

The Learning Outcomes of Swimming Using STAD Learning Model

Syahrudin^{1A-E*}, Muhammad Syahrul Saleh^{2B-D}, M. Sahib Saleh^{3B-D}

^{1,2,3}Study Program of Physical Education Health and Recreation, Faculty of Sports and Health Sciences, Makassar State University, Makassar City, South Sulawesi, Indonesia, 90222

¹syahrudin@unm.ac.id, ²muh.syahrul.saleh@unm.ac.id, ³m.sahib.saleh@unm.ac.id

Authors' contribution:

A. Conception and design of the study; **B.** Acquisition of data; **C.** Analysis and interpretation of data; **D.** Manuscript preparation; **E.** Obtaining funding

Received: August 10, 2023

Accepted: August 15, 2023

Published: September 21, 2023

ABSTRACT

This study aims to improve the learning outcomes of freestyle swimming through the STAD learning model in grade XI students of SMA Negeri 3 Bulukumba. This type of research is a type of class action research (PTK) Research is carried out for two cycles where each cycle consists of 2 meetings. Each meeting uses research procedures consisting of planning, implementation, observation, and reflection stages. The subjects of this study were 31 students of grade XI MIPA.1 SMA Negeri 3 Bulukumba. The research instruments used are observation, evaluation tests, field notes, and documentation while the data collection techniques use observation techniques, test techniques, and documentation. The results showed that using the STAD learning model can improve freestyle swimming learning outcomes in students in Physical Education subjects.

Keyword: Learning Outcomes; Swimming pool; Type; Learning; STAD.

How to Cite : **Syahrudin; Saleh, Muhammad Syahrul; Saleh, M.Sahib.** (2023). The Learning Outcomes of Swimming Using STAD Learning Model. **Journal of Sport Education, Coaching, and Health (JOCCA)**. 4(3), pp.171-186

INTRODUCTION

Education is a process to help humans develop themselves so that they can face any changes that occur in life. According to Langeveld (Wahyuni, et al., 2015) education is every effort, influence, protection, and assistance given to children aimed at maturing the child, or more precisely helping children to be skilled in carrying out their life tasks (Kiswantoro, 2016). Education is a process of guidance carried out consciously by educators (Karo et al., 2019) towards the process of physical and spiritual development of students to form a superior personality, namely a personality that is not only academically smart but also in character (Wahyuni, et al., 2015).

The preamble of the 1945 Constitution of the Republic of Indonesia in the fourth Alenia, one of the goals of the Indonesian nation is to educate the nation's life. Educating

the nation's life can be achieved by formal, informal or non-formal education (Herlina & Suherman, 2020). Education is a process that includes three dimensions, the individual, society or national community of the individual, and all the content of reality, both material and spiritual that plays a role in determining the nature, fate, and form of man and society (Alvian & Syafii, 2020). Education is more than just teaching, it can be said to be a process of knowledge transfer, value transformation, and personality formation with all aspects it covers (Nurkholis, 2013). So education has an important role in one's life which will be a provision in facing greater future challenges and full of competition (Jayul & Irwanto, 2020). Education is the maturation of students to develop their talents, potentials, and skills in living life, therefore education is designed to provide understanding and can improve student achievement (Hudah et al., 2020). Education can also be a determinant of an individual's value and quality of life (Megarany & Soenyoto, 2021). Judging from how big the role of education in life, it is good that education in this country can be further developed optimally and provide various benefits to each individual (Rozi et al., 2021).

According to Rahyubi (2014), learning is a process to help students to learn well. In the Government Regulation of the Republic of Indonesia Number 19 of 2005 concerning National Education Standards, article 20 states "Learning process planning includes syllabus and learning implementation plans, teaching materials, teaching methods, learning resources and assessment of learning outcomes" (Bangun & Yunis, 2016). In creating quality education and learning in line with the development of educational technology that has currently developed. In the 21st century, technological developments in the field of education are increasingly advanced, this can be considered by teachers as one of the new strategies for developing learning (Taufan et al., 2018). Developments in this century require the world of education to change the concept of thinking (Padillah et al., 2020). The future has far-reaching and profound implications for teaching design and learning techniques (Qohhar & Pazriansyah, 2019). In turn, teachers will realize that conventional learning models and strategies will not be enough to help students (Qohhar & Pazriansyah, 2019).

Sports and Health Physical Education is part of overall education, aiming to develop aspects of physical fitness, movement skills (Satyamardika & Prihanto, 2015), critical thinking skills, social skills, reasoning, emotional stability, moral action, aspects of healthy lifestyles and recognition of a clean environment through physical activity (Furqoni & Vishnu, 2015), selected sports and health systematically planned to achieve national education goals (Clarita et al., 2021). Physical education is defined as physical education, sports and health and is a group of compulsory lessons in the learning curriculum at the level of elementary school education units / equivalent, junior high school / equivalent and high school / vocational / equivalent (Rokhayati et al., 2016). Teaching subjects are subjects that have very broad aspects (Firmansyah, 2016), not only aim to improve physical abilities, but health workers strive to improve social skills by developing cooperation with others, increasing knowledge, developing values or attitudes, meeting movement needs and as a tool to obtain superior seeds to become athletes (Tumaloto, 2022). That way, teachers will find it easier to carry out optimal learning and become superior seeds in swimming at school. Teaching in schools has a very important role, which is to provide opportunities for all students to carry out learning through physical activity, sports and health systematically (Prayadi & Son, 2022). Physical learning is directed to foster better physical growth and psychological development, as well as to form a healthy and fit lifestyle throughout life (Saitya, 2022).

Teaching learning is an integral part of education as a whole (Rohmansyah, 2017), aims to develop aspects of physical fitness, movement skills, critical thinking skills, social



skills, moral action, healthy lifestyle (Syahrin & Bustamam, 2017), and the introduction of a clean environment through physical activity, sports and health selected for the achievement of national education goals (Stephani, 2016). Penjasorkes is a medium to encourage physical growth, psychic development, motor skills (Sholeh & Prihanto, 2017), knowledge and reasoning, appreciation of character values (attitude-mental-emotional-sportsmanship-social) (Kusuma & Winarno, 2018), as well as the habituation of a healthy lifestyle that boils down to stimulating the growth and development of balanced physical and psychological qualities (Ikhsan & Argantos, 2019). Teaching and learning activities for health educators start from an early age to college, including physical education, sports and health in junior high schools (Prasetyo et al., 2019). Games are a fun activity. Games become a form of entertainment that is loved by almost everyone (W. Setiawan & Wisnu, 2019).

Teaching and learning activities for health educators start from an early age to college, including physical education, sports and health in junior high schools (A. Setiawan et al., 2020). Games are a fun activity. Games become a form of entertainment that is loved by almost everyone (Alhafiz, 2020). In a game, there is a feeling of pleasure and games are also necessary in human life. Games are important in human life because they can make an individual happy and balanced (Qohhar & Pazriansyah, 2019). Games, in general, become a necessity for everyone, because games are recreational and refreshing, and effective teaching can cause new enthusiasm (new motivation) for everyone who does the game (Haris et al., 2021). Games in sports can make someone more enthusiastic and will be more varied. In addition, in sports in which there is a game, a person will be more motivated to do the activity (Suganda et al., 2021). So that people who do these sports activities, get their satisfaction and will feel happy. In sports, especially swimming, have different basic techniques or basic styles (Cholis et al., 2015). Swimming sports have different basic styles in each style in swimming (Pradana et al., 2018). Styles in swimming include breaststroke, butterfly, freestyle, and backstroke, so it will be more effective in swimming sports if done with games in it (Mardinus & Maidarman, 2019). The use of games in swimming sports aims to make someone more happy (Siallagan et al., 2021).

Based on the results of initial interviews with PJOK teachers that have been carried out, information on learning outcomes was obtained from 73% whose learning outcomes reached KKM, and 27% who did not reach the established KKM which is 75. This is likely due to: (1) The majority of students are less motivated which can cause students to be less creative because teachers who carry out the Penjas learning process, especially freestyle swimming learning, only monitor their students to do swimming activities without providing effective learning; (2) Learning is still teacher-centred so that students are less involved in the learning process; (3) There is still a thought that PJOK is a lesson in play; (4) The majority of students are still unable to swim freestyle because students are not provided with provisions in the implementation of freestyle swimming.

Student Teams Achievement Division (STAD) is a learning model with a Cooperative Learning approach that emphasizes activities and interactions among students to motivate each other and help each other in mastering the subject matter to achieve maximum learning outcomes (Mustagfiri & Sudarso, 2013). STAD (Student Team Achievement Division) was developed by Robert Slavin and colleagues at Johns Hopkins University and is the simplest and most easily applied method of cooperative learning (Bahriah et al., 2014). As in most cooperative learning models, the STAD model is based on the principle that students work together in learning and are responsible for the learning of their peers in teams as well as themselves (Faozi et al., 2019). One effective cooperative learning strategy is the Student Teams Achievement Division (STAD). STAD consists of a series of simple,

cooperative learning that combines the skills of groups and quizzes with awards given to groups whose members are most successful beyond their previous scores (Kadry et al., 2021). The STAD model (Mautongue, 2012) is a cooperative learning model where students are divided into groups (4-5 students) to master or complete the material given by their teachers. Each team member uses an academic member sheet (Prananda & Hadiyanto, 2019), and then help each other to master the teaching materials through questions and answers or discussions between team members (Kikin et al., 2021). Individually or in teams every week or every two weeks an evaluation is carried out by teachers to find out their mastery of the academic material that has been learned (Puspitasari, 2018). Each student and each team is given a score for their mastery of the teaching materials, and individual students or teams who achieve high achievement or have a perfect score will be rewarded (Putra et al., 2018). In this cooperative learning method, the success of the group is determined by the learning achievement of the group (Gunawan et al., 2021). So that all the achievements of group members are high, cooperation among members is needed to understand the material that has been taught in solving existing problems (Darma, 2021).

Technically, the application of the STAD learning model in the learning process is (1) forming groups whose members are 4 or 5 people heterogeneously (2) teachers provide material explanations and students sit in groups (Kamaruddin et al., 2022), Next, students have discussions according to the teacher's direction. (3) after discussion the teacher gives tests/quizzes that must be done by students individually, (4) awards that the average score of each member is the best (Mautongue, 2012).

METHODS

This research is a classroom action research (Classroom Action Research). According to Hopkins quoted by Mansur Mustich (2011): "Classroom Action Research is a form of reflective study, carried out by action actors to increase the rational stability of their actions in carrying out tasks and deepen understanding of conditions in learning practice". Classroom action research aims to improve and improve the quality of learning and help empower teachers in solving learning problems in schools. The population in this study was all grade XI students of SMA Negeri 3 Bulukumba with a population of 220 students. In this study, the sampling technique used was Cluster Random Sampling. The sample is class XI MIPA.1 which consists of 31 students, 9 male students and 22 female students. The data collected in this study are data on student activity, student response and student learning outcomes. The success of an action is characterized by the occurrence of changes and improvements in learning outcomes. Indicators of successful action in this study include (a) Changes in the learning process, namely an increase in student attitudes towards freestyle swimming learning. (b) Improvement in student learning outcomes as shown by an increase in breaststroke swimming learning outcomes from before the action was carried out and reaching KKM 75 set by the school. In other words, the success criteria for learning breaststroke swimming are proposed from the learning process and the results achieved from the learning process. With these criteria, this learning not only pursues the highest results but also the learning process must run well and correctly.

Data in the form of numbers will be analyzed by comparative descriptive analysis, which compares the initial conditions with changes that occur in each action. The improvement that occurs will be displayed in the form of a simple table to support verbal descriptions. Qualitative data from observations will be analyzed by critical description analysis by displaying data, connecting and analyzing causally (Suwandi, 2008).

RESULTS AND DISCUSSION

Result

Preliminary data on freestyle swimming learning outcomes in students

Based on the background of the research through the results of the researchers' initial observations, the implementation of physical education learning, especially in freestyle swimming learning in students, has a limit of ability that is lacking in achieving the minimum completeness criteria (KKM) value of 75 or the level of completeness of 75% in physical education, namely the incompleteness of learning outcomes in a freestyle swimming learning process, The percentage (%) of student learning completeness only reaches 9.68% and Most of the students who did not achieve learning completeness were 90.32%. This illustrates the learning outcomes of physical education, namely freestyle swimming learning in the initial data, the results of freestyle swimming learning in students than expected and the learning objectives do not take place optimally. Based on the results of frequency descriptive analysis in the attachment of the initial observation before the STAD learning model action was given, the results of learning freestyle swimming can be seen in the following **Table 1** summary:

Table 1.

Recapitulation of completeness value description of initial data learning outcomes of freestyle swimming

Range of Values	Criterion	Frequency	Percentage
>75	Complete	3	9,68%
<75	Incomplete	28	90,32%
Sum		31	100%

Based on **Table 1** above, the completeness of student learning outcomes only reached 9.68% and most students who did not achieve learning completeness were 90.32%. This illustrates the learning outcomes of Physical Education, namely the initial data on the results of learning freestyle swimming in students than expected and learning objectives do not take place optimally.

Furthermore, to find out the categorization of freestyle swimming learning outcomes can be seen in **Table 2** below:

Table 2.

Recapitulation of categorization of initial data descriptions of freestyle swimming learning outcomes in students

No	Range of Values	Category	Criterion	Frequency	Percentage (%)
1	85 – 100	Very Good	Complete	1	3,23
2	75 – 84	Good	Complete	2	6,45
3	65– 74	Enough	Incomplete	10	32,26
4	55 – 64	Less	Incomplete	18	58,06
5	0 – 54	Less Than Once	Incomplete	0	0,00
	Sum			31	100%

Based on the descriptive summary of the data in **Table 2** above, the results of learning freestyle swimming in students before being given action can be explained that the majority of students with a total of 28 students have not shown poor learning outcomes with a percentage of learning completeness of 9.68%, or 3 students who obtained scores in the very good category in the range of 85-100 values with completeness criteria of 1 student (3.23%), Scores in the good category in the range of grades 75-84 with completeness criteria as many as 2 students (6.45%), while incomplete students as many as 28 students with a percentage score of 90.32% or each student who obtained scores in the sufficient category in the range of grades 65-74 with completeness criteria as many as 10 students

(32.26%), the range of scores 55-64 in the category less as many as 18 students (58.06%) and students in the range of grades 0-54 in the category less once as many as 0 students (0.00%).

Through the description of the initial data that has been obtained, each aspect shows the criteria for learning success that is lacking. So an action was developed to improve the quality of learning outcomes of freestyle swimming learning in students, through the STAD learning model. The implementation of actions will be carried out in as many as 2 cycles, each cycle consists of 4 stages, namely: (1) Planning, (2) Implementation of Actions, (3) Observation and interpretation, (4) Analysis and Reflection.

The application of the learning model with the STAD learning model approach makes it more challenging for students to carry out every stage of the learning process because the learning model in the nuances of play challenges students not to feel bored in following the stages of the learning process and feels there are challenges of its own. However, there are several obstacles faced by teachers and students, namely that observers are needed in learning so that researchers maximally monitor student activities from beginning to end. Activities in cycle I. The first meeting was the presentation of freestyle swimming material using the STAD learning model, while the second meeting focused more on the final activity (freestyle swimming learning outcomes test), in the final activity in cycle I the assessment carried out covered three domains, namely psychomotor, affective and cognitive. So the results of learning swimming in freestyle swimming material for students using the STAD learning model can be seen in the following description:

Assessment of cognitive, affective and psychomotor aspects of Cycle I data

Based on research through the final results, the implementation of physical education learning, especially in learning freestyle swimming learning outcomes through the STAD learning model for students, has a limit of ability that is lacking in achieving the minimum completeness criteria (KKM) value 75 or the level of completeness of 75% in physical education, namely the incompleteness of learning outcomes in a freestyle swimming learning process, The percentage of student learning completeness reached 46.43% and students who did not achieve learning completeness was 53.57%. This illustrates the learning outcomes of physical education, namely freestyle swimming in cycle I, the learning outcomes of freestyle swimming through the STAD learning model in students than expected and learning objectives do not take place optimally. Based on the implementation of cycle I learning before the STAD learning model action is given, the results of learning freestyle swimming can be seen in the summary of **Table 3**.

Table 3.

Recapitulation of completeness value description of data at the end of the cycle I freestyle swimming learning outcomes through the STAD learning model for students

Range of Values	Criterion	Frequency	Presents
>75	Complete	13	46,42%
<75	Incomplete	15	53,57%
Sum		28	100%

Based on **Table 3** above, the completeness of student learning outcomes reached 46.42% and students who did not achieve learning completeness were 53.57%. This illustrates the learning outcomes of Physical Education, namely cycle I, the learning outcomes of freestyle swimming through the STAD learning model in students than expected and the learning objectives do not take place optimally.

Furthermore, to find out the categorization of freestyle swimming learning outcomes can be seen in **Table 4**. The following full results can be seen in the appendix:

Table 4.

Recapitulation of categorization of data description at the end of the cycle I freestyle swimming learning outcomes through the STAD learning model in students

No	Range of Values	Category	Criterion	Frequency	Percentage (%)
1	85 – 100	Very Good	Complete	5	17,86
2	75 – 84	Good	Complete	8	28,57
3	65– 74	Enough	Incomplete	6	21,43
4	55 – 64	Less	Incomplete	9	32,14
5	0 – 54	Less Than Once	Incomplete	0	0,00
Sum				28	100%

Based on the descriptive summary of data in table 4 above, the results of learning freestyle swimming in students before being given action can be explained that the majority of students or with a total of 13 students have shown optimal learning outcomes with a percentage (%) of learning completeness of 46.43%, or students in the very good category with a range of values of 85-100 completeness criteria as many as 5 students (17.86%) and students who obtained scores in the good category in the range of values 75-84 with criteria Completeness as many as 8 students (28.57%), while incomplete students as many as 15 students with a percentage score of 53.57% or each and students who obtained scores in the sufficient category in the range of 65-74 scores with completeness criteria as many as 6 students (21.43%), and students in the range of grades 55-64 as many as 9 students (32.14%) in the less category and students in the range of grades 0-54 as many as 0 students (0.0%).

Through the description of the final data (posts) in the first cycle that has been obtained, each aspect shows optimal learning success criteria. So an action was drawn up to improve the quality of learning outcomes of freestyle swimming learning through the STAD learning model for students, through the STAD learning model. Then students in the good category and above will be scattered among other students who have not finished in the next meeting.

The successes and failures that occurred at this meeting were as follows:

- a) Results: students' freestyle swimming ability has improved quite well, this can be seen from the observations of 28 students, 13 students were in the good category and above in the first cycle to 15 students were in the good category and below.
- b) Obstacles encountered at the meeting:
 - 1) Obstacle after obstacle can be overcome little by little although it still needs improvement and development
 - 2) To achieve maximum results, it is necessary to have an internal approach to each individual still very instrumental to student enthusiasm.
 - 3) Improvement plan: based on the results of observations and obstacles in learning at the second meeting of the cycle I, the need for improvements at the next meeting include:
 - Prepare students physically by encouraging them not to do draining movements before practice, such as playing chase with their friends
 - Taking an internal approach is more intensive for students who are still less successful.

Cycle II

The application of the learning model with the STAD learning model approach makes it more challenging for students to carry out every stage of the learning process because the learning model in the nuances of play challenges students not to feel bored in following

the stages of the learning process and feels there are challenges of its own. However, there are several obstacles faced by teachers and students, namely that observers are needed in learning so that researchers maximally monitor student activities from beginning to end. Activities in cycle II. The first meeting was the presentation of freestyle swimming material using the STAD learning model, while the second meeting focused more on the final activity (freestyle swimming learning outcomes test), in the final activity in cycle II the assessment carried out covered three domains, namely psychomotor, affective and cognitive. So the results of learning swimming in freestyle swimming material for students using the STAD learning model can be seen in the following description:

Assessment of cognitive, affective and psychomotor aspects in Cycle II

Based on research through the final results, the implementation of physical education learning, especially in freestyle swimming learning through the STAD learning model for students, has a limit of ability that is lacking in achieving the minimum completeness criteria (KKM) value of 75 or the level of completeness of 75% in physical education, namely the incompleteness of learning outcomes in a freestyle swimming learning process, while the percentage (%) of student learning completeness reaches 86.67% and students Those who did not achieve learning completeness was 13.33%. This illustrates the learning outcomes of physical education, namely swimming in cycle II, the learning outcomes of freestyle swimming through the STAD learning model in students than expected and the learning objectives take place optimally. Based on the implementation of cycle II learning before being given the STAD learning model action, the results of learning freestyle swimming can be seen in the summary of **Table 5**.

Table 5.

Recapitulation of completeness value description of data at the end of cycle II freestyle swimming learning outcomes through the STAD learning model for students

Range of Values	Criterion	Frequency	Presents
>75	Complete	13	86,67%
<75	Incomplete	2	13,33%
Sum		15	100%

Based on **Table 5** above, the completeness of student learning outcomes reached 86.67% and students who did not achieve learning completeness were 13.33%. This illustrates the learning outcomes of physical education, namely cycle II swimming, the results of learning freestyle swimming through the STAD learning model in students than expected and learning objectives take place optimally. Furthermore, to find out the categorization of freestyle swimming learning outcomes can be seen in **Table 6**.

Table 6.

Recapitulation of categorization of data description at the end of cycle II freestyle swimming learning outcomes through the STAD learning model in students

No	Range of Values	Category	Criterion	Frequency	Percentage (%)
1	85 – 100	Very Good	Complete	2	13,33
2	75 – 84	Good	Complete	11	73,33
3	65– 74	Enough	Incomplete	2	13,33
4	55 – 64	Less	Incomplete	0	0,00
5	0 – 54	Less Than Once	Incomplete	0	0,00
	Sum			15	100%

Based on the descriptive summary of data in **Table 6** above, the results of learning freestyle swimming in students before being given the action can be explained that the majority of students or with a total of 15 students have shown optimal learning outcomes with a percentage (%) of learning completeness of 86.67%, or students in the very good



category with a range of values of 85-100 completeness criteria as many as 2 students (13.33%) and students who obtained scores in the good category in the range of values 75-84 with criteria Completeness was 11 students (73.33%), while incomplete students were 2 students with a percentage score of 13.33% or each and students who obtained scores in the sufficient category in the range of 65-74 with completeness criteria as many as 2 students (13.33%), and students in the range of grades 55-64 as many as 0 students (0.0%) in the less category and students in the range of grades 0-54 as many as 0 students (0.0%) in the category of less once.

Through the description of the final data (postes) cycle II that has been obtained, each aspect shows optimal learning success criteria. So an action was drawn up to improve the quality of learning outcomes of freestyle swimming learning through the STAD learning model for students, through STAD learning. Then students in the good category and above will be scattered among other students who have not finished in the next meeting.

The successes and failures that occurred at this meeting were as follows:

- a) Results: students' freestyle swimming ability has improved quite well, this can be seen from the results of research from 15 students, 13 students are in the good category and above in the second cycle and 2 students are in the good category and below.
- b) Obstacles encountered at the meeting:
 - 1) Obstacle after obstacle can be overcome little by little though
 - 2) To achieve maximum results, it is necessary to have an internal approach to each individual still very instrumental to student enthusiasm.
- c) Improvement plan: based on the results of observations and obstacles in learning at the second meeting of cycle II, the need for improvements at the next meeting include:
 - 1) Prepare students physically by encouraging them not to do draining movements before practice, such as playing chase with their friends
 - 2) Taking an internal approach is more intensive for students who are still less successful.

Through the description of cycle I and cycle II data that have been obtained, each aspect shows optimal or skilled learning success criteria. So action was taken to improve the quality of learning outcomes of freestyle swimming learning through the STAD learning model for students, through learning through the STAD learning model. Then students in the good category and above will be scattered among other students who have not finished in the next meeting. The successes that occurred at this last meeting were as follows:

- 1) The freestyle swimming learning outcomes approach through the STAD learning model provides a lot of enlightenment in the learning method and further challenges students to do freestyle swimming exercises.
- 2) Based on observations from researchers who collaborated with physical education teachers, it can be concluded that the stage of learning outcomes of freestyle swimming through the STAD learning model in students went well.

Thus, there is no need to make improvements and redesigns in the next cycle because classically it has been completed. After all, cycle II has met the completeness value of the KKM value of 75 or with completeness above 75%.

Discussion

Learning and learning are essentially an effort to grow and develop the potential possessed by each individual which aims to instil three aspects of learning, namely psychomotor, affective and cognitive aspects through real actions from the results of the



teaching and learning process to produce changes for each individual. This change in learning outcomes can be seen in the learning process through action research designed through classroom action research consisting of cycle I and cycle II to improve freestyle swimming learning outcomes through the STAD learning model in students. Further, it can be described as follows:

Cycle I

Based on the results of the analysis of the initial data of teachers' efforts to apply play media through the STAD learning model in improving freestyle swimming learning outcomes in students, it can be seen that of 31 students and students who are in the complete category or 9.68%, and 28 students are in the incomplete category of 90.32%. Therefore, to learn freestyle swimming learning outcomes through the STAD learning model in students in the first cycle, there was an increase, namely 13 students in the complete category or 46.43% and an incomplete by 53.57% or 15 students. Optimally, it is necessary to pay attention to student motivation and interest in learning as the first step to exploring or developing student potential.

The motivation to learn can create a pleasant learning atmosphere so that efforts to apply the STAD learning model in improving freestyle swimming learning outcomes in students can be achieved in the maximum phase. The incompleteness of students in achieving freestyle swimming learning outcomes is a matter of consideration and improvement in the implementation of teaching and learning activities in cycle II.

Cycle II

The implementation of cycle II learning is a stage of improvement in the learning outcomes of freestyle swimming through the STAD learning model for students, which prioritizes improving deficiencies in the learning process. So the learning steps carried out in cycle II are:

- 1) Increase attention to students with disabilities
- 2) Use language that is easily understood by students in absorbing learning material
- 3) Provide additional learning time
- 4) Provide concept emphasis so that students easily understand freestyle swimming material.
- 5) Increase motivation and create a pleasant learning atmosphere

With the creation of a pleasant learning atmosphere, it will make students eager to follow the lesson seriously which will later be better in improving student learning outcomes. In cycle II there was an increase in freestyle swimming learning outcomes through the STAD learning model for students, achieving 93.55% completeness with a frequency of 29 students who completed.

Based on data that has been obtained in classroom action research with the application of freestyle swimming learning outcomes through the STAD learning model in the Penjasorkes subject which is carried out with two cycles, it turns out that student courage has increased significantly. Illustrated in the precycle stage, the percentage of completeness of freestyle swimming learning outcomes through the STAD learning model in students, increased from 46.43% and increased to 93.55% at the end of cycle II. Thus, this proves that the STAD learning model has a positive influence on increasing student courage.

Based on the discussion above, it can be said that the application of the STAD learning model in freestyle swimming material aims to develop and foster general and dominant basic motion patterns while fostering courage and pleasure in freestyle swimming learning. At SMA Negeri 3 Bulukumba, many students have enough potential, but cannot excel. One

of the reasons is because they feel insecure in their abilities. This means that many students fail in the teaching and learning process not because they do not have the ability, but because they are not confident in their potential. It should be emphasized again that positive thoughts will be able to shape and strengthen the character of the student's personality. Therefore, students who always think positively will be formed more maturely. And there is no need to worry and doubt the abilities that students have today. The important thing is that students must build the habit of always thinking positively by seeing the abilities and potential that exist in students, and believing that students will be able to do great things. Among the students who have achieved their great aspirations of becoming famous until now, don't think that these students have any weaknesses. The student is the student taking advantage of weaknesses, and his shortcomings become strengths.

Based on the results of this study, it can be stated that the use of learning tools provides a very large role and motivation for learning outcomes of physical education, sports and health, especially in learning freestyle swimming material.

CONCLUSION

The research conclusions presented are based on the results of descriptive analysis. It was also suggested that this research be used to improve freestyle swimming learning outcomes through the STAD learning model for students. This study concludes that learning freestyle swimming through the STAD learning model can improve the learning outcomes of basic freestyle swimming techniques in students.

REFERENCES

- Althea. 2009. *Teknik Dasar Berenang*. Bandung: PT Puri Delco
- Alhafiz, M. F. (2020). Upaya Meningkatkan Keterampilan Dribbling Sepakbola Melalui Pendekatan Kooperatif Metode Teams Games Tournaments (TGT) Siswa Kelas VIII.1 SMPN 4 Pekanbaru. *Skripsi, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Islam Riau, Pekanbaru*. <https://repository.uir.ac.id/11897/>
- Alvian, M., & Syafii, I. (2020). Analisis Pembinaan Sekolah Sepakbola (SSB) Usia Dini Widoro Kandang Tuban. *Jurnal Patriot*, 4(10), 39–43. <https://ejournal.unesa.ac.id/index.php/jurnal-prestasi-olahraga/article/view/42032>
- Bahriah, Danial, M., & Pratiwi, D. eka. (2014). Penerapan Pembelajaran Kooperatif Tipe STAD dengan Pendekatan Scientific untuk Meningkatkan Aktivitas dan Hasil Belajar Siswa Kelas XI IPA 1 MAN Pangkep (Materi Pokok Kelarutan, Hasil Kali Klarutan dan Koloid). *Jurnal Cheima*, 15(1), 94–113. <https://doi.org/https://doi.org/10.35580/chemica.v15i1.4612>
- Bangun, & Yunis, S. (2016). Peran Pendidikan Jasmani Dan Olahraga Pada Lembaga Pendidikan di Indonesia. *Publikasi Pendidikan*, 6(3). <https://doi.org/10.26858/publikan.v6i3.2270>
- Cholis, N., Sugiarto, T., & Wahyudi, U. (2015). Pengembangan Model Latihan Renang Gaya Kupu-Kupu Menggunakan Alat Bantu Handfin Di Klub Oscar Family Club Kabupaten Malang. *Pendidikan Jasmani*, 25(1), 87–97. <https://doi.org/dx.doi.org/10.17977/pj.v25i1.4904>
- Clarita, N., Raibowo, S., Prabowo, A., & Nopiyanto, Y. E. (2021). Peran guru pendidikan jasmani dalam pelaksanaan sekolah siaga bencana pada kawasan pesisir pantai. *Altius: Jurnal Ilmu Olahraga dan Kesehatan*, 10(2), 143–154.

<https://doi.org/10.36706/altius.v10i2.14718>

- Darma, R. (2021). Peningkatan Kemampuan Teknik Dasar Passing Permainan Sepakbola Melalui Student Team Achievement Division (STAD) Di Kelas X SMA Negeri 1 Batu Hampar Kabupaten Rokan Hilir. *Skripsi, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Islam Riau, Pekanbaru*. <https://repository.uir.ac.id/7957/>
- Dennison, Sriwahyuni, E., Wardhani, V. 2003. "Pengaruh Gaya Berenang (Gaya Bebas dan Gaya Dada) Terhadap Perubahan Volume Oksigen Maksimum": Majalah Kedok. *Jurnal Pendidikan Jasmani Indonesia*. 19(02).
- Departemen Pendidikan Nasional. 2008. Kamus Besar Bahasa Indonesia (Keempat). Jakarta: PT. Gramedia Utama.
- Emzir. 2015. *Metodologi Penelitian Pendidikan Kuantitatif dan Kualitatif*. Edisi Revisi. Jakarta: Rajawali Pers.
- Faozi, F., Sanusi, H., & Listiandi, A. D. (2019). Pengaruh Model Pembelajaran Kooperatif Tipe Stad Terhadap Keterampilan Passing Bawah Dalam Permainan Bola Voli Di SMA Islam Al-Fardiyatussa'adah Citepus Palabuhanratu. *Physical Activity Journal*, 1(1), 51. <https://doi.org/10.20884/1.paju.2019.1.1.2001>
- Firmansyah. (2016). Penerapan teori pembelajaran kognitif dalam pembelajaran pendidikan jasmani dan kesehatan. *Jurnal Pendidikan Olahraga (JPO)*, 5(2), 154–164. <https://doi.org/https://doi.org/10.31571/jpo.v5i2.383>
- Furqoni, R. S., & Wisnu, H. (2015). Peranan Guru Pendidikan Jasmani Dalam Pembelajaran Pendidikan Kesehatan Di Sekolah Menengah Pertama Negeri (SMP) Se Subrayon 06 Kabupaten Bondowoso. *Jurnal Pendidikan Olahraga dan Kesehatan*, 3(2), 249–253. <https://jurnalmahasiswa.unesa.ac.id/index.php/9/article/view/13522>
- Gunawan, A., Dlis, F., & Lubis, J. (2021). Learning Methods and Motivation Towards Learning Outcomes of Soccer Games. *Atlantis Press; Proceedings of the 1st International Conference on Sport Sciences, Health and Tourism (ICSSHT 2019)*, 35(Icssht 2019), 158–161. <https://doi.org/10.2991/ahsr.k.210130.032>
- Haris, F., Taufan, J., & Nelson, S. (2021). Peran Guru Olahraga bagi Perkembangan Pendidikan Jasmani Adaptif di Sekolah Luar Biasa. *Jurnal Basicedu*, 5(5), 524–532. <https://doi.org/https://doi.org/10.31004/basicedu.v5i5.1469>
- Heller, David. 1998. *Belajar Berenang*. Bandung : Pionir Jaya
- Herlina, H., & Suherman, M. (2020). Potensi Pembelajaran Pendidikan Jasmani Olahraga Dan Kesehatan (PJOK) Di Tengah Pandemi Corona Virus Disease (Covid)-19 Di Sekolah Dasar. *Tadulako Journal Sport Sciences And Physical Education*, 8(1), 1–7. <http://jurnal.untad.ac.id/jurnal/index.php/PJKR/article/view/16186>
- Hidayati, Nurul. 2016. *Efektivitas Model Pembelajaran Kooperatif Tipe STAD (Student Team Achievement Division) untuk Meningkatkan Hasil Belajar IPS dan Keterampilan Regulasi Diri Siswa Kelas VI MIN Malang I Kota Malang*. Tesis. Malang: UIN Maulana Malik Ibrahim Malang.
- Hudah, M., Widiyatmoko, fajar A., Pradipta, G. D., & Maliki, O. (2020). Analisis Pembelajaran Pendidikan Jasmani di Masa Pandemi Covid-19 Di Tinjau dari Penggunaan Media Aplikasi Pembelajaran dan Usia Guru. *Jurnal Porkes*, 3(2), 93–102. <https://doi.org/10.29408/porkes.v3i2.2904>
- Ikhsan, A., & Argantos. (2019). Pelaksanaan Pembelajaran Pendidikan Jasmani Olahraga dan Kesehatan. *JP&O (Jurnal Pendidikan dan Olahraga)*, Fakultas Ilmu Keolahragaan, Universitas Negeri Padang, 2(1), 171–176.

- Irnadianti. 2015. *Efektivitas Pembelajaran Renang Melalui Penerapan Model Kooperatif Tipe Think Talk Write (TTW) pada Siswa Kelas X.1 SMA Negeri 1 Bangkala Kabupaten Jeneponto*. Skripsi tidak diterbitkan. Makassar: Universitas Muhammadiyah Makassar.
- Jayul, A., & Irwanto, E. (2020). Model Pembelajaran Daring Sebagai Alternatif Proses Kegiatan Belajar Pendidikan Jasmani di Tengah Pandemi Covid-19. *Jurnal Pendidikan Kesehatan Rekreasi*, 6(2), 190–199. <https://doi.org/https://doi.org/10.5281/zenodo.3892262>
- Jihad, A. & Haris, A. 2013. *Evaluasi Pembelajaran*. Yogyakarta: Multi Persindo.
- Kadry, R. H., Hidayat, A. S., & Setiawan, M. A. (2021). Pengaruh Model Pembelajaran Kooperatif Tipe STAD (Student Team Achievement Division) Terhadap Keterampilan Passing Sepakbola. *Jurnal Literasi Olahraga*, 2(April), 126–134. <https://journal.unsika.ac.id/index.php/JLO/article/view/5297>
- Kamaruddin, I., Kamadi, L., Yasriuddin, & Rahmat, A. A. (2022). Penerapan Model Pembelajaran Kooperatif tipe STAD pada Pembelajaran Pendidikan Jasmani Siswa Kelas XI SMA Negeri 1 Majene. *Edusaintek: Jurnal Pendidikan, Sains dan Teknologi*, 9(2), 312–321. <https://journalstkipgrisitubondo.ac.id/index.php/EDUSAINTEK/article/view/464>
- Karo, A. A. P. K., Sinulingga, A., & Dewi, R. (2019). Hasil Pembentukan Karakter Atlet Pelajar Di PPLP Sumatera Utara Tahun 2018. *Jurnal Pedagogik Olahraga*, 5(2), 73–78.
- Kikin, S., Lutfiyatul, H., Suraya, & Syaharuddin. (2021). Tingkat Keberhasilan Belajar Siswa Dengan Model Pembelajaran Student Team Achievement Division: Sebuah Meta-Analisis. *Pendekar: Jurnal Pendidikan Berkarakter*, 4(1), 1–6. <http://journal.ummat.ac.id/index.php/pendekar/article/view/4304>
- Kiswanto, A. (2016). Pembinaan Mental Bagi Atlet Pemula Untuk Membantu Pengendalian Agresifitas. *Jurnal Konseling Gusjigang*, 2(1), 81–89. <https://doi.org/10.24176/jkg.v2i1.560>
- Kurniawati, Nani. 2014. *Renang Itu Mudah*. Bandung : PT Remaja Rosdakarya
- Kusuma, R. A., & Winarno, M. . (2018). Efektifitas Waktu Pembelajaran Pendidikan Jasmani Olahraga dan Kesehatan di SMP. *Gelangan Pendidikan Jasmani Indonesia*, 2(2), 135–141. <https://doi.org/http://dx.doi.org/10.17977/um040v2i2p135-141>
- Listiono. 2013. *Journal Efektifitas Pembelajaran Gerak Renang Gaya Bebas dengan Menggunakan Alat Bantu*. Bandar Lampung: Universitas Lampung
- Mardinus, A., & Maidarman, M. (2019). Tinjauan Penguasaan Teknik Renang Gaya Kupu-Kupu Atlet Pemula Perkumpulan Renang Tirta Kaluang Kota Padang. *Jurnal JPDO*, 2(1), 18–23. <http://jpdo.ppj.unp.ac.id/index.php/jpdo/article/view/183%0Ahttp://jpdo.ppj.unp.ac.id/index.php/jpdo/article/download/183/48>
- Masruri. 2014. *Analisis Efektifitas Program Nasional Pemberdayaan Masyarakat Mandiri Perkotaan*. Padang: Akademia Permata.
- Maulidah, Novita. 2012. *Efektivitas Model Pembelajaran Kooperatif Tipe STAD (Student Teams Achievement Divisions) Berbantuan Modul terhadap Hasil Belajar Kewirausahaan pada Siswa Kelas X Pemasaran SMK Negeri 1 Batang*. Skripsi. Semarang: Universitas Negeri Semarang.
- Megarany, D., & Soenyoto, T. (2021). Dukungan Orang Tua Terhadap Motivasi Berprestasi Atlet Anggar di Kabupaten Batang. *Indonesian Journal for Physical Education and*

- Sport*, 1(Edisi Khusus 3), 88–93. <http://lib.unnes.ac.id/51784/>
- Mustagfiri, & Sudarso. (2013). Penerapan Model Pembelajaran Kooperatif Tipe Student Team Achievement Divisions (STAD) terhadap Hasil Belajar Materi Passing Bola pada Permainan Sepak Bola (Studi pada Siswa Kelas X SMK Al Azhar Menganti Gresik). *Jurnal Pendidikan Olahraga dan Kesehatan*, 1(3), 627–632. <http://ejournal.unesa.ac.id/index.php/jurnal-pendidikan-jasmani/issue/archive>
- Nenden. 2009. *Mari Berenang*. Bekasi: CV Ananda Baika
- Ngalim Purwanto. 2007. *Ilmu Pendidikan Teoritis dan Praktis*. Bandung: PT Remaja Rosdakarya.
- Nurkholis. 2013. Pendidikan Dalam Upaya Memajukan Teknologi. *Jurnal Kependidikan*, 25.Pengetahuan. 131
- Padillah, A., Yudiana, Y., & Juliantine, T. (2020). The Effect of Cooperative Learning Model and Peer Teaching Model on Social Skills and Volleyball Games Performance. *Jurnal Pendidikan Jasmani dan Olahraga*, 5(1), 35–39. <https://doi.org/10.17509/jpjo.v5i1.22093>
- Pradana, V. O., Hermawan, I., & Marani, I. N. (2018). Model latihan core stability cabang olahraga renang gaya kupu-kupu untuk usia 9-10 tahun. *Jurnal Keolahragaan*, 6(1), 60–68. <https://doi.org/10.21831/jk.v6i1.19951>
- Prananda, G., & Hadiyanto. (2019). The Effect of Copperative Learning Models of Stad Type on Class V Sciensi Learning Learning SD. *International Journal of Educational Dynamics*, 1(2), 47–53. <https://doi.org/https://doi.org/10.24036/ijeds.v1i2.119>
- Prasetyo, E., Setyawan, A., & Citrawati, T. (2019). Evaluasi Pelaksanaan Pembelajaran Pendidikan Jasmani Olahraga dan Kesehatan di Kelas III SDN Buluh 2. *Prosiding Nasional Pendidikan: LPPM IKIP PGRI Bojonegoro*, 1(1), 76–82. <https://prosiding.ikipgribojonegoro.ac.id/index.php/Prosiding/article/view/1015>
- Prayadi, H. Y., & Putra, H. D. C. (2022). Peran Guru PJOK dalam Upaya Meningkatkan Minat dan Pelaksanaan Pembelajaran Atletik Nomor Lompat Siswa Kelas V Sekolah Dasar Negeri. *Jurnal Pendidikan Jasmani Indonesia*, 18(1), 48–56. <https://doi.org/https://doi.org/10.21831/jpji.v18i1.49136>
- Puspitasari, W. D. (2018). Implementasi Model Pembelajaran Kooperatif Tipe Student Teams Achievement Divisions Dalam Meningkatkan Hasil Belajar IPS Siswa. *Jurnal Cakrawala Pendas*, 4(2), 58. <https://doi.org/10.31949/jcp.v4i2.1100>
- Putra, R. E., Putra, A. M., & Emisnawati. (2018). Meningkatkan Proses Belajar Siswa Pada Mata Pelajaran Pendidikan Jasmani Dengan Materi Passing Bawah Bola Voli Mini Melalui Pembelajaran Kooperatif Model Stad Pada Siswa Kelas V SD Negeri 168 / II Sumber Mulya Kabupaten Bungo. *Muara Olahraga*, 1(1), 87–97. <https://ejournal.stkip-mmb.ac.id/index.php/pjkr/article/view/93>
- Qohhar, W., & Pazriansyah, D. (2019). Pengaruh Model Pembelajaran Kooperatif Tipe Teaching Games For Understanding (TGFU) Terhadap Peningkatan Hasil Belajar Teknik Dasar Sepakbola. *Physical Activity Journal*, 1(1), 51–60. <http://jos.unsoed.ac.id/index.php/paju/article/view/2005/1184>
- Rahyubi, H. 2014. *Teori-teori Belajar dan Aplikasi Pembelajaran Motorik*. Bandung: Penerbit Nusa Media.
- Rizki. 2010. *Berlatih Berenang Itu Mengasyikkan*. Bogor: CV. Duta Grafika
- Rismawati, M. 2012. *Efektivitas Pembelajaran Renang Melalui Penerapan Model Pembelajaran Kooperatif Tipe Teams Games Tournament (TGT) pada Siswa Kelas*

VII SMP Negeri 4 Sinjai Selatan. Skripsi tidak diterbitkan. Makassar: Universitas Muhammadiyah Makassar.

- Rohmawati, Afifatu. 2015. Efektivitas Pembelajaran. *Jurnal Pendidikan Usia Dini*, 17.
- Rohmansyah, N. A. (2017). Pendidikan Jasmani dan Olahraga Sebagai Media Pengembangan Karakter Siswa. *Jurnal PENJAKORA*, 4(1), 38–50. <https://doi.org/https://doi.org/10.23887/penjakora.v4i1.11752>
- Rokhayati, A., Nur, L., Elan, & Gandana, G. (2016). Implementasi Pendekatan Taktis dalam Pembelajaran Pendidikan Jasmani Terhadap Motivasi, Kebugaran Jasmani dan Kemampuan Motorik. *Jurnal Pendidikan Jasmani Dan Olahraga*, 1(2), 57. <https://doi.org/10.17509/jpjo.v1i2.5664>
- Rozi, F., Rahma Safitri, S., Latifah, I., & Wulandari, D. (2021). Tiga Aspek dalam Pembelajaran Pendidikan Jasmani pada Masa Pandemi Covid-19. *Jurnal Kependidikan: Jurnal Hasil Penelitian dan Kajian Kepustakaan di Bidang Pendidikan, Pengajaran dan Pembelajaran*, 7(1), 239. <https://doi.org/10.33394/jk.v7i1.3220>
- Rusman. 2014. *Model-model Pembelajaran Mengembangkan Profesional Guru*. Jakarta: Raja Grafindo Persada.
- Saitya, I. (2022). Pentingnya Perencanaan Pembelajaran Pada Pelajaran Pendidikan Jasmani Olahraga dan Kesehatan. *PIOR: Jurnal Pendidikan Olahraga*, 1(1), 9–13. <http://jurnal.habi.ac.id/index.php/Pior/article/view/53>
- Satyamardika, B., & Prihanto, J. (2015). Peranan Guru Pendidikan Jasmani Terhadap Pembelajaran Pendidikan Kesehatan Di Sekolah Menengah Pertama Negeri se-Kecamatan Gresik. *Jurnal Pendidikan Olahraga dan Kesehatan*, 3(1), 46–49. <https://ejournal.unesa.ac.id/index.php/jurnal-pendidikan-jasmani/article/view/13483>
- Setiawan, A., Yudiana, Y., Ugelta, S., Oktriani, S., Budi, D. R., & Listiandi, A. D. (2020). Hasil Belajar Pendidikan Jasmani dan Olahraga Siswa Sekolah Dasar: Pengaruh Keterampilan Motorik (Tinggi) dan Model Pembelajaran (Kooperatif). *TEGAR: Journal of Teaching Physical Education in Elementary School*, 3(2), 59–65. <https://doi.org/10.17509/tegar.v3i2.24513>
- Setiawan, W., & Wisnu, H. (2019). Survei Peran Guru Pendidikan Jasmani Kesehatan Dan Rekreasi Terhadap Terlaksananya Pendidikan Kesehatan Di SMP Se- Kecamatan Lakarsantri Kota Surabaya. *Jurnal Pendidikan Olahraga dan Kesehatan*, 7(2), 267–271. <https://jurnalmahasiswa.unesa.ac.id/index.php/9/article/view/27489>
- Sholeh, M. F., & Prihanto, J. B. (2017). Survei Pelaksanaan Usaha Kesehatan Sekolah (UKS) Dan Peran Guru Pendidikan Jasmani, Olahraga, Dan Kesehatan (PJOK) Dalam Pendidikan Kesehatan Di SMA Negeri Se-Kecamatan Bojonegoro. *Jurnal Pendidikan Olahraga dan Kesehatan*, 4(1), 200–206. <https://jurnalmahasiswa.unesa.ac.id/index.php/9/article/view/18782>
- Siallagan, A., Maidarman, M., Padli, P., & Denay, N. (2021). Analisis Teknik Gerak Renang Gaya Kupu-Kupu Atlet Tirta Kaluang Padang. *Jurnal Olahraga Mahasiswa, Universitas PGRI Palembang*, 1(Ii), 84–96. [file:///C:/Users/Lenovo/Downloads/5671-12243-1-PB\(1\).pdf](file:///C:/Users/Lenovo/Downloads/5671-12243-1-PB(1).pdf)
- Sidelnic, O. N. Dan Young, W. B.. 2006. "Optimizing the Freestyle Swimming Stroke: The Effect of Finger Spread": *Journal Sport Engineering*. 9(6):129-135.
- Suganda, O., Syafril, S., Sutisyana, A., Arwin, A., & Prabowo, A. (2021). Peran Guru Pendidikan Jasmani Olahraga dan Kesehatan (PJOK) Dalam Kegiatan Pelaksanaan Usaha Kesehatan Sekolah (UKS) Di SMK Negeri Se-Kabupaten Bengkulu Utara. *SPORT*

- GYMNASTICS: Jurnal Ilmiah Pendidikan Jasmani*, 2(2), 319–327.
<https://doi.org/10.33369/gymnastics.v2i2.17102>
- Sugiyono. 2015. *Metode Penelitian Kuantitatif, Kualitatif, dan R & D*. Bandung: Alfabeta
- Suprijono, Agus. 2012. *Cooperative Learning*. Yogyakarta: Pustaka Belajar
- Stephani, M. R. (2016). Peran Guru Dalam Upaya Meningkatkan Higher Order Thinking Melalui Gaya Mengajar Guided-Discovery Pada Pembelajaran Pendidikan Jasmani. *Jurnal Pendidikan Jasmani dan Olahraga*, 1(2), 34–42.
<https://doi.org/https://doi.org/10.17509/jpjo.v1i2.10911>
- Syahrin, A., & Bustamam, A. (2017). Peran Guru Pendidikan Jasmani Dalam Membentuk Karakter Siswa Pada MTs Se-Banda Aceh Tahun Pelajaran 2016-2017. *Jurnal Ilmiah Mahasiswa Pendidikan Jasmani, Kesehatan dan Rekreasi*, 3(2), 76–91.
<http://www.jim.unsyiah.ac.id/penjaskesrek/article/view/3276>
- Taufan, J., Ardisal, A., Damri, D., & Arise, A. (2018). Pelaksanaan Pembelajaran Pendidikan Jasmani Adaptif bagi Anak dengan Hambatan Fisik dan Motorik. *Jurnal Pendidikan Kebutuhan Khusus*, 2(2), 19. <https://doi.org/10.24036/jpkk.v2i2.496>
- Thomas, G. D.. 1998. *Renang Tingkat Pemula*. Jakarta: PT RajaGrafindo Persada
- Tresnawati, T. 2010. *Teknik Dasar Berenang*. Jakarta: Horizon
- Tri Ani Hastuti. 2008. Kontribusi Ekstrakurikuler Bola Basket Terhadap Pembibitan Atlet dan Peningkatan Kesegaran Jasmani. *Jurnal Pendidikan Jasmani Indonesia* 1 (4) 60 - 70
- Tumaloto, E. H. (2022). Pembelajaran Pendidikan Jasmani, Olahraga Dan Kesehatan Selama Pandemi Covid 19. *Jambura Health and Sport Journal*, 4(1), 60–68.
<https://doi.org/10.37311/jhsj.v4i1.13602>
- Wahyuni. dkk. 2015. Pengembangan Karakter Kedisiplinan dan Kemampuan Pemecahan Masalah Melalui Model LAPS-Heuristik Materi Lingkaran Kelas VIII. *Unnes Journal of Mathematics Education*, 4 (2): 143-148.
- Wina Sanjaya. 2013. *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*. Jakarta: Kencana Prenada Media.