results of the practicality test also stated that the Project-Based Learning Freestyle Swimming Learning Model proved to be very practical based on the results of observations carried out by learning and student and lecturer response questionnaires. The Project Based Learning Freestyle Swimming Learning Model and effective learning tools are used based on limited and extensive trials.

The results of the study are listed in table 5, that the results of the study show that swimming learning has a different impact depending on the age of the child. In early childhood (4-6 years), swimming mainly focuses on gross motor development, such as balance and body coordination skills. Meanwhile, in elementary school children, in addition to gross motor skills, swimming also has a positive impact on fine motor skills, such as hand dexterity and movement precision skills.

The results of the research listed in table 6, that the results of the study show that the results of research carried out systematically can be concluded that swimming learning can increase confidence in all groups, ages and educational levels. Learning to swim can be used as a medium to increase self-confidence.

The results of the study are listed in table 7, that the results of this study show that the results of this study are presented in the form of a swimming learning model for teachers. Material experts call this product in the good category with a share of 84.6%. Application experts stated that this product is included in the good category with a percentage of 90.62, although in the group assessment of 87.5 in the field group assessment of 90.90%, from the data it can be concluded that this application model can be used as a reference for teachers in learning swimming materials and the result of this research is the application of class XI swimming materials for high school students.

The results of the study listed in table 8 show that swimming learning in elementary school has an important role in supporting children's growth and development. Swimming provides various benefits, including helping to improve physical aspects such as strength and endurance, as well as social aspects such as interaction and cooperation with friends. In addition, swimming can also increase confidence and become a fun and refreshing activity, thus contributing positively to the overall quality of life of children

The results of the study are listed in table 9, that the results of the study show that the results of the literature review show that swimming training can contribute positively to the general motor ability of children. The results showed a significant improvement in swimming ability, as well as a statistically significant improvement in balance. These findings suggest that an efficient swimming training program can improve a child's motor skills and swimming ability. The findings of these findings include improvements in swimming ability, balance, coordination, and muscle strength. This research provides in-depth insights into the relationship between swimming training and children's motor skills development, presenting a comprehensive picture to support further understanding in this area.

The results of the research are listed in table 10, that the results of the study show that the freestyle swimming model can be made and used for learning Physical Health and Recreation Education as well as to improve the ability of beginner freestyle swimmers. Data on the effectiveness of freestyle models for beginners that have been carried out and developed are obtained freestyle swimming models developed by beginners.

The results of the study are listed in table 11, that the results of the study show that although most parents are aware of the benefits of motor activities for children's growth and development, many of them still do not consider these activities important and prioritize academic activities as the main means of children's success. In addition, there is a tendency that children's motor activities receive less attention because of the perception that these activities are less important than academic activities

The results of the study listed in table 12 show that the pattern and frequency of swimming pool use during the age of 1 to 3 years are related to children's motor development.

The results of the study, which are listed in table 13, show that the results of the study support that swimming has the potential to have a positive impact on FMS in children aged 3–11 years, but the available evidence is still limited and requires further research for a firmer confirmation

The results of the study are listed in table 14, that the results of the study show that the six-week swimming intervention program significantly improved the general motor ability and aquatic motor ability of children. Specifically, there was an improvement in the performance and process aspects of the Gross Motor Motion Assessment (TGMD-3) and the Acoustic Motor Assessment (AMP) after the intervention compared to the control group. This improvement was reflected in a significant increase in scores from pre- to post-intervention, with greater effectiveness in the intervention group.

The results of the study are listed in table 14, that the results of the study show that the video-based learning method can improve children's swimming skills, but further research is still needed to assess the sustainability and transfer of these skills in real situations and high-risk environments.

Based on the title of the research that the researcher proposed, namely "Swimming Learning Model in Developing Motor Skills of Children Aged 3-6 Years", the keyword search for the journal used was the Swimming Learning Model, Developing Motor Skills of Children Aged 3-6 Years.After conducting a searcing, the researcher found 62 journals, from the 62 journals the researcher conducted a screening based on the requirements that had been stated in the journal review method, in the screening process, namely identification, selection, feasibility test and finally inclusion. After screening at this stage, there are 15 journals that meet the requirements in this method. The purpose of the research presented by the researcher is to find out if there is a Reng Learning Model in Developing Motor Skills in Children Aged 3-6 Years. Of the 15 journals that have passed the selection from all of these journals, they are related to the research objectives proposed by the author. These journals are literature research to find out the model of swimming learning in developing children's motor skills.

Overall, the findings of a number of studies confirm the importance of learning to swim in the development of children's motor skills. Swimming not only provides direct benefits to swimming ability, but it also has a positive impact on general motor skills, physical development, and even the learning process. Therefore, the role of swimming learning in stimulating children's motor skills from an early age cannot be ignored. The implementation of a structured and effective swimming program can make a positive contribution to the growth and development of children in the early stages of their lives.

CONCLUSION

This study indicates that learning to swim has a significant positive impact on the development of children's general motor skills. Research shows that children who engage in swimming experience improved motor skills, including body coordination, balance, and other motor skills. The results of several studies imply that swimming training not only provides direct benefits to children's swimming abilities, but also has a positive effect on general motor skills, including balance, coordination, and muscle strength.

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