

## MOTIVATION AND PHYSICAL EDUCATION LEARNING ACHIEVEMENT AMONG STUDENTS WITH HEARING IMPAIRMENT

**Alga Nugraha<sup>1</sup>, Pamuji Sukoco<sup>2</sup>, Aulia Annisa<sup>3</sup>**

<sup>1</sup>*Sport Science, Postgraduate Program, Universitas Negeri Yogyakarta, INDONESIA*

<sup>2</sup>*Sport Science of Faculty, Universitas Negeri Yogyakarta, INDONESIA*

<sup>3</sup>*Early Childhood Education, Universitas Negeri Yogyakarta, INDONESIA*

**Summary:** Playing is a pleasure for every child with no exception to the children who have physical disorder and their capability of motion is limited. Children with hearing impairment need appropriate motivation for learning and performing physical activities. This motivation affects also their Physical Education. For students with the hearing impairment, the materials that are supposed to be taught during the physical education lessons are divided according to the level of disability. Under these circumstances, the research is conducted to determine the relationship between the motivation to learn during the Physical Education lessons and the academic achievement among students with hearing impairment. Researchers used traditional Quantitative methods of research with 40 Junior High School students with hearing impairment from Indonesia, *Sekolah Menengah Pertama Luar Biasa* (SMPLB), category B. We used the questionnaire dealing with learning motivation of children to collect the data. The data were processed using the SPSS and analyzed by descriptive quantitative operations. Results of the study showed, that there is a relationship between learning motivation of Physical Education and learning outcomes of Physical Education among students of Category B SMPLB, where the value of 0,000 is less than 0.05.

**Key words:** learning motivation, Physical Education, academic achievement, deaf students.

## **Introduction**

Sports and Health Physical Education is an integral part of overall education, aims to develop the aspects of physical fitness, movement skills, critical thinking skills, social skills, reasoning, emotional stability, moral actions, aspects of healthy lifestyle, and to introduce the importance of the clean environment through the physical activities. Sports and Health Physical Education is systematically planned in order to achieve national education goals (Sukarso 2007). The results in some cases are correlation of transforming physical education into academic or quasi-academic subjects, a collection of discursive knowledge and complete understanding of class lessons and written assignments. Students achieve the qualifications and certificates that testify their understanding of the theoretical principles involved in sports, games, and so on (Reid 2013).

Physically, playing provides opportunities for children to develop their motor skills. Games, that are irreplaceable part of sports develop flexibility, strength and muscular endurance among children. Physical development has a very big influence on the child's ability to do something if the child's physical development is not good, it will be difficult for the him to do various things and he can be limited in some actions.

Some types of physical abilities lead to real development of the strength, balance, and coordination. Children's lives are very active, more active than at any other point in the life cycle. In addition to developing motorically and physically, children also always experience cognitive development. Normal physical development allows children to adjust to the situation and their movements are not limited because they have a healthy and strong physical body, except for children with disabilities.

Deaf children are children who experience hearing loss partly or in overall. Deaf children have a unique perspective (Braun et al. 2018) in learning. Therefore, deaf children must be equipped with real and concrete experiences (Cheng et al. 2016). In following physical education children who are disabled can not do the same sport as normal children and they are limited in some sports. But they also want to do sports as well as the normal children do so it is necessary to modify the game and adapt it to the level of disability and physical condition. This is also explained in the national sports system law number 3 of 2005 which states that "Sports with disabilities are sports specifically carried out by the condition of a person's physical and/or mental disabilities".

Deaf can be interpreted as a state of hearing loss that results in a person unable to capture various stimuli, especially through the sense of hearing (Dwidjosumarto 1990). However, children with hearing impairment have visual or visual sensory powers. Children with hearing impairment can communicate with the senses of the eye, both by gesture and lip language (oral). Communication skills of deaf children are accompanied by emotional conditions of children. Children who have difficulty to communicate with others show a different expression than children who master in communication with others. The second group of children enjoy the interaction (Netten et. al. 2015). Therefore the communication with deaf children must be adjusted to the characteristics of the child, when children are comfortable in communicating then the child will be excited in the interaction.

The patients with hearing impairment need the motivation to improve her interest in physical activity. Motivation is the force that motivates someone to do something to achieve goals. These forces are stimulated by the existence of various needs, such as (1) desires to be fulfilled, (2) behavior, (3) goals, (4) feedback (Uno 2013). It is very important to use a normal approach for the deaf students and also to feel supported by the presence of peers who strengthen their confidence during the learning process. Deaf children are different from deaf adolescents according to the level of confidence. Deaf children have a lot of experience and socialization in learning, while young deaf children have a limited environment (Martin, et. al. 2011). Therefore it can be interpreted that teaching deaf children needs to include active, creative, critical learning supported by their peers in strengthening confidence.

However, this cannot be easily done. This is because the approach used could be seen as an insult. (Marschark 2001). The motivation that is owned by students in each learning activity is very instrumental to improve student's achievement in certain subjects (Nashar 2004). According to Winkel in Hidayat and Hartati (2015: 154-159) suggests that learning achievement is evidence of success in learning new things that someone has achieved. Then learning achievement is the maximum result of what has been achieved by someone after carrying out learning efforts. In the world of sports, motivation is also important, especially for athletes. Athletes who practice diligently and regularly have the goal and desire to become champions or winners in the branch they are part of. To achieve these goals, it does not include only the good technique, physical fitness and tactics, but an athlete must have the motivation that can make him enthusiastic in achieving these goals.

Children who have physical limitations or disabilities also want to enjoy the feeling of getting useful knowledge, playing with friends in school like normal children. Children with disabilities also need proper education for a better future. The percentage of students with

hearing impairment among black Americans who graduated from high school and who were prepared to continue to university, was very low in comparison to white students (Williamson 2007: 7).

The physical education learning process at school conducted by the teacher at schools is the same in general, but what is different is the learning method, which means the strategy of the way the teacher delivers the material to be taught to students by the level of disability. All instructions are given using deaf sign language.

Sports and Health Physical Education is a medium to encourage the growth of physical and psychological development, motor skills, knowledge, reasoning, appreciation of the values (attitude, mental, emotional, sportsmanship, spiritual, social), as well as habituation patterns of living healthy, which are geared to stimulate the growth and development of the quality of the physical and psychic balance (Sukarso 2007).

In the process of learning physical education in this school the teacher also provides a learning model with modifications in the form of a game so that students do not experience boredom in attending physical learning at school. Subjects taught include big ball games such as volleyball, basketball, soccer and small ball games such as table tennis and badminton and also the athletics (running, long jumping, high jumping, throwing discs, and dropping bullets). There are obstacles that are often encountered in the physical education learning process between the teacher and students. Sometimes students do not understand what movements are actually displayed and performed by the teacher and vice versa sometimes the teacher is also less able to understand what the students want. The purpose of this study was to determine the relationship between the learning motivation during the lessons of Physical Education and academic achievement among deaf students.

## **Research methods**

### **A. Types of research**

This research used a quantitative descriptive methodology which is defined as a form of research based on data from empirical facts systematically obtained that can be measured by numbers which are then described in the form of narration (Sugiyono 2015: 75). The purpose of this study was to test the relationship between motivation and learning during the lessons of physical education and academic achievement among students with hearing impairment.

### **B. Time and Place of Research**

This research was conducted at the Telanai Pura SMPLB, Jambi City. This research was conducted for 1 month and a half starting from 11 July to 26 August 2018.

### C. Research Samples

The sample in this study involved 40 SMPLB students category B in age 12 – 15 years, 13 males and 27 females with degree of hearing impairment in a level from low to medium category. The sampling technique used in this study was to use a total sampling technique that involved a total number of students who were deaf in SMPLB.

### D. Data collection technique

The data collection technique was carried out using questionnaire dealing with learning motivation and academic achievement, containing 15 items. It was distributed to 40 deaf students. Students were accompanied by Physical Education teachers. The results of data collection from a questionnaire were tabulated and then analyzed using quantitative descriptive

### E. Measuring instrument

As the research tool for measurement was used questionnaire based on five indicators including physiological needs, sense of security needs, will needs, actualization of self and social and supplies needs.

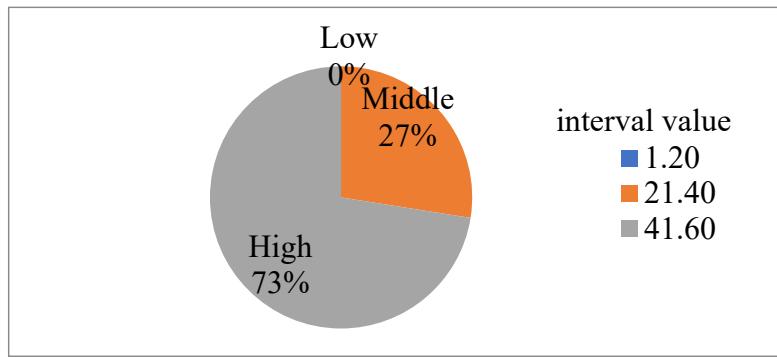
## Results

After the methodology and data collection techniques were carried out on deaf students, we found out their motivation to learn during the Physical Education lessons. Various theoretical findings were found related to learning motivation and academic achievement of deaf students at Telanai Pura SMPLB, Jambi City.

The data for the descriptive calculation were obtained from the questionnaire that was filled in by students of SMPLB category B (Deaf). The results of categorizing data concerning the motivation of students in participating in Physical Education can be seen in the following table 1.

**Table 1**  
*Categories of student motivation data*

Value Interval	Frequency	Percentage (%)	Criteria
1-20	0	0	Low
21-40	11	27.5	Middle
41-60	29	72.5	High



**Figure 1**  
*Circle diagram of categories of student motivation data*

For interval values 1 – 20, there are 0 students with a percentage of 0 % categorized as low motivation. 21 – 40 value intervals mounting to 11 students with a percentage of 27.5 % categorized as moderate motivation and interval values 41 – 60 mounting 29 students with a percentage of 73.5 % categorized as high motivation.

**Table 2**  
*Correlation test*

Information		X	Y
X	Pearson Correlation	1	.886 **
	Sig. (2-tailed)		.000
	N	40	40
Y	Pearson Correlation	.886 **	1
	Sig. (2-tailed)	.000	
	N	40	40

\*\*. Correlation is significant at the 0.01 level (2-tailed).

The hypothesis is accepted where the value of 0,000 is smaller than 0.05, so it means that the hypothesis that there is a relationship between the motivation to learn during the lessons of Physical Education and the learning outcomes of Physical Education is accepted.

## Discussion

Based on the analysis of the data and the results of the questionnaires obtained in this study, it is expected to produce a conclusion that is by the data obtained. Thus the conclusions drawn are a description of the data expected during the study. The discussion in this study examines the relationship or correlation between x and y variables using SPSS 19.0, this test is conducted to answer the problem formulation in this study, if there is a relationship between the motivation to learn while you are taking part in Physical Education and the learning

outcomes of Physical Education students in SMPLB category B ( deaf child) Telanaipura District, Jambi city.

The data were obtained to see the relationship between student motivation and Physical Education learning outcomes in Category B SMPLB (children with disabilities) carried out by distributing questionnaires to 40 students. The data collection technique used in this study is a quantitative descriptive analysis technique as outlined in the form of a percentage. Based on the results of data analysis we saw the level of motivation of SMPLB category B students (children with disabilities). 11 students had a motivation that is in the medium category with a percentage of 27.5 %, 29 other students had a motivation that is in the high category with a percentage of 72.5 %.

To see the relationship between motivation of students and learning outcomes we used the results of the questionnaire that were related to student's report cards using SPSS 19.0, which showed that the hypothesis has been accepted with a value of  $0,000 < 0.05$  which indicated that there was a close relationship between the motivation for learning while taking part in the Physical Education lessons and the learning outcomes of Physical Education among the students from SMPLB category B (children with hearing impairment) Telanai Pura District, Jambi city.

## Conclusion

Based on the data analysis conducted, it can be concluded that there is a relationship between learning motivation during the Physical Education lessons and the learning outcomes of Physical Education among students of Category B SMPLB (Tunarunggu children). When the value of  $0,000$  is less than  $0.05$ , then the hypothesis is accepted. 11 students had motivation in the medium category with a percentage of 27.5 %, while 29 students had a motivation that was in the high category with a percentage of 72.5 %.

Based on the conclusions, researchers provide recommendations for teachers to be able to improve the method of providing material by sharing various forms of learning models, so that it can bring more joy and sincerity to students and also arouse the confidence among student . It is also expected that schools will always provide full support to physical education learning activities by taking into account various factors that exist for the development and achievement of the objectives of physical education learning activities.

## Acknowledgment

The great thank you belongs to the campus of our beloved University of Foreign Yogyakarta and the programme courses that were very helpful and supporting during the completion of this article. Thanks to supervising of Mr. Sukoco who led the authors to the conclusion of this article. The last article of this author is dedicated to both parents, who inspired him the most in all things.

## Reference

1. BRAUN, D. C., M. D. CLARK, A. E. MARCHUT, C. M. SOLOMON, M. MAJOCCHA, Z. DAVENPORT & C. GORMALLY, 2018. Welcoming Deaf Students into STEM: Recommendations for University Science Education. *CBE—Life Sciences Education*. **17**(3), es10.
2. CHENG, S., X. HU & K. F. SIN, 2016. Thinking styles of university deaf or hard of hearing students and hearing students. *Research in developmental disabilities*, **55**(1), 377-387.
3. DWIDJOSUMARTO, A., 1990. *Ortopaedagogik Anak Tunarungu*. Bandung: Depdikbud.
4. HIDAYAT & HARTATI, 2015. The relationship of physical fitness levels to academic achievement of nurse 2 class XI students of SMK 10 November Sidoarjo. *Journal Sports and Health Education* **03**(01), 154-159.
5. MARSCHARK, M., 2001. *Educating Deaf Students*. New York: Oxford University Press.
6. MARTIN, D., Y. BAT-CHAVA, A. LALWANI & S. B. WALTZMAN, 2010. Peer relationships of deaf children with cochlear implants: Predictors of peer entry and peer interaction success. *Journal of Deaf Studies and Deaf Education*. **16**(1), 108-120.
7. NASHAR, 2004. *The Role of Motivation and Early Skills in Learning Activities*. Jakarta: Delia Press.
8. NETTEN, A. P., C. RIEFFE, S. C. THEUNISSEN, W. SOEDE, E. DIRKS, A. M. KORVER & DECIBEL Collaborative study group, 2015. Early identification: Language skills and social functioning in deaf and hard of hearing preschool children. *International journal of pediatric otorhinolaryngology*. **79**(12), 2221-2226.
9. REID, A., 2013. Physical education, cognition and agency. *Educational Philosophy and Theory*. **45**(9), 921-933.
10. SUGIYONO, 2015. *Quantitative qualitative research methods and R&D*. Bandung: Alfabeta.

11. SUKARSO, E., 2007. *Model Pembelajaran Pendidikan Khusus*. Jakarta: Direktorat Jendral Pendidikan Dasar dan Menengah, Direktorat Pembinaan Sekolah Luar Biasa, Departemen Pendidikan Nasional.
12. Uno,B. H., 2013 . *Learning Motivation Theory and Measurement*. Jakarta : Earth Literacy.
13. WILLIAMSON, 2007. *Black A Model for Deaf Educational Students success*. Washington: Gallauder University Press.