Journal Of Sport Education (JOPE)
Available online on http://jope.ejournal.unri.ac.id/php.index/jope
Volume 6, Number 1, 2023: 49-59
DOI:http://dx.doi.org/10.31258/jope.6.1.49-59

HUBUNGAN ANTARA KEMAMPUAN INTERAKSI SOSIAL DENGAN PARTISIPASI PEMBELAJARAN PENDIDIKAN JASMANI ANAK BERKEBUTUHAN KHUSUS PADA GERAKAN LOKOMOTOR DI SEKOLAH DASAR INKLUSIF

THE RELATIONSHIP BETWEEN SOCIAL INTERACTION ABILITIES AND PHYSICAL EDUCATION LEARNING PARTICIPATION OF CHILDRENS WITH SPECIAL NEEDS ON LOCOMOTOR MOVEMENTS IN INCLUSIVE ELEMENTARY SCHOOLS

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Received: 2023-12-05; Revised: 2023-12-31; Accepted: 2023-12-31

Abstrak

Penelitian ini bertujuan untuk menyelidiki hubungan antara kemampuan interaksi sosial dengan partisipasi pembelajaran pendidikan jasmani anak berkebutuhan khusus pada gerakan lokomotor di sekolah dasar inklusif. Penelitian ini merupakan penelitian korelasional dengan pendekatan *cross sectional*. Populasi dalam penelitian ini adalah seluruh anak berkebutuhan khusus di sekolah dasar inklusi di Kabupaten Rembang. Dari 14 kecamatan di Kabupaten Rembang yang mencakup 205 Sekolah Dasar inklusi, dengan total populasi sebanyak 1.333 siswa. Teknik sampling menggunakan *purposive sampling* dengan kriteria inklusi dan ekslusi sehingga didapatkan 74 sampel. Instrumen penelitian keterampilan interaksi sosial dan partisipasi dalam pembelajaran pendidikan jasmani menggunakan angket dan tes kemampuan lokomotor. Dari hasil penelitian diketahui bahwa 1) terdapat hubungan positif antara Kemampuan Interaksi Sosial dengan Gerakan Lokomotor; 2) Terdapat hubungan positif antara Partisipasi Pembelajaran Pendidikan Jasmani Siswa Anak Berkebutuhan Khusus dengan Gerakan Lokomotor; 3) Terdapat hubungan yang positif dan signifikan antara Kemampuan Interaksi Sosial dengan Partisipasi Pembelajaran Pendidikan Jasmani siswa berkebutuhan khusus dan Gerak Lokomotor di Sekolah Dasar Inklusi Kabupaten Rembang menggunakan uji regresi berganda. Kesimpulannya adalah terdapat hubungan antara Kemampuan Interaksi Sosial dengan Gerakan Lokomotor, Partisipasi Pembelajaran Pendidikan Jasmani Siswa Anak Berkebutuhan Khusus dengan Gerakan Lokomotor dan Kemampuan Interaksi Sosial dengan Partisipasi Pembelajaran Pendidikan Jasmani siswa berkebutuhan khusus dan Gerak Lokomotor di Sekolah Dasar Inklusi Kabupaten Rembang.

Kata kunci: anak berkebutuhan khusus, gerak lokomotor, kemampuan interaksi sosial, partisipasi pembelajaran pendidikan jasmani

Abstract

This study investigates the relationship between social interaction skills and physical education learning participation of children with special needs in locomotor movements in inclusive elementary schools. This research is a correlational study with a cross-sectional approach. The population in this study were all children with special needs in inclusive elementary schools in Rembang Regency. From 14 sub-districts in Rembang Regency, there are 205 inclusive elementary schools, with a total population of 1,333 students. The sampling technique used purposive sampling with inclusion and exclusion criteria so that 74 samples

ISSN 2654-4474 (Print), ISSN 2654-9069 (Online)

were obtained. The research instrument for social interaction skills and participation in physical education learning uses questionnaires and locomotor ability tests. From the research results it is known that 1) There is a positive relationship between Social Interaction Ability and Locomotor Movement; 2) There is a positive relationship between Physical Education Learning Participation of Students with Special Needs and Locomotor Movement; 3) There is a positive and significant relationship between Social Interaction Ability and Physical Education Learning Participation for Children with Special Needs and Locomotor Movement in Inclusive Elementary Schools in Rembang Regency using the multiple regression test. The conclusion is that there is a relationship between Social Interaction Ability and Locomotor Movement, Physical Education Learning Participation of Students with Special Needs and Locomotor Movement and Social Interaction Ability with Physical Education Learning Participation of students with special needs and Locomotor Movement in Inclusive Elementary Schools in Rembang Regency.
***Keywords**: childrens with special needs, locomotor movement, social interaction abilities, physical education learning participation.*

How To Cite: Tiyas, J. P., Kusuma, D. W. Y., Hadi, H., Hidayat, R., Festiawan, R. (2023). The relationship between social interaction abilities and physical education learning participation of childrens with special needs on locomotor movements in inclusive elementary schools. Journal Of Sports Education (JOPE), 6 (1), 2023. doi:http://dx.doi.org/10.31258/jope.6.1.49-59

INTRODUCTION

Children who face physical, mental, or social challenges when attempting to complete tasks in accordance with applicable standards are considered special needs children. Due to their difficulties interacting socially, children with special needs require assistance (Finlay et al., 2021). This is so because, at their core, we are social beings. Humans, after all, are dependent on one another to survive. According to (Ainnayyah et al., 2019; Amodia-Bidakowska et al., 2020; Ho et al., 2017), social contact is a reciprocal relationship that influences, modifies, or enhances behavior between individuals and individuals, individuals and groups, or groups and groups.

Because social contact and communication are two components of social interaction that already cover elements of social interaction and are thought to represent other theories, these aspects of social interaction are employed as scales of social interaction (Saqr et al., 2018). The social setting of society or the educational setting, where spoken communication is the most significant and commonly used form of communication (Runcharoen, 2014). For kids with exceptional needs, inclusive education is crucial because of this (Webster & Ulrich, 2017). In Rembang Regency, an inclusive elementary school will be the site of this study. In addition to aiming to change the educational system, inclusive education is implemented in schools by removing barriers that may keep any student from fully engaging in learning, including involvement in physical education learning. Based on the research results, the social interaction abilities of children with special needs at SLB C Yakut Purwokerto, the results showed that the most of respondents were male 42 (53.2%), and the majority were 10-year-old 19 (24.1%), with a form of mental retardation as much as 79 (100%). Disability children in SLB C Yakut Purwokerto who received good social support were 61 respondents (77.2%) and had good social interaction skills as many as 57 respondents (72.2%). The best form of social support was information support of 56 (76.7%) (Safitri & Solikhah, 2020).

Participating in physical education classes, particularly during the process, emphasizes basic movements more so that students won't find it difficult to follow lessons. Based on the results of research through observation, it was found that 31 students (63.3%) participated, while 18 students (36.7%) did not participate in physical education lessons. Based on interviews, the results of the intrinsic factors were obtained, namely that the main reason students took part in physical education lessons was to get good grades, while the extrinsic

factors were pleasant teachers and good teacher characteristics (Anggraeni, et al., 2013). This is especially important for students who don't have good basic movement skills for playing; students should have good basic movement skills so they can move as efficiently as possible (Chan et al., 2019; Chulvi-Medrano et al., 2017; Kiuppis, 2018). To be able to move as much as possible, students should possess strong fundamental movement skills. Basic movements are given more attention in physical education, sports, and health classes in particular, so that students won't find it difficult to follow lessons. This is particularly crucial for pupils who struggle with fundamental playing motions (Hulteen et al., 2018; Kurniawan et al., 2022; Mora-Gonzalez et al., 2019; O'Connor & Penney, 2021). There are three different kinds of movement: manipulative movement, non-locomotor movement, and locomotor movement. The term "locomotor movements" refers to movements that make the body move, such as running, climbing, walking, etc (Mubarak, 2016; Valentini et al., 2017; Wick et al., 2017). The locomotor movement is wrong one fundamental basic movement that is a domain besides non-locomotor movement and locomotion manipulative. Locomotor movements are movements that cause displacement body from one place to another, for example, walking, running, climbing, and others. This locomotor movement is very important for children improve the quality of life of children with Down syndrome. Therefore learning about Locomotor movements need to be paid attention to by schools where there are children with Down syndrome (Van Aart et al., 2017).

The previous research from (Ainnayyah et al., 2019) focus on certain aspects of social interactions in children with special needs, such as relationships with peers or interactions within the classroom, but has not specifically explored how these social interactions relate to educational learning participation physical activity on locomotor movements in an inclusive elementary school environment. Apart from that, other research from (Febriyanti & Pramono, 2022) only discusses the adaptive physical education learning process for children with special needs and children with physical impairment at cendono state special school. To strengthen inclusive education, it is important to understand how factors such as social interaction and participation in physical education lessons can influence the locomotor abilities of children with special needs in inclusive elementary schools. This will provide insight into the development of a more holistic educational approach. This research will improving the Quality of Learning for Children with Special Needs by understanding the deeper relationship between social interaction and physical education learning with locomotor abilities, this research can help improve the design of educational programs, especially in improving the learning outcomes of children with special needs. Based on this, researchers are interested in raising the research title, namely "The Relationship between Social Interaction Abilities and Participation of Childrens with Special Needs in Physical Learning and Locomotor Movement in Inclusive Elementary Schools in Rembang Regency".

METHOD

Quantitative research using correlative methodologies will be used in this study. The purpose of the correlative method is to ascertain whether and to what extent variables are related to one another. Children with special needs enrolled in inclusive primary schools in Rembang Regency made up the study's population. There are 1,333 pupils with special needs enrolled in Rembang Regency inclusive elementary schools, spread over its 14 sub-districts and 205 inclusive primary schools. For the purpose of selecting samples by purposive sampling, which is done in accordance with inclusion criteria. Children with special needs who were willing to participate in the study, slow learners, and hyperactive in the Rembang Regency Inclusion Elementary School were the purposive sampling sample.

There were 73 children among the quantitative respondents. Variables are used in quantitative research instruments. In this study, locomotor movement is the dependent

ISSN 2654-4474 (Print), ISSN 2654-9069 (Online)

variable, and social interaction ability and physical education learning participation are the independent variables. Questionnaires are the method used in this study to collect data. The questionnaire used was prepared by researchers and has been tested for validity and reliability on other samples that have the same characteristics as the actual sample, with a validity value of 0.89 and a reliability of 0.91. Data collection methods used in this questionnaire and locomotor movement test include asking respondents to fill out a Google form with assistance when necessary and distributing questionnaires to those who are less well-off. A Likert scale is employed as the scale. The Likert scale is a tool used to gauge an individual's or a group's attitudes, beliefs, and perceptions regarding social phenomena. There are five possible responses to each questionnaire item: Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), and Strongly Disagree (SD). For each of the five options, the answer scores range from 5 to 1. Regarding the answer indicators, the scores for (SA), (A), (U), (D), and (SD) are 5, 4, 3, 2 and 1. The locomotor movement test, which includes the run, gallop, hop, leap, horizontal slide, and so on, was used in the motor ability test (Kurniawan, 2018).

The SPSS 25 program was used to help with the validity test in this study. Karl Pearson product moment testing was used to determine the validity of the questionnaire at a significance level of 0.05. A statement item is declared valid if the probability value (sig. 2-tailed) of the correlation between each score and the total score must be smaller than alpha (0.05). The reliability test of the instrument in this research was carried out using a test alpha cronbach with the help of software IBM SPSS Statistics 25. Kurniawan (2018) states that good questions are questions that have a reliability coefficient of more than or equal to 0.70. To get a general idea of the variables revealed, the data analysis test uses descriptive analysis to describe each research variable. By arranging the scores in order of highest (maximum) and lowest (minimum), criteria are developed for each variable.

Test data requirements state that partial and multiple regression techniques, as well as statistical analysis of the research findings, will be used. If research trial data is homogeneous, normally distributed, and exhibits a linear relationship between variables, regression analysis techniques may be applied; however, prior to analysis, the data must be tested. a) Using the One-Sample Kolmogorov-Smirnov Test, one can perform a normality test by examining the Sig value on the test results. A hypothesis can be made with the following criteria: H0: the hypothesis is normally distributed if the p value (Sig) >a =0.1 and HA: the hypothesis is not normally distributed if the p value is (Sig). A regression model is considered normally distributed if the probability of Kolmogorov-Smirnov is greater than a (p>0.1). b) To ascertain whether or not the data in variables X and Y are homogeneous, the homogeneity test is performed. The Bartlett test is used in this homogeneity test. c) Finding out if each independent variable (X1 and X2) is linear to the dependent variable (Y) is the goal of the data linearity test. Using the SPSS 25 for Windows program linearity test, simple regression analysis of variables X and Y was used for testing.

The two types of hypothesis testing are as follows: A value from the multiple correlation test (a) indicates how strongly two or more variables influence or relate to other variables. Multiple correlations between X1 and X2 and Y are sought after by this study. In order to determine whether or not there is a functional relationship or causal relationship between two or more independent variables, in this case X1 and X2, together - the same as Y - the multiple regression test is an analytical tool for forecasting the influence value of two or more independent variables on one dependent variable. For the multiple regression testing in this study, SPSS 25 for Windows is used. By examining significance, the proposed hypothesis is tested and either accepted or rejected. If the significance value is less than or equal to 0.05, then Ha is accepted and Ho is rejected. The process of testing hypotheses involves comparing rtable and rcount. A 5% error level is applied.

ISSN 2654-4474 (Print), ISSN 2654-9069 (Online)

RESULTS

Descriptive analysis

From the results of research on the relationship between social interaction abilities and physical education learning participation for children with special needs on locomotor movements in inclusive elementary schools in Rembang Regency using 73 respondents:

Table 1. Frequency Distribution of Social Interaction Ability, Learning Participation, Locomotor Movement

	Category	F	Persentage
Social Interaction Ability	Very good	0	0%
	Good	0	0%
	Currently	0	0%
	Less	5	6,8%
	Very less	68	93,2%
	Total	73	100%
Learning Participation	Very good	0	0%
	Good	1	1,4%
	Currently	6	8,2%
	Less	38	52,1%
	Very less	28	38,4%
	Total	73	100%
Locomotor Movement	Very good	6	8,2%
	Good	14	19,2%
	Currently	33	45,2%
	Less	15	20,5%
	Very less	5	6,8%
	Very good	6	8,2%

Source: Researcher data

Based on table 1, it shows that most of the Social Interaction Ability was in Very Less Category with a total of 68 students (93,2%), the Physical Education Learning Participation was in the Less category with a total of 38 students (52.1%) and the Locomotor Movement was in Currently Category with a total of 33 students (45,2%).

Prerequisites Test Data

Table 2. Prerequisites Test Data

	Test Data	Sig	Information
Prerequisites Test Data	Normality	0,200	Normal
	Linearity	0,396	Linear

Source: Researcher data

Based on table 2. showing the results of normality and linearity testing, it is known that the significance of the normality test data is >0.05 so the data is declared to be normally distributed. Meanwhile, the linearity test results show valueDeviation from Lineairty Sig. >0.05, so the data is declared linear.

Hypothesis Testing

The results of the correlation test for the variable social interaction ability with locomotor movement using product moment correlation show a significance of 0.000 and a correlation coefficient of 0.813. These results indicate that there is a positive and significant relationship

ISSN 2654-4474 (Print), ISSN 2654-9069 (Online)

between social interaction ability and locomotor movement of special need children's students at inclusive elementary schools in rembang regency. Meanwhile, the results of the correlation test for the physical education participation variable for special need children's students with locomotor movement using product moment correlation showed a significance of 0.000 and a correlation coefficient of 0.833. These results show that there is a positive and significant relationship between the physical education learning participation of special children's students and the locomotor movement of special need children's students in inclusive elementary schools in rembang regency.

Table 3. Product Moment Analysis Results

Variable	Sig	Coefficient	R^2	Information
X1 – Y	0,000	0,813	0,723	Positive – sig
X2 – Y	0,000	0,833		Positive – sig

Source: Researcher data

The results obtained were that there was a positive and significant relationship between Social Interaction Ability and Physical Education Learning Participation of children's Students with Locomotor Movement at Inclusive Elementary Schools in Rembang Regency with a significance value of 0.000.

The next test carried out was a multiple regression test. The test results can be seen in the table below:

Table 4. Regression Analysis Results

Model	**Coefficient**
Social Interaction Ability	0,813
SPECIAL NEED CHILDREN 'S Students' Physical Education Learning Participation	0,833
Constant	6,265
R	0,850
r^2	0,723

Source: Researcher data

The regression line equation based on the results above is as follows:

$$Y = 0{,}813X_1 + 0{,}833X_2 + 6.265 \quad (1)$$

This equation shows that the coefficient value 1 of 0.813. This means that if the Social Interaction Ability (X1) value increases by 1 point, the Locomotor Movement (Y) value will increase by 0.813 points, assuming X2 remains constant.

Coefficient X2 value 0,833 This means that if the SPECIAL NEED CHILDREN 'S Students' Physical Education Learning Participation(X2) increases by 1 poin value will Locomotor Movement (Y) will increase by 0,833 points, assuming X1 constant.

DISCUSSION

The purpose of this study is to investigate the relationship between students' locomotor movement in inclusive elementary schools in Rembang Regency who have special needs and their social interaction ability and physical education learning participation. From the research results it is known that 1) there is a positive relationship between Social Interaction Ability and Locomotor Movement (Sig=0.000) and a coefficient of 0.813. 2) there is a positive relationship

ISSN 2654-4474 (Print), ISSN 2654-9069 (Online)

between Physical Education Learning Participation of Students with Special Needs and Locomotor Movement (Sig=0.000) and a coefficient of 0.833. 3) There is a positive and significant relationship between Social Interaction Ability and Physical Education Learning Participation for Children with Special Needs and Locomotor Movement in Inclusive Elementary Schools in Rembang Regency using the multiple regression test (Sig=0.000), Based on the results of this research, it is known that there is a relationship between social interaction abilities and locomotor movements, learning participation with locomotor movements, and social interaction abilities and learning participation with locomotor movements.

The Relationship between Social Interaction Ability and Locomotor Movement of special need children's Students in Inclusive Elementary Schools in Rembang Regency.

Peer relationships are crucial during childhood and adolescence because they can affect a student's quality of life, academic performance, and social and emotional growth (Qi & Ha, 2012) In the meantime, through well-directed physical education, students will acquire the skills for physical activity to develop a healthy life, a social life, and above all a greater level of physical fitness (Hayudi & Mursalim, 2020). Children with special needs can achieve learning objectives through enhanced academic performance, enhanced social skills, appropriate classroom behavior, and a positive self-image when they develop their social interaction skills. This study has demonstrated that, in inclusive elementary schools in Rembang Regency, social interaction skills and locomotor movements have a positive and significant relationship.

The relationship between special need children's students' physical education learning participation and locomotor movements in inclusive elementary schools in Rembang Regency

Student participation in Physical Education learning can be seen from the level of attendance, movement activity and student involvement in the learning process. According to (Barber, 2018), one of the factors that influences participation is students' skills in performing movements. Locomotor movement can be interpreted as the movement of moving the body from one place to another (Mubarak, 2016). Movement skills are an important part of the participation of children's with special needs because every daily activity that involves minimal movement will have a big risk of decreasing physical function which has a big impact on health (Rohmansyah, 2022). Good participation will improve children's preparation, contribution in discussions, better movement skills, attendance in learning and better communication skills. This research has proven that there is a positive and significant relationship between the Physical Education Learning Participation of special need children's students and locomotor movements in Rembang Regency Inclusive Elementary School.

The relationship between Social Interaction Abilities and Physical Education Learning Participation of special need children with Locomotor Movement in Inclusive Elementary Schools in Rembang Regency

Autism often has reduced motor skills, which results in social-motor correlates in autism (Rosenberg et al., 2017) To evaluate how children with low-functioning autism spectrum disorder (LFASD) use their motor skills and social communication abilities to participate in everyday activities (Sato & Haegele, 2017). The capacity of social interaction lies in its reciprocal nature, which influences, modifies, or enhances behavior when it occurs between individuals, between individuals and groups, or between groups themselves. In order to accomplish objectives and cultivate a sense of accountability for their involvement, students must mentally, emotionally, and physically engage in the teaching and learning process. This is known as participation (Szumski & Karwowski, 2014). The motivation to connect, engage, and

ISSN 2654-4474 (Print), ISSN 2654-9069 (Online)

share with other students in order to cooperate and empathize is strongly linked to social interaction skills. Conversely, students' willingness to engage in physical education from beginning to end is strongly correlated with their participation in the program, a person with strong social skills typically fits in with their peers with ease (Muzamil et al., 2014). Similarly, students who exhibit a high level of willingness to participate in the learning process are more likely to actively participate in the process and to engage in a variety of activities that involve other people (Ainnayyah et al., 2019). Students' locomotor movement abilities will improve when they exhibit good activity and participation, as this will be well-received as mastery of the presented movement material. This is supported by research findings showing that students with special needs who attend inclusive elementary schools in Rembang Regency have a positive and significant relationship between their social interaction skills and their participation in physical education lessons.

CONCLUSION

There is a positive relationship between social interaction abilities and locomotor movements of special need students at inclusive elementary schools in rembang regency. There is a positive relationship between special need students' physical education learning participation and locomotor movement in inclusive elementary schools in rembang regency. There is a positive and significant relationship between social interaction ability and physical education learning participation of special need students and locomotor movement in rembang regency inclusive elementary schools. Every child with special needs has a unique condition. This study may not consider all variations of these conditions and the results may not be fully applicable to all types of special needs. Suggestions for Further Researchers is making research with larger sample sizes from various special needs groups to obtain more representative results and investigating the relationship between social interaction and learning participation with locomotor abilities for each type of special needs separately to gain deeper insight.

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