



The Relationship between Pedagogical Competence of Physical Education Teachers and Student Learning Motivation in Pademawu 2 Public Middle School, Pamekasan Regency

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Abstract

Physical Education, Sports, and Health (PJOK) requires teachers to combine instructional competence, effective communication, assessment, and appropriate learning media to maintain students' engagement. This study examined the relationship between students' perceptions of PJOK teachers' pedagogical competence and their learning motivation at SMP Negeri 2 Pademawu, Pamekasan Regency. A quantitative correlational design was applied to 157 students from Grades VII–IX selected through proportionate stratified random sampling from a population of 257 students. Data were collected using two four-point Likert-scale questionnaires comprising 35 items on pedagogical competence and 24 items on learning motivation. The instruments were validated through expert judgment and pilot testing, with all items meeting the validity criterion and Cronbach's alpha coefficients of 0.941 and 0.909, respectively. Descriptive statistics, Shapiro–Wilk normality testing, ANOVA-based linearity testing, and Pearson Product-Moment correlation were employed for data analysis. The findings showed that pedagogical competence and learning motivation were both at high levels, with achievement scores of 77.91% and 78.56%, respectively. Effective communication was the strongest pedagogical dimension, whereas ICT utilization showed the lowest achievement. Pearson analysis revealed a positive and significant relationship between pedagogical competence and learning motivation ($r = 0.614$, $p < 0.001$), with an associated contribution of 37.73%. The findings highlight the importance of strengthening teachers' pedagogical practices, particularly communication and technology-supported instruction, to foster more motivating PJOK learning environments.

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INTRODUCTION

Physical Education, Sports, and Health (PJOK) has a distinctive role in school education because learning takes place through physical activity while simultaneously developing knowledge, motor skills, fitness, attitudes, cooperation, responsibility, and healthy lifestyles. This distinctive learning environment places particular demands on teachers, who must organize activities that are educationally meaningful while maintaining students' safety, participation, and developmental needs. The effectiveness of PJOK therefore depends not only on the availability of facilities and equipment but also on teachers' ability to design and manage learning appropriately. Recent research emphasizes the importance of well-prepared lesson planning and instructional strategies in supporting effective physical education learning (Hardiansyah & Blegur, 2024). Teacher competence is similarly recognized as an important foundation for effective learning management and the achievement of educational objectives (García-Martínez et al., 2021; Hanafi et al., 2021). In PJOK, these responsibilities become more complex because teachers must combine verbal explanations, physical demonstrations, feedback, assessment, classroom management, and direct supervision of student activities. Consequently, pedagogical competence represents an important dimension through which the quality of PJOK instruction can be understood.

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The importance of pedagogical competence becomes more apparent when considering the diverse demands faced by physical education teachers in contemporary schools (Baumgarten et al., 2026; Cereda, 2023). Indonesian teacher competency regulations position pedagogical competence as a fundamental professional capacity encompassing students' characteristics, learning theories, curriculum development, instructional implementation, ICT utilization, student development, communication, assessment, and reflective practice. Empirical research has shown that weaknesses in teacher competence may affect the quality of instructional implementation, including subject-specific pedagogical practices in physical education (Barabanov et al., 2026; Gallardo-Fuentes et al., 2026; Wittwer et al., 2025). At the same time, contemporary learning environments increasingly encourage teachers to employ digital resources as part of instructional delivery. However, the integration of ICT into physical education remains challenging because teachers may encounter limitations related to resources, skills, confidence, and pedagogical support (Saiz-González et al., 2025; Tohănean et al., 2025a). Broader evidence also indicates that technology becomes educationally meaningful only when its use is connected to appropriate teaching practices rather than simply introduced as an additional instructional facility (Adamakis & Rachiotis, 2025; Young et al., 2026). These circumstances indicate that pedagogical competence in PJOK involves both established interpersonal teaching practices and the capacity to respond to changing instructional demands. The contrast between strong traditional teaching practices and less developed ICT utilization consequently represents an important issue for empirical investigation.

Student learning motivation constitutes another central dimension of effective PJOK learning because participation in physical activity requires students to invest effort, maintain persistence, and respond positively to instructional demands (Amallia & Nasution, 2026). Motivated students are more likely to participate actively, sustain their involvement, and recognize the value of learning activities. Conversely, insufficient motivation may reduce students' willingness to participate and limit the educational benefits of physical education. Research conducted in the context of PJOK has demonstrated that students' motivation can be influenced by learning conditions and instructional arrangements, particularly during periods of disrupted or distance learning. Physical activity is also associated with students' engagement in learning activities, suggesting that participation in movement-based education has implications beyond physical development alone (Faella et al., 2025; Son, 2025). Within physical education, teacher behavior is particularly relevant because students encounter pedagogical practices directly through explanations, demonstrations, feedback, encouragement, and assessment. Supportive teacher-student interactions can contribute to students' psychological need satisfaction, perceived competence, and intrinsic motivation (Kruse, 2022; Zou et al., 2024). Therefore, understanding student motivation requires attention to the quality of pedagogical experiences created by teachers during the learning process.

The connection between pedagogical competence and student motivation can be explained through the role of teachers in creating supportive learning environments. Effective communication, empathetic interaction, constructive feedback, and appropriate instructional support may help students feel more competent and valued during learning activities. This perspective is consistent with Self-Determination Theory, which emphasizes that supportive interpersonal environments can facilitate the satisfaction of students' basic psychological needs and strengthen motivation (Guay, 2022; Ryan et al., 2025). Evidence from physical education has further demonstrated that teacher support is associated with the development of intrinsic motivation and perceived competence over time (Choi et al., 2021; Estevan et al., 2021; Leisterer & Gramlich, 2021a). Similarly, autonomy-supportive teaching has been linked to students' involvement in physical education and the satisfaction of their psychological needs (Langøy et al., 2024). Teacher support may also influence learning engagement through psychological mechanisms such as self-efficacy and task orientation (Guo et al., 2025a). These perspectives suggest that pedagogical competence should not be viewed solely as a professional requirement but also as a factor reflected in students' motivational experiences (Fantinelli et al., 2024; Lin & Tsai, 2021). Examining the relationship between students' perceptions of teacher competence and their motivation is therefore important for understanding how pedagogical practices are experienced within actual PJOK classrooms.

Previous studies have provided substantial evidence regarding teacher competence, instructional quality, ICT integration, and student motivation, but the findings remain dispersed across different research emphases. Rosidah et al. (2024) demonstrated the relevance of teacher

competence to effective learning management, while Baumgartner (2022) highlighted competency issues among physical education teachers. Research on ICT has identified barriers to technology adoption in physical education Tohănean et al. (2025), while systematic evidence has emphasized the importance of meaningful ICT integration within teaching and learning processes (Msambwa et al., 2024). Other studies have concentrated on students' motivational experiences and demonstrated the relevance of teacher support, psychological need satisfaction, perceived competence, and engagement in physical education (Behzadnia, 2021; Leisterer & Gramlich, 2021). Research conducted during the pandemic also documented challenges associated with maintaining student motivation in PJOK learning environments (Modra et al., 2022). More recent evidence has continued to show that teacher competence is related to students' physical activity and learning-related outcomes (Guo et al., 2025; Lauermann & ten Hagen, 2021). Taken together, these studies establish the importance of teacher competence and motivational factors but do not fully explain their direct relationship from the perspective of students in face-to-face junior high school PJOK learning.

A closer examination of the existing literature reveals several limitations that create a relevant research gap (Enyoghasi & Badurdeen, 2021; Kayan-Fadlelmula et al., 2022). First, previous studies have frequently examined teacher competence through professional, administrative, or teacher-centered perspectives, providing comparatively less attention to students as direct evaluators of pedagogical practices. Second, research on motivation in physical education has often emphasized specific learning conditions, particularly distance learning during the COVID-19 pandemic, rather than ordinary face-to-face instructional settings (Frikha et al., 2022; Howley, 2022). Third, studies concerning ICT integration, teacher support, psychological needs, and student engagement have generally addressed individual dimensions of teaching and learning rather than directly examining the overall association between perceived pedagogical competence and student learning motivation. This limitation is important because students experience pedagogical competence as an integrated set of practices rather than as isolated professional indicators (Assalihee et al., 2024; Dilling et al., 2024). In particular, the extent to which teachers communicate effectively, understand students, manage learning, develop student potential, conduct assessment, and utilize ICT may collectively shape students' learning experiences. Although existing evidence supports the importance of teacher competence for physical activity and educational outcomes (Bourke et al., 2024; Liu et al., 2025), empirical evidence concerning its relationship with learning motivation among junior high school PJOK students remains limited in the specific context examined in this study. Addressing this gap requires research that directly measures students' perceptions of their teachers' pedagogical competence and examines whether these perceptions are significantly associated with their learning motivation. Such evidence can provide a more context-sensitive understanding of the role of teacher competence in sustaining students' engagement with PJOK learning.

Based on this research gap, the present study aims to describe the level of PJOK teachers' pedagogical competence and students' learning motivation and to examine the relationship between the two variables among students at SMP Negeri 2 Pademawu, Pamekasan Regency. The study specifically investigates whether students who perceive higher levels of teacher pedagogical competence also demonstrate higher levels of learning motivation. By positioning students as the primary source for evaluating pedagogical practices, the study provides empirical evidence that complements teacher-centered and administrative approaches to competency assessment. The study also pays attention to the specific characteristics of PJOK learning, in which communication, student development, instructional management, assessment, and ICT utilization operate within physically active learning environments. Theoretically, the findings are expected to contribute to the understanding of the association between teacher pedagogical competence and student motivation within school-based physical education, particularly from a student-perception perspective. Practically, the findings may assist PJOK teachers and schools in identifying pedagogical dimensions that are already strong and those that require further development, especially communication and technology-supported instruction. The results may also provide a basis for professional development initiatives aimed at creating more supportive and motivating PJOK learning environments. Ultimately, this study seeks to provide contextual empirical evidence concerning the role of pedagogical competence in supporting students' motivation to participate in physical education learning.

METHOD

Research Design

This study employed a quantitative correlational research design to examine the relationship between students' perceptions of Physical Education, Sports, and Health (PJOK) teachers' pedagogical competence and their learning motivation. A correlational design was selected because the study aimed to determine the direction and strength of the association between two naturally occurring quantitative variables without manipulating the research setting or introducing an experimental treatment. This approach was appropriate for describing the existing levels of pedagogical competence and learning motivation and for testing whether the two variables were significantly related. The study treated teachers' pedagogical competence as the predictor variable (X) and students' learning motivation as the outcome variable (Y). Data were collected through structured questionnaires administered to eligible students in the research setting. The design therefore provided an empirical basis for examining the association between perceived teacher competence and students' motivational conditions within actual PJOK learning.

Research Location and Time

The research was conducted at SMP Negeri 2 Pademawu, Pamekasan Regency, Indonesia. The participants were students in Grades VII, VIII, and IX who had participated in the learning process with the PJOK teacher being assessed for at least one full semester. The research was implemented in mid-2026, beginning with the preparation of the research proposal and research instruments. This stage was followed by the acquisition of official research permission from the university and the target school. Data collection was subsequently conducted directly at the research site using printed questionnaires. The researchers were present during questionnaire administration to clarify statements when necessary and to ensure that respondents understood the questionnaire items before providing their responses. Conducting the data collection directly in the school was intended to ensure that the responses reflected students' actual experiences during PJOK learning.

Population and Sample

The target population comprised all active students in Grades VII, VIII, and IX at SMP Negeri 2 Pademawu, with a total of 257 students based on institutional baseline data. The minimum sample size was determined using the Slovin formula with a 5% error tolerance, resulting in a minimum sample requirement of 157 students. To ensure proportional representation across grade levels, the study employed proportionate stratified random sampling. The final sample consisted of 157 students, including 52 Grade VII students (33.12%), 53 Grade VIII students (33.76%), and 52 Grade IX students (33.12%). The sample comprised 82 male students (52.23%) and 75 female students (47.77%). Participants were eligible if they were active students at the research site, had participated in PJOK learning with the assessed teacher for at least one full semester, and were willing to participate voluntarily. Students who did not meet these criteria were not included in the research sample.

Research Instruments

Data were collected using two structured closed-ended questionnaires employing a four-point Likert scale. The first questionnaire measured students' perceptions of PJOK teachers' pedagogical competence and consisted of 35 statement items. The instrument covered the principal dimensions of pedagogical competence specified in the Indonesian teacher competency framework, including understanding students, mastery of learning theories, curriculum development, implementation of educational learning, ICT utilization, development of students' potential, effective communication, evaluation, utilization of assessment results, and reflective practice. The second questionnaire measured students' learning motivation and consisted of 24 statement items representing the motivational dimensions examined in the study. The four-point Likert scale was used to obtain differentiated responses without providing a neutral midpoint. Both instruments were

administered in printed form during the data-collection process. The resulting questionnaire scores were coded quantitatively to enable descriptive and correlational statistical analysis.

Validity and Reliability of Instruments

Instrument quality was established through content validation and empirical testing before the main data collection. Content validity was examined through expert judgment to assess the relevance and appropriateness of the questionnaire items to the constructs being measured. Following expert review, the instruments were tested empirically on 30 students who were not included in the main research sample. Item validity was evaluated using corrected item-total correlation, and all items met the established validity criterion because the obtained correlation coefficients exceeded $r = 0.361$. Internal consistency was subsequently assessed using Cronbach's alpha. The pedagogical competence instrument obtained a Cronbach's alpha coefficient of 0.941, whereas the learning motivation instrument obtained a coefficient of 0.909, indicating very high internal consistency for both instruments. These results provided empirical support for the validity and reliability of the questionnaires before their administration to the main sample.

Data Collection Procedure

Data collection was conducted through a series of systematic stages. First, the researchers prepared the research proposal and instruments and obtained formal research permission from the relevant university and school authorities. Second, the purpose and procedures of the study were explained to prospective participants, and informed consent was obtained before questionnaire administration. Third, the two questionnaires were distributed in printed form and completed directly by the students under the supervision of the researchers. During this stage, the researchers remained available to clarify questionnaire statements without influencing respondents' answers. Fourth, the completed questionnaires were collected and checked to ensure that the responses were sufficiently complete for further processing. Finally, the responses were coded and prepared for statistical analysis. Participation was voluntary, and respondent identities were kept confidential and anonymous throughout the research process.

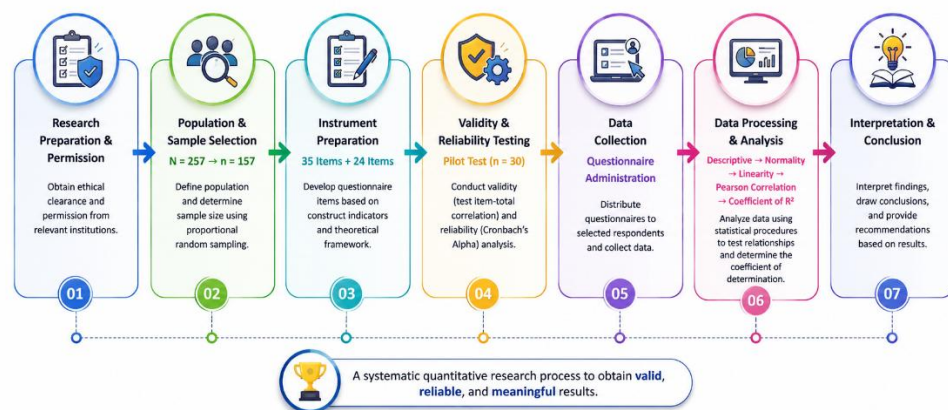


Figure 1. Research Procedure Flowchart

Figure 1. Research procedure from preparation and participant selection through instrument testing, data collection, statistical analysis, and interpretation.

Data Analysis Techniques

The data were analyzed using descriptive and inferential statistical procedures. Descriptive statistics were first calculated to summarize the minimum score, maximum score, mean, median, standard deviation, and percentage of achievement for both pedagogical competence and student learning motivation. Before hypothesis testing, the normality assumption was examined using the Shapiro-Wilk test. The linearity assumption was subsequently examined using an ANOVA-based linearity test to determine whether a linear relationship existed between the two variables. After the prerequisite assumptions were satisfied, the Pearson Product-Moment correlation test was employed to determine the direction and strength of the relationship between teachers' pedagogical competence and students' learning motivation. Statistical significance was assessed using a

significance level of $\alpha = 0.05$, with $p < 0.05$ interpreted as evidence for rejecting the null hypothesis. The coefficient of determination (R^2) was also calculated to estimate the proportion of variation in students' learning motivation statistically associated with teachers' pedagogical competence. Overall, the methodological procedures were designed to establish a clear connection between the research objectives, participant selection, measurement of the study variables, data collection, and statistical analysis. The use of proportionate stratified random sampling, validated and reliable questionnaires, systematic data collection, and prerequisite testing before correlation analysis provided an appropriate methodological basis for examining the relationship between students' perceptions of PJOK teachers' pedagogical competence and their learning motivation. The resulting analytical procedures were subsequently used to test the research hypothesis and interpret the empirical findings within the context of PJOK learning at SMP Negeri 2 Pademawu.

RESULTS AND DISCUSSION

Results

The demographic characteristics of the 157 respondents showed a very wide representation. balanced between classes, with details of Class VII as many as 52 students (33.12%), Class VIII as many as 53 students (33.76%), and Class IX as many as 52 students (33.12%). Based on gender, the sample consisting of 82 male students (52.23%) and 75 female students (47.77%).

Table 1. Descriptive Statistics of Pedagogical Competence (X) and Learning Motivation (Y)

Variables	N	Min Score	Max Score	Median	Std. Deviation	Achievement (%)	
Pedagogical Competence (X)	157	74	138	109.07	109.00	10.46	77.91%
Learning Motivation (Y)	157	49	96	75.42	75.00	8.36	78.56%

In general, the achievement of pedagogical competency indicators shows that the indicators "Communicating effectively, empathetically, and politely" had the highest score (83.00%), while The indicator "Utilizing ICT/media" has the lowest achievement (72.60%). In the variable learning motivation, the indicator "Drive and need for learning" achieved the highest score (81.10%), while the "Appreciation in learning" indicator recorded the lowest achievement (74.90%).

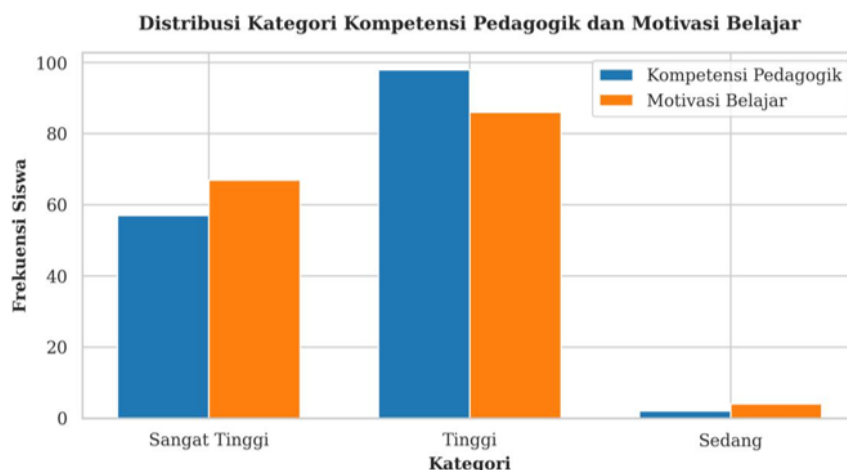
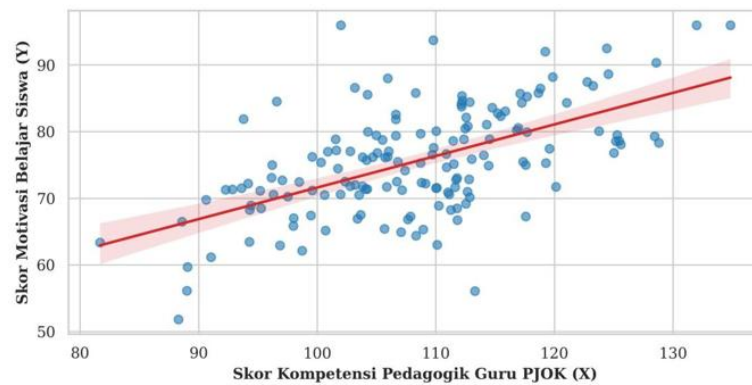


Figure 1. Distribution of Pedagogical Competence Score Categories and Student Learning Motivation

The normality test of data distribution using the Shapiro-Wilk test produces a significance value $p = 0.147$ for Pedagogical Competence (X) and $p = 0.697$ for Learning Motivation (Y). Because both p value > 0.05 , it is concluded that both variables are statistically normally distributed. Furthermore, the linearity test through ANOVA showed a highly significant linear component. ($F = 93.902$, $p < 0.001$) and the deviation from linearity value was not significant ($F = 0.828$, $p = 0.754$),

so that the assumption of a linear relationship is fulfilled with the regression equation $\hat{y} = 21.899 + 0.491X$.



Hypothesis testing using Pearson Product Moment correlation analysis produces The correlation coefficient value $r = 0.614$ with a significance of $p < 0.001$. The t-count value obtained of 9,690 far exceeds the t-table value of 1,975 ($df = 155$, $\bar{y} = 0.05$). Thus, The null hypothesis (H_0) is convincingly rejected and the alternative hypothesis (H_a) is accepted. The correlation is positive, indicating a strong, unidirectional relationship between the two variables. Variables.

Table 2. Summary of Correlation Hypothesis Analysis Results

Variable Relationship		N	Coefficient	Significance	Direction	Level Connection
Teacher Competence with Student Learning Motivation	Pedagogical	157	0.614	<0.001	Positive	Strong

The calculation of the Coefficient of Determination (R^2) is carried out to measure the associative contribution. statistics as follows:

$$KD = r^2 \times 100\% = (0.614)^2 \times 100\% = 37.73\%$$

The coefficient of determination value of 37.73% shows that the variation in learning motivation scores students associated with the teacher's pedagogical competence variable is 37.73%, while the remaining 62.27% is related to internal and external factors others outside the focus of this research model.

Discussion

The findings demonstrate that students generally perceived their PJOK teachers' pedagogical competence as high, while student learning motivation was also maintained at a high level. This pattern is theoretically important because it suggests that pedagogical competence is not merely a formal professional attribute of teachers but a characteristic that is experienced directly by students through the quality of classroom interaction and instructional practice. Within the framework of Self-Determination Theory, a well-organized and supportive learning environment can strengthen students' motivation by facilitating experiences associated with competence, autonomy, and relatedness (Guay, 2022; Ryan et al., 2025). In the context of PJOK, teachers who understand students, organize meaningful activities, communicate expectations clearly, and provide appropriate feedback are more likely to create conditions in which students perceive learning as manageable and worthwhile. This interpretation is consistent with Lauermann and ten Hagen (2021), who emphasized the importance of teaching competence for student-reported classroom processes and educational outcomes, as well as with Wittwer et al. (2025), who demonstrated the relevance of teachers' professional knowledge and skills to student learning progress. The present findings therefore extend previous evidence by showing that, from the students' perspective, pedagogical competence represents an integrated instructional experience that is associated not only with learning performance but also with the motivational disposition required for sustained participation in physical education.

The strongest pedagogical dimension was effective, empathetic, and polite communication, indicating that interpersonal aspects of teaching may be particularly salient in shaping how students experience PJOK learning. This finding can be interpreted through the relational dimension of Self-Determination Theory, which proposes that students are more likely to develop positive motivation when interactions with teachers communicate respect, support, and psychological safety (Guay, 2022; Ryan et al., 2025). In physically active learning environments, communication has an especially important function because students must interpret instructions, demonstrations, corrections, safety guidance, and encouragement while participating in movement-based activities. The finding is broadly consistent with Zou et al. (2024), who showed that teacher motivational styles and teacher-student relationships can influence students' intrinsic motivation, and with Guo et al. (2025a), who identified teacher support as an important antecedent of student engagement through autonomous motivation and self-efficacy. Similar evidence from Langøy et al. (2024) further indicates that autonomy-supportive teaching contributes to psychological need satisfaction and student involvement in physical education. Thus, the prominence of communication in the present study suggests that pedagogical competence may influence motivation partly through the relational quality of instructional delivery, meaning that teachers' knowledge and planning become motivationally meaningful only when they are translated into interactions that students can understand and experience positively.

At the same time, ICT and media utilization represented the weakest dimension of pedagogical competence, revealing an important asymmetry between teachers' established interpersonal practices and their capacity to integrate technology into PJOK instruction. This finding should not be interpreted simply as evidence of inadequate technology use, because the relatively high overall level of pedagogical competence indicates that effective teaching can still be sustained through other dimensions; nevertheless, it highlights an area in which contemporary pedagogical competence remains uneven. Previous research has similarly documented barriers to digital technology integration in physical education, including limitations in teacher skills, confidence, resources, and pedagogical support (Saiz-González et al., 2025; Tohănean et al., 2025a). Msambwa et al. (2024) likewise emphasized that the educational value of ICT depends on how technology is integrated into teaching and learning rather than on its availability alone. This distinction is theoretically significant because it suggests that digital competence should complement, rather than replace, core pedagogical capacities such as communication, instructional management, and responsiveness to student needs. Accordingly, the present study supports a more integrated view of teacher competence in which technological innovation becomes motivationally relevant when digital tools strengthen the quality, clarity, feedback, accessibility, or meaningfulness of learning activities, rather than functioning as an additional technical feature detached from instructional purposes.

The motivational findings provide further insight because the strongest dimension was students' drive and need for learning, whereas appreciation in learning received the lowest achievement. A strong drive and need for learning suggest that students generally recognize the importance of participation and possess an internal or personally meaningful reason to engage in PJOK activities. This pattern is compatible with research showing that physical education can support motivation when students experience meaningful participation, perceived competence, and positive engagement with physical activity (Estevan et al., 2021; Leisterer & Gramlich, 2021a). However, the comparatively lower score for appreciation indicates that students' existing motivation may be sustained more strongly by the inherent value or perceived necessity of learning than by explicit recognition of their effort and achievement. From a critical perspective, this creates a potential limitation in the motivational environment because sustained engagement may be strengthened when students receive feedback and acknowledgment that help them recognize their own progress and competence. Behzadnia (2021) similarly demonstrated the importance of interpersonal teacher behavior for psychological need satisfaction and well-being, while Liu et al. (2025) showed that competence support can influence middle school students' participation through perceived competence and exercise persistence. The implication is that motivation in PJOK may be improved not only by increasing instructional demands or activity intensity but also by strengthening formative feedback and forms of appreciation that make students' effort, improvement, and participation visible.

The central finding of this study is the positive and significant relationship between perceived teacher pedagogical competence and student learning motivation. Conceptually, this relationship supports the proposition that students' motivational responses are shaped partly by the quality of the learning environment constructed through teachers' pedagogical practices. When teachers demonstrate competence in understanding students, managing instruction, communicating clearly, assessing learning, and supporting student development, students may be more likely to perceive PJOK as structured, comprehensible, and achievable. Such conditions are consistent with Self-Determination Theory because they can facilitate perceived competence and supportive interpersonal experiences, both of which provide psychological foundations for stronger motivation (Guay, 2022; Ryan et al., 2025). The result converges with findings from Choi et al. (2021), which linked educational experiences in physical education with motivation and physical activity, and with Guo et al. (2025a), which identified autonomous motivation and self-efficacy as mechanisms connecting teacher support and student engagement. It also reinforces the broader argument of Lauermann and ten Hagen (2021) that teaching competence should be understood in relation to how students actually experience classroom processes. Therefore, the present study contributes to the literature by providing context-specific evidence that students' perceptions of pedagogical competence constitute an important lens for explaining motivational differences in face-to-face junior high school PJOK learning.

The magnitude of the relationship also requires a critical interpretation because the coefficient of determination indicates that pedagogical competence was statistically associated with 37.73% of the variation in student learning motivation. This proportion is substantial enough to establish pedagogical competence as an important educational factor, yet it simultaneously demonstrates that motivation cannot be reduced to teacher competence alone. The remaining variation may reflect individual factors such as prior experiences, perceived physical competence, interests, self-efficacy, and personal goals, as well as contextual influences including peer relationships, family support, school climate, facilities, and the characteristics of specific learning activities. This interpretation is consistent with Estevan et al. (2021), who showed that motivation in physical education is associated with both actual and perceived motor competence, and with Liu et al. (2025), who highlighted psychological mechanisms linking teacher competence support and participation. The findings of Langøy et al. (2024) and Guo et al. (2025a) further suggest that motivational outcomes may operate through mediating processes rather than through a simple direct relationship between teacher behavior and student engagement. Consequently, the present results support an expansion of the theoretical explanation of motivation in PJOK by positioning pedagogical competence as a significant environmental antecedent while recognizing that its influence is likely transmitted and conditioned through multiple psychological and contextual mechanisms.

The study also contributes to the existing literature by addressing a perspective that has received comparatively less direct attention: the evaluation of pedagogical competence through students as the primary recipients of instructional practice. Earlier studies have often examined teacher competence through professional standards, teacher self-perceptions, training, or specific dimensions of instructional quality, whereas students experience these dimensions simultaneously within actual learning situations. This distinction matters because a teacher may possess professional knowledge, yet the motivational consequences of that knowledge depend on whether it is translated into practices that students perceive as supportive, understandable, and relevant. The present findings therefore complement research on professional competence in physical education (Baumgartner, 2022; Hardiansyah & Blegur, 2024) by demonstrating that student perception provides an additional empirical basis for assessing the educational significance of pedagogical competence. They also align with recent evidence suggesting that competence-related teaching practices affect student outcomes through the learning experiences created in the classroom rather than through professional capacity in isolation (Lauermann & ten Hagen, 2021; Wittwer et al., 2025). In this respect, the study offers a conceptual contribution by linking teacher competence and student motivation through an integrated student-perception perspective, thereby helping bridge the separation between competency research focused on teachers and motivation research focused primarily on students.

Nevertheless, the findings should be interpreted within the methodological boundaries of the study. Because the research employed a correlational design and collected both variables through student questionnaires, the results establish a significant association but cannot demonstrate that pedagogical competence directly causes higher learning motivation. The use of students' perceptions is theoretically valuable because students are direct recipients of teaching, but shared perceptual measurement may also strengthen the observed relationship because both constructs are interpreted through the same respondent perspective. In addition, the study was conducted in one junior high school, which means that institutional culture, teacher characteristics, facilities, and local learning conditions may influence the pattern observed and limit broader generalization. These considerations are particularly relevant in light of evidence that motivation and educational experiences in physical education may vary across instructional contexts and forms of learning (Frikha et al., 2022; Howley, 2022; Faella et al., 2025). Future research should therefore test more comprehensive models across multiple schools by incorporating additional explanatory variables and potentially examining mediating mechanisms such as psychological need satisfaction, perceived competence, autonomous motivation, or self-efficacy. Overall, the present study positions pedagogical competence as a meaningful but not exclusive foundation of student motivation and provides evidence that strengthening communication, student support, feedback, and pedagogically meaningful technology integration may offer practical pathways for developing more motivating PJOK learning environments.

CONCLUSION

This study concludes that students at SMP Negeri 2 Pademawu, Pamekasan Regency, generally perceive the pedagogical competence of their PJOK teachers as high, while their learning motivation is also at a high level. Among the pedagogical dimensions, effective communication emerged as the strongest aspect, whereas ICT utilization represented the area requiring greater attention. A similarly positive pattern was observed in student motivation, with the drive and need for learning showing the strongest achievement and appreciation in learning recording the lowest. The statistical analysis demonstrated a positive and significant relationship between teachers' pedagogical competence and students' learning motivation, with a Pearson correlation coefficient of 0.614 ($p < 0.001$) and a coefficient of determination of 37.73%. These findings indicate that students who perceive stronger pedagogical competence in their PJOK teachers also tend to report higher levels of learning motivation. The results underline the importance of maintaining effective teacher-student communication while strengthening the use of ICT and forms of appreciation that recognize students' learning efforts. At the same time, the remaining 62.27% of unexplained variation indicates that student motivation is not determined by pedagogical competence alone and may also reflect other factors beyond the scope of the present study. Therefore, future research should examine broader school and student-related factors across multiple educational settings to develop a more comprehensive understanding of motivation in PJOK learning.

AUTHOR CONTRIBUTIONS STATEMENT

Dwi Septiawan Asista contributed to the conceptualization of the study, research design, instrument preparation, data collection, data analysis, and manuscript preparation. Noer Wachid Riqza Firdaus contributed to the development of the research methodology, instrument review, data collection, and critical revision of the manuscript. Rendra Kusuma contributed to data collection, data processing, interpretation of the findings, and manuscript review. Mohammad Hasan Basri contributed to methodological review, interpretation of the results, and critical revision of the manuscript. All authors reviewed and approved the final version of the manuscript.

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