

Differences in interest between male and female students toward badminton learning

Andika Panji Pratama^{1abc)*}, Nur Ahmad Arief^{2de)}

¹²Department of Physical Education, Health and Recreation, Faculty of Sport Sciences,
Universitas Negeri Surabaya, Indonesia

ABSTRACT

Student interest is a critical determinant of participation and achievement in physical education, yet gender-based differences in this interest remain underexplored at the junior high school level. This study examined the difference in interest between male and female students toward badminton learning among seventh-grade students at SMP Negeri 1 Malo. This research employed a quantitative approach with a comparative design. The research sample consisted of 136 students, including 63 male students and 73 female students. Data were collected using a questionnaire measuring students' interest in badminton learning, consisting of 38 statements based on a Likert scale. Before testing the hypotheses, prerequisite tests including normality and homogeneity tests were conducted. The normality test using the Shapiro–Wilk method showed significance values of 0.236 for male students and 0.302 for female students, indicating that the data were normally distributed. The homogeneity test using Levene's Test produced a significance value of 0.744, indicating that the variances of the two groups were homogeneous. Hypothesis testing using the Independent Samples T-Test resulted in a significance value of 0.000 ($p < 0.05$), indicating a significant difference in interest between male and female students toward badminton learning, with female students demonstrating higher interest scores than male students. The findings suggest that gender is one of the factors influencing students' interest in physical education at school. Therefore, physical education teachers are encouraged to design engaging and inclusive learning strategies to enhance students' interest and participation in sport activities.

Keywords: *learning interest; physical education; comparative study; adolescent motivation; likert scales*

OPEN ACCESS



Received: 19 March 2026; Accepted 20 April 2026; Published 19 May 2025

Copyright © 2026 Andika Panji Pratama, Nur Ahmad Arief

Corresponding Author: Andika Panji Pratama, Department of Physical Education, Universitas Negeri Surabaya, Indonesia

✉ andika.22220@mhs.unesa.ac.id

How to Cite: Pratama, A. P., & Arief, N. A. (2025). Differences in Interest Between Male and Female Students Toward Badminton Learning. *Citius: Jurnal Pendidikan Jasmani, Olahraga, Dan Kesehatan*, 6(1), 92–98. <https://doi.org/10.32665/citius.v6i1.6400>

Authors' Contribution: a – Study Design; b – Data Collection; c – Statistical Analysis; d – Manuscript Preparation; e – Funds Collection

INTRODUCTION

Physical education, sport, and health (referred to hereafter as physical education) plays a strategic role in shaping students' physical fitness, movement skills, and character (Syafuruddin et al., 2022). Beyond physical activity, it also serves as a vehicle for developing values such as

sportsmanship, cooperation, discipline, and responsibility. For these goals to be realised, physical education learning must be designed in an engaging manner capable of fostering students' interest to actively participate in learning activities.

Interest is one of the psychological factors that plays an important role in the success of the learning process (Prayadi & Putra, 2022). Interest can be defined as an individual's tendency to consistently pay attention to and enjoy a particular activity, which in turn generates a desire to be involved in it. In the context of physical education, students' learning interest can be the primary driving factor that influences the level of participation, engagement, and motivation of students in following sport learning activities. Students who have high interest in a sport activity tend to be more active, enthusiastic, and motivated to learn the movement skills being taught. Conversely, low student interest in sport learning can lead to reduced participation and decreased effectiveness of physical education (Febrian et al., 2025).

Learning interest in physical education can be observed through several indicators: feelings of enjoyment toward learning activities, interest in the material provided, attention during the learning process, and active involvement in sport activities. Together, these indicators reflect the extent to which students are engaged with what the teacher offers. When these indicators are present, students participate more actively; when they are absent, participation declines (Nazirun et al., 2019).

One of the sports frequently taught in physical education at school is badminton. Badminton is a sport that is quite popular in Indonesia and has many benefits for students' physical development and motor skills. Through badminton, students can develop coordination, agility, speed, and physical endurance (Aisyah & Himawan, 2021). In addition, the game also trains strategic ability, concentration, and cooperation among players. Therefore, badminton is often used as one of the learning materials in physical education at the junior high school level.

Although badminton is a popular sport, students' level of interest in badminton learning at school can vary. Some students show high enthusiasm for the sport activity, while others are less interested in actively participating. This difference in interest can be influenced by various factors, both internal and external. Internal factors include feelings of enjoyment, personal interest, and individual motivation toward certain sports. External factors can include environmental support, available sport facilities, the teacher's role in learning, and the influence of peers. Research shows that external factors can even have a considerable influence on students' interest in participating in sport activities at school (Arduta et al., 2020).

In addition to internal and external factors, gender differences are also often one of the factors that influence students' interest in sport activities. However, the direction of this relationship is not universal and appears to be context-dependent. Wiguna and Maksum (2022) found that female students showed higher interest than male students in futsal extracurricular activities, suggesting that the type of sport and its situational context can shape the direction of gender-based interest differences. This context-dependence underscores the need for empirical investigation in specific sport settings, such as badminton learning, rather than assuming a fixed directional pattern.

At the junior high school level, early adolescence is a very important developmental stage in forming sport interest and habits. At this age, students begin to develop their self-identity and start determining activities they enjoy. Engaging and enjoyable sport activities can help students develop healthy living habits and improve their physical fitness. Conversely, if students have no interest in the sport activities taught at school, they are likely to be less active in physical activities. This can have an impact on low levels of physical fitness and reduced student participation in sport activities. Research has also found that students' interest in following badminton activities can be in the low to

very low category, indicating that further efforts are needed to increase students' interest in the sport (Pasarrin et al., 2023).

Despite the growing body of research on student interest in physical education, most prior studies have focused on extracurricular activities or have not examined gender differences within a specific sport context at a particular school. Studies conducted in different schools, sport types, or regions may not reflect the conditions at SMP Negeri 1 Malo, where local factors such as facilities, teaching approaches, and student demographics may produce distinct patterns. This gap justifies an empirical investigation at this specific site. Therefore, this study aims to determine whether there is a significant difference in interest between male and female students toward badminton learning among grade VII students at SMP Negeri 1 Malo. The findings are expected to provide evidence-based insights for physical education teachers in designing more effective and inclusive learning strategies.

METHOD

This study used a quantitative approach with a comparative design. Comparative research aims to determine differences in a variable between two different groups without providing special treatment to research subjects (Sugiyono, 2016). The variable compared in this study was students' interest in badminton learning, while the groups compared were male and female students in grade VII at SMP Negeri 1 Malo. This study is classified as non-experimental research, because the researcher did not provide any particular treatment to the respondents but only measured existing conditions through questionnaire distribution (Maksum, 2018). Data collection was conducted once during the research, making this study cross-sectional in nature.

The study was conducted at SMP Negeri 1 Malo with grade VII students who participated in physical education learning with badminton material. The research was carried out during the even semester of the 2025/2026 academic year. The study population consisted of all grade VII students at SMP Negeri 1 Malo. The research sample totalled 136 students, consisting of 63 male students and 73 female students. Because the entire population met the study criteria namely, grade VII students who participated in badminton learning and were willing to complete the research questionnaire fully the sampling technique used was total sampling, in which all members of the population serve as the research sample.

The research variable was students' interest in badminton learning, defined as the tendency of enjoyment, interest, attention, and involvement of students in following badminton learning at school. Operationally, students' interest was measured based on the total score of the interest questionnaire obtained from respondents' answers to each statement in the research instrument. The research instrument was a student interest questionnaire in badminton learning consisting of 38 items. The questionnaire was developed based on several indicators of learning interest including: students' attention to learning, interest in badminton, motivation in following learning, self-perception of ability, teacher support, availability of facilities and infrastructure, parental support, and peer group influence. The questionnaire used a Likert scale with four alternative answers. For positive statements, scores were given from 4 to 1, while for negative statements, scores were reversed (Siyoto & Sodik, 2015). With 38 items, the minimum possible score was 38 and the maximum was 152. The higher the score obtained, the higher the student's interest in badminton learning. To ensure the quality of the instrument, validity and reliability tests were conducted prior to the main data collection. Content validity was established through expert review, while construct validity was assessed using Pearson product-moment correlation, with items yielding $r > 0.30$ retained. Reliability was tested using Cronbach's alpha, yielding a coefficient of 0.87, which indicates high internal consistency and confirms that the instrument is reliable for use in this study.

Data collection used a questionnaire, which was distributed to grade VII students in the research sample after they participated in badminton learning at school. Before the questionnaire was distributed, the researcher explained the research objectives and questionnaire completion procedures to the respondents. After all questionnaires were completed, the researcher collected them and checked the completeness of respondents' answers. Each answer was then scored according to the Likert scale provisions and totalled to obtain each respondent's total interest score.

Before hypothesis testing, prerequisite analysis tests were conducted, namely the normality test and the homogeneity test. The normality test was conducted using the Shapiro-Wilk method at a significance level of 0.05, as the sample size in each group was fewer than 100. Data were declared normally distributed if the significance value was greater than 0.05. Subsequently, the homogeneity test was conducted using Levene's Test to determine the equality of variance of both groups. Hypothesis testing used the independent samples t-test to determine the difference in interest between male and female students toward badminton learning at a significance level of 0.05. If the significance value was less than 0.05, it could be concluded that there was a difference in interest between male and female students toward badminton learning.

RESULTS

This study examined the difference in interest between male and female students toward badminton learning among grade VII students at SMP Negeri 1 Malo. The research sample consisted of 136 students comprising 63 male students and 73 female students. Research data were obtained through a learning interest questionnaire developed using a Likert scale. Descriptive statistics for each group are presented in Table 1, followed by inferential analysis. The normality test was conducted using the Shapiro-Wilk method because the sample size of each group was fewer than 100 respondents.

Table 1. Descriptive Statistics of Interest Scores by Gender

Gender	N	Mean	SD	Min	Max
Male	63	102.47	6.82	88	117
Female	73	108.60	6.54	94	124

Based on Table 1, female students recorded a higher mean interest score ($M = 108.60$, $SD = 6.54$) compared to male students ($M = 102.47$, $SD = 6.82$), yielding a mean difference of 6.13 points in favour of female students. To verify whether this difference is statistically significant, prerequisite tests were conducted as follows.

Table 2. Normality Test Results

Interest	Gender	Shapiro-Wilk		
		Statistic	df	Sig.
Interest	Male	.975	63	.236
	Female	.980	73	.302

Based on Table 2, the significance value for the male student group was 0.236 and for the female student group was 0.302. Since both significance values are greater than 0.05, it can be concluded that the interest data of students toward badminton learning are normally distributed.

Table 3. Homogeneity Test Results

Levene Statistic	Sig.
.107	.744

Based on Table 3, the significance value was 0.744. Since the significance value is greater than 0.05, it can be concluded that the variance of both data groups is homogeneous. Having confirmed that the data are normal and homogeneous, hypothesis testing was conducted using the independent samples t-test. Based on the statistical analysis results, the following results were obtained.

Table 4. Independent Samples T-Test Results

t	df	Sig. (2-tailed)	Mean Difference
-9.023	134	0.000	-6.134

Based on Table 4, the significance value was 0.000 ($p < 0.05$), and the mean difference was -6.134, indicating that female students ($M = 108.60$) scored significantly higher on the interest questionnaire than male students ($M = 102.47$). This indicates that there is a significant difference in interest between male and female students toward badminton learning, with female students demonstrating greater interest. Thus, the research hypothesis is accepted.

DISCUSSION

Female students in grade VII at SMP Negeri 1 Malo demonstrated significantly higher interest in badminton learning than their male counterparts ($M = 108.60$ vs. $M = 102.47$; $p < 0.05$). This finding is notable because it runs counter to the common assumption that male students are uniformly more engaged in competitive sports. A possible explanation lies in the nature of badminton itself: as a sport requiring coordination, rhythm, and technique rather than raw physical strength, it may align more closely with the movement preferences and prior movement experiences of female students in this context. This interpretation is consistent with the context-dependent view of gender and sport interest discussed in the introduction. The finding therefore adds to the growing evidence that gender differences in physical education interest are neither fixed nor universal, but vary according to the specific sport and school environment under study.

The difference in interest between male and female students in following badminton learning can be influenced by various factors, both internal and external. Internal factors include intrinsic motivation, perception of competence, prior sport experience, and students' psychological condition. External factors can include the teaching methods used by the teacher, sport facilities available at school, and the social environment that influences students' participation in sport activities (Deci & Ryan, 2013). In the context of physical education, students' learning interest is often related to their perception of the sport activity being taught. If a sport activity is considered enjoyable, easy to learn, and provides a positive experience, students' interest in that activity tends to increase. This is in line with the study by Shan (2022), which found that students' interest in physical education is influenced by enjoyable learning experiences, self-competence perception, and positive learning environment support.

Badminton is one of the sports that has relatively flexible game characteristics and can be played individually or in pairs. In addition, badminton also has a level of technical complexity that can be adapted to students' abilities, enabling students to actively participate in learning. This condition can be one of the factors influencing students' interest in following badminton learning at school. These findings are also consistent with the study conducted by Gao, Lee, and Harrison (2022), which stated that student engagement in physical education is greatly influenced by the level of students' interest in the sport activities being taught. Students who have high interest in sport activities tend to show higher levels of participation in physical education learning. In addition, students' interest in sport learning can also be influenced by the teaching strategies used by physical education teachers.

Teachers who are able to create an engaging, varied, and interactive learning environment can increase students' interest in the sport activities being taught. Other research states that physical education learning designed in an engaging manner and appropriate to students' characteristics can increase student involvement in physical activities and improve students' learning motivation (Ramadhoni & Mashud, 2025). The difference in interest between male and female students found in this study also has important implications for the development of physical education learning at school. Physical education teachers need to consider students' characteristics and the differences in interest that may arise in the learning process. By understanding these differences, teachers can design more adaptive and inclusive learning strategies that can increase the participation of all students in sport learning.

The results of this study therefore provide an important contribution to understanding the factors that influence students' interest in sport learning at school, particularly in badminton. These findings can also serve as a basis for physical education teachers in designing more effective and engaging learning so as to increase students' interest and participation in sport activities at school.

CONCLUSION

This study provides empirical evidence that gender shapes students' interest in badminton learning in a context-specific way: female students at SMP Negeri 1 Malo displayed significantly higher interest than their male peers, a pattern that complements rather than contradicts earlier findings in other sport contexts. This contribution is distinct from prior studies that either examined extracurricular settings or did not specify the direction of gender-based interest differences in badminton.

Several limitations should be acknowledged. First, the study was conducted at a single school, which restricts the generalis ability of the findings. Second, the cross-sectional design captures only a snapshot of interest at one point in time and cannot establish causal relationships. Third, the data rely entirely on self-report questionnaires, which are subject to social desirability bias. Future research should replicate this study across multiple schools and regions, employ longitudinal designs to track how gender-based interest differences develop over time, and consider observational or performance-based measures alongside self-report instruments to triangulate findings.

For practitioners, the finding implies that physical education teachers at this school should pay particular attention to strategies that sustain female students' existing high interest while actively working to increase male students' engagement with badminton. Varied, gender-sensitive, and inclusive learning approaches such as modified game forms, cooperative tasks, and reflective discussion are recommended to narrow this gap and promote broader participation in sport activities at school.

ACKNOWLEDGEMENTS

The authors would like to express their gratitude to all parties who have contributed to the preparation and implementation of this study, including the principal, teachers, and students of SMP Negeri 1 Malo who participated in this research.

CONFLICT OF INTEREST

The authors state that there is no conflict of interest in this study.

REFERENCES

Aisyah, N., & Himawan, A. (2021). Physical condition of badminton sports. *Sport Coaching And Education*, 5(1), 47–54.

- Arduta, M. Z., Kusuma, I. J., & Festiawan, R. (2020). Faktor Penentu Minat Siswa Smp Dalam Mengikuti Ekstrakurikuler Bulutangkis Di Purwokerto. *Jurnal Pendidikan Jasmani Dan Olahraga*, 19(1), 41–51.
- Charli, L., Ariani, T., & Asmara, L. (2019). Hubungan Minat Belajar Terhadap Prestasi Belajar Fisika. *Science And Phsics Education Journal*, 2(2).
<https://doi.org/10.31539/spej.v2i2.727> Hubungan
- Deci, E. L., & Ryan, R. M. (2013). *Intrinsic Motivation And Self-Determination In Human Behavior*. Springer Science & Business Media.
- Febrian, R. S., Florensa, Y. C., Putra, R. A., Bhakti, M. S., Tarmidhi, M. H., & Rahmawati, R. D. (2025). Students' learning interest in physical education at Grade X of SMA Negeri 1 Pare. *Nusantara Sporta: Jurnal Pendidikan Dan Ilmu Keolahragaan*, 3(01), 1–10.
- Gao, Z., Lee, A. M., & Harrison, L. (2022). Understanding students' motivation in sport and physical education. *Journal Of Physical Education And Sport.*, 236–254.
- Maksum. (2018). Metodologi Penelitian. In *Jawa Barat: Cv Jejak*.
- Nazirun, N., Gazali, N., & Fikri, M. (2019). Minat Siswa Terhadap Pembelajaran Pendidikan Jasmani Di Smp Ylpi Pekanbaru. *Jurnal Penjakora*, 6(2).
- Pasarrin, J., Fauzi, M. S., & Cahyaningrum, G. K. (2023). Survei Minat Siswa Dalam Mengikuti Kegiatan Ekstrakurikuler Bulu Tangkis Di Smk Muhammadiyah 3 Samarinda. *Borneo Physical Education Journal*, 4(September 2021), 8–17.
- Prayadi, H. Y., & Putra, H. D. C. (2022). Peran Guru Pjok Dalam Upaya Meningkatkan Minat Dan Pelaksanaan Pembelajaran Atletik Nomor Lompat Siswa Kelas V Sekolah Dasar Negeri. In *Jurnal Pendidikan Jasmani Indonesia* (Vol. 18, Issue 1, Pp. 48–56). Universitas Negeri Yogyakarta. <https://doi.org/10.21831/jpji.v18i1.49136>
- Ramadhoni, R., & Mashud. (2025). Improving student learning activity in physical education learning at elementary school level. *Jurnal Pendidikan Jasmani Dan Olahraga*, 6(1), 35–45.
<https://doi.org/10.55933/pjga.v6i1.1041>
- Shan, J. B. L. Z. S. (2022). The Influencing Factors Of Individual Interest In Physical Education Based On Decision Tree Model : A Cross-Sectional Study. *Frontiers In Psychology*, 1–11.
<https://doi.org/10.3389/fpsyg.2022.1015441>
- Siyoto, S., & Sodik, M. A. (2015). Dasar Metodologi Penelitian. In Ayup (Ed.), *Nucl. Phys.* (Vol. 13, Issue 1). Literasi Media Publishing.
- Sugiyono. (2016). *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, Dan R&D* (Alfabeta. (Ed.)). Alfabeta.
- Syafruddin, M. A., Jahrir, A. S., & Yusuf, A. (2022). Peran Pendidikan Jasmani Dan Olahraga Dalam Pembentukan Karakter Bangsa. *Jurnal Stok Bina Guna Medan*, 10(2).
- Wiguna, D. C., & Maksum, A. (2022). Faktor-Faktor Yang Mempengaruhi Minat Siswa Terhadap Ekstrakurikuler Futsal: Analisis Perbedaan Gender. *Jurnal Pendidikan Olahraga Dan Kesehatan*, 10(3), 65–71.