



The Influence of Teacher Training Programs on Improving Pedagogical Competence in Ponorogo Regency

Dyana Maftuhatu Rosyidah¹

¹Yogyakarta State University, Yogyakarta, Indonesia,

²Corresponding Author: Email: dyanamaftuhatu.2022@student.uny.ac.id

ABSTRACT

This study aims to analyze the effect of teacher training programs on improving pedagogical competence in Ponorogo Regency. Using a quantitative approach with an explanatory survey design, this study involved 100 teachers who had attended training in the last two years. Data were collected through a questionnaire with a Likert scale and analyzed using simple linear regression. The results of the analysis showed that the training program had a significant positive effect on improving teachers' pedagogical competence, with a regression coefficient of 0.65 and a p-value <0.05. This training contributed to improving pedagogical knowledge, classroom management, and students' cognitive activation. The results of this study indicate that relevant and sustainable teacher training programs can improve the quality of teaching and student learning outcomes. Therefore, it is recommended to improve the quality and relevance of training programs, provide ongoing training with post-training support, and improve facilities and resources that support the learning process. The results of this study are expected to provide a basis for developing more effective teacher training policies in Ponorogo Regency and other areas.

Keywords: Teacher Training, Pedagogical Competence, Ponorogo Regency

INTRODUCTION

Teacher pedagogical competence includes various important aspects that affect the quality of teaching and student learning outcomes, such as general pedagogical knowledge, classroom management, and curriculum and instructional competence. This knowledge and skills contribute to students' academic progress, including in mathematics, and improve the quality of instruction through professional beliefs and self-regulation skills.(Kunter et al., 2013). The development of pedagogical competence requires a well-organized educational environment and continuous self-development efforts.(Sergeeva et al., 2019). However, the main challenge faced is the lack of cultural competence and inclusion, which requires additional training for teachers to strengthen their competence.(Moriera et al., 2022).

The pedagogical competence of teachers in Ponorogo Regency plays a significant role in improving student learning outcomes. Teachers in the region have good professional competence, including in-depth mastery of learning materials, which allows them to guide students to achieve the expected competency





standards.(Fitriana & Chaer, 2020). This competency also has a positive influence on student learning outcomes, especially in the areas of skills taught.(Prasetyo & Musafik, 2021). In addition, adequate learning facilities and a conducive school climate, including positive relationships between teachers and students, also support the effectiveness of the learning process (Prasetyo & Musafik, 2021).

Teacher training programs have a very important role in improving teachers' pedagogical competence, which is a key factor influencing the quality of student learning outcomes. If teachers' pedagogical competence is low, this can have a negative impact on student learning outcomes.(Fadil & Aryani, 2021). Teacher training, such as In House Training (IHT), has been proven effective in improving pedagogical competence because it can meet training needs with easy access (Fadil & Aryani, 2021). Continuous school-based training also increases teachers' pedagogical awareness and reflection on their teaching practices, which has an impact on classroom behavior and educational thinking.(Lund, 2020). In addition, professional training helps teachers adapt their teaching methodologies, which ultimately improves student achievement.(Singh, 2023). Well-designed training, covering comprehensive subject content and pedagogy and ongoing support, is more effective in improving student outcomes.(Lander et al., 2016). Teachers also need ongoing training that is relevant to their needs, such as learning tools, learning techniques, use of information technology, and instructional media, especially for mathematics teachers.(Ningtiyas & Jailani, 2018). This training should include a competency approach that emphasizes teachers' personal and professional growth, as well as the formation of their pedagogical style.(Tovkanets, 2022). Therefore, improving pedagogical competence through appropriate and continuous training is very urgent to improve the quality of teaching and student learning outcomes.

This research is important to conduct because there is still a lack of evaluation related to the effectiveness of teacher training programs in Ponorogo Regency, especially in improving pedagogical competence. Pedagogical competence is one of the key elements in creating a quality learning process, so teachers' abilities in this aspect must continue to be improved. Although various training programs have been implemented, there has not been much research that specifically evaluates their impact on the development of teacher pedagogical competence in this area. By conducting this research, it is hoped that a clearer picture will be obtained regarding the extent to which existing training programs contribute to improving teacher competence. The results of this study are also expected to be the basis for policy making for stakeholders in the field of education, both at the local and national levels, in designing more effective and targeted training programs. Ultimately, improving the quality of this training will contribute to improving the quality of education in Ponorogo Regency as a whole, which is a priority in developing human resources in the future.

LITERATURE REVIEW

1. Teacher Training Program: Concept and Implementation

Teacher training is an important component in improving the quality of education, with the goal of equipping teachers with the skills, knowledge, and competencies necessary to teach effectively and adaptively in a variety of educational contexts. Teacher training is often conceptualized as a behavior change process that involves explicit motivation to help teachers implement the desired curriculum. For example, in the Hutchinson smoking prevention project, training designed as a behavior change process





showed positive results, with nearly all trained teachers successfully implementing the curriculum.(Kealey et al., 2000). Field-based training programs that involve collaboration with local school districts can improve student teaching performance, school district commitment, and participant satisfaction.(Fueyo, 1991). In addition, training designed to improve teachers' mental well-being and emotional competence and introduce innovative educational methodologies can have a positive impact on teachers' well-being and self-efficacy.(Pozo-Rico et al., 2023).

However, there are challenges in implementing training programs, such as limited training media. Video training, for example, showed lower levels of implementation compared to face-to-face training, although the fidelity and completeness of curriculum implementation were similar for both groups.(Basen-Engquist et al., 1994). Training programs that include follow-up sessions and measurement of student outcomes can increase the effectiveness of training.(Kurniawati et al., 2014). In addition, the interactive training model for novice faculty suggests that changes in instructional beliefs may only be measurable over a longer period. Effective teacher training programs should include motivational components, ongoing support, and innovative methodologies to enhance teacher well-being and competence, with adaptations to the specific needs of teachers and their educational contexts. Further research is needed to optimize teacher training and ensure sustained positive impacts on teaching practices and student learning outcomes.

2. Teacher Pedagogical Competence: Definition and Achievement Indicators

Teacher pedagogical competence is an important factor in improving the quality of learning and student learning outcomes, covering a variety of knowledge, skills, and attitudes needed to manage the learning process effectively. This competence includes general pedagogical knowledge, classroom management, and the ability to activate students' cognitive abilities in the learning process.(König et al., 2021; Kunter et al., 2013; Zafira & Tjprc, 2018). The main indicators of pedagogical competence include General Pedagogical Knowledge (GPK), which includes an understanding of educational theories and principles that can be applied in various learning situations (König et al., 2021; Kunter et al., 2013); Classroom Management (CME), which includes the ability to create a supportive classroom climate and manage interactions between teachers and students.(Fauth et al., 2019; König et al., 2021; Zafira & Tjprc, 2018); and Cognitive Activation, which involves teaching strategies that encourage students to think critically and deeply about the subject matter (König et al., 2021; Fauth et al., 2019). Research shows that pedagogical competence has a significant influence on instructional quality and students' learning outcomes, as well as their interest and motivation in learning (König et al., 2021; Kunter et al., 2013; S et al., 2020; Fauth et al., 2019).

Pedagogical competence assessment faces complex challenges, involving various aspects of knowledge, skills and attitudes.(Liakopoulou, 2011), as well as the need to accommodate student diversity and promote inclusion in the classroom.(Moriera et al., 2022; Zafira & Tjprc, 2018). Future research directions include the development of effective professional development programs for teachers and the development of a multidimensional model of teacher professional competence that includes aspects of pedagogical content knowledge, work motivation, and self-regulation skills.(Islomovich & Ravshanbekovich, 2023; Kunter et al., 2013; Zafira & Tjprc, 2018)





3. The Relationship between Teacher Training Programs and Improvement of Pedagogical Competence

Teacher training programs have a significant relationship with improving teachers' pedagogical competence, which in turn affects the quality of teaching and student learning outcomes. Some types of training that have been proven effective in improving teachers' pedagogical competence include In House Training (IHT), which provides easy and efficient access to training (Fadil & Aryani, 2021), and Professional Education and Training for Teachers (PLPG), which shows a positive correlation between improving teachers' knowledge and their performance in schools.(Yusnita et al., 2018). School-based training, such as that conducted in physical education and basic movement skills, has also shown significant results in improving teacher competency and student learning outcomes (Lander et al., 2016). This training focuses on improving pedagogical knowledge and skills, although sometimes it does not always match the specific needs of teachers.(Ningtiyas & Jailani, 2018). Training that also includes the use of information technology and learning media is very important to enrich teacher competencies in the digital era (Ningtiyas & Jailani, 2018).

Competency-based training methodology, which includes the development of pedagogical skills, has proven to be important for teachers' personal and professional growth.(Tovkanets, 2022). In addition, ongoing training supported by active communication between training participants is essential to ensure the relevance and effectiveness of the training (Ningtiyas & Jailani, 2018). Another positive impact is the increase in self-efficacy and positive attitudes of teachers towards their profession, which can be obtained through professional development programs such as the Professional Development School (PDS)(Sasson et al., 2020). Training that focuses on competencies in the context of Society 5.0, including the use of IT and collaboration between teachers, also shows positive results in improving pedagogical competencies.(Sabariah et al., 2023)

METHOD

The methodology of this study uses a quantitative approach with an explanatory survey design to test the effect of teacher training programs on improving pedagogical competence in Ponorogo Regency. This study aims to analyze the extent to which teacher training can affect the improvement of pedagogical competence, which includes general pedagogical knowledge, classroom management, and student cognitive activation. The study population consisted of all teachers who had attended training in the last two years in Ponorogo Regency, with a purposive sample of 100 teachers. The data collection instrument was a questionnaire measured with a 5-point Likert scale, which includes two main variables, namely training programs and pedagogical competence.

Validity test was conducted using Pearson correlation, while the reliability of the instrument was tested using Cronbach's Alpha. Data were analyzed using simple linear regression to test the relationship between training programs and pedagogical competence. The regression model used is as follows:



$$Y = \alpha + bX$$

Where Y is pedagogical competence, X is training program, α is a constant, and b is the regression coefficient. The analysis process is carried out using SPSS statistical software version 25 to obtain accurate and measurable results.

Table 1. Respondent Characteristics

Respondent Characteristics	Category	Frequency (n=100)	Percentage (%)
Gender	Man	40	40%
	Woman	60	60%
Teaching Experience	< 5 years	25	25%
	5-10 years	40	40%
	> 10 years	35	35%
Level of education	Bachelor degree)	70	70%
	Master (S2)	30	30%
School Level	Elementary school	35	35%
	Secondary school	65	65%

Table 2. Distribution of Items in the Questionnaire

No	Variables	Item	Likert Scale (1-5)
1	Training Program	1. The training program attended is relevant to the teacher's needs.	1 (Strongly Disagree) - 5 (Strongly Agree)
		2. The training materials provided are easy to understand.	1 (Strongly Disagree) - 5 (Strongly Agree)
		3. The training improved my pedagogical knowledge.	1 (Strongly Disagree) - 5 (Strongly Agree)
2	Pedagogical Competence	4. I can manage the class better after the training.	1 (Strongly Disagree) - 5 (Strongly Agree)
		5. I am better able to engage students in learning after the training.	1 (Strongly Disagree) - 5 (Strongly Agree)
		6. My teaching is more effective after attending the training.	1 (Strongly Disagree) - 5 (Strongly Agree)
		7. The training improved my skills in teaching mathematics.	1 (Strongly Disagree) - 5 (Strongly Agree)

RESULT AND DISCUSSION

Result

The results of this study aim to identify the influence of training programs on improving teacher pedagogical competence in Ponorogo Regency. Data were obtained through questionnaires distributed to 100 teachers who had participated in training programs in the last two years. Data were analyzed using simple linear regression with SPSS version 25.



Descriptive Respondent Data

Table 4. Descriptive Data of Respondents

Variables	Mean	Median	Standard Deviation	Min	Max
Training Program	4.25	4.00	0.75	3.00	5.00
Pedagogical Competence	4.30	4.00	0.70	3.00	5.00

Table 4 shows descriptive data of respondents covering training program variables and pedagogical competence. Based on the table, it can be seen that the average (mean) score of the training program is 4.25 with a standard deviation of 0.75, indicating that the majority of respondents have a positive view of the training program they attended. The median value obtained is 4.00, which means that most respondents gave a high score on questions regarding the relevance of the training.

Meanwhile, for pedagogical competence, the mean value obtained was 4.30 with a standard deviation of 0.70, which indicates that after participating in the training, most teachers felt that their pedagogical competence had increased significantly. This is reinforced by the median value of 4.00, which indicates that most respondents felt more capable of managing classes, activating students, and improving the effectiveness of their teaching after participating in the training program.

Reliability and Validity Test Results

Table 3. Results of Reliability and Validity Tests

Variables	Number of Items	Cronbach's Alpha	Validity Value (r count)
Training Program	3	0.85	0.65 – 0.78
Pedagogical Competence	4	0.88	0.68 – 0.81

Reliability and validity testing was conducted to ensure the consistency and validity of the instruments used in this study. The results of the reliability test using Cronbach's Alpha showed that the instruments for both variables, namely training programs ($\alpha = 0.85$) and pedagogical competence ($\alpha = 0.88$), had a very good level of reliability. In addition, the results of the validity test showed that the validity value for each item was in a fairly high range, namely between 0.65 and 0.81, which indicated that the items in the questionnaire had a good level of validity.

Linear Regression Analysis Results

To test the hypothesis that teacher Training programs have a significant impact on improving pedagogical competencies, a simple linear regression analysis was conducted. The regression model tested the relationship between the teacher training programs (independent variable) and pedagogical competencies (dependent variable). The regression equation is as follows:

$$Y = a + bX$$

Where:

Y represents pedagogical competencies,

X represents teacher training programs,



α is the constant, and
 b is the regression coefficient.

Table 5. Results of Simple Linear Regression Analysis

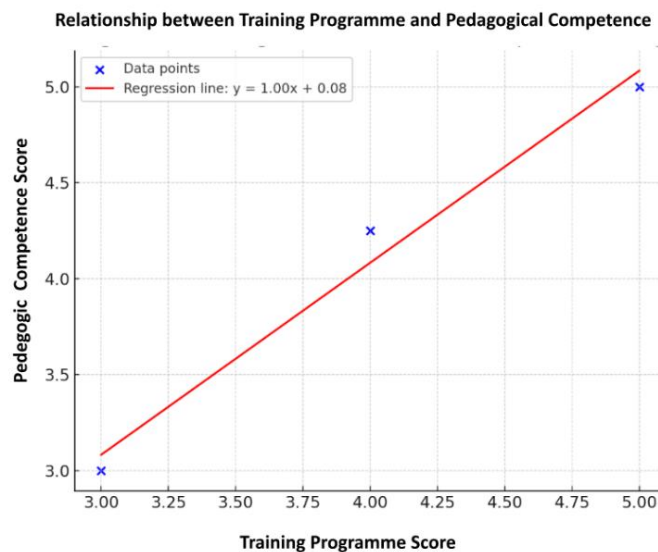
Variables	Coefficient (b)	t-count	p-value	R-squared
Training Program	0.65	5.32	0.000	0.42

The results of the regression analysis show that there is a significant positive relationship between training programs and pedagogical competence. The regression coefficient for the training program variable is 0.65, which means that every one unit increase in the training program will increase the teacher's pedagogical competence by 0.65 units. In addition, the t-value obtained is 5.32 with a p-value <0.05, which indicates that the relationship between training programs and pedagogical competence is very statistically significant. The R-squared of 0.42 indicates that 42% of the variation in pedagogical competence can be explained by the training program attended by the teacher. Based on the results of the regression analysis, it can be concluded that the teacher training program has a significant influence on improving pedagogical competence in Ponorogo Regency. This is indicated by a positive regression coefficient and a p-value of less than 0.05.

Visualization of Results

To illustrate the relationship between training programs and improving pedagogical competence, the following is a diagram of the results of the linear regression analysis. This diagram shows a regression line that describes the positive influence of training programs on teachers' pedagogical competence.

Diagram 1. Relationship between Training Programs and Pedagogical Competence





Discussion

The results of the study indicate that teacher training programs have a significant effect on improving pedagogical competence in Ponorogo Regency, with a regression coefficient of 0.65 and a p-value of less than 0.05, indicating a positive and significant relationship. This is in line with findings in the literature that reveal the importance of teacher training programs in improving various aspects of pedagogical competence, such as classroom management, student cognitive activation, and general pedagogical knowledge (Kunter et al., 2013; Ningtiyas & Jailani, 2018). Training programs such as In House Training (IHT) and school-based training have been shown to be effective in improving teachers' pedagogical competence, because they are easily accessible and tailored to the specific needs of teachers (Fadil & Aryani, 2021; Lander et al., 2016). Descriptive results also show that the majority of respondents felt that the training they attended improved their pedagogical competence, with an average pedagogical competence score of 4.30, meaning that they felt more capable of managing the classroom, activating students, and improving teaching effectiveness after attending the training.

In addition, the results of the linear regression analysis showed that 42% of the variation in pedagogical competence could be explained by the training program, reflecting the large impact of training on teacher competence. Previous studies have also shown that training that focuses on developing pedagogical skills through a competency-based and sustainable approach is essential for teachers' personal and professional growth (Tovkanets, 2022). This is in line with the results of studies that found that training that is designed comprehensively and supported by follow-up and active communication can improve teachers' understanding and skills in teaching (Lund, 2020; Kurniawati et al., 2014).

However, although the results of the study showed a significant positive impact, challenges in implementing the training must also be considered. Several studies have shown that training that is less relevant to the specific needs of teachers or lack of training in inclusive and cultural competencies can reduce the effectiveness of training (Moriera et al., 2022). In this study, although the majority of teachers felt an increase in competence, it is important to continue to adjust the training materials to be relevant to the challenges faced by teachers, especially in terms of student diversity and the use of technology in learning. Therefore, the development of a training model that is more based on specific needs and local contexts, as suggested by Ningtiyas & Jailani (2018), needs to be a major concern.

In this context, this study provides a clear picture of how training programs can contribute to improving teachers' pedagogical competence in Ponorogo Regency. With the results showing a positive relationship between training and improving pedagogical competence, this study can be a basis for designing more effective and sustainable training programs in the future. Therefore, it is important to strengthen teacher training programs by including elements such as technology-based training and managerial skills that are relevant to current teaching needs, so that the results can be maximized in improving the quality of teaching and student learning outcomes in this area.

CONCLUSION

Based on the results of the study and literature review, it can be concluded that teacher training programs have a significant influence on improving teacher pedagogical competence in Ponorogo Regency. The results of the regression analysis show that every one unit increase in the training program can increase





teacher pedagogical competence by 0.65 units, with a positive regression coefficient and a very significant p-value ($p < 0.05$). This is in line with findings in the literature showing that teacher training, especially those that are school-based and relevant to teacher needs, can improve pedagogical skills, such as classroom management, student cognitive activation, and teaching effectiveness. In addition, well-designed and sustainable training programs have a positive impact on teacher professional and personal development, which leads to improved quality of learning and student learning outcomes. However, challenges in implementing training, such as limited training media and the need to adapt to local contexts, must be considered. Therefore, improving and developing more targeted and appropriate teacher training programs is very important to improve teacher pedagogical competence and the quality of education in Ponorogo Regency as a whole.

REFERENCE

- Basen-Engquist, K., O'Hara-Tompkins, N., Lovato, C., Lewis, J., Parcel, G., & Gingiss, P. (1994). The effect of two types of teacher training on implementation of Smart Choices: a tobacco prevention curriculum. *The Journal of School Health*, 64 8, 334–339. <https://doi.org/10.1111/J.1746-1561.1994.TB03323.X>
- Fadil, A., & Aryani, IK (2021). Improvement of Teacher Pedagogical Competence through In House Training Activities. *Dynamics of Elementary Education Scientific Journal*. <https://doi.org/10.30595/dinamika.v13i2.11551>
- Fauth, B., Decristan, J., Decker, A.-T., Büttner, G., Hardy, I., Klieme, E., & Kunter, M. (2019). The effects of teacher competence on student outcomes in elementary science education: The mediating role of teaching quality. *Teaching and Teacher Education*. <https://doi.org/10.1016/j.tate.2019.102882>
- Fitriana, S., & Chaer, MT (2020). TEACHER PROFESSIONAL COMPETENCY DEVELOPMENT MODEL AT MTs DARUL HUDA MAYAK PONOROGO. *Muaddib: Education and Islamic Studies*. <https://doi.org/10.24269/MUADDIB.V1I2.3348>
- Fueyo, V. (1991). IMPLEMENTING A FIELD-BASED ELEMENTARY TEACHER TRAINING PROGRAM. *Education and Treatment of Children*, 14. <https://consensus.app/papers/implementing-fieldbased-elementary-teacher-training-fueyo/c95beccf9d7952eea1b60f44ebd5ad1b/>
- Islomovich, I. T., & Ravshanbekovich, G. S. (2023). DEVELOPMENT OF PEDAGOGICAL COMPETENCE IN FUTURE TEACHERS. *The American Journal of Management and Economics Innovations*. <https://doi.org/10.37547/tajmei/volume05issue04-02>
- Kealey, K., Peterson, A., Gaul, M., & Dinh, K. (2000). Teacher Training as a Behavior Change Process: Principles and Results from a Longitudinal Study. *Health Education & Behavior*, 27, 64–81. <https://doi.org/10.1177/109019810002700107>
- König, J., Blömeke, S., Jentsch, A., Schlesinger, L., Nehls, C.F. N., Musekamp, F., & Kaiser, G. (2021). The links between pedagogical competence, instructional quality, and mathematics achievement in the lower secondary classroom. *Educational Studies in Mathematics*, 107, 189–212. <https://doi.org/10.1007/S10649-020-10021-0>





- Kunter, M., Klusmann, U., Baumert, J., Richter, D., Voss, T., & Hachfeld, A. (2013). Professional Competence of Teachers: Effects on Instructional Quality and Student Development. *Journal of Educational Psychology*, 105, 805–820. <https://doi.org/10.1037/A0032583>
- Kurniawati, F., De Boer, A., Minnaert, A., & Mangunsong, F. (2014). Characteristics of primary teacher training programs on inclusion: a literature focus. *Educational Research*, 56, 310–326. <https://doi.org/10.1080/00131881.2014.934555>
- Lander, N., Eather, N., Morgan, P., Salmon, J., & Barnett, L. (2016). Characteristics of Teacher Training in School-Based Physical Education Interventions to Improve Fundamental Movement Skills and/or Physical Activity: A Systematic Review. *Sports Medicine*, 47, 135–161. <https://doi.org/10.1007/s40279-016-0561-6>
- Liakopoulou, M. (2011). Teachers' Pedagogical Competence as a Prerequisite for Entering the Profession. *European Journal of Education*, 46, 474–488. <https://doi.org/10.1111/J.1465-3435.2011.01495.X>
- Lund, L. (2020). When school-based, in-service teacher training sharpens pedagogical awareness. *Improving Schools*, 23, 20–25. <https://doi.org/10.1177/1365480218772638>
- Moriera, M., Arcas, B., Sánchez, T., García, R., Melero, M., Cunha, N., Viana, M., & Almeida, M. (2022). Teachers' pedagogical competences in higher education: A systematic literature review. *Journal of University Teaching and Learning Practice*. <https://doi.org/10.53761/1.20.01.07>
- Ningtiyas, F., & Jailani. (2018). Does Teacher's Training Affect the Pedagogical Competence of Mathematics Teachers? *Journal of Physics: Conference Series*, 1097. <https://doi.org/10.1088/1742-6596/1097/1/012106>
- Pozo-Rico, T., Poveda, R., Gutiérrez-Fresneda, R., Castejón, J., & Gilar-Corbí, R. (2023). Revamping Teacher Training for Challenging Times: Teachers' Well-Being, Resilience, Emotional Intelligence, and Innovative Methodologies as Key Teaching Competencies. *Psychology Research and Behavior Management*, 16, 1–18. <https://doi.org/10.2147/PRBM.S382572>
- Prasetyo, W., & Musafik, M. (2021). Analysis of Teacher Competence, Learning Facilities, and School Climate on Student Learning Outcomes of SMK Negeri 1 Jenangan Ponorogo. *Autonomy*. <https://doi.org/10.32503/otonomi.v21i1.1611>
- Sabariah, S., Hakim, L., Kadori, K., Zahra, A., & Muin, A. (2023). Teacher Development to Augment Pedagogical Competence in Society 5.0. *Tafkir: Interdisciplinary Journal of Islamic Education*. <https://doi.org/10.31538/tijie.v4i4.744>
- Sasson, I., Kalir, D., & Malkinson, N. (2020). The Role of Pedagogical Practices in Novice Teachers' Work. *European Journal of Educational Research*, 9, 457–469. <https://doi.org/10.12973/eu-jer.9.2.457>
- Sergeeva, M., Kodaneva, L., Islamov, A., Kornakova, E., Serebrennikova, A., Iu., V., & Avdeeva, T. (2019). THE DEVELOPMENT OF TEACHERS PEDAGOGICAL COMPETENCE IN THE CONDITIONS OF PROFESSIONAL EDUCATIONAL ORGANIZATION. *Humanities & Social Sciences Reviews*. <https://doi.org/10.18510/hssr.2019.74109>
- Singh, I. (2023). Pedagogical Advancements through Teacher Professional Development: Impacts on Classroom Instruction and Student Attainment. *Global International Research Thoughts*. <https://doi.org/10.36676/girt.2023-v11i1-17>
- Tovkanets, A. (2022). Competence aspects of a teacher training. *Visnyk of the Lviv University. Series Pedagogics*. <https://doi.org/10.30970/vpe.2022.36.11565>





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- Yusnita, Y., Eriyanti, F., Engkizar, E., Anwar, F., Putri, NE, Arifin, Z., & Syafiril, S. (2018). The Effect of Professional Education and Training for Teachers (PLPG) in Improving Pedagogic Competence and Teacher Performance. *Tadris: Journal of Teacher Training and Education*. <https://doi.org/10.24042/tadris.v3i2.2701>
- Zafira, R., & Tjprc. (2018). Teacher Pedagogical Competencies in Inclusive Elementary School. 8, 95–106. <https://doi.org/10.24247/IJESRJUN201813>

