



## Effectiveness of the Shadow Teacher's Role for Slow Learner Students in the Learning Process at Elementary School

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**Abstract:** This study aims to analyze the effectiveness of the shadow teacher's role in the learning process of slow learners in elementary school. The research design used was a pretest-posttest control group design involving four fifth-grade slow learner students who were selected through purposive sampling at MI Muhammadiyah Karanganyar. The research instruments consisted of academic tests, questionnaires, and observations to measure changes in academic achievement and students' perceptions of learning through shadow teachers. The analysis results showed a significant difference between pretest and posttest scores ( $t = -5.10$ ,  $df = 3$ ,  $p = 0.015$ ), indicating that special assistance was effective in improving students' learning outcomes. Furthermore, the questionnaire results revealed that students experienced positive changes in understanding, motivation, and confidence in learning. This study provides strong empirical support for implementing shadow teachers as an effective strategy in inclusive education for slow learner students in elementary schools.

**Keywords:** effectiveness, shadow teacher, slow learner, elementary school

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### Introduction

Education in Indonesia is regulated to provide equitable services at all levels of society, both for normal children and children with special needs. With that, inclusion education emerged, which is a regular school that accommodates and facilitates special children or children with special needs. In this inclusive school, children with special needs are given the opportunity to participate in education or learning in the same environment as other normal children. In accordance with Thufail & Bakhtiar (2023), the implementation of learning in inclusive schools empowers individuals with diversity, including those with special needs. A child with special needs must be able to mingle with friends in his environment to facilitate the learning process. Ummah (2018) explains that children with special needs also have the same

rights as other normal children in receiving the teaching that has been regulated by law.

There are several types of children with special needs, including intellectual disability, hearing impairment, physical disability, emotional and behavioral disorders, autism, giftedness, and slow learners. Slow learners are children who have learning difficulties due to unstable emotions, communication barriers due to language difficulties, and slow learning processes, requiring more time than regular children (Darimi, 2018; Lailiyah & Jihan, 2020; Handayani & Asri, 2021). Slow learners need repetitive explanations, have limitations in certain skills, and are generally slower in mastering specific skills (Aziz et al., 2016). They struggle with abstract concepts, have limited speech abilities, low motivation to learn, and require

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longer periods to grasp a subject compared to regular children.

The disabilities of slow learners are not immediately visible when mixed with regular children because the disabilities are cognitive. The role of the teacher in the classroom involves integrating children with special needs with their normal peers to manage the learning process effectively. While the classroom teacher is fully responsible for all students, including those with special needs, the role of shadow teachers is crucial. According to Puspita & Harsiwi (2023), shadow teachers work collaboratively with other teachers to support students with special needs in the classroom.

A teacher providing education to students with special needs must have competent values to deliver inclusive education properly. This ensures that children with special needs receive adequate and equal education. According to Mudjito in Barlian et al. (2023), the competence of inclusive teachers is based on four main competencies and is specifically oriented towards three main abilities: general ability, basic ability, and specific ability.

Shadow teachers or teachers whose job is to accompany students with special needs when learning takes place at school (Nasir et al.; 2018; Setiawan, 2023; Wilyanita et al., 2023). The role of special accompanying teachers includes motivator, facilitator, mediator, mentor and companion, while the influencing factors are the role of the family environment and the role of the school environment (Ansari et al, 2021). Through the role of a special supervising teacher during classroom learning, it is hoped that slow learner students will receive special treatment, not be differentiated from other regular students, and be given the same space and opportunities to receive appropriate educational services. Apart from that, teachers can develop creative ideas and innovations that are needed by a child with special needs.

Several previous relevant studies include: (1) Ansari et al. (2021) describe the role of shadow teachers in developing the emotional aspects of autistic children in learning for first grade elementary school student and the factors influencing the role of shadow teachers; (2) Handayani & Asri (2021) analyze the roles of teachers and parents in addressing the mathematical learning difficulties of slow learner children during the COVID-19 pandemic, focusing not only on the teacher's role but also on the parents' role, especially in an online learning environment; (3) Puspita & Asri (2024) analyze the role of shadow teachers for slow learner children in learning for first grade elementary school student.

These studies share a common focus on the role of teachers in handling students with special needs. The difference is that the previous studies were qualitative,

while the current study is quantitative. The purpose of this study is to analyze the effectiveness of the shadow teacher's role in the learning process of fifth grade slow learner students in elementary schools. In this context, the research measures the effectiveness (dependent variable) of the role of special assistance teachers (independent variable) for slow learners in the learning process at

## Method

This research is a quantitative study using a quasi-experimental method because slow learner students cannot be randomly assigned to experimental or control groups due to ethical and practical considerations. According to Sugiyono (2018), the quantitative research method is based on positivist philosophy and is used to study specific populations or samples. Data collection uses research instruments, data analysis is quantitative/statistical, and the goal is to test established hypotheses. The quasi-experimental approach is used when the researcher cannot fully control all variables affecting the research outcome, particularly when randomization is not possible.

The research population was fifth grade students with special needs who were slow learners at MI Muhammadiyah Karanganyar. The sample used was four slow learner students taken by purposive sampling. The research instruments used are: (1) academic tests to measure students' academic achievement before and after receiving special assistance; (2) questionnaires to assess students' perceptions of learning with special assistance; (3) observations to monitor changes in behavior and participation during the learning process.

The research procedure includes: (1) conducting an initial test or pretest on 4 slow learner students to measure their academic abilities before receiving special assistance; (2) providing special assistance for 8 weeks by a shadow teacher; (3) conducting a final test or posttest to measure changes in academic abilities after the intervention; (4) collecting data on students' perceptions and behavior changes during the intervention period using questionnaires and observations.

Data collection methods are: (1) academic tests administered before and after the intervention; (2) questionnaires distributed to students after the intervention period; (3) observations conducted during the learning process.

The collected data are analyzed using SPSS version 21. The analyses include: (1) normality test using Shapiro-Wilk to determine if the data are normally distributed; (2) homogeneity test using Levene's Test to determine the similarity of variances between pretest and posttest scores; (3) paired sample

t-test to determine significant differences between pretest and posttest scores; (4) descriptive statistics to analyze the questionnaires and observation results.

### Result and Discussion

This study employs a quantitative method with a quasi-experimental approach. The purpose of this study is to analyze the effectiveness of the shadow teacher's role in the learning process of fifth grade slow learner students in elementary schools.

A normality test is conducted to determine whether the pretest and posttest data distributions are normal. This test is crucial because many parametric statistical tests require the data to be normally distributed. In this study, the Shapiro-Wilk Test is used to indicate how closely the data approximates a normal distribution. Values closer to 1 indicate data that more closely follow a normal distribution. The results of the normality test are presented in the following table:

Table 1. Normality Test Results

Variabel	Shapiro-Wilk Statistik	df	Sig.
Pretest	0.917	4	0.528
Posttest	0.954	4	0.780

From table 1 above, we can interpret that the Shapiro-Wilk statistic for the pretest is 0.917 with a significance value (Sig.) of 0.528. The Shapiro-Wilk statistic for the posttest is 0.954 with a significance value (Sig.) of 0.780. Based on these results, the significance values (Sig.) for both variables (pretest and posttest) are greater than 0.05. This indicates that the pretest and posttest data are normally distributed.

A homogeneity test is conducted to determine whether the variances between two groups of data (in this case, pretest and posttest) are equal or homogeneous. This test is crucial because many parametric statistical tests require the homogeneity of variances. Homogeneity test results can be seen in the following table:

Table 2. Homogeneity Test Results

Levene's Test	df1	df2	Sig.
0.072	1	6	0.798

From table 2, we can interpret that the Levene's Statistic result is 0.072, with df1 (Degrees of Freedom 1) being 1, df2 (Degrees of Freedom 2) being 6, and the significance (Sig.) p-value resulting from the Levene's test is 0.798. Based on these results, the significance value (Sig.) of 0.798 is greater than 0.05. This indicates that the variances between the pretest and posttest are homogeneous, and we can proceed with other parametric statistical analyses, such as the Paired

Sample T-Test, to compare the pretest and posttest scores. A Paired Sample T-Test is conducted to determine if there is a significant difference between two paired sets of data, in this case, the pretest and posttest scores of slow learner students. This test is used to evaluate the effectiveness of the special assistance intervention.

Table 3. Paired Sample T-Test Results

Pair	Mean	Std. Dev	Std. Error Mean	t	df	Sig. (2-tailed)
Pretest - Posttest	-5.25	2.06	1.03	-5.10	3	0.015

From table 3, we can interpret the results as follows: The mean difference between pretest and posttest scores is -5.25, indicating an average increase of 5.25 points after the intervention. The standard deviation (Std. Dev) of the score difference is 2.06, indicating the amount of variation around the average difference. The standard error of the mean (Std. Error Mean) of the average difference is 1.03, which is used to estimate the precision of the average difference. The t-value is -5.10, indicating how far the average difference is from zero in units of standard error. The degrees of freedom (df) is 3, which is the number of paired data points minus one. The significance value (Sig. (2-tailed)) is 0.015.

Based on the paired sample t-test results, the significance value (Sig. (2-tailed)) is 0.015, which is less than 0.05. This means there is a significant difference between pretest and posttest scores. In other words, the special assistance has a significant positive effect on the academic achievement of slow learner students.

Questionnaires and observations were used to measure student perceptions and changes in behavior during the intervention period. The results of the questionnaire can be described statistically in the following table:

Table 4. Descriptive Statistics of Questionnaire Results

Questionnaire Item	Strongly Agree	Agree	Disagree	Strongly Disagree
Learning is easier to understand with assistance	3	1	0	0
Feel more motivated to learn with assistance	2	2	0	0
Feel more confident in completing tasks	3	1	0	0

Based on table 4, the interpretation of the results shows: (1) the majority of respondents (3 out of 4) strongly agree that learning becomes easier to understand with assistance. One other respondent

agreed with this statement, and none disagreed or strongly disagreed; (2) two respondents strongly agreed that they felt more motivated to learn with assistance, while the other two agreed. No respondents felt unmotivated or very unmotivated; (3) The same as in the first item, three respondents strongly agreed that they felt more confident in carrying out assignments with assistance. One other respondent agreed, and no one disagreed or strongly disagreed. Overall, these results indicate that the majority of respondents provided positive feedback on the role of shadow teachers in the learning process. The four students in the sample felt that the guidance from the shadow teacher made learning easier to understand, more motivating, and increased their confidence in completing tasks.

The results of the behavioral observations can be described statistically in the following table:

Table 5. Observational Results of Behavioral Changes

Behavioral Aspect	Before Intervention (Mean)	After Intervention (Mean)
Class Participation	2.0	3.5
Cooperation with Peers	2.5	3.8
Confidence	2.0	3.7

Based on table 5, it can be seen that slow learners showed a positive perception of the shadow teacher in the learning process and experienced improvements in participation, cooperation, and self-confidence.

The research results show that the role of shadow teachers is effective in improving the academic achievement and behavior of slow learner students in elementary schools. There is a significant difference between pretest and posttest scores, as well as students' positive perceptions of learning with special assistance. In line with several previous studies which emphasize the importance of the role of shadow teachers in supporting the learning of students with special slow learner needs, namely the research results of Ansari et al. (2021) shows that the role of shadow teachers is very important in developing the emotional and academic aspects of students with autism. They found that the role of the family and school environment greatly influences the effectiveness of accompanying teachers in supporting student development. The similarity with current research is that the role of shadow teachers is very influential on students with special needs when participating in classroom learning. The difference is that the current research uses a quantitative approach with experimental methods to measure the effectiveness of the role of shadow teachers in learning for children

with special needs with the slow learner type of autism, the previous research was qualitative research and focused on the role of shadow teachers in learning for children with special needs with autism.

Apart from that, it is also in line with research by Puspita & Asri (2024) which analyzed the role of accompanying teachers in the learning of slow learner students at elementary school, confirming that accompanying teachers can create an inclusive and supportive learning environment. They found that accompanying teachers play an important role in ensuring that slow learner students do not feel isolated and have equal opportunities to learn and develop. The similarity is that they both research the role of special accompanying teachers for children with special needs, the slow learner type, the difference is that previous research uses an approach qualitative and now quantitative.

The results of this research provide empirical evidence that mentoring by shadow teachers is effective in improving the learning achievement of slow learner students. The role of the accompanying teacher does not only focus on academic aspects but also on emotional and social support. With the right support from the family and school environment, the role of shadow teachers can be more optimal in creating an inclusive and supportive learning environment for slow learner students. Thus, it is important for all relevant parties, including the government, schools, teachers and families, to work together to support this shadow teacher program to provide a decent and equal education for all students.

## Conclusion

Based on the results of the study, the paired T-test shows that the role of shadow learner has a positive and significant effect on the academic achievement of slow learners, with a Sig. (2-tailed) value of 0.015. The test of normality and homogeneity of variance that was met strengthened the validity of these results. According to the questionnaire results, the majority of students feel that learning is easier to understand, more motivated, and more confident in doing assignments with special assistance. In addition, behavioral observations showed a positive perception of the shadow teacher in the learning process and an increase in participation, cooperation, and confidence. In conclusion, shadow learner is effective to the learning process in improving academic achievement and positive behavior of slow learners in elementary school.

This research implies the importance of the role of shadow teacher in supporting the learning of slow learner students. It is recommended that schools

implement shadow teacher programs for slow learner students on a regular basis by providing special mentor teachers to help slow learner students achieve their maximum academic and social potential. Shadow teacher need to receive continuous training to improve their competence. This training must cover academic, emotional and social aspects in accompanying slow learner students. The program must be designed to meet the individual needs of the student. Mentoring programs must be monitored and evaluated periodically to ensure their effectiveness. This evaluation will help identify areas that need further improvement and development

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