

## Knowledge of Pedagogical Competence Toward Teachers with and Without Educational Background

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### Abstrak

Perekrutan guru harus mempertimbangkan setidaknya dua kriteria oleh institusi mana pun sebelum melanjutkan langkah perekrutan berikutnya. Dua kriteria tersebut adalah kualifikasi akademik guru dan kompetensi guru. Penelitian ini bertujuan untuk mengetahui apakah guru dengan latar belakang pendidikan dan tanpa latar belakang pendidikan memiliki pengaruh yang signifikan terhadap pengetahuan kompetensi pedagogik atau tidak. Penelitian quasi-eksperimental dengan desain pretest posttest nonequivalent comparison group design diterapkan dalam penelitian ini dengan semua guru yang berafiliasi di PERGUNU Lombok Tengah sebagai populasi. Teknik purposive sampling digunakan untuk menentukan sampel (dua kelompok eksperimen). Instrumen yang berupa tes pedagogik telah diuji validitas dan reliabilitasnya didistribusikan untuk mengumpulkan data yang dibutuhkan dan kemudian data dianalisis menggunakan ANOVA. Hasil penelitian menunjukkan bahwa skor F-test lebih tinggi dari F-tabel pada tingkat signifikansi 0,5. Artinya bahwa guru dengan latar belakang pendidikan memiliki pengetahuan dasar tentang kompetensi pedagogik. Namun, guru tanpa latar belakang pendidikan tidak memiliki pengetahuan dasar tentang kompetensi tersebut. Dapat disimpulkan bahwa terdapat pengaruh yang signifikan antara guru yang berlatar belakang pendidikan terhadap pengetahuan kompetensi pedagogik dibandingkan dengan guru yang tidak berlatar belakang pendidikan. Dengan kata lain, hipotesis nol penelitian ini diterima dan hipotesis alternatif ditolak.

**Kata kunci:** Guru Berlatarbelakang Pendidikan, Guru Berlatarbelakang Non-Pendidikan, Kompetensi Pedagogis

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### Article History

Received: 08 Agustus 2024

Accepted: 03 Januari 2025

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### Abstract

*The recruitment of teachers should consider at least two criteria by any institution before proceeding the next step of the recruitment. The two criteria are the teachers' academic qualification and the teachers' competency. This research aimed to find out whether the teacher with educational and without educational background have significant effect on the knowledge of pedagogical competence or not. Quasi-experimental research with pretest posttest nonequivalent comparison group design was applied in this research by which all teachers affiliated in PERGUNU Lombok Tengah as the population. The purposive sampling technique is used to determine the samples (two experimental group). The instrument which was in the form of pedagogical test had been tested its validity and reliability was distributed to collect the data needed and then the data was analyzed using ANOVA. The result showed that the score of F-test was higher than F-table in the significant level of 0.5. It meant that the teachers with educational background have a basic knowledge of pedagogical*



*competence. However, the teachers without educational background had no basic knowledge of such competence. It could be concluded that there was a significant effect of teachers with educational background toward the knowledge of pedagogical competence comparing to those teachers without any educational background. In other words, the null hypothesis of this research was accepted and the alternative hypothesis was rejected.*

**Keywords:** *Teacher's Educational Background, Teacher's Non-Educational Background, Pedagogical Competence*

## INTRODUCTION

Teachers are one of the most important factors that must be continuously paid attention in increasing the quality of education. The teachers in the context of education have a large strategic and role because a teacher becomes the front of guard in the process of implementing education. Teaching is a job or activity performed by someone and becomes a source of income when it has specialized skill, certain standards or quality standards and requires specialized training. This is shown through the promulgation of law related to current situation of teachers and lecturers. Based on laws (Regulation in Republic of Indonesia) No. 14 year 2005 about teachers and lecturers explained the teacher's training system, teachers' recruitment and teachers' professional development. It requires that teachers are constantly developing their professional which is relationship with teaching career. Furthermore, chapter IV on educational qualifications, competencies and certifications of teachers in article 10, teacher skills include 4 components: educational, personal, social and professional skills. Pedagogical competencies related to teaching competence, including teaching performance, curriculum development and individual assessment.

Competencies associated with an individual's personality can actively support the work of teachers. Social competence refers to the capacity to integrate into society and good communication with others. The main duties of teachers are to educate, teach, guide, direct, train, and improve students. It is suitable with the provision of teacher's and lecturer's law article 1 paragraph 1. A teacher is called a professional teacher is no longer just a teacher with the ability to teach well, but a teacher with the ability to be a learner and a school change agent, and capable of establishing and developing relationships for growth quality of learning in the school. Triska, Yenny, and Kodri, (2016) stated that mastering the subject (content) and teaching method (pedagogy) are two irreparable things. Knowledge of teacher's teaching content is essential for the teacher.

According to Wahyuni et.al (2019) as a teacher should know indicator of teaching namely *questioning skills* (questioning skills is the teacher's competence to make interaction with students using questions including the basic questions and follow up questions), *strengthening skills* (reinforcement skills are the teacher's effort to reinforce and improve opportunities for specific feedback from students, for example the teachers provide rewards both of verbal messages and non-verbal reinforcement), *skill of variations* (attracting difference is the teacher's ability to attract attention or difference. The teachers attract student's attention during the learning process including variations in teaching styles, differences in teaching aids or materials, interactive teaching models and activities), *techniques interpretation skills* (skills related to the ability to communicate with students to get information or materials are transferred), *opening and closing learning skills* (opening and closing learning skills, such as the teacher's ability to start and finish in learning so that students are interested in learning and the end of the subject, teacher can know whether the study is successful or not), *competence for guiding small group discussion* (the ability to guide small group discussion is the teacher's competence to be a inspirer in discussion activities. This activity aims to cooperate and be violated in working), *classroom management skills* (the teacher emphasis on students' notice about the materials and content to be addressed. The teacher elaborates the case or describes the students' opinion for ease implicit by the other students, the teacher analyses the students' opinion then the teacher elaborates students' opinion), *small group and individual teaching skills* (small group and individual teaching skills are a teacher's effort to contact the require of students).

For that, a teacher need effective nonrecreational development, namely guidance. Guidance is one of the effective strategies for developing the teacher's professionalism. The guidance of teachers' professional is influenced by teacher's competence and performance. Teacher's competence is one of well-informed action and full line of duty as out task belonging to a teacher. Teacher's competence is one way of mastery of command that must be existing within oneself in order to realize one's premiere

suitably and comprehensively. Nurlaila (2019) stated that pedagogical and professional competence is component of teacher competence. Pedagogical competence is educational and teaching qualification. There are two kinds of concept of pedagogical competence such as how the way to interact on issues which is related to teaching and learning both individual within and outside class.

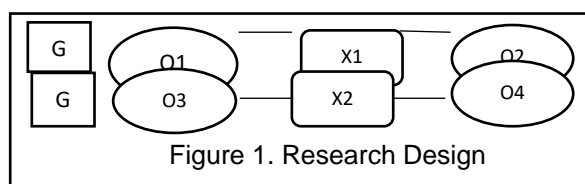
Amursalim et.al (2020) pedagogical competence knowledge is also important part of teaching skills that need to emphasized in teacher training. Teachers are necessitated to have a good comprehension based on carrying off the entire studying process to achieve supreme impact and achievement (Fallon, 2020; König et al., 2020). In pedagogical competence, teacher should be mastery a number of elements including it, such as: educational theories and learning principles, understand students' personality, communicate or interact with students, develop student's potential, and conduct evaluation (Nurliyati., ; Isaura et al., 2017).]

Previous research about pedagogical competence found that level of pedagogical knowledge of preschool teachers is still low, so they need strategies to develop their pedagogical knowledge and skills (Amosun, et al., 2015). Martina et al. (2020) teachers are satisfied with content knowledge and pedagogical competence indicators in organizing teaching and learning activities. Purnama et al. (2021) the important issue of English teachers is that they only focus on teaching books, do not use English in the teaching process, and only give assignments without explaining them first. It needs strategy and improve pedagogical competence. Masrifah et al (2022) one of effort to improve teacher's pedagogical competence is concentrating their ICT acquisition because the higher their ICT acquisition is higher their pedagogical competence. Conceição et al (2022) lesson plan encourage improvement of preservice teacher's pedagogical content knowledge. Pedagogical content knowledge aspect (students' self-assessment strategies) has not been improved satisfactorily).

From exposure, this research focuses on one aspect of pedagogical competence, which is teaching carrying out. Another aspect of pedagogical competence related to pedagogical preparation and assessment of student's learning need to be researched. Based on explanation above, this research aimed to find out whether educational and without educational background have significant effect on teachers' knowledge pedagogical competence.

## METHOD

Studying two or more variables and observes a group under a certain condition or different condition is experiment research which is also part of comparative analysis. The advantage of using experimental research: powerful variable control (wide application in all sector, concrete results, actionable result, early identification of market trends, basic use in follow up test). This research was quasi experimental research with *pretest posttest nonequivalent comparison group design*. This research used two experimental class. First experimental group (Educational Background) is applied by pedagogical competence (X1), and second experimental group (Non-Educational Background) is applied by pedagogical competence (X2). The design of this research can be seen on figure 1.



Description:

G1 : First experimental group

G2 : Second experimental group

O1 : Pretest first experimental group

O2 : Posttest first experimental group

O3 : Pretest second experimental group

O4 : Posttest second experimental group

X1 : Treatment for first experimental group

X2 : Treatment for second experimental group

In this research both of first experimental group and second experimental group is treated by pedagogical competence. This research conducted at Lombok Tengah West Nusa Tenggara. Population is all of teachers at PERGUNU Lombok Tengah West Nusa Tenggara. Purposive sampling technique is used to determine sample (two experimental group). First experimental group is teachers

who have educational background knowledge and the second experimental group is teachers who have non-educational background which is consisted of 54 teachers in every groups. The research procedure such as: (1) compiling research instrument, (2) conducting survey on PERGUNU, (3) giving pretest, (4) giving treatment, (5) giving posttest.

Technique of collecting data in this research used test. In this research uses pedagogical test as instrument. Pedagogical test consists of 37 questions with 4 main point (knowledge of education, students' characteristics, learning theories, and curriculum). Technique of analyzing data used both of descriptive analysis and inferential analysis. Descriptive analysis is used to give information about descriptive data such as mean, standard deviation, minimum score, and maximum score. Inferential analysis is used to test how far effectiveness of pedagogical competence between teachers who have educational background and non-educational background.

Before analyzed the effectiveness of pedagogical test, it is conducted validity test and reliability test. Hypothesis test used F-test to determine whether educational and without educational background have significant effect on teachers' knowledge pedagogical competence on 0.05 of significant level. It is covariant matrix for two homogeneous group if  $F_{test} < F_{(a1,a2)}$ .

## RESULT AND DISCUSSION

This research presented pedagogical competence of teachers with educational background and without educational background. The sample of research consisted of educational background (graduated from Teachers and Training Faculty) and non-educational background (graduated from Economic Faculty, Law Faculty, Engineering Faculty, Psychology Faculty). After gotten the data from all response, the researcher determined validity test and reliability test can be seen on table 1.

Table 1. Validity and Reliability

	Validity	Reliability
Variation	8,542	
Cronbach' Alpha score		0,857

Based on the table above, it can be showed that instrument of this research (pedagogical test) has been valid and reliable with high score because score of variants is significant and Cronbach' Alpha score is higher than standard of score is 0.70. The result of this research is descriptive data including teacher's pedagogical competence result. The data can be seen on table 2.

Table 2. Descriptive Data of Teacher's Pedagogical Competence

Descriptive Data	First Experimental Group		Second Experimental Group	
	Pretest	Posttest	Pretest	Posttest
Maximum	30,00	36,00	30,00	36,00
Minimum	7,00	3,00	7,00	5,00
Mean	16,72	19,93	17,00	23,44
Standard Deviation	6,99	8,63	7,24	8,35

The result showed that pedagogical competence score is improving based on score of pretest and posttest both of first experimental group and second experimental group.

Before conducted inferential analysis, normality test is conducted to determine pretest and posttest for first experimental group and second experimental group whether is normal population or not. The result of normality test can be seen on table 3.

Table 3. Normality Multivariate

Data	Group	$r_q$	$r_{table}$ $\alpha=0,05$	
Pretest	First Experimental	0,867	0,185	Normal
	Second Experimental	0,860		Normal
Posttest	First Experimental	0,880		Normal
	Second Experimental	0,797		Normal

The table 3 showed that all data both of pretest and posttest at first experimental group and second experimental group are normally distribution. It is proved by  $r_q$  is higher than  $r_{table}$  with 0,05 level of significant.

The result of inferential analysis (ANOVA) is determined is there any effect between teachers with educational background and without educational background toward pedagogical competence? The computation can be seen on table 4.

Table 4. ANOVA

			Sum Squares	of df	Mean Square	F	Sig
Between groups	(Combined)		1743.287	27	64.566	.862	.649
	Linier term	Weighted	.280	1	.280	.004	.952
		Deviation	1743.007	26	67.039	.895	.611
Within Group Total			1948.417	26	74.939		
			3691.704	53			

Based on the data analysis using ANOVA above, it can be seen that F-test is highest (0,862). It means that the hypothesis of this research is answered so there is significant effect between teachers with educational background and without educational background toward pedagogical competence. Dealing with the result above the teacher should know and understood about pedagogical competence. Before someone become a teacher, they should be equipped the basic way to be a professional teacher. As a teacher not only can teach well but also how to manage classroom, students and learning. It is line with Lumbantobing (2020) teacher's teaching ability is influenced by internal factors such as students' ability and motivation, while external factors are influenced by self-efficacy.

The ability of teachers in carrying off learning is pedagogical competence. Teachers should develop ten indicators in pedagogical competence. According Regulation of Republic Indonesia No 16-year 2007 about ten indicators such as (1) mastering the typical of learners physically, morally, spiritually, socially, culturally, emotionally, and intellectually. (2) mastering learning reductionism and informative learning generalization. (3) improving curriculum associated with lesson. (4) leading reductionism learning. (5) using of information and communication learning technology. (6) creating learner's condition to develop their potential. (7) creating communicate accumulatively, definitely and slightly with learners. (8) bringing out assessment, evaluation, and learning outcomes. (9) using the assessment and learning evaluation. (10) taking contemplative action to increase the quality of learning.

A teacher with informative background commonly better in pedagogical competence because when they learned at university the basic material of pedagogical competence has taught. Otherwise, a teacher without educational background gets pedagogical competence when is already become teacher. Nurfadillah (2015), Nagauleng et al (2021), Tanjung (2022) have conducted research about English teacher Non-Educational Background, English teacher with non-educational background didn't have ten indicators of pedagogical competence. Rosdiana (2020) and Diana et al (2023) found that English teachers possess all aspects of teaching competence. There are six indicators of pedagogical competence that is reached. They understand the subject (establish and implement lesson plan), understand the students, use learning technology and evaluate outcomes.

## CONCLUSION

In accordance to the analyzed data that had been elaborated in the previous section, it could be concluded that the teachers with educational background had higher score than without educational background which was shown in the pedagogical competence test. Due to, efforts for the improvement are needed by the teacher of this kind through self-development such as self-learning, active participation in a scientific forum, and or other similar activities. The school institution and government should also take responsible to facilitate them due to the national education objectives can be reached.

This research is expected will become a reference in providing a positive impact to develop teacher's competence especially pedagogical competence. Teachers should improve their competence with join training, workshop, seminar and teacher's forum.

## REFERENCES

- Amosun, M.D, & Kolawole, O.A. (2015). Pedagogical Knowledge and Skill Competences of Pre-School Teachers in Ibadan Metropolis, Oyo State, Nigeria. *Journal of the International Society for Teacher Education*, v19 n2 p6-14. <https://eric.ed.gov/?id=EJ1177147>
- Conceição, T., Baptista, M., & Ponte, J.P.D. (2022). Examining Pre-service Science Teachers' Pedagogical Content Knowledge Through Lesson Study. *EURASIA Journal of Mathematics, Science and Technology Education*, 18(1) 1-15, DOI: <https://doi.org/10.29333/ejmste/11442>
- Dahlan, D., Permana, L., & Oktariani, M. (2020). Teacher Competence and Difficulties in Constructing Hots Instruments in Economic Subject. *Jurnal Ilmiah Pendidikan*, 39(1) 111-119, DOI: 10.21831/cp.v39i1.2886
- Diana, R., & Rodhiyana, M. (2023). Kompetensi Pedagogik Guru Pendidikan Agama Islam di Era Digital. *Jurnal Pendidikan Islam*, 6(1) 1-13, DOI: <https://doi.org/10.34005/tahdzib.2650>
- Falloon, G. (2020). From Digital Literacy to Digital Competence: The Teacher Digital Competency (TDC) Framework. *Educational echnology Research and Development*, 68(5), 2449–2472. DOI: <https://doi.org/10.1007/s11423-020-09767-4>
- 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*, 86, 102882. DOI: <https://doi.org/10.1016/j.tate.2019.102882>
- G., Hasriani. (2022). English Teachers' Pedagogical Competence in Regard to Understanding the Students. *Language Circle: Journal of Language and Literature*, 16(2) 321-331, DOI: 10.15294/lc.v16i2.34258
- Handrianto, C., Jusoh, A.J., Nengsih, Y.K., Alfurqan, Muslim, & Tannoubi, A. (2021). Effective Pedagogy in Primary Education: A Review of Current Literatures. *Abjadia : International Journal of Education*, 06(02) 134-143, DOI: 10.18860/abj.v6i2.12978
- Irmawati, D.K., Widiati, U., & Cahyono, B.Y. (2017). How Do Indonesian Professional English Teachers Develop Their Pedagogical Competence in Teaching Implementation?. *Arab World English Journal (AWEJ)*, 8(2) 293-307, DOI: <https://dx.doi.org/10.24093/awej/vol8no2.21>
- Kementerian Pendidikan Nasional. (2005). Undang-Undang no. 14 Tahun 2005 tentang Guru dan Dosen. Jakarta: Depdiknas
- Kementerian Pendidikan Nasional. (2007). Undang-Undang no. 16 Tahun 2007 tentang Standar Kualifikasi Akademik dan Kompetensi Guru. Jakarta: Depdiknas
- König, J., Jäger-Biela, D. J., & Glutsch, N. (2020). Adapting to Online Teaching During COVID-19 School Closure: Teacher Education and Teacher Competence Effects Among Early Career Teachers in Germany. *European Journal of Teacher Education*, 43(4), 608–622. DOI: <https://doi.org/10.1080/02619768.2020.1809650>
- Kusumayasa, K.N. (2022). Pedagogical Competence of EFL Teachers: Teachers' and Students' Perspectives. *Jurnal Ilmiah Pendidikan Profesi Guru*, 5(1) 46-53, DOI: <http://dx.doi.org/10.23887/jippg.v5i1>
- Lumbantobing, P.A. (2020). The Contribution of Lecturer Pedagogical Competence, Intellectual Intelligence and Self-Efficacy of Student Learning Motivation. *Budapest International Research and Critics in Linguistics and Education (BirLE) Journal*, 3(1) 564-573, DOI: <https://doi.org/10.33258/birle.v3i1.852>
- Martina, F., Syafryadin, Saputra, J., & Rakhmanina, L. (2020). Novice Teacher's Pedagogical Content Knowledge (PCK) in Teaching English for Young Learners. *Journal of Critical Review*, 7(14) 1472-1476, DOI: <http://dx.doi.org/10.31838/jcr.07.14.332>
- Masrifah, M., Handayani, W., Nurjannah, N., & Amiroh, D. (2022). The effect of ICT literacy on the pedagogical competence of physics teachers'. *Momentum: Physics Education Journal*, 6(2), 129-138. DOI: <https://doi.org/10.21067/mpej.v6i2.6284>
- Mazibe, E. N., Coetzee, C., & Gaigher, E. (2020). A comparison between reported and enacted Pedagogical Content Knowledge (PCK) About graphs of motion. *Research in Science Education*, 50(3), 941–964. DOI: <https://doi.org/10.1007/s11165-018-9718-7>
- Nagauleng, A.M., Asrifan, A., & Mustamir, A. (2021). Perceptions with Non-English Educational Background Competence in English Teaching. *Al-Ishlah: Jurnal Pendidikan*, 13(2) 1260-1268.

DOI: 10.35445/alishlah.v13i2.839

- Nurfadillah, R. (2015). Pedagogical Competence of English Teachers with Non-English Educational Background in Kuningan Regency: Problem and Solutions. *Indonesian EFL Journal*, 1(2) 199-211.
- Nurlaila. (2019). Teachers' Competence in Teaching English to Young Learners Using Syntactic Approach in Kota Lhokseumawe. *ELITE Journal (Journal of English Linguistics, Literature, and Education)*,1(1) 95-110, Retrieved from <https://elitejournal.org/index.php/ELITE/article/view/15>
- Purnama, N. G., Risnawati, R., & Lismayanti, D. (2021). The Teacher's Pedagogic Competence in Teaching English at Secondary School Level. *Jadila: Journal of Development and Innovation in Language and Literature Education*, 1(3), 362-376. <https://doi.org/10.52690/jadila.v1i3.127>.
- Rafsanjani, M.A. (2022). Teachers' Competence: Are Educational Background and Training Had Significant Effect?. *Al-Ishlah: Jurnal Pendidikan*, 14(3) 4239-4246, DOI: 10.35445/alishlah.v14i3.1704
- Rosdiana. (2020). The Analysis of Pedagogical Competence of the English Teachers of the Third Grade Students at SMA Negeri 3 Banda Aceh. *Edunesia: Jurnal Ilmiah Pendidikan*, 1(2)
- Sudargini, Y. & Purwanto, A. (2020). The Effect of Teachers Pedagogic Competency on the Learning Outcomes of Students. *Journal of Industrial Engineering & Management Research (JIEMAR)*, 4(1) 1-8, DOI : <https://doi.org/10.7777/jiemar>
- Tanjung, S. (2022). An Analysis of Teacher Pedagogical Competence in Teaching English for Senior High School Learners. *Journal VISION*, XVIII (1) 75-83
- Triska, et al. (2017). Analisis Kemampuan Pedagogical Content Knowledge (PCK) Mahasiswa Calon Guru Biologi FKIP Unsri Sebelum dan Setelah Praktik Mengajar Prosiding Seminar Nasional.
- Wahyuni, S., Saleh, S., & Darwis, M. (2019). Effectiveness of Skills Teaching Teachers Competence Office Administration Program in Sate Vocational School 4 Makassar. *Jurnal Ad'ministrare: Jurnal Pemikiran Ilmiah dan Pendidikan Administrasi Perkantoran*, 6(1) 89-94, DOI: <https://doi.org/10.26858/ja.v6i1.11343>