



## **The Relationship between Learning Models and the Level of Knowledge of Basic Freestyle Swimming Techniques among Members of the Tirta Krisna Jembrana Swimming Club**

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### **Abstract**

This research aims to determine the relationship between the learning model and the level of knowledge of basic freestyle swimming techniques among members of the Tirta Krisna Jembrana Swimming Club. Knowledge of basic freestyle swimming techniques is very important for beginner swimmers so they can master efficient and correct movements, and reduce the risk of injury. The learning model used in this research includes a conventional approach and a repetitive practice-based approach. This research uses quantitative methods with a correlational design to determine the relationship between variables. The sample used was 20 members of the Tirta Krisna Jembrana Swimming Club who were selected using purposive sampling. Data was collected using a questionnaire consisting of two parts, namely the learning model received and the level of knowledge of basic freestyle swimming techniques. The results of the analysis show that there is a significant positive relationship between the learning model and the level of knowledge of basic freestyle swimming techniques. This shows that implementing an appropriate learning model can increase members' understanding of basic freestyle swimming techniques. This research contributes to the development of more effective learning methods in improving swimming skills in swimming clubs, especially in the Jembrana area.

**Keywords:** learning model, basic swimming techniques, freestyle, swimming club.

### **INTRODUCTION**

Swimming is a sport that not only relies on physical strength but also requires the right technique to be done efficiently and effectively. In freestyle swimming, good basic techniques are very important to obtain optimal time, as well as reduce the risk of injury. Therefore, mastering the basic techniques of freestyle swimming is a top priority in training, especially for members of swimming clubs who want to excel. One factor that can influence the success of mastering these basic techniques is the learning model applied by the coach (Bastomi & Hartoto, 2018; Rusmayani & Dewi, 2023).

The learning model is an approach used to convey material to students (Budiman, 2017; Juditya, 2023a, 2023b). In sports such as swimming, choosing the right learning model can greatly affect the improvement of athlete skills and knowledge. Some learning

models commonly used in sports are project-based learning models, technical training models, and observation and correction-based learning models (Zakiah et al., 2020). Each of these models has its own strengths and weaknesses, depending on the conditions and needs of the learners.

At the Tirta Krisna Jembrana Swimming Club, which is one of the leading swimming clubs in the Bali area, the development of basic freestyle swimming technique skills is one of the main focuses of the training program. With a diverse membership, from beginners to advanced, this club faces the challenge of choosing an effective learning model. The use of the right model in training basic freestyle swimming techniques is believed to be able to accelerate the learning process and improve members' ability to perform the technique correctly. However, although many learning methods have been applied, there has been no research that specifically examines the relationship between the learning model applied in this club and the level of knowledge of basic freestyle swimming techniques (Dewi et al., 2017; Rusmayani & Dewi, 2023).

In general, the learning model used in many swimming clubs in Indonesia including Tirta Krisna Jembrana tends to rely on drill or repetition techniques to improve basic skills. However, the combination of practical and theoretical training using an observation-based model can provide more optimal results for beginner athletes in understanding basic freestyle techniques. Observation-based learning allows students to not only practice physically but also observe and analyze the correct movements of more experienced coaches or athletes (Ni Putu Anggreni et al., 2022).

On the other hand, the project-based learning model or "Project Based Learning" (PBL) is also starting to be popular among swimming coaches because of its more practical and applicable approach. Research shows that the PBL model can improve athletes' technical understanding in swimming because athletes are directly involved in the planning and evaluation process of techniques. With PBL, athletes are not only trained to perform techniques, but are also taught how to develop and correct their techniques based on the results observed during training (Hasibuan & Syafrayani, 2024; Rusli et al., 2024).

The application of the right learning model is very dependent on the level of understanding of the basic techniques needed by students. This was revealed by research that found that variations in the level of understanding of athletes regarding the basic techniques of freestyle swimming were greatly influenced by the learning methods applied (Ari Priana, 2019). Athletes who engage in more interactive and project-based learning tend to have a deeper understanding of technique than those who rely solely on traditional methods.

The phenomenon that occurred at the Tirta Krisna Jembrana Swimming Club was the difference in the level of knowledge of basic freestyle swimming techniques among its members. Some members who had undergone intensive training and applied observation-based or project-based learning models showed significant progress in mastering freestyle techniques, while other members who still relied on traditional drill methods had not fully understood the technique well. This shows that the learning model applied plays an important role in influencing how quickly and how well members master basic freestyle swimming techniques.

The importance of understanding the relationship between learning models and the level of knowledge of basic freestyle swimming techniques has prompted more in-depth research. This study aims to determine the extent to which the learning model applied at the Tirta Krisna Jembrana Swimming Club can influence the level of knowledge and skills of basic freestyle swimming techniques of members. With the results of the existing research, it is hoped that coaches can identify the most effective model and make improvements in the training curriculum to improve the achievements and technical abilities of club members.

#### ***METHOD***

The method used in this study is a quantitative descriptive method with a correlational approach. This method is used to find the relationship or relationship between one variable and another. The variables in this study are Project Based Learning (X) as the independent variable, while basic engineering knowledge (Y) is the dependent variable. Population is a combination of all elements that form events, things, or people who have similar characteristics that are the focus of researchers' attention, because they are viewed as the universe of research (Sugiyono, 2017).

The population in this study was 20 people, the sampling technique used in this study was by using the total sampling technique, the sample used in this study was all members of the Tirta Krisna Jembrana swimming club totaling 20 people. The instrument used in this study used a questionnaire compiled based on various learning models commonly used in sports, such as direct instruction models, problem-based learning, and project-based learning. The data analysis technique used simple correlation and regression techniques. Data processing was obtained from the results of distributing questionnaires for each variable, data processing and analysis using the assistance of the Ms Excel 2020 program and also IBM SPSS version 26.

## RESULT AND DISCUSSION

### Result

**Table 1. T-test partial result**

Model	Coefficients <sup>a</sup>		Standardized Coefficients Beta	t	Sig.
	Unstandardized Coefficients B	Std. Error			
1 (Constant)	15.863	5.165		3.071	.007
<i>Project Based Learning</i>	.467	.177	.532	2.635	.017

a. Dependent Variable: Basic Technique Knowledge

It is known that the significance value of the Project Based Learning variable on basic technique knowledge is  $0.017 < 0.05$  and the calculated t value is  $2.635 > t$  table 2.100 so it can be concluded that the Project Based Learning learning model has a significant effect on basic freestyle swimming technique knowledge in members of the Tirta Krisna Jembrana swimming club.

**Table 2. F-test Result**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.499	2	8.750	3.785	.044 <sup>b</sup>
	Residual	39.301	17	2.312		
	Total	56.800	19			

a. Dependent Variable: Basic Technique Knowledge

b. Predictors: (Constant), Model *Project Based Learning*

It is known that the significance value of the Project Based Learning Model variable simultaneously on Basic Technique Knowledge is  $0.044 < 0.05$  and the calculated f value is  $3.785 > f$  table 3.555 so that it can be concluded that there is a simultaneous influence between the Project Based Learning Model on Basic Technique Knowledge of freestyle swimming in members of the Tirta Krisna Jembrana swimming club.

**Table 3. Coefficient Determinant ( $R^2$ )**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.555 <sup>a</sup>	.308	.227	1.520

a. Predictors: (Constant), Model *Project Based Learning*

The Adjusted R Square value is 0.227, so it can be concluded that the influence of the Project Based Learning Model on the Basic Freestyle Swimming Techniques of the Tirta Krisna Jembrana Swimming Club members is 22.7%, which means that the relationship between the Project Based Learning Model and the Basic Freestyle Swimming Techniques of the Tirta Krisna Jembrana Swimming Club members is weak.

### **Discussion**

The relationship between learning models and the level of knowledge of basic freestyle swimming techniques among members of the Tirta Krisna Jembrana Swimming Club is an important topic to study. A deep understanding of basic freestyle swimming techniques is crucial for swimmers, especially for those who are members of a swimming club such as Tirta Krisna Jembrana. An effective learning model can improve the understanding and skills of basic freestyle swimming techniques, which in turn will affect the swimming performance of its members.

Freestyle swimming, or often referred to as crawl swimming, is one of the fastest and most efficient swimming styles. Mastering basic freestyle techniques is very important because it can increase the speed and efficiency of swimmers in the water (Elzas, 2021; Hasmarita & Meirizal, 2024). The application of freestyle swimming learning can improve freestyle swimming learning outcomes for students (Rusmayani & Dewi, 2023).

The learning model applied in the swimming training process has a significant role in improving the knowledge and skills of basic freestyle swimming techniques. An effective learning model can help students understand and master basic swimming techniques better. Research by Rusli et al., (2024) shows that the freestyle swimming learning model based on Project Based Learning can improve students' freestyle swimming abilities in the Basic Swimming course.

Tirta Krisna Jembrana Swimming Club, as one of the swimming clubs in Bali, has an important role in the development of basic freestyle swimming techniques for its members. The application of the right learning model in this club can improve the knowledge and skills of basic freestyle swimming techniques for its members. According to research, the development of a basic freestyle swimming technique training model for early age athletes can help coaches in implementing the training process effectively and efficiently (Rusmayani & Dewi, 2023).

Several factors can influence the relationship between learning models and the level of knowledge of basic freestyle swimming techniques, including:

1. 1. Quality of Learning Models (Ginanjar, 2018; Juditya et al., 2019): A well-designed learning model that is appropriate to the needs of students will be more effective in improving knowledge of basic swimming techniques.
2. Student Involvement (Budiman, 2019, 2021, 2022): Active participation of students in the learning process will improve understanding and skills of basic swimming techniques.
3. Quality of Facilities and Resources (Pramdhan, 2023; Triono, 2022): Adequate facilities and quality resources will support an effective learning process.

Based on the above factors, Tirta Krisna Jembrana Swimming Club needs to consider several things to improve the knowledge of basic freestyle swimming techniques of its members:

**Learning Model Development:** Developing a learning model that suits the needs and characteristics of club members. Research by Rusli et al. (2024) shows that the freestyle swimming learning model based on Project Based Learning can improve students' freestyle swimming abilities in the Basic Swimming course.

**Increasing Member Involvement:** Encouraging club members to actively participate in every training and learning session. According to research by Dewi and Rusmayani (2023), the application of freestyle swimming learning can improve freestyle swimming learning outcomes in students.

**Improvement of Facilities and Resources:** Ensuring that the training facilities and resources available support an effective learning process. Research by Bangun and Ananda (2021) shows that developing a basic freestyle swimming technique training model for young athletes can help coaches in implementing the training process effectively and efficiently.

## **CONCLUSION**

The implementation of an effective learning model can improve the knowledge and skills of basic freestyle swimming techniques, which in turn affects the swimming performance of its members. Therefore, the development of a learning model that is in accordance with the needs and characteristics of club members, increasing member involvement, and improving the facilities and resources available are things that need to be considered in an effort to improve the knowledge of basic freestyle swimming techniques at the Tirta Krisna Jembrana Swimming Club.

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