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A Comparative Study of The Effect of Motivating Teachers on Independent Learning Curriculum Implementation on Learning Outcomes of Students

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Abstract

This research aims to (1) Determine whether the learning outcomes of students with motivating teachers are better than those without motivating teachers in junior high schools; (2) Identify the factors that play a role in influencing the learning outcomes of students by motivating and non-motivating teachers. The study involved 37 students from State Junior High School 9 Banjarmasin with motivating teachers and 33 students from State Junior High School 1 Banjarmasin with non-motivating teachers. The results showed (1) The average learning outcomes of students with motivating teachers were 64.59, while the average learning outcomes of students with non-motivating teachers were 78.65. A significant difference was based on the Independent-Samples T-Test One-Tailed with a P-value of 0.000 < 0.05. The research findings indicate that the learning outcomes of students with motivating teachers are not better than those of students with non-motivating teachers; (2) Factors influencing the learning outcomes of students by motivating and non-motivating teachers include the school principal, colleagues, facilities, and infrastructure, learning motivation, teacher's abilities, teacher's leadership, work experience, and the working environment.

Keywords: comparative study; learning outcomes; motivating teacher

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INTRODUCTION

The determination of student graduation issued by Nadiem Makarim, the Minister of Education and Culture of Indonesia, has sparked various opinions among different groups. This decision was issued through Circular Letter Number 1 of 2020 regarding the Independent Learning Policy, where graduation is determined by independent learning or Independent Learning (Kemdikbud, 2020). In this concept, educational institutions are liberated, and students are encouraged to innovate. Furthermore, the concept of Independent Learning also encourages students to think creatively.

In the current era, the emphasized learning concept is that each educational institution should be competitive and innovative, collaborating to avoid falling behind other countries. Students are also expected to have critical thinking skills, solve problems, be innovative and creative, and possess skills for effective collaboration and communication (Yamin &

Syahrir, 2020). Nadiem emphasized that the essence of freedom of thought needs to be mastered by teachers before being taught to students (Widyastuti, 2020).

The Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia issued Decision Number 56/M/2022 regarding Guidelines for the Implementation of the Curriculum for Learning Recovery, which includes three curriculum options for use in education to recover learning, as well as the structure of the Freedom Curriculum regarding learning and assessment rules, and the teacher's workload. This policy aims to improve human resources, making Indonesian citizens creative and innovative when applying knowledge. This aligns with what the Director-General of Higher Education, Nizam, stated: the implementation of Independent Learning is expected to shape an educated, competitive, professional, cultured society capable of contributing to a nation with a prosperous life (Fitrotun et al., 2020).

The Ministry of Education and Culture formulated six aspects of the Pancasila Student Profile: "devout and virtuous, creative, cooperative, global diversity, critical and independent reasoning" (Azmi & Ginting, 2021). The concept of motivating teachers, as seen on the School of Motivating Teachers website (Wijaya et al., 2020), is formulated to have a role: acting as a figure who can create a learning community and inspire teachers in the school or area, shaping student leadership, being an active message conveyer during positive discussions for a more advanced learning system, and participating in promoting the well-being of the education ecosystem through leadership during school learning (Mansyur, 2022).

The concept of the Independent Learning program is a response to the needs of the education system in the era of the fourth industrial revolution. Nadiem Makarim, the Minister of Education of the Republic of Indonesia, as quoted by tempo.com (2019), asserts that Independent Learning is the freedom of thought that starts with teachers. According to Bell Hooks in Specia & Osman (2015), free practical education is a form of teaching and learning that will be more interesting and engaging for teachers and students. In this freedom, it is equally important for both parties to contribute and share their learning experiences (Simonson et al., 2019). Kemdikbud (2021) explains that a motivating teacher is a learning leader who encourages the holistic, active, and proactive development of students, actively developing other educators to implement student-centered learning, serving as an example for other teachers, and also being a transformative agent in the education ecosystem to realize the Pancasila Student Profile. The Independent Learning Curriculum is a challenge for all parties because many teachers are still trapped in delivering lessons based solely on the curriculum guidelines, making the curriculum the determinant of the direction of learning and teaching. However, Independent Learning demands creativity from both teachers and students to determine effective learning goals and methods capable of inspiring hope and generating a sense of achievement (Mulyasa, 2021).

Regarding self-training programs, teachers are born as leaders of these programs. Director-General of Teachers and Education Personnel Iwan Syahril explains that driving instructors will advance education in Indonesia, including creating student-centered learning and improving the education ecosystem by changing learning patterns (Satriawan et al,, 2021). Teachers who have completed the Teacher Mobilization Education Program can share their knowledge, experiences, and skills with fellow teachers in their schools or other schools. The Ministry of Education and Culture encourages teachers to enhance their role in driving the teacher-learning community and becoming teacher partners in efforts to develop student-centered learning activities. Teachers can assist in evaluating students' hypotheses and conclusions (Suparno, 1997). Motivating teachers are designated as change agents so that the education system can be reformed from the smallest unit, to find change

agents and bring about changes in the future to have a significant impact on educational institutions to ensure the birth of the next generation of the nation (Wijaya et al., 2020).

Based on the attachment to the decision of the Director-General of Teachers and Education Personnel Number 3028/B/GT/2020 concerning the Guidelines for Teacher Training, motivating teachers is an educational philosophy proposed by Ki Hajar Dewantara. Additionally, motivating teachers can contribute to building a positive school culture, developing character, practicing excellent learning for students, leading learning in schools, and acting as mentors for community learning and students. According to Kemdikbud (2020), the roles of motivating teachers are as follows: (1) motivating teacher as an innovator, (2) motivating teacher as a facilitator, (3) motivating teacher as a motivator, (4) motivating teacher as a learning stimulator, (5) motivating teacher as an inspirator, (6) motivating teacher as a model and exemplar, and (7) motivating teacher as a creativity catalyst.

Roles can be interpreted as actions taken by an individual in an activity (Ratnamulyani & Maksudi, 2018). According to Lubis (2021), roles are dynamic aspects related to position (status); if someone carries out their rights and obligations by their position, they perform a role. Lantaeda et al., (2017) explain that a role is an action performed by an individual or organization to carry out an agreed-upon activity as it should.

With this, it is said that the motivating teacher program is a very good program to use in schools. However, not everyone knows whether motivating teachers can be implemented in various places, among various students, or only in certain schools that can maximize the performance of motivating teachers. Therefore, this research will determine whether there is a difference in student learning outcomes between motivating and non-motivating teachers. This research examines students' learning outcomes on the same material in two different schools. It compares them with standardized test scores to assess the impact of motivating teachers on students' grades.

METHOD

The research method employed in this study is a comparative research design. Comparative research aims to compare one object with another, namely motivating teachers at State Junior High School 9 Banjarmasin and non-motivating teachers at State Junior High School 1 Banjarmasin. Both schools have the same accreditation and zoning. This research has three variables: the independent variable with motivating and non-motivating teachers, the dependent variable with student learning outcomes, and the control variable with 20 multiple-choice questions.

This research was conducted at two places, namely State Junior High School 9 Banjarmasin, located at Jl. Batu Benawa Raya No.29, Teluk Dalam, Kec. Banjarmasin Tengah, Kota Banjarmasin, Kalimantan Selatan 70115, and State Junior High School 1 Banjarmasin located at Jl. Batu Tiban No. 23 Komp. Mulawarman, Teluk Dalam, Kecamatan Banjarmasin Tengah, Kota Banjarmasin, Kalimantan Selatan 70117. Both schools are close to each other and are situated by the roadside, with easy access to the Mulawarman Complex, ensuring the same student coverage through the zoning system. This research was conducted from July to September 2023.

The sample for this research included eighth-grade students from State Junior High School 9 Banjarmasin and State Junior High School 1 Banjarmasin. The researchers used a sampling technique with 37 students from State Junior High School 9 Banjarmasin and 33 from State Junior High School 1 Banjarmasin. Data collection was done through test scores in Chapter 1 (Introduction to Cell).

The reasons for choosing this research setting are the fact that State Junior High School 9 Banjarmasin has motivating science teachers and uses the Independent Learning

curriculum. Then, State Junior High School 1 Banjarmasin because it is a motivating school that uses the Independent Learning curriculum in all classes. Both schools are accredited A and have the same zoning for schools.

The research was conducted using purposive sampling, where the researchers made specific considerations when selecting samples. In this study, the samples are students at State Junior High School 9 Banjarmasin and students at State Junior High School 1 Banjarmasin. This includes classes with motivating teachers and non-motivating teachers. The sample size consists of 70 students, with 37 students from State Junior High School 9 Banjarmasin and 33 from State Junior High School 1 Banjarmasin.

The researchers utilized the following techniques to collect data: (a). List of names of students from State Junior High School 9 Banjarmasin and State Junior High School 1 Banjarmasin. (b). Test scores for Chapter 1 (Introduction to Cell) as data for hypothesis testing. The test scores were obtained from 20 multiple-choice questions with the same lesson material and questions for both classes.

Before conducting data analysis, normality and homogeneity tests were performed as prerequisites for the parametric T-test, as explained below:

Normality Test

The analysis of normal distribution is crucial as it is a prerequisite to determine whether a statistical analysis technique can be used to test hypotheses. The normality test using Kolmogorov-Smirnov can be conducted using SPSS version 26 software. The significance level used is 0.05, with the significance score from the normality test results in the SPSS software.

The hypothesis formulation is as follows:

1. If the significance score (sig) > 0.05, then the distribution of research data is normal.
2. If the significance score (sig) < 0.05, then the distribution of research data is not normal.

Homogeneity Test

This test ensures confidence that a group of data examined in the analysis originates from populations that do not differ significantly. This test is a prerequisite for the parametric T-test as part of statistics. The homogeneity test is conducted to determine whether there is or is no variation between two or more distributions (Budiwanto, 2017).

Homogeneity testing in this study uses the Levene Test (One-Way ANOVA). Homogeneity is tested using the principle of one-way analysis of variance. The hypothesis formulation is as follows:

1. If the significance score (sig) > 0.05, then the distribution of research data is homogeneous.
2. If the significance score (sig) < 0.05, then the distribution of research data is not homogeneous.

Parametric T-Test

The prerequisites for conducting the T-test are using a normal distribution and homogeneity. The independent sample t-test utilizes SPSS 26 software. The purpose is to determine whether students' learning outcomes with motivating teachers are better than those with non-motivating teachers at State Junior High School. This research uses a one-tailed hypothesis test; however, if students' learning outcomes with motivating teachers are still better than those with non-motivating teachers, a two-tailed hypothesis test will be used.

The hypothesis formulation is as follows:

1. 1. If sig > 0.05, the research data has no significant difference.

2. 2. If sig < 0.05, then the research data has a significant difference.

RESULT AND DISCUSSION

Description of Schools with Motivating Teachers

State Junior High School 9 Banjarmasin is a school that has a motivating teacher for the subject of Natural Sciences (IPA) teaching in Grade VIII. The school is located at Jl. Batu Benawa Raya No.29, RT.76, Teluk Dalam, Kec. Banjarmasin Tengah, Kota Banjarmasin, South Kalimantan 70115. This school is considered good and is located near the Mulawarman Complex, where many schools are situated. State Junior High School 9 Banjarmasin has been accredited with grade A and has 823 students enrolled. State Junior High School 9 Banjarmasin is an independent school that has adopted the independent learning curriculum since 2022.

Description of Schools without Motivating Teachers

On the other hand, State Junior High School 1 Banjarmasin does not have a motivating teacher for the subject of Natural Sciences (IPA). It is located at Jl. Batu Tiban No. 23 Mulawarman Complex, Teluk Dalam, Kecamatan Banjarmasin Tengah, Kota Banjarmasin, South Kalimantan 70117. This school is also considered good and is located in the Mulawarman Complex. State Junior High School 1 Banjarmasin has been accredited with grade A and has 972 students enrolled. It is considered a motivating school and has implemented the independent learning curriculum since 2021, fully adopting it. Both schools selected for this study have the same location, so they cover the same area of students in terms of zoning systems.

Learning Outcomes Data of Students

School data from motivating and non-motivating teachers produces learning outcomes as shown in Table 1.

Table 1 Learning outcomes data

No	Teacher	Number of Students	Average
1	Motivating Teacher	37	64.59
2	Non-Motivating Teacher	33	78.65

From the data in Table 1, it can be observed that there is a difference in the average scores of students taught by motivating and non-motivating teachers. The average score of students taught by motivating teachers is 64.59, while the average score of students taught by non-motivating teachers is 78.65. This means that, on average, the learning outcomes of students taught by motivating teachers are lower than those taught by non-motivating teachers.

Hypothesis Testing of Student Learning Outcomes

The comparative study in this research involves two groups: the method with motivating teachers and the method with non-motivating teachers. This quantitative research used numerical data, which were analyzed using SPSS version 26 software. This study aims to compare motivating and non-motivating teachers in teaching the learning outcomes of Grade VIII students at State Junior High School 9 Banjarmasin with students in Grade VIII at State Junior High School 1 Banjarmasin. The data collected for this study consists of exam scores for the cell introduction chapter, comprising 70 students. Based on the data, the average score for the non-motivating teacher group is higher than the motivating teacher group.

The independent variable (motivating teacher), dependent variable (learning outcomes of students), and control variable (test questions) were used in this study. The placement of samples in this study used purposive sampling. Then, two samples were treated with teaching methods by motivating and non-motivating teachers. The examination of learning outcomes used the same set of 20 multiple-choice questions.

Normality Test

The normality test checks whether the data is normally distributed. The normality test used the Kolmogorov-Smirnov Test in this study because both datasets have more than 50 samples. The p-value determines the testing of normal data distribution, and if the p-value is greater than 0.05, the data is considered normal. The results of this test can be seen in Table 2.

Table 2 Normality test

Tests of Normality				
	School	Kolmogorov-Smirnov[a]		
		Statistic	df	Sig.
Natural Science Learning Outcomes	Motivating Teacher	.106	37	.200*
	Non-Motivating Teacher	.148	33	.064

Table 2 shows that the p-value for students' learning outcomes with motivating teachers is 0.200 (> 0.05), indicating normal data. Similarly, the p-value for students' learning outcomes with non-motivating teachers is 0.079 (> 0.05), indicating normal data. Both datasets passed the normality test, confirming their normal distribution.

Homogeneity Test

The homogeneity test using the Levene Test (One-Way ANOVA) is given in Table 3.

Table 3 Homogeneity test

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Natural Science Learning Outcomes	Based on Mean	1.524	1	68	.221
	Based on Median	1.579	1	68	.213
	Based on the Median and with adjusted df	1.579	1	67.491	.213
	Based on trimmed mean	1.563	1	68	.216

The homogeneity test yielded a p-value of 0.221 (> 0.05), indicating homogenous data. Therefore, it can be concluded that the data is homogeneously distributed.

Parametric T-Test

The parametric T-test used the Independent-Samples T Test in SPSS. The Independent-Samples T-Test is a parametric statistical test used to compare two independent (unrelated) samples, as depicted in Table 4.

Table 4 Parametric T-Test

Independent Samples Test				
		t-test for Equality of Means		
		t	df	Sig. (2-tailed)
Natural Science Learning Outcomes	Equal variances assumed	-4.204	68	.000
	Equal variances not assumed	-4.248	67.725	.000

The results of the Independent-Samples T Test show that the p-value is 0.000 (< 0.05), indicating a significant difference. Based on this data, the statistical hypothesis accepted is that there is a significant difference in students' learning outcomes between those taught by motivating teachers and those taught by non-motivating teachers.

The results of this study reveal differences in learning outcomes between motivating and non-motivating teachers. The average score of students taught by motivating teachers was 64.59, while the average score of students taught by non-motivating teachers was 78.65. However, this result indicates that, on average, the learning outcomes of students taught by motivating teachers are lower than those taught by non-motivating teachers. This test was conducted by answering the same set of 20 multiple-choice questions between the school with motivating teachers (State et al. School 9 Banjarmasin) and the school with non-motivating teachers (State Junior High School 1 Banjarmasin).

This difference in learning outcomes may be attributed to various factors that hinder or support the role of motivating teachers in the school. The role of motivating teachers needs to be optimized as agents of change in the reformed school education system. However, it is also influenced by supporting factors in optimizing motivating teachers, including nine factors: school principal, colleagues, facilities and infrastructure, students, learning motivation, teacher's ability, teacher's leadership, work experience, and work environment. Based on the results of this study, several factors causing differences in learning outcomes between motivating and non-motivating teachers can be analyzed:

1. Support from the school principal as a leader. The school principal must make decisions to implement new innovative breakthroughs. The school principal is a key component in mobilizing the school to simultaneously create the vision and mission of the school (Hentihu et al., 2022);
2. Colleagues also play a role in providing support for the performance of motivating teachers to implement independent learning programs for success (Hentihu et al., 2022);
3. Availability of adequate facilities and infrastructure in the school (Hentihu et al., 2022);
4. Student interest, attracting the interest of high-achieving students to enroll in that place;
5. The influence of teacher's learning motivation on students also affects learning outcomes, such as the teacher's activities in checking homework, giving grades, providing opportunities to ask questions, providing guidance and assistance to students who are struggling, implementing exercise questions, and assigning homework (Shamdas, 2019);
6. According to the Ministry of Education and Culture program, the ability to motivate teachers to position themselves well is also important for motivating them in independent learning. Motivating teachers must be able to motivate other teachers always to innovate, synergize in improving the quality of education, and be competitive (Hentihu et al., 2022);
7. The leadership of motivating teachers also affects learning outcomes, and this is related to the teaching style, whether it is authoritative, liberal, or democratic (Mansyur, 2022);
8. Teacher's work experience includes various aspects related to personal background, training, courses, education, and teaching practice (Fahmi & Hariasih, 2016);
9. The working environment and the situation around the workers can influence them when performing assigned tasks. This is also related to the tools used to impact individual or group work results to achieve the expected goals and targets (Fahmi & Hariasih, 2016).

Although the results do not necessarily mean that motivating teachers are not better than non-motivating teachers, this can be seen in the school, which can adapt to educational developments. Schools must always optimize everything, including motivating teachers as instructors, to improve student learning outcomes. Motivating teachers is crucial, as it promotes quality student-centered learning and empowers other teachers to maximize the same learning model (Prabowo, 2021). This is related to the constructivist learning theory, which provides freedom for people who want to learn or seek their needs with their abilities and with the help of others. This theory encourages individuals to actively learn and discover competencies, knowledge, technology, and other necessary aspects to develop themselves (Sugrah, 2019).

Citing from the literature review, the Minister of Education and Culture of Indonesia, Nadiem Makarim, mentioned, "Independent learning is freedom of thought and must exist within the teacher first." If it doesn't happen with the teacher, it won't happen with the students either (Sabriadi & Wakia, 2021). This means that teachers must first create freedom of thought. Thus, motivating teachers emerge as fighters in this concept. This gives students, teachers, and schools the opportunity to innovate, improvise, and negotiate for learning to be done creatively, independently, and freely. According to the Director-General of Teachers and Education Personnel of the Ministry of Education, Research, and Technology Regulation No. 1302 of 2022, motivating teachers are ready to be learning leaders that can:

a) Design, implement, and evaluate learning to adapt to the needs of students now and in the future.
b) Cooperate with parents, colleagues, and communities to implement, develop, evaluate, and enhance the school's vision and program.
c) Develop competencies independently through reflection on implemented learning practices.
d) Develop the learning ecosystem through physical, spiritual, creative, emotional, and collaborative thinking with colleagues and voluntary collegial communities.

This research, based on students' learning outcomes in the cell introduction material, aims to provide a fair comparison. The study focuses on the first chapter so that all students undergo the same learning at the beginning and are not accelerated due to mid-semester exams. The participants in this study are eighth-grade students from two schools, namely SMP Negeri 9 Banjarmasin and SMP Negeri 1 Banjarmasin, who also follow the independent learning curriculum from the eighth grade. In the field of education, learning evolves each year. Therefore, research on motivating teachers must continue to be conducted to contribute to educational improvement, ensuring that no school is left behind and promoting equality across all schools. In the Independent Learning Curriculum, there is no longer a demand for achieving a minimum passing grade; instead, it emphasizes quality learning as the basis for Indonesian Human resources to face global challenges (Rahmadayanti & Hartoyo, 2022). Future research could expand by comparing with more schools and not just focusing on the normality and homogeneity of the data, as differences may still exist. Subsequent research could also delve into teachers' educational backgrounds and examine the work experience of teachers who teach at those schools.

CONCLUSION

Based on the results of this research, two conclusions are drawn in line with the research objectives: (1) This study also found that students' learning outcomes with motivating teachers are lower than those of students with non-motivating teachers, with an average

score of 64.59 for students taught by motivating teachers and 78.65 for students taught by non-motivating teachers. The Independent-Samples T Test two-tailed analysis indicated a p-value of 0.000 < 0.05, signifying a significant difference. Therefore, it is evident that students' learning outcomes with motivating teachers are not better than those with non-motivating teachers. And (2) Factors influencing student learning outcomes by motivating and non-motivating teachers include the school principal, colleagues, facilities and infrastructure, students, learning motivation, teacher capability, teacher leadership, work experience, and the working environment. In this case, having the same accreditation does not guarantee the same quality of learning; however, it becomes one of many ways to attract students to enroll.

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