

## DIFFERENCES IN PEDAGOGICAL COMPETENCE OF SHADOWS TEACHERS IN TERMS OF ACADEMIC QUALIFICATION IN INCLUSIVE ELEMENTARY SCHOOLS IN SURAKARTA CITY

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### **Abstract**

The purpose of this study was to determine the differences in shadow teachers' pedagogical competence in terms of academic qualification. This research method used is comparative quantitative. The research involved two groups: the special education graduate group and the non-Special Education graduate group. The subjects of this study were 15 Shadow teachers with Special Education graduates and 23 Shadow Teachers with non-Special Education graduates spread across 19 elementary schools, including the city of Surakarta. Data collection techniques using the saturated sample method. The instrument used is a pedagogic competency scale with a reliability value of 0.905. In the shadow teacher group with Special Education graduates, 14 respondents were in the very high category, and 1 respondent was in the high category, with the highest score being 179 points and the lowest score being 136 points. Whereas in the shadow teacher group with non-Special Education graduates, 13 respondents were in the high category, and 10 respondents were in the high category, with the highest score of 170 points and the lowest score of 130 points. The analysis in this study used the Man Whitney-U test. The Mann-Whitney-U test shows the value  $U_{count} = 0.220$ , which is  $U_{count} > U_{table}$  ( $U_{table} = 0.05$ ). Research results conclude that there is no significant difference between the pedagogical competence of teachers with special education and non-special education graduates.

**Keywords:** Academic qualification, Pedagogic competence, Shadow Teacher

### **Abstrak**

Tujuan dari penelitian ini adalah untuk mengetahui perbedaan kompetensi pedagogik GPK yang ditinjau dari kualifikasi akademik. Metode penelitian yang digunakan adalah kuantitatif komparatif. Penelitian ini melibatkan dua kelompok, yaitu kelompok lulusan PLB dan lulusan non-PLB. Subjek penelitian ini adalah 15 GPK lulusan PLB dan 23 GPK lulusan non-PLB yang tersebar di 19 SD inklusif kota Surakarta. Teknik pengumpulan data menggunakan metode sampel jenuh. Instrumen yang digunakan adalah skala kompetensi pedagogik dengan nilai reliabilitas 0.905. Pada kelompok GPK lulusan PLB, sebanyak 14 responden masuk kategori sangat tinggi dan 1 responden kategori tinggi dengan skor tertinggi berada di angka 179 poin dan skor terendah 136 poin. Sedangkan, pada kelompok GPK lulusan non-PLB, 13 responden masuk kategori tinggi dan 10 responden masuk kategori tinggi dengan skor tertinggi 170 poin dan skor terendah 130 poin. Analisa dalam penelitian ini menggunakan Uji man whitney-U. Uji man whitney-U menunjukkan nilai  $U_{hitung} = 0.220$  yang mana  $U_{hitung} > U_{tabel}$  ( $U_{tabel} = 0,05$ ). Hasil penelitian menyimpulkan bahwa tidak terdapat perbedaan signifikan kompetensi pedagogik GPK ditinjau dari kualifikasi akademik.

**Kata kunci:** GPK, Kompetensi Pedagogik, Kualifikasi Akademik.

**How to Cite:** Irvansyah, R, A, S., Widyastono, H., & Supratiwi, M. (2023). Differences in Pedagogical Competence of Shadows Teachers in Terms of Academic Qualification in Inclusive Elementary Schools In Surakarta City. *Journal of Disability*, 3 (1), 22 – 29.

## INTRODUCTION

All citizens have the right to education without exception, including students with special educational needs (SEN). Based on Article 5, Paragraph 1, of Law Number 20 of 2003 concerning the National Education System, states that every child has the right to education. Students with SEN have

the right to receive education to optimize development that overcomes the limitations of the student with SEN within the scope of formal education (Hasugian et al., 2019). The area of legal education in Indonesia for students with SEN is in the form of segregation schools, or what is known as special schools, integration schools, and inclusive schools.

Inclusive schools are the implementation of inclusive education services. Inclusive education places all students from various backgrounds in a position to overcome learning barriers and sustainably create innovations to accommodate and improve the quality of education (Yusuf et al., 2018). The implementation of this inclusive school is regulated in Ministerial Regulation Number 70 of 2009. In this regulation, one of the conditions is stated in Article 10, which explains that the regional government must provide at least 1 (one) shadow teacher in the education unit designated to provide inclusive education.

A shadow Teacher is a teacher who accompanies students with SEN in classroom learning. In practice, a shadow teacher will work closely with class teachers or subject teachers related to the material to be provided. This is a strategy to provide appropriate treatment for students with SEN within an inclusive school's scope, especially in the academic field (Al Sabatin, 2020). Shadow Teacher is vital in implementing inclusive education (Zakia, 2015).

The reality that was found in the field is that there are problems related to shadow teachers and those related to shadow teachers. Based on previous research by Tarnoto (2016) in the city of Yogyakarta, it was found that 5.95% of shadow teachers had backgrounds that were not suitable or were not special education graduates. This background discrepancy shows the emergence of problems, that is: the lack of competence of teachers in handling students with SEN(19.64%), difficulties of shadow teachers in teaching and learning activities (17, 86%), and low understanding of shadow teachers about students with SEN and inclusive schools (16.67%). Furthermore, based on research by Salim and Wiliyanto (2017) in the city of Surakarta, it was found that 78% of respondents had a low understanding of students with SEN identification and assessment. Of the 78% of respondents who had a low understanding of identification and assessment, 37% of them were in the very poor category of understanding the identification and assessment of students with SEN.

This is different from the shadow teacher who graduated from special education. Based on the research by Amka, Utomo, Kusumastuti, and Thaibah (2018) in Banjarmasin City, it was found that shadow teacher graduates from special education can understand the characteristics of students with SEN in depth. This is because shadow teacher graduates from special education have understood the characteristics of students with SEN in lectures. Therefore, shadow teacher graduates from special education can identify and assess students with SEN in these inclusive schools.

These problems are related to the competency of a teacher. As a teacher, the main competencies that must be owned are professional, pedagogical, social, and personality competencies (Anggriana & Trisani, 2016). One of the competencies that are emphasized is pedagogical competence. Pedagogic competence is the ability of a teacher to manage the learning process (Sulfemi, 2015). Based on

Gunarhadi, Sunardi, Andayani, and Anwar (2016) research, pedagogical competence includes pedagogical understanding and pedagogic skills. This research was conducted in a Surakarta residence, and it was found that 70% of respondents had a low level of pedagogical understanding, and 80% of respondents had low pedagogical skills.

Based on the observations of researchers at one of the inclusive elementary schools in Surakarta City, shadow teacher non-special education graduates have problems related to this. For example, a shadow teacher does not prepare to learn optimally. This is indicated by the unavailability of Individualized Education Programs (IEP) and learning media that were prepared before the teacher taught. Therefore, in the middle of learning, a shadow teacher left students with SEN to prepare the learning media. Furthermore, it was found that shadow teachers lacked understanding of students with SEN both in their class and in the inclusive school environment. The impact of this lack of understanding of pedagogical competence has made the teaching not optimal in educating students with SEN.

The researcher also observed the shadow teacher of special education graduates from that school. The pedagogic competence of shadow teacher graduates from special education differs from that of non-special education graduates. Among them, when learning is carried out, shadow teachers of special education graduates are more optimal in preparing IEP and learning media.

Based on the explanation above, it is known that the pedagogic competence of special education and non-special education graduates is different, which impacts services to students with SEN. This study aimed to determine differences in teacher competence regarding shadow teacher academic qualifications for students with SEN services in inclusive elementary schools in Surakarta City.

## **METHOD**

This research uses comparative quantitative research because it compares the shadow teacher pedagogic competence based on academic qualification groups, namely special education graduates and non-special education graduates. The population in this study was all-inclusive primary schools shadow teachers in Surakarta, totaling 95 teachers, with details of 15 special education graduates and 43 non-special education graduates. The sample in this study was 15 shadow teachers graduates from special education and 23 shadow teachers from non-special education graduates using a saturated sample sampling technique. This sampling technique was used because the number of shadow teacher groups who graduated from special education was less than 30 people (Sugiyono, 2020).

The data collection technique uses the saturated sample method using a psychological scale instrument as a Likert scale. The Likert scale is a scale that measures individuals or groups in terms of attitudes or phenomena (Djaali, 2020). The Likert scale is a tiered statement consisting of strongly agree, agree, neutral, disagree, and strongly disagree. In this study, the validity tests used were content validity and construct validity. For content validity, use Aiken's V formula. The Aiken'S V formula is used based on an agreement between raters to test the feasibility of an instrument (Azwar in Hendrayadi,

2021). Aiken's V formula can be described as follows:

Table 1. Aiken's V Formula

$$V = \frac{\sum s}{n(c - 1)} \quad (1)$$

Information

V = the validity content of the item.

S = the score set by each rater minus the smallest score.

n = the amount of Rater.

c = the number of categories selected by the Rater.

This study involved 3 raters with an assessment category of 5. So the value of the table used for this research was 0.92. The instrument is valid if the results of the Aiken v are greater than the item table. The results of calculating the content validity coefficient in this study were valid item items with the lowest value of 0.93 and the highest value of 0.98. It can be concluded that item content validity can be used.

Construct validity is a tool that measures the suitability of the measurement results and the definitions studied (Yusup, 2018). This study uses the coefficient of corrected item-total correlation. According to Azwar (2009), the instrument criteria are said to be reliable if it has  $r \geq 0.30$ . This criterion can be reduced to 0.25, but it is not recommended below 0.20. In this study, researchers used the criterion of 0.20, so that out of 50 questions, the number of questions that were dropped was 14 questions.

Reliability in this study used alpha-Cronbach. According to Azwar (2014), an instrument is reliable if it has  $r_1 \geq 0.70$ . The results of calculating the pedagogic competency scale instrument with the help of SPSS 26 show a number of 0.905, which means that the instrument used in this study is reliable.

## RESULTS AND DISCUSSION

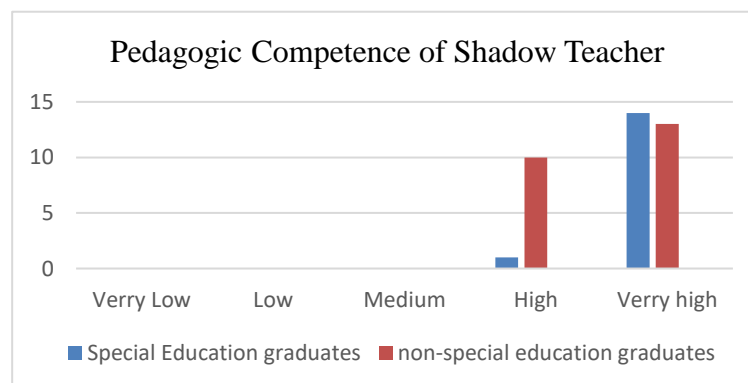
This study collected data on gender, age, last education, and teaching experience. In this study, of 38 shadow teachers, 36 were female, and 2 were male. Among these respondents, 15 teachers were special education graduates, and 23 teachers were non-special education graduates.

This study assesses the teacher's pedagogical competence in terms of academic qualifications. The aspects of pedagogic competence that are assessed are aspects of preparation, knowledge, ability, performance, appropriateness, and effectiveness (Suciu & Ilana, 2011). From this assessment, it was found that the pedagogical competence of teachers who graduated from special education and non-special education had scores that tended to be high, which can be seen in Table 1.

**Table1.** Pedagogic Competence Score

No	Pedagogic Competence Score	Number of Subjects		Percentage
		Special Education Graduates	Non-Special Education Graduates	
1	$\leq 72$	-	-	0%
2	$72 < X \leq 96$	-	-	0%
3	$96 < X \leq 120$	-	-	0%
4	$120 < X \leq 144$	1	10	15,8 %
5	$X \geq 144$	14	13	71,05 %
	Total	15	23	100%

Based on Table 1, it can be seen that 14 shadow teachers who graduated from special education were in the very high category with the highest score of 179 points, and 1 shadow teacher in the high category with the lowest score of 136 points. Meanwhile, 13 shadow teachers who graduated from non-special education were in the very high category with the highest score of 176 points, and 10 shadow teachers were in the high category with the lowest score of 130 points. Furthermore, to explain Figure 1, the following graph can be seen:

**Figure 1.** Pedagogic Competence Graphic

A comparison of shadow teacher who graduates from special education and non-special education graduates uses Mann Whitney- U. The results of Mann Whitney-U can be seen in Table 3.

**Table 3.** Mann Whitney-U Test

**Test Statistics<sup>a</sup>**

	Kompetensi Pedagogik
Mann-Whitney U	131.500
Wilcoxon W	407.500
Z	-1.226
Asymp. Sig. (2-tailed)	.220
Exact Sig. [2*(1-tailed Sig.)]	.224 <sup>b</sup>

a. Grouping Variable: Pendidikan Terakhir

b. Not corrected for ties.

Based on the results of the Mann Whitney-U analysis test using SPSS 26, it was found that the value  $U_{count} = 0.220$ , which is higher than the significance level, which is  $U_{table} = 0.05$ . These results differed from previous research, which revealed differences in teacher pedagogical competence between special education graduates and non-special education graduates. In research by Gunarhadi (2016), pedagogical competency is assessed from two aspects: pedagogical understanding and pedagogic skills. This study found that 70% of class teachers had low levels of pedagogical understanding, and 80% had low pedagogical skills.

The differences in previous research are caused by several factors that affect pedagogical competence, such as internal and external factors of shadow teachers. According to Nurmayuli (2020), internal factors affecting pedagogic competence are teacher education qualifications, teacher intelligence level, and teacher motivation. Furthermore, the external factors of pedagogic competence are teacher training experience, teacher teaching experience, school infrastructure, and principal supervision.

Teaching experience is the length of time a teacher has taught in learning and influences pedagogical competence (Nurmayuli, 2020). The experience of teaching shadow teachers in Surakarta can be seen in Table 3:

**Table 3.** Teaching Experience Shadow Teacher

No	Teaching Experience	Number of Subjects		Percentage
		Special Education Graduates	Non- Special Education Graduates	
1	< 3 years	6	7	34, 21 %
2	3.1 - 5.2 years	3	7	26,31 %
3	5.3 -7.4 years	2	2	10, 52 %
4	7.5 -9.6 years	2	4	15, 8 %
5	9.7 -11.8 years	1	2	7,9 %

6	11.9 -14 years	1	1	5,26 %
	Total	15	23	100%

In this study, the average special education graduate had less than 3 years of learning experience, while non-special education graduates had 3-5 years of teaching experience. This shows that one of the factors increasing a person's pedagogical competence is due to their teaching experience. In line with this research, Kurniawati (2018) found that teachers' teaching experience in Bengkulu significantly influences pedagogical competence.

Teacher training experience is one of the factors in the high score of shadow teacher pedagogic competency in this study. In this study, shadow teachers received training on inclusive education at least once. Basalamah As'ad, and Kamidin. (2021) revealed that training positively influences teacher pedagogical competence. Martika (2018) added that the higher the intensity of class teacher participation in inclusive training in the Surakarta residency, the higher the level of teacher pedagogical competence.

School facilities and infrastructure are learning support facilities available in the school environment to achieve educational goals effectively and efficiently (Barnawi & Arifin, 2012). Based on the researchers' observations, several inclusive schools in the Surakarta city area have inclusive rooms/special rooms to become learning resources for students with SEN.

## CONCLUSION

This study uses non-parametric statistical quantitative analysis with the Mann-Whitney U to prove the hypothesis. Based on analytical calculations using SPSS 26, the results obtained are  $U_{count} = 0.220$ , which is higher than the significance level, namely  $U_{table} = 0.05$ . This means that the research hypothesis is rejected. Therefore it is concluded that there is no difference in the pedagogic competence of shadow teachers in terms of academic qualifications in inclusive elementary schools in Surakarta City.

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