The Effect of Educational Background on Preparation of Lesson Planning in Project-Based Blended Learning

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Sections Info	ABSTRACT
	Objective: This study aims to analyze the effect of educational background on preparing learning plans in project-based blended learning. **Method:** The study used a quantitative research method with an experimental research type. The research subjects were 40 teachers, 20 teachers with particular education backgrounds, and 20 teachers not from special education. The data collection technique used a questionnaire to review the educational background. Data analysis used a homogeneity test, normality test, and hypothesis test. **Results:** Based on the research results, the research data is homogeneous and statistically normally distributed. The results of hypothesis testing show an influence of educational background on the preparation of lesson planning in project-based blended learning statistically. Further research can examine and research the influence of teacher education background in other fields of education, from early school to college. **Novelty:** This educational background is fundamental because this is where the ability or insight related to the teacher's competence can be reviewed. It is hoped that it is appropriate and the same as the field of education being taught, mainly so that there are no obstacles in the learning or teaching process.

INTRODUCTION

One of the criteria for analyzing if a teacher is qualified to be a professional is their educational history. Since education shapes a person's mentality, including their mindset and perspective, the higher a teacher's educational background, the higher the expectations for their professionalism. These elements will impact instructors' professional competency in the classroom (Bahri, 2019). Their educational background influences the caliber and aptitude of a teacher's instruction. A teacher's education quality impacts their performance, inventiveness, and level of self-competence.

The teacher's educational background can be seen from the suitability of the field of knowledge taken by Government Regulation Number 19 of 2005 Pasal 28, that "Education must have academic qualifications and competencies as a learning agent, be physically and mentally healthy and have the ability to realize national education goals." The educational background of a teacher or an educator affects the classroom's learning process significantly. This can happen because a teacher's or educator's educational background will affect the quality of mastery and delivery of the material they teach (Indriani & Kuswanto, 2021). This is further supported by the observation that teachers who lack a formal education will struggle significantly to facilitate learning, in contrast to educators who possess a background in education and can more easily adjust to the classroom setting because they have a foundation of theories to support their work (Amalia & Rokhimawan, 2022). Thus, the educational background of teachers is essential to pay attention

Facilitate the learning process because the vision, mission, and goals are the same. This will provide smooth teaching, which impacts achieving excellent and maximum learning.

Considering the history of education, lesson planning is another skill teachers might have. Lesson plans' accessibility is a crucial determinant of the success of high-quality learning activities, which include organizing, carrying out, and assessing instruction (Suyatno, 2020). This is because lesson preparation is crucial in helping teachers organize the teaching and learning process (Fatimah & Amam, 2018; Harahap, 2021). As a result, to attain the intended levels of effectiveness and quality in learning, a teacher must possess the trustworthy abilities to create lesson plans that are accurate, compliant with the relevant curriculum, and aligned with the learning objectives (Amin et al., 2020). The most crucial part is organizing the learning process, which includes assessing the curriculum, creating the syllabus and learning strategies, and figuring out the learning materials and units of learning activities because the preparation serves as the foundation for the actual learning that will be completed (Handayani, 2019).

Teachers who work with children with special needs, sometimes known as special guidance teachers, are not exempt from this circumstance. In order to help children with special needs carry out learning with services to increase the effectiveness and efficiency of achieving the learning goals to be achieved, special guidance teachers play a role in every teaching process for students who have limitations and differences in psychological and physical aspects (Ansari et al., 2021). Therefore, in addition to lecturing or dictating without considering the differences in students' abilities, talents, and interests, teachers are also responsible for maximizing school services for students with special needs (Yusuf, 2022). When working with children, special assistant teachers can create and choose instructional materials and methods appropriate for their students' diverse backgrounds, enabling them to learn through efficient techniques (Rasyada et al., 2022).

Learning services for children with special needs should be provided based on the range of inadequacies they possess. Teachers with sufficient education and training in line with the range of deficits exhibited by the children will provide quality services. Children who significantly (differently from other children their age) encounter physical, mental-intellectual, social, emotional, or anomalies during their growth or development and hence need special education services are considered special needs children (Azmi & Nurmaya, 2020). Like other typical children of the same age, children with special needs can also get an education adapted to meet their requirements (Habibah et al., 2024). Children with special needs can have mental, emotional, and other issues that arise from within them, in addition to physical difficulties. As a result, participatory education arranges instruction for typical students and kids with special needs based only on their shared characteristics.

It is undoubtedly difficult for school administrators, especially instructors, to provide special education for students with special needs. Teachers' knowledge and abilities might be influenced by their degree of formal education and specific inclusive education training. Effective learning practices for students with special needs are believed to be more thoroughly understood by teachers with a special education and inclusion background than by those without. Teachers can gain practical insights into the difficulties and achievements of creating lessons that cater to the demands of students with different needs by having firsthand experience teaching in inclusive

classrooms. It is anticipated that educators will be able to create lesson plans using project-based blended learning.

Participants in project-based blended learning can work together, exchange ideas, and gain knowledge from one another. It improves communication and teamwork abilities. To understand their knowledge's value and practical implications, students must apply the principles they have studied to real-world scenarios. Students who design and complete projects gain confidence in challenging tasks and problems. With a focus on community and project-based learning, project-based blended learning is a concept in education that blends synchronous and asynchronous online learning with in-person instruction (Hariyono & Andrini, 2020). One of the Merdeka Curriculum's top priorities is implementing project-based blended learning, which provides engaging and pertinent instruction (Dewi, 2022). In order to address Indonesia's learning crisis, this learning as a means of putting the Merdeka Curriculum into practice and attempting to make the most of online learning—which is expanding quickly at the moment—needs to be further examined as an alternate learning model.

Research Novelty

The teacher's educational background can be seen from the suitability of the field of study taken by Government Regulation No. 19 of 2005 Article 28, that 'Education must have academic qualifications and competencies as a learning agent, be physically and mentally healthy and have the ability to realize national education goals.' Because educational background will determine a person's personality, including his mindset and insight, these factors will affect the professional competence of teachers in teaching and in delivering subject matter well according to the field that is understood and mastered much better. This is supported by research results showing that educational background affects teacher pedagogical competence (Septiarti et al., 2018). The results of other studies show that educational background positively affects the ability to manage learning (Imtiyas & Simatupang, 2022a). The results of other studies show that a teacher's educational background influences the learning process in the classroom at Muhammadiyah Ambon Junior High School (Rehalat & 'Ainy, 2022). Other studies show that educational background and teacher training positively impact teachers' ability to manage Early Childhood Education (ECE) learning during the COVID-19 pandemic (Imtiyas & Simatupang, 2022b). The results of other studies show an effect of educational background on teacher pedagogical competence (Selian & Khodijah, 2022). The results of other studies show that the teacher's educational background can affect students' interest in learning social studies subjects (Harahap et al., 2024). Other results show an effect educational background has on managing Islamic learning assessment (Muhsin et al., 2024). The results of other studies show an educational competence (Maula & Nalim, 2024). The results of this study indicate that a teacher's educational background greatly influences his pedagogical competence.

Research Question

Based on the description above, this study aims to examine whether or not educational background affects the preparation of learning plans in project-based blended learning.

RESEARCH METHOD

The research method used in this study is quantitative and experimental. Experimental research aims to establish cause-and-effect relationships by testing an idea, practice, or

procedure to determine how much the independent variable affects the outcome or dependent variable.

Population and Sample
In this study, the subjects are all-inclusive education teachers working in the Sidoarjo district in the 2023/2024 academic year, with 40 teachers. Subjects that could be the focus of this research include special education teachers supporting students with special needs, the qualifications required and training received by special education teachers to optimize their role in inclusive schools, and effective teaching methods and strategies used by special education teachers in teaching students with special needs in inclusive schools. This study included 20 teachers with particular education backgrounds and 20 teachers not from special education.

Data Collection and Analysis Techniques
The data collection technique for educational background used a questionnaire, which consisted of special assistant teachers' education level, competence, and tenure. Data analysis used the homogeneity test, normality test, and hypothesis test.
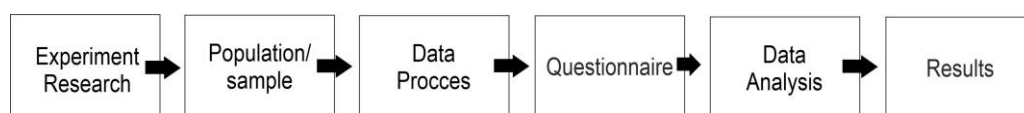
Figure 1. Research procedure.

RESULTS AND DISCUSSION
Results
Homogeneity Test
The homogeneity test was analyzed using Levene statistics on the number of research subjects. There could be as many as 20 special assistant teachers with particular education backgrounds and 20 special assistant teachers with non-special education backgrounds.

Table 1. Homogeneity test output results.

	F	Sig.
Lesson Planning	2.807	.102

Table 1 shows homogeneity for lesson planning in special education and non-special education. The significance in the Levene Statistical test is 0.102> 0.05, which means that the data is statistically homogeneous.

Normality Test
Normality test analysis on the number of research subjects: as many as 20 special assistant teachers with particular education backgrounds and 20 special assistant teachers with non-special education backgrounds. The homogeneity test uses Kolmogorov-Smimov and Shapiro Wilk.

Table 2. Normality test output results.

Tests of Normality

	Learning_Model	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Lesson Planning	Nonspecial education	.155	20	.200[*]	.930	20	.154
	special education	.170	20	.130	.934	20	.180

Table 2 shows the normality for lesson planning in special and non-special education in the Kolmogorov-Smimov and Shapiro-Wilk tests. Shapiro-Wilk was chosen because the sample was less than 100 people. The significance of the Kolmogorov-Smimov test on learning planning for nonspecial education teachers is 0.200> 0.050, which means the data is standard; for special education teachers, 0.130> 0.050 means the data is standard. Shapiro-Wilk test on nonspecial education teacher learning planning 0.154> 0.050, which means average data; special education teachers 0.180> 0.050, which means average data.

Hypothesis test
Hypothesis test analysis on the number of research subjects: as many as 20 special assistant teachers with particular education backgrounds and 20 special assistant teachers with non-special education educational backgrounds. The homogeneity test uses the Univariate Analysis of Variance test.

Table 3. Hypothesis test output results.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	653.900[a]	4	163.475	1430.406	.000
Intercept	29655.668	1	29655.668	259487.094	.000
Type of Education	31.395	1	31.395	274.703	.000
Error	4.000	35	.114		
Total	33262.000	40			
Corrected Total	657.900	39			

Based on Table 3, Tests of Between-Subjects Effects for the effect of educational background on the preparation of learning planning in project-based blended learning for special supervising teachers in inclusive schools, it is known that Sig. count 0.000. The result of this Sig. count is less than 0.050 (0.000 <0.050).

Discussion
The study's findings support that special education teachers are more adept at creating lesson plans than non-special education teachers, with special education teachers demonstrating an average of 31.200 and non-special education teachers demonstrating an average of 25.900. Project-based blended learning significantly impacts lesson plan preparation by special mentor teachers in inclusive schools.

Between-subjects effects tests were used to determine how education level affected how special mentor teachers in inclusive schools prepared lesson plans following project-based blended learning training (Sig. count 0.000) given that the Sig. Ho is rejected because the result is less than 0.050 (0.000 <0.050). Special supervising teachers in inclusive schools are influenced by their educational experience when creating project-based blended learning lesson plans. Using digital technology and a project-

based approach, blended learning creates an engaging and dynamic learning environment. Through practical projects pertinent to their students' needs, special mentor teachers who bear a great deal of responsibility for overseeing the learning requirements of students with special needs get the chance to hone their pedagogical abilities. By using this approach, educators can create lessons that are more effective and creatively meet the diverse needs of their students in inclusive classrooms (Riza et al., 2020). Students participating in project-based blended learning benefit from its implementation, which involves putting them in charge of their efforts to develop critical thinking skills and think critically about solutions to problems they have identified (Kholida & Suprianto, 2020). An additional benefit is that it allows students to create assignments and gather data they may use daily (Handayani, 2020). Project-based learning allows students to acquire various experiences, information, skills, and attitudes. They can also become more motivated.

The ability for students to study the content individually using internet resources is another benefit of blended learning. When in-person instruction is not in session, students can discuss with instructors or other students. Their teacher can effectively monitor and oversee students' learning activities outside of scheduled class time. Instructors can use online resources to add additional content. Before learning, teachers may assign readings or quizzes to their students. Instructors are competent in arranging tests, providing comments, and adding test results. Students can exchange files with other students. Utilizing the benefits of online learning has numerous additional perks (Siregar, 2019). The benefit of blended learning is that it allows for in-person and online instruction, delivering teaching and learning activities in two directions and making progress more effective and efficient (Rahayu et al., 2022). One additional benefit is that since the materials are available online, students can learn them independently. Beyond the classroom, students can converse with instructors or other students. When pupils are not in class, teachers can monitor their learning activities. Using online resources, educators can add more resources for their students. Prior to the start of the lesson, teachers can administer preliminary exams (Ekayogi, 2023). Quizzes, feedback, and effective use of test findings are all within the capabilities of teachers. File sharing is possible among students.

It is highly relevant and beneficial to use the concept of project-based blended learning in the education of children with special needs during the learning process. This is because the project assignments supplied in this learning combo will enable learners to convey facts, ideas, and conclusions. Additionally, students receive instruction on using the internet to search for and retrieve information from various sources (Wahyudi & Winanto, 2018). An effective PjBL learning model aims to maximize student activity by combining in-person and online learning. In addition to allowing educators and students to communicate and interact directly at any time and place, students can find project material from various sources without any limitations. The PjBL paradigm applied with blended learning is anticipated to yield the best learning outcomes. In order to improve students' problem-solving abilities and learning achievement, this approach aims to maximize the learning process by the use of technology and by motivating students to work on a project.

There are many research results related to the improvement, effectiveness, and significant influence in applying project-based blended learning, including the effect of a blended learning model based on project-based learning on scientific attitudes and science learning outcomes (Tika & Agustiana, 2021). The results showed that blended

learning with PjBL assisted by Moodle improved students' mathematical literacy and learning independence (Rais et al., 2020; Angreanisita & Mastur, 2021; Firdayanti et al., 2022). The results significantly influence student learning outcomes between blended learning and project-based learning methods (Suryani et al., 2021). The results showed that blended and project-based learning can improve higher-order thinking skills (Eliyasni et al., 2019). The results showed that the project-based learning model in a blended learning setting improved students' knowledge and skills (Suwiwa, 2021). The results found significant relationships between the blended project-based learning approach and perceived self-efficacy, perceived enjoyment, perceived usefulness, behavioral intention to use blended project-based learning, and student's academic achievement (Alamri, 2021). The results showed an effect of project-based blended learning on creative thinking skills (Candra et al., 2019). The results showed that project-based blended learning contributed more to student achievement (Salma et al., 2021). Based on the research results previously described, applying a combination of blended learning and project-based learning is suitable and contains positive results in improving the quality of learning. It is also assumed that it will positively impact the learning process if applied in the education of children with special needs.

Because its application can be viewed as both a way to implement the PjBL model, one of the Merdeka Curriculum's priority programs, and an attempt to maximize the use of out-of-class learning methods, which have grown significantly as a result of the pandemic, project-based blended learning has met the requirements needed as an educational solution in Indonesia (Fahlevi, 2022). The application of project-based blended learning as a suitable learning model to be applied in Indonesia today must undoubtedly be adequately introduced; this can support education for children with special needs in their learning.

The degree of education teachers possess is a significant factor in influencing their capacity to create lesson plans. Higher-educated teachers typically possess a more profound comprehension of educational theory and more efficient teaching techniques. They are more receptive to new ideas and approaches to education, such as blended learning with a project focus. A solid theoretical basis and the analytical abilities required to evaluate and modify teaching strategies to meet the requirements of students better are provided by higher education. As a result, exceptional mentor instructors who pursue ongoing professional development have tremendous success in creating inclusive and productive learning environments. In addition to giving teachers real-world experience, project-based blended learning enhances their theoretical background (Dewi, 2022). A project-based approach enables teachers to create learning activities that are relevant and customized for each student in an inclusive school setting where kids have a wide range of needs and skills. Students become more involved and engaged in learning, facilitating more meaningful learning. Project-based blended learning and higher educational attainment significantly improved special mentor teachers' capacity to create lesson plans for inclusive classrooms (Anggraini & Wulandari, 2021). This approach stresses context, fosters creativity, teamwork, and technology use, supports ongoing professional development, and helps students develop critical thinking skills to think through the best answers to issues they encounter.

CONCLUSION

Fundamental Finding: Educational background affects the preparation of learning planning in project-based blended learning for special supervisory teachers in inclusive schools, as indicated by Sig. Count 0.000 <0.05, and it is known that teachers with special education qualifications provide an average of 31.2 and non-special education of 25.9, so it can be concluded that teachers with special education are better at planning learning than non-special education teachers. **Implication:** Specifically for exceptional assistant instructors with experience in inclusive or special school education, educational background plays a significant role in creating lesson plans for students with special needs. Schools enable children to acquire a deeper comprehension of learning materials, develop competencies and abilities or skills, and adequately accomplish learning objectives, among other benefits, because a greater understanding and insight of children with special needs is crucial. They were encouraged by project-based blended learning as a platform that adapts to the learning process, which offers numerous benefits for raising the standard of instruction. Thus, the study's findings offer solid empirical evidence and precise information per the research needs. **Limitation:** This research can be understood in that the information described is still categorized as not broad because it only examines the special supervising teacher in children with special needs and the scope of inclusive education or special education. **Future Research**: Future research can examine and research related to the influence of the teacher's educational background in other fields of education, both from early school to college.

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