



Competencies of Physical Education Teachers and Their Influence on Student Learning Outcomes in Elementary School

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Abstract

Objective. The better student learning outcomes will influence the student's ability to solve problems that will be faced in real life after completing education and teachers play a very important role in helping students achieve this. In this research, it will carry an investigation out regarding teacher pedagogical competence and its influence on student learning outcomes.

Materials and methods. The research carried out was quantitative survey type research with the entire population as a sample, namely 35 teachers in 2 sub-districts in Palu City. The instrument used was a questionnaire and data collection techniques used interview and observation techniques and distributed questionnaires. Data analysis was carried out by conducting a t-test.

Results. The research results found a t-test value of 75.971 with a significance level of $0.000 < \alpha 0.05$, this shows that there is a significant influence between the variables studied.

Conclusion. The conclusion of this research was that there was an influence of teacher pedagogic competence on student learning outcomes. The results can be used for teachers to develop professionalism by prioritizing pedagogical competence as the focus of development.

Keywords: Pedagogy, Teacher, Professionalism, Competence

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Introduction

Teachers are the spearhead in the implementation of education policies carried out by stakeholders so that teacher competence is very important to be paid attention to by all groups. Apart from that, teacher competence will be related to the ability to deliver knowledge to students and if the knowledge delivery process is carried out well it will have an effect on students' ability to solve complex problems in their lives. All subjects in school definitely require teacher competence in delivering knowledge to students, especially physical education, sports and health.

Physical education is very complex in its learning because apart from students knowing theoretically about the movement concepts being studied, they are also at least able to do it in the form of practice or demonstration, so it requires the teacher's ability to manage learning in great detail. Physical education is an important subject to study because it concerns how to know and process the physical body.

Physical education, sports and health teachers play a very important role in achieving student learning achievement, this can happen because physical education provides learning and is able to make students' bodies fit, which allows students to more easily accept material from other subjects. Student competency really depends on the teacher's methods and ways of teaching in class, although that's not all. Student learning outcomes are greatly influenced by various factors so that a very comprehensive assessment is needed, but teacher competency is a big part of what influences students' ability to achieve their learning achievements.

In general, there are several teacher competencies, namely professional competence, pedagogical competence, social competence and personality competence. These four competencies absolutely must be possessed by a teacher. In this research, the competency that is the focus of measurement is teacher competency in terms of pedagogy and specifically physical education, sports and health teachers. The types of competencies targeted in this research are considered to be very important because they are in direct contact with children's learning needs. A study conducted by (Rakhman & Brata, 2018) examined the pedagogical competence of PJOK teachers and its correlation with their performance. The specific performance being discussed was not explicitly stated in the research, but it seems to be related to pedagogical competence and the teacher working group's influence on PJOK teachers in general. What sets this research apart is its focus on pedagogical competence and its effect on student's learning outcomes. The teacher's pedagogical abilities can be assessed through the learning outcomes of the students.

Other studies have been conducted (Sudarso et al., 2023) to address teacher competency issues by comparing teachers' competencies based on their years of service. The results of the study specifically focused on PJOK teachers' teaching abilities being divided into "average" and "good" categories, while the personality abilities of teachers with an average teaching time of 22 semesters fell into the "very good" category. As a result, a teacher's teaching ability is not directly proportional to the teacher's teaching time, because in this case, the teacher's teaching ability may already fall into the "very good" or "excellent" category. After all, the average teaching time is 22 semesters, which was not used as a measure in this study, although there are many other indicators that serve as determinants.

In carrying out this aspect of learning among PJOK teachers, the teaching ability of teachers is very important, so it is not wrong for researchers to conduct a lot of research on this topic. This study aimed to investigate the competencies of physical education, physical education and health teachers in primary schools in Palu City, Taveli and North Palu districts.

Materials and Methods

Study participant.

The population of this study included 35 physical education teachers in schools in Sibalu subdivision of Palu city, including 15 in North Palu subdivision and 20 in Tawali subdivision (Kemendikbud, 2023). The sample used is as large as the total population (Etikan, 2017). Due to the uneven distribution of the number of students, the sample number of student learning outcomes was standardized to 28, so the standard with the smallest number of students in the school was used.

Study organization.

This study adopted quantitative methods and survey techniques survey (Story & Tait, 2019), focusing on teacher competences and student learning outcomes. This study attempts to examine teachers' performance scores and then determine the impact of competency scores achieved by teachers on student learning outcomes and to determine whether PJOK teacher competencies are directly proportional to student learning outcomes.

Statistical analysis

The data analysis conducted in this study used percentage analysis technique. However, before the percentages are determined, the data are tabulated based on the previously obtained scores and then added to determine the average performance of the results obtained with the tools used. Data is presented as a table with analysis results or as a chart for each data presentation

Results

The study started with the validation of the questionnaire instrument using two types of validation. Question element validation and language validation. Question item validity was determined by correlating the total number of items with the ratings of the question items answered by the sample. The result of the 40 items of the questionnaire was that 3 items were invalid and therefore had to be deleted, while the linguistic validity of the question items was checked with the help of 2 language experts, who looked at the introduction of each question so that the subjects could easier for visitors to understand. Both experts said the instrument was feasible and useful for research.

After the legitimacy of the instrument, research was conducted regarding the teacher's pedagogical capacity. The outcomes of filling out the questionnaire conducted by PJOK teachers in each school and the research findings are summarized in a descriptive manner in Table 1. The total teacher's pedagogical ability score of 35 students is maximum of 131, and the average is 125.57. The student's learning outcomes were documented using descriptive statistics in each class and school that was selected from 35 classes and schools that were selected. It was discovered that the results from 35 classes that were sampled had the greatest degree of success, each school's assessment score was identical, 98, and the lowest degree of success was 20, all of these values were gathered from SD Negeri 4 Bamba in Tawaeli District, the average of these classes was then increased by 16.02, to a final value of 86.04.

Table 1. Description of the Total PJOK Teacher Questionnaire Scores along with Student Learning Outcome Data for each

Skor Kompetensi Pedagogik Guru Dan Hasil Belajar Siswa	N	Range	Min	Max	Mean	Std. Deviation
Total Skor Kompetensi Pedagogik Guru	35	15	116	131	125.57	3.354
Kecamatan Palu Utara						
SD Inpres 12 Baiya (Sampling 1)*	28	44	54	98	79.96	10.844
SD Inpres 12 Baiya (Sampling 2)	28	33	65	98	83.74	6.575
SD Inpres 13 Ova	28	29	69	98	84.89	5.833
SD Inpres 14 Pantoloan	28	25	65	90	83.11	7.3
SD Inpres 15 Wara	28	33	65	98	84.56	6.691
SD Inpres 9 Bamba	28	29	69	98	84.04	6.263
SD Negeri 1 Baiya	28	29	69	98	83.81	6.177
SD Negeri 10 Pantoloan	28	66	32	98	80.67	13.792
SD Negeri 11 Kayumaboko	28	53	45	98	82	11.005
SD Negeri 12 Limran	28	59	31	90	79.33	15.232
SD Negeri 2 Panau (sampling 1)*	28	29	69	98	85.89	5.411
SD Negeri 2 Panau (sampling 2)	28	55	43	98	75.77	15.36068
SD Negeri 3 Lambara	28	55	43	98	75.78	15.361
SD Nurul Islam Tawaeli	28	29	69	98	85.59	5.579
Mis Kt Limran	28	63	35	98	82.15	10.845
Kecamatan Tawaeli						
SD Alkhairaat Mamboro	28	33	65	98	84.37	6.745
SD Inpres 1 Kayumalue Pajeko (Sampling 1)*	28	25	65	90	83.89	6.935
SD Inpres 1 Kayumalue Pajeko (Sampling 2)	28	75	23	98	76.3	17.936
SD Inpres 2 Kayumalue Ngapa	28	24	65	89	80	7.503
SD Inpres 3 Lai	28	64	34	98	82.89	11.377
SD Inpres 4 Taipa Ginggiri	28	36	54	90	82.7	8.022
SD Inpres 5 Taipa Laga (Sampling 1)*	28	33	65	98	82.63	7.708
SD Inpres 5 Taipa Laga (Sampling 2)	28	36	54	90	83.59	7.675
SD Inpres 6 Watuoge	28	44	54	98	83.3	9.245
SD Inpres 7 Labuan Baru	28	70	20	90	75.59	22.002
SD Inpres 8 Mamboro (Sampling 1)*	28	51	47	98	83.37	9.354
SD Inpres 8 Mamboro (Sampling 2)	28	44	54	98	84.67	7.684
SD Karya Thayyibah Mamboro	28	44	54	98	83.52	8.702
SD Negeri 4 Bamba	28	24	66	90	86.04	5.015
SD Negeri 5 Kayumalue Ngapa	28	66	32	98	77.11	15.152
SD Negeri 6 Kayumalue Ngapa	28	25	65	90	85	5.578
SD Negeri 7 Taipa (Sampling 1)*	28	33	65	98	83.04	7.351
SD Negeri 7 Taipa (Sampling 2)	28	43	47	90	82.07	10.625
SD Negeri 8 Mamboro	28	44	54	98	84	7.611
SD Negeri 9 Mamboro	28	24	65	89	85.04	5.21

*there are 2 physical teachers at the same school

The results of the study were then evaluated using a paired sample t-test to assess the influence of physical education teachers' pedagogical abilities, sports, and health. The analysis findings are listed in Table 2.

Table 2. Influence of Pedagogical Competency on Student Learning Outcomes.

	t	df	Sig. (2-tailed)
Total Score of Teacher Pedagogical Competency with Average Learning Outcomes in Each School	75.971	34	.000

The results of the analysis indicate that there is a relationship between the teacher's pedagogical abilities and the average student's learning outcomes in school, as evidenced by the calculated t-value of 75,971 with a significant level of $0.000 < \alpha 0.05$. These findings demonstrate that the greater a teacher's educational expertise, the greater the students' learning gains will be.

Discussion

The results of the analysis show that the better the teacher's pedagogical competence, the more linear it will be with student learning outcomes. The results of the analysis confirmed this carried out, the calculated t-value is 75.971 with a significance level of $0.000 < \alpha 0.05$ so pedagogical competence is an absolute thing that a teacher must possess. Pedagogical competence is part of several types of competence that a teacher must have, including social competence, professional competence, and personality competence.

When teaching, whether within the field or the classroom, teachers are required to have creativity in preparing learning by utilizing numerous media, including online media, for illustration, Google Classroom (Riwu Rohi et al., 2022). Teachers in the future will be confronted with different sorts of children's learning issues concurring with the times in which children develop and create, so alterations to educating styles must also be made (Khamparia & Pandey, 2020). Actualizing government arrangements depends on the capacity of instructors to actualize these arrangements since instructors expand the government closest to the subject of the arrangement, to be specific understudies at school (Daga, 2022). So instructors must be able to translate all these arrangements into genuine activity within the classroom.

The study linked to another study by (Saifuddin et al., 2021) they looked at how skilled teachers are. The research results showed that there were still areas for improvement at the research site, particularly in the way people were learning and what they were achieving. If you examine these results, it implies that teachers still have areas where they need to improve their

teaching skills, which then affects how well students learn. This means that if a teacher is not very good at teaching, it will have less of an effect on how well students learn (Saputra et al., 2021). Also, the school principal evaluated the teachers' skills and determined that their skills were good. This study explores how good PJOK teachers are which differs from other studies that only focus on how good they are at teaching. The way a course affects what a student learns.

The findings of this research are significant for teachers, and people involved in education. Policymakers, especially in Palu City, can use this research to measure and enhance the skills of Physical Education teachers and other subject teachers. This will help them understand the overall teaching abilities of teachers. This study has some limitations. First, it did not consider all aspects of teacher competence, only four types were examined. Second, it did not specifically look at the aspect of teacher creativity, which is important for providing new and different ways of teaching (Sanjar & Doston, 2022). Therefore, future research on the creativity of PJOK teachers should be done

Conclusion

The research and discussion show that physical education, sports, and health teachers' skills impact student learning. The t-test analysis results confirmed this. Hopefully, teachers can use the findings of this research to improve their skills in teaching.

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Conflict of interest

The author declares that there is no conflict of interest of any kind.

References

- Antoro, B., Boeriswati, E., & Leiliyanti, E. (2021). Hubungan Antara Kegiatan Literasi Dengan Prestasi Belajar Siswa Di Smp Negeri 107 Jakarta. *Jurnal Pendidikan Dan Kebudayaan*, 6(2), 145–157. <https://doi.org/10.24832/jpnk.v6i2.2394>
- Daga, A. T. (2022). The Role of Teachers in Implementing the Policy of Independent Learning in Elementary School. *ELSE (Elementary School Education Journal): Jurnal Pendidikan Dan Pembelajaran Sekolah Dasar*, 6(1), 1. <https://doi.org/10.30651/else.v6i1.9120>
- Etikan, I. (2017). Sampling and Sampling Methods. *Biometrics & Biostatistics International Journal*, 5(6). <https://doi.org/10.15406/bbij.2017.05.00149>
- Kemendikbud. (2023). *Data Guru nasional*. <https://dapo.kemdikbud.go.id/guru>
- Khamparia, A., & Pandey, B. (2020). Association of learning styles with different e-learning problems: A systematic review and classification. *Education and Information Technologies*, 25(2), 1303–1331. <https://doi.org/10.1007/s10639-019-10028-y>
- Li Ogilvie, V., Kayes, N. M., & Kersten, P. (2019). Nijmegen Questionnaire: A valid measure for hyperventilation syndrome. *New Zealand Journal of Physiotherapy*, 47(3). <https://doi.org/10.15619/NZJP/47.3.04>

- Rakhman, A., & Brata, Y. R. (2018). Pengaruh Kompetensi Pedagogik dan Kelompok Kerja Guru (KKG) Terhadap Kinerja Guru Pendidikan Jasmani Olahraga Dan Kesehatan. *Indonesian Journal of Education Management & Administration Review*, 2(2), 259–264. <http://dx.doi.org/10.4321/ijemar.v2i2.1921>
- Riwu Rohi, I., Nafie, A. J., Baun, A., & Masi, P. W. (2022). Potret kompetensi pedagogik guru mengoptimalkan pembelajaran pendidikan jasmani, olahraga, dan kesehatan melalui google classroom. *Jurnal Olahraga Pendidikan Indonesia (JOPI)*, 2(1), 28–41. <https://doi.org/10.54284/jopi.v2i1.163>
- Saifuddin, H., Priadana, B. W., & Ramadhan, N. (2021). Kompetensi Guru Pendidikan Jasmani Kesehatan dan Olahraga di Bojonegoro. *Physical Activity Journal*, 3(1), 65. <https://doi.org/10.20884/1.paju.2021.3.1.4814>
- Sanjar, U., & Doston, H. (2022). Creativity in Improving Professional and Pedagogical Skills of Physical Education Teachers. *International Journal of Research in Commerce, IT, Engineering, and Social Sciences*, 16(10), 60–67.
- Saputra, B. S., Syafril, S., & Raibowo, S. (2021). Persepsi Kepala Sekolah dan Guru Terhadap Kompetensi Guru PJOK Sekolah Menengah Pertama di Kecamatan Arga Makmur. *SPORT GYMNASTICS: Jurnal Ilmiah Pendidikan Jasmani*, 2(1), 70–78. <https://doi.org/10.33369/gymnastics.v2i1.14774>
- Story, D. A., & Tait, A. R. (2019). Survey Research. *Anesthesiology*, 130(2), 192–202. <https://doi.org/10.1097/ALN.0000000000002436>

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