



## **Evaluation of the Benefits of Senior High School Physical Education: Focus on the values of Friendship, Happiness, and Fitness**

**Muhammad Fajrul Auliya <sup>1\*</sup>, Sakban Rosidi <sup>2</sup>, Mukarom <sup>3</sup>, Afif Rusdiawan <sup>4</sup>**

<sup>1,2,3</sup> Sport Education, Universitas Insan Budi Utomo, Malang, Indonesia

<sup>4</sup> Sport Coaching Education, Faculty of Sport Science and Health, Universitas Negeri Surabaya, Surabaya, Indonesia

### **Article Info**

#### Article History :

Received : September 2023

Revised : December 2023

Accepted : December 2023

#### **Keywords:**

Friendship,  
Fitness,  
Happiness,

### **Abstract**

Physical Education lessons aim to develop fitness (Fit). However, a national survey conducted in Indonesia showed that students' physical fitness level was deficient, as indicated by the less category of 45.97%, very less 10.71%, moderate 37.66%, and good 5.66%. This type of research is gap evaluation research because it compares the observed values with the established standard benchmarks in this study. The subjects of this study were all high school, vocational, and MA students in Indonesia, with a total of 1712 respondents. This research was conducted by distributing questionnaires via the Google form which consisted of 3 questionnaires, namely Sports for Fitness to measure fitness, Sports for Fun questionnaire to measure the joy of exercising and Sports for Interpersonal Peacefulness questionnaire to measure the value of friendship. Data analysis used descriptive test, categorization, and correlation test. The results showed that the average value of physical fitness was 37 with a feasibility value of 40.9, the average joy of exercising was 75.97 with a feasibility value of 65, the average friendship value was 65.31 with a feasibility value of 61. The correlation test showed p value (sig) = 0.000, which means there is a relationship between physical fitness, the joy of exercising and interpersonal peace among high school students in Indonesia. The conclusion that can be drawn is that the average physical fitness is below the eligibility criteria set, the excitement, friendship of students at the senior secondary education level in Indonesia is above the eligibility criteria set.



\*Corresponding email :  
muhammadfajrulauliya@gmail.com

## INTRODUCTION

It is important to give physical education to adolescent students, such as senior high school students, because adolescent students are sedentary and have screen time which tends to be high. It needs to be made aware of through physical education, where physical education will be taught a healthy lifestyle by doing physical activity through sports or sports. Games so students will be fit (Andriani & Indrawati, 2021; Lapousis & George, 2017). However, learning physical education in Indonesia has not reached the expected goals because the infrastructure does not support physical education learning in accordance with the curriculum (Irwandi, 2019).

Physical Education lessons aim to develop fitness (Hartanto & Bachtiar, 2018). However, the results of a national survey conducted in Indonesia showed that the level of physical fitness of students was deficient, as indicated by the less category of 45.97%, very less 10.71%, moderate 37.66%, and good 5.66% (Ridwan et al., 2017). These statements show that physical fitness is a severe problem faced by students in Indonesia, given that it is below average. Widodo, (2013) also revealed that the low level of physical fitness by students in education units in Indonesia can be used as a basis that the quality of physical education in Indonesia is still relatively poor. Specifically, Budi, (2011) explains that high school students in Indonesia have an average fitness category in the low category based on the Sports Search test in 2002, and Physical Education can only contribute 15% to fitness in all populations in Indonesia. This is a severe problem that directly impacts students' lack of focus in following lessons in class due to low fitness. However, it needs to be reiterated that physical education also plays an important role in

growing students' character and motor skills.

Apart from the importance of physical education, the concept of friends, fun, and fit is rarely explored by teachers, so the goals of physical education have not been fully achieved because students consider it less attractive. Garn & Cothran, (2006) states that many students perceive failure in physical education as something unpleasant (not fun) that results in them having low motivation to attend physical education lessons. Supaporn, S., & Griffin, L. L. (1998) linked fun in physical education with increased skills, socialization, challenges, and good teammates. Many teachers are also wrong in placing fun as the primary goal in learning Physical Education, even though fun should be a learning process that leads to student motivation and involvement so that the primary goal of physical education is achieved, namely physical fitness or fit (Cothran, D.J. & Ennis, 2019).

Physical education plays a role in the body and teaches students to raise academic standards, promote healthy lifestyles, manage risk, and develop skills, physical abilities, and confidence in movement (Green, 2008). So, physical education can impact overall health so individuals can live productively. This is the potential of physical education to develop cognitive abilities in students who can contribute significantly to a genuinely holistic education (Laker, 2001). From the statement above, it can be concluded that physical education greatly contributes to forming quality students until they become educated (Laker, 2003). Sports training and physical activity can allow children to interact and develop friendships (Seymour et al., 2009). Research on motives for participation in sports and physical activity often identifies the need to be together or make new friends as a primary motive (Pedersen et al., 2021). Peers and friends are influential social agents in participating

in physical activity by socializing with coaches, parents, and teachers. Physical activity can provide an important means of promoting positive peer relations (Barkley et al., 2017). Bankole Adeyemi, (2019), in their research based on developmental psychology, shows that peer groups can significantly influence children's psychosocial development in various areas, such as motivation, self-perception, and influence. Researchers investigated children's and adolescents' peer relationships by conducting in-depth interviews with their friends in sports. The quantity and diversity of their responses suggests that sport is closely related to the development, maintenance and enhancement of peer relationships. If sport and physical activity provide opportunities for friendship development, physical education may have the potential to promote friendship development in students. Previous research has suspected social interaction in inclusive settings, but not the nature of friendship itself (Jago et al., 2009). That should be the real contribution and outcome of physical education in schools. The benefits are so high, the role is so important, so it is very appropriate if it is determined as a compulsory subject at all types and levels of schools.

Senior high school, at a school level where students already have motor reasoning skills through physical activity, has a critical position, especially in optimizing physical literacy and cultivating an active lifestyle. At this level, children develop the basic skills to not only do but also enjoy physical activities and sports. These skills and pleasures become more possible because they are carried out together with peers and under the guidance of physical education and sports teachers. Because of this, the slogan Together, Happy and Healthy must be a guide for not only physical education teachers but also

education policymakers. This study aimed to investigate whether the benefits of physical education based on the Friendship, Fun, and Fitness Criteria for Senior High School Level had been delivered.

## METHODS

This research is a type of gap evaluation research because, in this study, it compares the observed values with established standard benchmarks (Rosidi & Rosidi, 2021). This research uses a quantitative descriptive approach. Evaluation is a process of describing, obtaining, and providing valuable information for determining the selection of decision alternatives (Magdalena et al., 2020). Evaluation can be considered a way to determine the right alternative decisions about the value and effectiveness of health promotion programs, compare various programs, eliminate weak program components, meet funding source requirements, or provide information about programs (Mustafa, 2021). The evaluation model used in this study is the discrepancy evaluation model developed by Malcolm Provus. However, in practice, the researcher uses the gap evaluation model (one cycle), which Sakban Rosidi and Rofiqah Rosidi have modified to get a more applicable presentation. This gap evaluation model was carried out to determine the discrepancy between the outcomes of the Physical Education program and the standards (criteria) that should have been achieved. The results of this evaluation can be used for decision-making by providing recommendations on implementing the Physical Education program at the elementary school level in Indonesia.

## Participants

The subjects of this research were 1712 vocational school students in Indonesia. Research subjects were obtained from students who filled out questionnaires distributed via internet media in Google forms.

## Materials and Apparatus

Data collection techniques in this study used a questionnaire instrument. The questionnaire used in this study was adopted from the instrument questionnaire that Ben R. Abadie had prepared for the variable Fit (Perceived physical fitness scale), a questionnaire by Kenziarski and De Carlo for the variable Fun (Physical activity enjoyment), and a questionnaire by Linden L. Nelson for the variable Friends (Interpersonal Peacefulness scale). Respondents filled out a questionnaire that was given online via the Google form. The data collected is quantitative data from questionnaires with a Likert scale with a value range of 1-5.

## Procedures

This discrepancy model evaluation research was carried out through several stages, including determining what should be (setting performance benchmarks), collecting and presenting data on high school level physical education programs based on friends, fun, and fit criteria, comparing performance benchmarks with analysis results, and then explaining whether or not there is a gap between performance benchmarks and the implementation of a physical education program based on the criteria of friends, fun, and fit for senior high school level in Indonesia.

## Design or Data Analysis

The data that has been obtained is then carried out with descriptive statistical tests, compiling frequency

distribution tables and categorization tables. In addition, an independent sample t-test was conducted to determine the difference in the values obtained with the specified feasibility values of the three variables. Data analysis was carried out with the help of Microsoft Excel 2016 and SPSS 23 software.

## RESULT

Before discussing the study's results, data on the participants' characteristics are presented.

**Tabel 1.** Participants' characteristics

Participants' characteristics	N=1712	
	F	%
Gender		
• Boys	882	51.52%
• Girl	830	48.48%
Ages (year)		
• 14 year	9	0.53%
• 15 year	281	16.41%
• 16 year	688	40.19%
• 17 year	498	29.09%
• 18 year	209	12.21%
• 19 year	24	1.40%
• 20 year	3	0.18%
Schools		
• Senior High School	0	0%
• Vocational School	1712	100%
Urbanitas		
• Regency	1218	71.14%
• City	494	28.86%

Table 1 above shows that most of the respondents were male students, with a percentage of 51.52%. The majority of respondents were at the age of 16 years, with a percentage of 40.19%. The type of school respondents are vocational school students, with a percentage of 100%. The majority of respondents' residences are also in the Regency area, with the percentage reaching 71.14%. Students' physical fitness, a fit criterion, was

measured by a questionnaire consisting of 12 questions with answers using a Likert scale from the range of strongly disagree (1) to agree (5) strongly. The results of students' answers to the physical fitness variable obtained an average of 37.62 with a standard deviation of 6.69, the highest value being 60 and the lowest value being 12. The categorization can be seen in the table below:

**Table 2.** Categories of physical fitness (fit criteria)

No	Score intervals	Category	Frequency	Percent age
1	50.5 - 60	Very high	55	3.21%
2	40.9 - 50.4	High	444	25.93%
3	31.3 - 40.8	Medium	979	57.18%
4	21.7 - 31.2	Low	206	12.03%
5	12 - 21.6	Very low	28	1.64%
Total			1712	100%

The eligibility criteria for physical fitness in this study were determined based on the lower limit value of the good criteria listed in Table 4.1, namely 40.9. While the average value of physical fitness obtained is smaller than the feasibility value of 37.62. The t-test results of 2 independent samples show  $p$  (sig) = 0.000, which means a significant difference between the fitness eligibility criteria set and the results of students' physical fitness at Indonesia's upper secondary education level.

While the joy of exercising students, a criterion of fun is measured by a questionnaire consisting of 16 questions with answers using a Likert scale ranging from wrong (1) to the right (5), the results of students' answers on the variable joy of exercising obtained an average of 75.97 with a standard deviation of 13.86 and the highest value was 96, and the lowest value was 18. The categorization can be seen in the table below:

**Table 3.** Categories of joy of exercising (fun criteria)

No	Score intervals	Category	Frequency	Percent age
1	81 - 96	Very high	738	43.11%
2	65 - 80	High	571	33.35%
3	49 - 64	Medium	366	21.38%
4	33 - 48	Low	33	1.93%
5	16 - 32	Very low	4	0.23%
Total			1712	100%

The eligibility criteria for the joy of exercising in this study were determined based on the lower limit value of the high criteria listed in Table 3, namely 65. Meanwhile, the average value for the joy of exercising was 75.97. The t-test results of 2 independent samples show  $p$  (sig) = 0.000, this means that there is a significant difference between the value of the eligibility criteria for the joy of playing sports and the results for high school students in Indonesia. This means the joy of exercising students is still above the specified feasibility value. For interpersonal peace (friends) students, which is the criterion of friends, it is measured by a questionnaire consisting of 12 questions with answers using a Likert scale ranging from wrong (1) to right (6). The results of students' answers on the variable joy of exercising obtained an average of 65.31 with a standard deviation of 10.03; the highest value was 90, and the lowest value was 20. The categorization can be seen in the table below:

**Table 4.** Categories of interpersonal peace (friend criteria)

No	Score intervals	Category	Frequency	Percent age
1	76 - 90	Very high	297	17.35%
2	61 - 75	High	854	49.88%
3	46 - 60	Medium	528	30.84%
4	31 - 45	Low	32	1.87%

5	15 - 30	Very low	1	0.06%
Total			1712	100%

The eligibility criteria for interpersonal peace in this study were determined based on the lower limit value of the high criterion, namely 61. Meanwhile, the mean value of interpersonal peace obtained was 65.31. The t-test results of 2 independent samples show  $p(\text{sig}) = 0.000$ , this means that there is a significant difference between the value of the criteria for eligibility for interpersonal peace that is set with the results of interpersonal peace for students at the senior high school level in Indonesia. This means that the interpersonal peace of students is still below the specified feasibility value.

## DISCUSSION

This research was conducted to evaluate the benefits of physical education for high school students in Indonesia, consisting of 1712 respondents. Three variables are measured, namely interpersonal peace (friends), the joy of exercising (fun) and physical fitness (fit). The results showed that the physical fitness (fit) variable was still below the eligibility set from the lower limit of the high category. This condition is unsuitable for students because physical fitness is important for achieving optimal learning outcomes and a better quality of life (Syamsuramel et al., 2021).

Increased physical fitness affects health status, learning endurance, ability to concentrate, learning motivation, learning interest, ability to remember, respond to lessons, student performance abilities and productivity in dealing with daily tasks as students. In a meta-analytic study, Sibley & Etnier (2003) found a positive relationship between physical

activity and cognition in school-age adolescents (ages 4-18), indicating that physical activity and physical fitness positively correlate with students' cognitive outcomes. Student participation in physical activity is related to cognitive performance across eight measurement categories (perceptual skills, IQ, achievement, verbal tests, math tests, memory, level of academic development/readiness, and others), with results demonstrating a beneficial relationship between physical activity for all cognitive outcomes except memory.

The physical fitness of students under eligibility is likely due to the negative impact of COVID-19 last year on physical activity. This was revealed by Zhou et al, (2022), that there had been a decrease in the level of physical fitness of adolescent children before and during the Covid-19 pandemic. Covid 19 had limited students from being active, such as walking, playing, and running and provided opportunities to increase students' sedentary activities (López-Valenciano et al., 2021; Rivera et al., 2021).

The joy of exercising (fun) in this study also showed results above the specified eligibility. These results prove that implementing physical education has been fun for students. Of course, the evaluation focuses on how a teacher can present interesting learning that can help children get joy in learning. Pedro Ángel et al., (2015) His research also said that the joy of exercising positively impacts a person's physical fitness. The joy of exercising can influence a person to participate more actively in sports activities so that sports goals can be conveyed (Ryan et al., 1997). The joy of exercising is also a key factor that influences a person's physical activity (Lakicevic et al., 2020). From the several statements above, improving the methods applied in the physical education learning

process is necessary so that students can feel the joy of exercising.

In interpersonal peace (friends), results are obtained with values above the specified feasibility. This result is good, given that the motive for participating in sports and physical activity often identifies the need to be together or make new friends as a primary motive (Smith, 2003; M. R. Weiss et al., 1996). Peers and friends are influential social agents in participating in physical activity by socializing with coaches, parents and teachers. Physical activity can provide an important means of promoting positive peer relations (M. Weiss & Stuntz, 2004). Weiss & Stuntz (2004), in their research based on developmental psychology, shows that peer groups can significantly influence children's psychosocial development in various areas such as motivation, self-perception, and influence. Researchers investigated children's and adolescents' peer relationships by conducting in-depth interviews with their friends in sports. The quantity and diversity of their responses suggest that sport is closely related to developing, maintaining and enhancing peer relationships. If sports and physical activity provide opportunities for friendship development, physical education may promote friendship development in students. Previous research has suspected social interaction in inclusive settings but not the nature of friendship itself.

## CONCLUSION

The mean physical fitness score of high school students in Indonesia is 37.62. The success criterion for this physical fitness benefit (Fit) is 40.9. These two figures are based on statistical tests, significantly different. Because of this, learning physical education and sports at the high school level proved unsuccessful

in providing the expected physical fitness benefits. The score for the level of excitement in sports for high school students in Indonesia is 75.97. The success criterion for the benefits of joy in exercising is 65. The average enjoyment of sports (Fun) for high school students in Indonesia significantly exceeds the established eligibility criteria. Therefore, learning physical education and sports at the high school level has proven successful in providing benefits in the form of pleasure or excitement in exercising as expected. Learning physical education and sports carried out jointly with classmates has proven successful in teaching students to accept others as they are, be compassionate towards others, and not commit violence (non-violence). To others, both behaviorally and verbally. This is evident from the higher score of students' interpersonal peace (65.31) compared to the appropriate criteria set (61.00), which is significantly higher

## ACKNOWLEDGEMENT

I would like to thank all the students who participated in this research and all those who have helped complete this research.

## REFERENCES

- Andriani, F. W., & Indrawati, V. (2021). Gaya Hidup Sedentari, Screen Time, dan Pola Makan terhadap Status Gizi Remaja SMAN 1 Bojonegoro. *Jurnal Gizi Universitas Negeri Surabaya*, 1(1), 14–22.
- Bankole Adeyemi, F. (2019). Peer group influence on academic performance of undergraduate students in Babcock University, Ogun State. *African Educational Research Journal*, 7(2), 81–87. <https://doi.org/10.30918/aerj.72.19.0>

- 10
- Barkley, J. E., Salvy, S.-J., Sanders, G. J., Dey, S., Carlowitz, K.-P. Von, & Williamson, M. L. (2017). Peer Influence and Physical Activity Behavior in Young Children: An Experimental Study. *Physiology & Behavior*, 176(3), 139–148. <https://doi.org/10.1053/j.gastro.2016.08.014>.CagY
- Cothran, D.J., & Ennis, C. D. (2019). Curricula of mutual worth: Comparisons of students' and teachers' curricular goals. *Journal of Teaching in Physical Education*, 17, 307–326.
- Garn, A. C., & Cothran, D. J. (2006). The fun factor in physical education. *Journal of Teaching in Physical Education*, 25(3), 281–297. <https://doi.org/10.1123/jtpe.25.3.281>
- Green, K. (2008). Understanding physical education. *Understanding Physical Education*, 1–280. <https://doi.org/10.4135/9781446213520>
- Hartanto, M. B., & Bachtiar, W. B. (2018). Upaya Meningkatkan Kesegaran JAsmani Melalui Pendekatan Bermain Dalam Pembelajaran Pendidikan Jasmani Kelas X SMA Negeri 1 Cianjur. *Jurnal Maempo : Jurnal Pendidikan Jasmani Kesehatan Dan Rekreasi*, 8(2), 37–50.
- Irwandi. (2019). Belajar dan Pembelajaran Penjas. Fakultas Ilmu Keolahragaan, Universitas Negeri Makasar, 1–10.
- Jago, R., Brockman, R., Fox, K. R., Cartwright, K., Page, A. S., & Thompson, J. L. (2009). Friendship groups and physical activity: Qualitative findings on how physical activity is initiated and maintained among 10-11 year old children. *International Journal of Behavioral Nutrition and Physical Activity*, 6, 1–9. <https://doi.org/10.1186/1479-5868-6-4>
- Laker, A. (2001). Developing personal, social, and moral education through physical education: A practical guide for teachers. Routledge. <https://www.routledge.com/Developing-Personal-Social-and-Moral-Education-through-Physical-Education/Laker/p/book/9780750709293>
- Laker, A. (2003). The future of physical education: Building a new pedagogy. Routledge. <https://www.routledge.com/The-Future-of-Physical-Education-Building-a-New-Pedagogy/Laker/p/book/9781138974876>
- Lakicevic, N., Gentile, A., Mehrabi, S., Cassar, S., Parker, K., Roklicer, R., Bianco, A., & Drid, P. (2020). Make Fitness Fun: Could Novelty Be the Key Determinant for Physical Activity Adherence? *Frontiers in Psychology*, 11(October), 1–5. <https://doi.org/10.3389/fpsyg.2020.577522>
- López-Valenciano, A., Suárez-Iglesias, D., Sanchez-Lastra, M. A., & Ayán, C. (2021). Impact of COVID-19 Pandemic on University Students' Physical Activity Levels: An Early Systematic Review. *Frontiers in Psychology*, 11(January), 1–10. <https://doi.org/10.3389/fpsyg.2020.624567>
- Magdalena, I., Ridwanita, A., & Aulia, B. (2020). Evaluasi Belajar Peserta Didik. *Jurnal Pendidikan Dan Dakwah*, 2(1), 117–127.
- Mustafa, P. S. (2021). Model Discrepancy sebagai Evaluasi Program Pendidikan. *Palapa*, 9(1), 182–198.



- <https://doi.org/10.36088/palapa.v9i1.1067>
- Pedersen, M. R. L., Hansen, A. F., & Elmoose-østerlund, K. (2021).
- Pedro Ángel, L.-R., Ana Vanesa Navarro, M., & Felipe, G.-P. (2015). Effect of a physical activity program on sport enjoyment, physical activity participation, physical self-concept and q/ Efecto de un programa de actividad física en el disfrute de deportes, la participación en la actualy of life in children with asthma. *Motriz: Revista de Educação Física VO* - 21, 4, 386.
- Rosidi, S., & Rosidi, R. (2021). Penelitian Terapan Profesi Pendidikan: Penelitian Evaluasi, Penelitian Tindakan, Penelitian Kebijakan, Penelitian Pengembangan. Publica Institute Jakarta
- Ryan, R. M., Frederick, C. M., Lipes, D., Rubio, N., & Sheldon, K. M. (1997). Intrinsic Motivation and Exercise Adherence. *International Journal of Sport Psychology*, 28, 335–354.
- Sibley, B. A., & Etnier, J. L. (2003). and Cognition in Children: A Meta-Analysis. *Pediatric Exercise Science*, 15(3), 243–256. <https://doi.org/DOI:https://doi.org/10.1123/pes.15.3.243>
- Smith, A. L. (2003). Peer relationships in physical activity contexts: A road less traveled in youth sport and exercise psychology research. *Psychology of Sport and Exercise*, 4(1), 25–39. [https://doi.org/10.1016/S1469-0292\(02\)00015-8](https://doi.org/10.1016/S1469-0292(02)00015-8)
- Syamsuramel, Iyakrus, Aryanti, S., & Ramadhan, A. (2021). The Fitness Level of Physical Education Student. 4th Sriwijaya University Learning and Education International Conference (SULE-IC 2020) The, 513, 463–466. <https://doi.org/10.2991/assehr.k.201230.148>
- Weiss, M. R., Smith, A. L., & Theeboom, M. (1996). “That’s What Friends Are For”: Children’s and Teenagers’ Perceptions of Peer Relationships in the Sport Domain. *Journal of Sport and Exercise Psychology*, 18(4), 347–379. <https://doi.org/10.1123/jsep.18.4.347>
- Widodo. (2013). Penerapan Tujuh Langkah Menyusun Rencana Disiplin Kelas Proaktif Karya Colvin Dalam Pembudayaan Hidup Aktif Dan Sehat Di Sekolah. *Jurnal Pendidikan Dan Kebudayaan*, 19(3), 331–345.
- Zhou, T., Zhai, X., Wu, N., Koriyama, S., Wang, D., Jin, Y., Li, W., Sawada, S. S., & Fan, X. (2022). Changes in Physical Fitness during COVID-19 Pandemic Lockdown among Adolescents: A Longitudinal Study. *Healthcare (Switzerland)*, 10(2), 1–10. <https://doi.org/10.3390/healthcare10020351>.