Journal Management of Sport
Volume 3 Number 1 (2024)
E-ISSN: 2963 – 8003
available online at https://jurnal.stokbinaguna.ac.id/index.php/JSSB

MANAGEMENT OF JIGSAW MODEL TO INCREASE STUDENT INTEREST IN MOTORIZATION COURSES

Fera Ratna Dewi Siagian [1 *], Petrus Agustinus Franco Kapitan [2], Ratno Susanto [3]
[1 2 3] Universitas Nusa Cendana, East Nusa Tenggara, Indonesia
[*] Corresponding Author: fera.ratna.dewi.siagian@staf.undana.ac.id

Information

History:
Submitted; July 2024
Revised; August 2024
Accepted; September 2024

Keywords:
Jigsaw Model;
Management;
Increase;
Student;
Interest;
Motorization Courses.

Abstract

The purpose of this study is to explore how the application of the jigsaw model in motor courses can affect student interest and understanding. The results of this study are expected to provide insight into more effective teaching methods for complex material. This research method uses a qualitative approach. Data analysis techniques in this study used descriptive and statistics. The data obtained in the form of questionnaires and student learning outcomes were analyzed to determine the effectiveness of learning and differences in student learning outcomes. The results obtained from the physical fitness test of motor course participants of Physical Education Students of Nusa Cendana University are included in the good category, with a total percentage of 61.6%. Thus, the results showed that most of the participants of the sports motor course at the University of Nusa Cendana Physical Education had a moderate level of learning. However, the endurance component must be further improved by increasing the learning time. With this, motor course lecturers are given advice to increase the duration of learning, so that motor course participants are maximized in doing exercises and make it easier for sports motor course participants to improve student academic achievement.

INTRODUCTION

Education is an important step to prepare learners for life in the future. Its role is very important in developing the physical, intellectual, religious, moral, social, emotional aspects of knowledge and experience of learners. Law Number 20 of 2003 concerning the National Education System Article 1 paragraph 1 states that education is a conscious and structured effort to create a learning atmosphere so that students can effectively develop their potential to be needed by the wider community. The mandate of the National Education System No 20 of 2003 explains that education aims to foster the formation of personalities and the progress of noble civilization in order to educate the nation's life which is directed at developing the potential of students.

One of the competencies that must be possessed by graduates of the Health and Recreation Physical Education Study Program is that students are able to recognize the psychological and physical characteristics of students. This competency is in the motor development course. The motor development course is a course that studies the development of motion including a description or depiction and explanation of changes in motion behavior throughout human life. Studying movement behavior is always related to physical and psychological aspects. Motor development is one of the important aspects of a child's development that affects their physical and cognitive abilities. Understanding motor development is not only important for the field of child education, but also for various other disciplines such as psychology, medicine, and sports (Susanto et al., 2022).

Many students may find it difficult to learn the concepts of motor development due to the complex nature of the material and the need for in-depth understanding (Ariani et al., 2022). Traditional learning methods are sometimes not effective enough in improving students' understanding of this material. The Jigsaw model is a cooperative learning technique designed to increase students' active participation and understanding of the material through task sharing. In this model, students are divided into groups and each group member is responsible for learning a certain part of the material and then teaching it to the rest of the group (Saputra et al., 2018).

The Jigsaw model encourages students to collaborate, communicate and take responsibility for their part of the material. This can increase interest in learning and a deeper understanding of the material. Previous research has shown that this model can increase student motivation and engagement in learning. By using the Jigsaw model to study motor development, it is expected that students can better understand concepts related to motor development more effectively. This study is important to evaluate the extent to which the Jigsaw model can increase students' interest and understanding of motor development material (Kamelia, 2019).

The findings of this study can contribute to the development of more effective learning methods in the field of higher education, especially in the context of teaching motor development materials. In addition, the results of this study can also be useful for lecturers and curriculum managers to design learning strategies that can improve student motivation and learning outcomes. Evaluate the extent to which the application of the jigsaw model affects students' interest in learning motor development. This includes how this technique affects students' level of engagement, motivation and enthusiasm for the material (Indar Rahman & Khadijah, 2023).

Evaluate the extent to which the application of the Jigsaw model affects students' interest in learning about motor development. This includes how this technique affects students' level of engagement, motivation and enthusiasm for the material. Evaluate whether the application of the Jigsaw model changes students' attitudes and behaviors towards the motor course, such as increased active participation, collaboration and involvement in the learning process (Masrurah & Khulusinniyah, 2019).

Students of the Physical Education Health and Recreation study program, Nusa Cendana University may not be familiar with or have never experienced the Jigsaw model before, which could make them feel uncomfortable or skeptical of this new method. Motor development is complex material and may require in-depth understanding. If the material is perceived as too

difficult or abstract, students may find it difficult to follow even when using the jigsaw model. The jigsaw model relies on group cooperation. If students do not have good collaboration skills or feel uncomfortable working in groups, this could hinder the effectiveness of the method and their interest in learning. If group work is not done fairly or there is inequality in contributions, some students may feel burdened or unmotivated to actively participate. Students with busy schedules or time management difficulties may find it difficult to commit to Jigsaw learning, which requires time and effort to learn independently and collaborate with group members (Fitriani & Adawiyah, 2018). Some students may have resistance to unconventional learning methods and prefer traditional methods. Discomfort with changes in learning methods may affect their interest in learning.

METHODS

This research method uses a qualitative approach. The data analysis technique in this research uses descriptive and statistical data (Sanenek et al., 2023). The data obtained in the form of questionnaires and student learning outcomes were analyzed to determine the effectiveness of learning and differences in student learning outcomes. Based on the score of the direct learning questionnaire results above, the formula is used to calculate the percentage of answers to each item. The formula used is as follows:

$$\mathbf{P = \frac{F}{N}\ x\ 100\%}$$

Description:
P = Percentage
F = Frequency / Number of Respondents' Answers
N = Number of Respondents

The research population involved 42 students to take part in learning motor development courses, consisting of 20 male participants, 22 female participants who were active in semester III. The sampling technique is purposive sampling with considerations, namely; 1) active participants in attending lectures for 4 meetings; 2) male and female participants aged 20-25 years; 3) following and having students with character. After the data is collected, data processing is carried out using quantitative descriptive analysis, then the researcher draws conclusions and provides suggestions.

RESULTS & DISCUSSIONS

Results

Description of data on the results of research on interest in developmental learning with the jigsaw model in physical education as a whole can be seen in Table 1 below:

Table 1. Description of Data on Motoric Course Learning for Physical Education Students at Nusa Cendana University as a Whole

No.	Jigsaw Learning Model	N	Result Score	Maximum Score	Percentage	Physical Fitness Classification
1	Student Collaboration & Problem Solving Skills	30	77	150	51,3%	Medium
2	Student Understanding & Academic Achievement	12	32	60	53,3%	Medium
3	Students Develop Argumentation	11	29	55	52,7%	Medium
4	Student Responsibility	10	26	50	52,0%	Medium

All activities in this motor course showed relatively high percentage results, ranging from 51.3% to 53.3%. The average score for each activity was above 2.5, indicating that participants consistently achieved more than half of the maximum obtainable score. Although there was variation in sample size, outcome scores. and maximum scores, these four activities demonstrated active participation and good achievement from participants. The motor course activities were in high demand and participants were able to achieve satisfactory results in the competitions or evaluations conducted (Aghnaita, 2017).

Table 2. Data on Collaboration and Problem Solving Skills of Motoric Course Learning of Physical Education Students of Nusa Cendana University

No.	Total Value	Classification	Frequency	X Value	Percentage
1	22 - 25	Excellent	0	0	0%
2	18 - 21	Good	1	21	3%
3	14 - 17	Medium	15	255	34%
4	10 - 13	Less	14	182	24%
5	5 - 9	Very Poor	0	0	0%
Total			30	458	61%

The results obtained from the participants of the motorcycle course of Physical Education Students of Nusa Cendana University are included in the good category, with a total percentage of physical fitness of 61.1%.

Table 3. Data on Understanding and Academic Achievement of Students Learning Motoric Courses Physical Education Students of Nusa Cendana University

No.	Total Value	Classification	Frequency	X Value	Percentage
1	22 - 25	Excellent	0	0	0%
2	18 - 21	Good	1	21	7%
3	14 - 17	Medium	6	102	34%
4	10 - 13	Less	5	65	22%
5	5 - 9	Very Poor	0	0	0%
Total			12	188	62,7%

The results obtained from the physical fitness test of motorcycle course participants of Physical Education Students of Nusa Cendana University are included in the good category, with a total percentage of physical fitness of 62.7%.

Table 4. Data of Students Developing Argumentation of Learning Participants of Motoric Course Physical Education Students of Nusa Cendana University

No.	Total Value	Classification	Frequency	X Value	Percentage
1	22-25	Excellent	0	0	0%
2	18-21	Good	0	0	0%
3	14-17	Medium	7	119	43%
4	10 - 13	Less	4	52	19%
5	5 - 9	Very Poor	0	0	0%
Total			11	171	62,2%

The results obtained from the participants of the motorcycle course of Physical Education Students of Nusa Cendana University are included in the good category, with a total percentage of physical fitness of 62.2%.

Table 5. Data on Responsibility of Students Participating in Motoric Course Learning of Physical Education Students of Nusa Cendana University

No.	Total Value	Classification	Frequency	X Value	Percentage
1	22-25	Excellent	0	0	0%
2	18-21	Good	0	0	0%
3	14-17	Medium	6	102	43%
4	10 - 13	Less	4	52	19%
5	5 - 9	Very Poor	0	0	0%
Total			10	154	61,6%

The results obtained from the physical fitness test of motorcycle course participants of Physical Education Students of Nusa Cendana University are included in the good category, with a total percentage of 61.6%.

Discussions

The application of the right learning model in the teaching process will be able to attract the interest and motivation of students to learn for that there needs to be an effort from all parties, especially lecturers and students in realizing it. In other words, the issue of learning as an activity to be developed, cannot be separated from the meaning of the nature of human life both learning and teaching. Implicitly, the issue should be a reference in discussing the problems of learning outcomes. One of the cooperative learning models that can actively involve students is the Jigsaw type (Pontoh et al., 2016). Interest is one of the psychological aspects of humans that can encourage them to achieve goals. Someone who has an interest in an object, tends to give greater attention or feel happy with the object. However, if the object does not cause pleasure. To achieve good achievement in addition to intelligence is also interest, because without interest all activities will be carried out less effectively and efficiently (Aritonang, 2008).

An important goal of jigsaw cooperative learning is to teach students the skills of cooperation and collaboration. These skills are essential in a society where much adult work is done in interdependent organizations and where people are increasingly culturally diverse. Learning using the jigsaw learning model approach shows that students are quite active and enthusiastic in the learning process, this can be seen from the activeness of students in conducting group discussions (Nurhadi, 2002), namely students working together with fellow students in an atmosphere of mutual cooperation and having many opportunities to process information and improve communication skills.

This is in line with the opinion of Arends (1997) who said that the jigsaw learning model approach is a type of cooperative learning consisting of several members in one group who are responsible for mastering part of the learning material and are able to teach the material to other members in the group (Arikunto, 2006). Based on the results obtained, it shows that the learning process by applying the jigsaw learning model approach has a positive influence that can improve the quality of the learning process and can increase students' interest in learning (Slameto, 2003).

Based on data analysis, it can be seen that the jigsaw learning model is able to increase learning motivation and learning outcomes of PE students in motor courses. The results of this study are supported by the results of previous research which states that cooperative learning models have a significant and positive impact on student learning achievement (Gull & Shehzad, 2015). Through the jigsaw learning model, students are directly and actively involved in teaching and learning activities so that their learning independence and motivation to learn increase. Other research results also state that the jigsaw learning model can improve learning skills (Hossain & Tarmizi, 2013). The application of cooperative learning models is not only able to improve student learning outcomes but also can improve the value of cooperation, social and personal skills (Altun, 2015).

The increase in student motivation and learning outcomes in this study is due to the existence of expert groups, making it easier for students to learn with their peers who act as experts. Basically, students are more comfortable with explanations from their peers. With the jigsaw learning model, students can cooperate and compete positively to carry out learning in accordance with the instructions of the course lecturer. With the cooperation between students in the group, it can achieve learning goals together. In addition, increasing student motivation and learning outcomes by using the jigsaw learning model because lecturers can formulate learning objectives clearly to students, learning materials can be accepted by all students, there is open interaction, individual responsibility, interaction of positive social attitudes and behavior, heterogeneous groups, satisfaction in learning, and follow-up.

CONCLUSION

In accordance with the results of the research and the explanations that have been presented, it is concluded that the level of physical fitness of participants in the motor course of Physical Education Students at Nusa Cendana University obtained an average of above 2.5 and a percentage between 51.3% and 53.3% which is classified as moderate. Thus, the results showed that most of the participants of the motor sports course in Physical Education at Nusa Cendana University had a moderate level of learning. However, the endurance component must be further improved by increasing the learning time. With this, motor course lecturers are given advice to increase the duration of learning, so that motor course participants are maximized in doing exercises and make it easier for sports motor course participants to improve student academic achievement.

REFERENCES

Aghnaita, A. (2017). Perkembangan Fisik-Motorik Anak 4-5 Tahun Pada Permendikbud no. 137 Tahun 2014 (Kajian Konsep Perkembangan Anak). *Al-Athfal: Jurnal Pendidikan Anak*, *3*(2), 219–234. https://doi.org/10.14421/al-athfal.2017.32-09

Ariani, I., Lubis, R. N., Sari, S. H., Fransisca, Y., & Nasution, F. (2022). Perkembangan Motorik Pada Anak Usia Dini Indri. *Jurnal Pendidikan Dan Konseling*, *4*, 1349–1358.

Fitriani, R., & Adawiyah, R. (2018). Perkembangan Fisik Motorik Anak Usia Dini. *Jurnal Golden Age*, *2*(01), 25. https://doi.org/10.29408/goldenage.v2i01.742

Indar Rahman, K., & Khadijah, K. (2023). Optimalisasi Perkembangan Fisik Motorik Kasar pada Anak Usia Dini. *Murhum: Jurnal Pendidikan Anak Usia Dini*, *4*(1), 429–437. https://doi.org/10.37985/murhum.v4i1.238

Kamelia, N. (2019). Perkembangan Fisik Motorik Anak Usia Dini (Standar Tingkat Pencapaian Perkembangan Anak) Stppa Tercapai Di Ra Harapan Bangsa Maguwoharjo Condong Catur Yogyakarta. *KINDERGARTEN: Journal of Islamic Early Childhood Education*, *2*(2), 112. https://doi.org/10.24014/kjiece.v2i2.9064

Masrurah, F., & Khulusinniyah, K. (2019). Pengembangan Fisik Motorik Anak Usia Dini Dengan Bermai. *Edupedia*, *3*(2), 67–77. https://doi.org/10.35316/edupedia.v3i2.253

Sanenek, A. K., Nurhafizah, N., Suryana, D., & Mahyuddin, N. (2023). Analisis Pengembangan Kemampuan Motorik Halus pada Anak Usia Dini. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, *7*(2), 1391–1401. https://doi.org/10.31004/obsesi.v7i2.4177

Saputra, S. Y., Hariadi, N., Ulama, U. N., & Pendidikan, F. I. (2018). Creating Productive and Upcoming Sport Education Profesional Hmzanwadi University . *Journal Pendidikan Jasmani Kesehatan & Rekreasi (PORKES)*, *1*(2), 8–13.

Susanto, R., Afandi, A., & Irmawati, F. (2022). The Effectiveness of Flipbook Learning in Sports Physiology Courses Improves Student Achievement In the course of the Pandemic. *JUMORA: Jurnal Moderasi Olahraga*, *2*(1), 67–76. https://doi.org/10.53863/mor.v2i1.411