



## Effectiveness of Experiential Learning Based on Multiple Intelligence to Increase MI Student Learning Interest

Moh. Ferdi Hasan, Maemonah

UIN Sunan Kalijaga, Sleman, Daerah Istimewa Yogyakarta, Indonesia

[ferdichavo1999@gmail.com](mailto:ferdichavo1999@gmail.com)

**Abstrak:** In understanding learning, interest is needed as the main factor, while to foster interest, appropriate and effective learning methods are needed, in which case the multiple intelligence-based experiential learning model is expected to be a solution. The purpose of this study was to determine the effectiveness of multiple intelligence-based experiential learning to increase MI students' learning interest. This research method is quantitative with the type of experimental study, the number of participants is 25 people who are MI students in Kab. Jember, data collection was carried out using a questionnaire technique with pre, experimental and post procedures, while for the analysis test using a paired T-Test. Based on the research conducted, it was found that multiple intelligence-based experiential learning can significantly increase MI students' interest in learning. By carrying out this research, it is expected that MI teachers can apply this learning method so that students' interest in learning increases and results in achievement in the end.

**Kata kunci:** Learning, Experiential Learning, Multiple Intelligence, Interest in Learning, Madrasah Ibtidaiyah.

### Efektivitas Pembelajaran Experiential Learning Berbasis Berbasis Kecerdasan Majemuk untuk Meningkatkan Minat Belajar Siswa MI

**Abstract:** Dalam memahami pembelajaran diperlukan minat sebagai faktor utama, sedangkan untuk menumbuhkan minat diperlukan metode pembelajaran yang tepat dan efektif, dalam hal ini model experiential learning berbasis kecerdasan majemuk diharapkan dapat menjadi solusi. Tujuan dari penelitian ini adalah untuk mengetahui efektivitas experiential learning berbasis multiple intelligence untuk meningkatkan minat belajar siswa MI. Metode penelitian ini adalah kuantitatif dengan jenis penelitian eksperimen, jumlah partisipan sebanyak 25 orang yang merupakan siswa MI di Kab. Jember, pengumpulan data dilakukan dengan menggunakan teknik kuesioner dengan prosedur pre, eksperimen dan post, sedangkan untuk uji analisisnya menggunakan uji T-Test berpasangan. Berdasarkan penelitian yang dilakukan, didapatkan hasil bahwa experiential learning berbasis multiple intelligence secara signifikan dapat meningkatkan minat belajar siswa MI. Dengan dilakukannya penelitian ini, diharapkan para guru MI dapat menerapkan metode pembelajaran ini sehingga minat belajar siswa meningkat dan menghasilkan prestasi pada akhirnya.

**Keywords:** Pembelajaran, Pembelajaran Berbasis Pengalaman, Kecerdasan Majemuk, Minat Belajar, Madrasah Ibtidaiyah.

#### 1. Introduction

Education is a crucial element in human life. The purpose of education is to increase understanding, shape character, and prepare young people for a better future. However, education faces obstacles in the interest of MI students in traditional learning methods which tend to ignore the diversity of students' intelligence and do not meet the diverse learning needs of students. This can lead to a decrease in students' motivation to learn, as well as pose challenges in creating an effective learning environment for MI students (Monita & Hasan, 2023).

In this context, as a response to the low interest in learning MI students in conventional learning, more innovative learning methods such as experiential learning based on multiple intelligences are becoming increasingly popular and are being developed to create an effective learning environment for MI students in the era of globalization and technological advances (Al-Kalbani & Al-Wahaibi, 2015). In the era of globalization and technological advances, learning methods in the classroom need to be adjusted in order to meet the increasingly diverse needs of students. Conventional learning methods that only focus on giving material orally

and in writing are no longer the only choice. (González-Treviño et al., 2020). Therefore, more interactive, creative and innovative learning methods such as multiple intelligence-based experiential learning are becoming increasingly popular and are being developed to optimize student learning and prepare them for a better future.

According to the theory of multiple intelligences put forward by Gardner in 1983, each individual has unique intelligence and can develop according to their potential. This concept is the basis for the development of multiple intelligence-based education, which divides intelligence into eight types, namely verbal-linguistic intelligence, logical-mathematical intelligence, visual-spatial intelligence, body-kinesthetic intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence, and intelligence naturalists (Kiliç & Sert, 2015) (Azkiyah, 2017). Multiple intelligence-based learning emphasizes that each student has a different intelligence and can be invited to learn in various ways that are tailored to his intelligence.

Experiential learning is a learning approach that allows students to learn in a more interesting and interactive way (Zohar, 2008). This learning method emphasizes the importance of experience and reflection so that students can understand concepts better and gain valuable experience. Experiential learning also promotes student-focused learning, in which students are actively involved in the learning process and learn through direct experience (Helate et al., 2022). In the context of education for students with multiple intelligences, the use of multiple intelligence-based experiential learning can increase MI students' interest in learning and help them develop their potentials to the fullest. In this case, multiple intelligence-based experiential learning can be an effective alternative learning method for MI students who have diverse learning needs and are often not accommodated in traditional learning methods.

Multiple intelligences-based experiential learning methods emphasize student-centered learning. This means that students are actively involved in the learning process and learn through their own direct experience. (Ferrero et al., 2021). In addition, this method also pays attention to variations in intelligence or multiple intelligences possessed by each student, such as verbal-linguistic, logical-mathematical, visual-spatial, musical, kinesthetic, interpersonal, and intrapersonal intelligence. The multiple intelligence-based experiential learning method

has become one of the solutions in overcoming the problem of the lack of interest in learning MI students in conventional learning which tends to be monotonous and uninteresting (Li et al., 2020). With this method, students are invited to be actively involved in the learning process, so they can increase their interest in learning (Beukers & Bertolini, 2021)). In addition, multiple intelligence-based experiential learning can also help MI students develop their potentials optimally (Al-Qatawneh et al., 2021). Thus, this learning method has great potential to improve the quality of learning and student learning outcomes MI. Students at the MI level have their own uniqueness, where they are still in the developmental stage and are not fully able to regulate their attention and concentration (Wijanarko et al., 2023). Therefore, it is important for teachers to find learning methods that suit the characteristics of MI students and can increase their interest in learning.

The study of the effectiveness of multiple intelligence-based experiential learning is very important because it can provide deeper information and understanding of the use of this method in the educational context for MI students. By knowing the effectiveness of this learning method, we can determine whether its use can help increase MI students' interest in learning and help them develop their potentials optimally. This study can also offer a new perspective on student-centered learning where students are actively involved in the learning process and learn through hands-on experience. As a result, this can improve the overall learning quality and learning skills of students.. In the long term, this study can also contribute to the development of more innovative and effective learning methods for MI students, so as to prepare them well for a better future.

For this reason, a study is needed that investigates the effectiveness of using multiple intelligence-based experiential learning in increasing MI students' learning interest, so that they can provide input and contribute to the education sector in Indonesia. This study aims to evaluate the success rate of multiple intelligence-based experiential learning in increasing students' interest in MI learning. It is hoped that the results of this study can make a positive contribution to the development of MI learning strategies and increase students' interest in the learning process.

## 2. Method

In this study, the approach used is a quantitative approach. This approach was chosen because it has the ability to collect data based on

numbers, statistics, and other numerical measurements to answer research questions or test the proposed hypotheses (Creswell, 2014). Quantitative hypotheses that can be proposed for the formulation of this problem are as follows: H0 (Null Hypothesis): There is no significant difference between the level of student interest before and after learning experiential learning based on multiple intelligences. Ha (Alternative Hypothesis): There is a significant difference between the level of interest in learning the language before and after learning multiple intelligence-based experiential learning. A qualitative approach is used to obtain students' perceptions of multiple intelligence-based experiential learning.

This research used The Static Group Pretest-Posttest design or called the Pretest – Posttest static group design (Creswell & Poth, 2017). In this study, the researcher gave a pre-test to students, then students were given multiple intelligence-based experiential learning, then a post-test was carried out and ended with data analysis.

The participants in this study consisted of 25 fifth grade students at an Islamic elementary school in Jember district. The technique for determining participants uses the census sampling method, which is a sampling technique in which the entire population or elements in the population are selected to be part of the sample taken (Sugiyono, 2017). This approach was chosen by researchers because the population in the study has a limited number.

Quantitative data collection in this study used a pretest – post test questionnaire with a total of 10 questions in each test, which in the assessment used a Likert scale with a value of one to five in each question (Johnson & Christensen, 2016), research subjects were given questions about experiential learning based on experiential learning on learning interest. The preparation of this questionnaire instrument used the theory of Self-Determination, Constructivism theory, Cognitive Learning theory, Goal Orientation theory, and Achievement Motivation theory. The details of the research instruments that the researchers mentioned can be seen in table 1:

This research was carried out through three stages, namely the pre-field stage, the field work stage, and the data analysis stage. At the pre-research stage, the researcher compiled a research design in the form of field observations and classifying students based on multiple intelligences, then preparing the lesson and then proceeding with creating a questionnaire. At the field work stage, the researcher gave a pre-test

and then was given a stimulus in the form of multiple intelligence-based experimental learning. and a post-test was carried out. At the analysis stage, the researcher conducted a recapitulation of calculations and performed data analysis using the JASP 0.17.1.0 application. As for the stimulus that the researcher intends, the researcher displays it in table 2.

Table 1 Research Instruments

No	Teory	Question number	Instrument
1	Self-Determination	1,2	Questionnaire
2	Konstruktivisme	3,4	Questionnaire
3	Kognitif	5,6	Questionnaire
4	Goal Orientation	7,8	Questionnaire
5	Achivment Motivation	9, 10	Questionnaire

Table 2 Learning Method

No	Multiple Intelligence	Learning Method	Participant Number
1	Linguistic intelligence.	book presentation	P5, P13, P23
2	Logical-mathematical intelligence	puzzle game	P2, P14, P16, P18
3	Spatial intelligence	Paint	P4, P6, P8, P21
4	Musical intelligence	Sing	P9, P11, P15,
5	Kinesthetic intelligence	Sport	P3, P7, P19, P25
6	Interpersonal intelligence	group discussion	P1, P10, P12
7	Intrapersonal intelligence	Self reflection	P20, P22
8	Naturalist intelligence	Flora exploration	P17, P24

This study used the Paired T-Test analysis test, the researchers used the Paired T-Test analysis test to compare the averages of the two variables measured at different times in the same group (De Vaus, 2014). This method is called "paired" or "matched" because the measurements of the two variables are carried out on the same subject or on similar pairs (Bryman, 2016).

Before the researcher conducts data analysis, the researcher conducts a prerequisite test, the researcher conducts a prerequisite test to ensure that the data meets the basic assumptions of statistical tests where the assumption in question is about normality, if the assumption of normality is not met, then the paired t-test cannot

be run validly and is necessary appropriate data handling is carried out so that the data meets these assumptions (Saunders et al., 2016). The prerequisite test used is the normality test, which aims to test whether the data is normally distributed or not, the method used for the normality test is the Shapiro-Wilk test.

**3. Result and Discussion**

The Effectiveness of Experiential Learning Linguistics to Increase the Learning Interests of MI Students can be seen in table 3 below.

Table 3 Linguistic Learning

Participant	Pre	Post
P5	41	48
P13	38	50
P23	41	50
Total	120	148
Average	40	49,33333
Max	41	50
Min	38	48

Paired Samples T-Test

Measure 1	Measure 2t	dfp
Pre	- Post	-6.424 2 0.023

Note. Student's t-test.

The t-test results show a t-value of -6.424 with a degree of freedom (df) of 2 and a p-value of 0.023. By using an alpha ( $\alpha$ ) value of 0.05 as a threshold, because the p-value is smaller than alpha, it can be concluded that there is a significant difference between the measurements before and after the intervention.

This conclusion indicates that the intervention has had a significant impact on the measured variables, and this difference cannot be explained by random measurement errors. Therefore, the results of this t-test can provide support for the decision to continue or change the intervention that has been carried out.

The Effectiveness of Mathematical Logical Experiential Learning to Increase MI Students' Learning Interest can be seen in table 4 below.

The t-test results show a t-value of -4.041 with a degree of freedom (df) of 3 and a p-value of 0.027. By using an alpha ( $\alpha$ ) value of 0.05 as a threshold, because the p-value is smaller than alpha, it can be concluded that there is a significant difference between the measurement of students' interest in learning before and after the mathematical logical Experiential Learning learning intervention.

This conclusion shows that learning mathematical logical Experiential Learning can significantly increase MI students' learning interest. Therefore, this intervention can be considered as an effective strategy in increasing students' interest in learning. These results can be a reference for decision makers in developing learning strategies in the future.

The Effectiveness of Spatial Experiential Learning to Increase MI Students' Learning Interest can be seen in table 5 below.

Table 4 Logical Learning

Participant	Pre	Post
P2	39	45
P12	45	49
P16	37	49
P18	40	46
Total	161	189
Average	40,25	47,25
Max	45	49
Min	37	45

Paired Samples T-Test

Measure 1	Measure 2t	dfp
Pre	- Post	-4.041 3 0.027

Note. Student's t-test.

Table 5 Spatial Learning

Participant	Pre	Post
P4	43	47
P6	45	49
P8	45	47
P21	44	46
Total	177	189
Average	44,25	47,25
Max	45	49
Min	43	46

Paired Samples T-Test

Measure 1	Measure 2T	dfp
Pre	- Post	-5.196 3 0.014

Note. Student's t-test.

The t-test results show a t-value of -5.196 with a degree of freedom (df) of 3 and a p-value of 0.014. By using an alpha ( $\alpha$ ) value of 0.05 as a threshold, because the p-value is smaller than alpha, it can be concluded that there is a significant difference between the measurement of student interest before and after the Spatial Experiential learning intervention.

This conclusion shows that Spatial Experiential learning can significantly increase MI students' interest in learning. Therefore, this intervention can be considered as an effective strategy in increasing students' interest in learning. These results can be a reference for decision makers in developing learning strategies in the future.

The Effectiveness of Musical Experiential Learning to Increase the Learning Interest of MI Students can be seen in table 6 below.

**Table 6 Musical Learning**

Participant	Pre	Post
P9	40	46
P11	38	47
P15	35	48
Total	113	141
Average	37,66667	47
Max	40	48
Min	35	46

**Paired Samples T-Test**

Measure 1	Measure 2 t	df p
Pre	- Post	-4.603 2 0.044

Note. Student's t-test.

The t-test results show a t-value of -4.603 with a degree of freedom (df) of 2 and a p-value of 0.044. By using an alpha ( $\alpha$ ) value of 0.05 as a threshold, because the p-value is smaller than alpha, it can be concluded that there is a significant difference between the measurement of students' interest in learning before and after the musical Experiential Learning intervention.

This conclusion shows that musical Experiential Learning learning can significantly increase MI students' interest in learning. Therefore, this intervention can be considered as an effective strategy in increasing students' interest in learning. These results can be a reference for decision makers in developing learning strategies in the future.

Effectiveness of Experiential Learning Learning Kinesthetic to Increase MI Student Learning Interest can be seen in table 7 below.

The T-test results showed T-value of -7,937 with a degree of freedom (DF) of 3 and P-Value of 0.004. By using alpha value ( $\alpha$ ) 0.05 as a threshold, because the p-value value is smaller than the alpha, it can be concluded that there is a significant difference between the measurement of student interest in learning before and after the learning intervention of experiential learning kinesthetic.

This conclusion shows that learning Experiential Learning Kinesthetic can significantly increase the learning interest of MI students. Therefore, this intervention can be considered an effective strategy in increasing student interest in learning. These results can be a reference for decision makers in developing future learning strategies.

Effectiveness of Experiential Learning Learning Interpersonal to Increase MI Student Learning Interest can be seen in table 8 below.

**Table 7 Kinesthetic Learning**

Participant	Pre	Post
P3	40	47
P7	40	50
P19	37	49
P25	36	49
Total	153	195
Average	38,25	48,75
Max	40	50
Min	36	47

**Paired Samples T-Test**

Measure 1	Measure 2 t	df p
Pre	- Post	-7.937 3 0.004

Note. Student's t-test.

**Table 8 Interpersonal Learning**

Participant	Pre	Post
P1	42	45
P10	41	50
P12	41	48
Total	124	143
Average	41,33333	47,66667
Max	42	50
Min	41	45

**Paired Samples T-Test**

Measure 1	Measure 2 t	df p
Pre	- Post	-3.591 2 0.070

Note. Student's t-test.

The t-test results show T-value of -3,591 with a degree of freedom (DF) of 2 and p-value of 0.070. By using the value of Alpha ( $\alpha$ ) 0.05 as a threshold, because the p-value value is greater than the alpha, it cannot be concluded significantly that there is a difference between the measurement of student interest in learning

before and after the intervention of experimental learning interpersonal learning.

This conclusion shows that there is no significant difference between the measurement of student interest in learning before and after the interventional learning intervention. Nevertheless, further research needs to be carried out with a larger sample and better research design to confirm this result.

Effectiveness of Intra Personal Experiential Learning Learning to Increase MI Student Learning Interest can be seen in table 9 below.

Table 9 Intra Personal Learning

Participant	Pre	Post
P20	42	50
P22	35	46
Total	77	96
Average	38,5	48
Max	42	50
Min	35	46

Paired Samples T-Test

Measure 1	Measure 2 t	df p
Pre	- Post	-6.333 1 0.100

Note. Student's t-test.

The t-test results show T-value of -6,333 with degrees of freedom (DF) of 1 and P-value of 0.100. By using the value of Alpha ( $\alpha$ ) 0.05 as a threshold, because the p-value value is greater than the alpha, it cannot be concluded significantly that there is a difference between the measurement of student interest in learning before and after the intervention of experimental learning intrapersonal learning.

This conclusion shows that there is no significant difference between the measurement of student interest in learning before and after the intervention of experiential learning learning intrapersonal. Nevertheless, further research needs to be carried out with a larger sample and better research design to confirm this result.

The Effectiveness of Naturalistic Experiential Learning to Increase MI Students' Interest in Learning can be seen in table 10 below.

The t-test results show T-value of -3,000 with a degree of freedom (DF) of 1 and P-value of 0.205. By using the value of Alpha ( $\alpha$ ) 0.05 as a threshold, because the p-value value is greater than the alpha, it cannot be concluded significantly that there is a difference between the measurement of student interest in learning before and after the intervention of experimental learning naturalist learning.

Table 10 Naturalistic Learning

Participant	Pre	Post
P17	39	49
P22	42	47
Total	81	96
Average	40,5	48
Max	42	49
Min	39	47

Paired Samples T-Test

Measure 1	Measure 2 t	df p
Pre	- Post	-3.000 1 0.205

Note. Student's t-test.

This conclusion shows that there is no significant difference between the measurement of student interest in learning before and after the learning intervention of Experiential Learning Naturalist. Nevertheless, further research needs to be carried out with a larger sample and better research design to confirm this result.

From the results of research that has been done, it can be concluded that multiple intelligence -based experiential learning significantly increases students' interest in learning MI. Assessment of student interest in learning is done by comparing student grades at the pre-test and post-test stages as measurements in this study. The results analysis shows a significant difference between the two values, which shows a significant increase in student interest in learning after following the multiple intelligence -based experiential learning method.

Increasing student interest in learning can be interpreted as an indication that the learning method of Experiential Learning based on multiple intelligence is able to increase their motivation and interest in learning. This approach provides a more pleasant, interactive, and relevant learning experience with the needs and characteristics of MI students. By involving various intelligences in the learning process, students can feel active involvement in the exploration and understanding of the material in depth.

The learning experience provided by Experiential Learning learning also allows students to link abstract concepts with real situations, thereby increasing their understanding. In a learning environment that prioritizes direct experience, students have the opportunity to involve all senses and strengthen their understanding through practical experience. This can increase the sense of involvement and interest of students in the learning process, along with positive developments in their abilities.

Thus, learning Experiential Learning based on multiple intelligence has a positive impact on the learning interest of MI students. This method encourages students' intrinsic motivation, involving them actively in learning, and creating meaningful learning experiences. Therefore, it is necessary to apply a broader application of this approach in the context of education, to provide better opportunities for MI students in increasing learning interest and achieving optimal learning outcomes.

Multiple Intelligence -based Experiential Learning Learning Methods can not only increase the interest of MI students, but also have the ability to optimize students' potential and intelligence in dealing with learning materials. This has an impact on increasing the confidence and motivation of students in learning. Thus, it can be concluded that multiple intelligence -based Experiential Learning learning is an alternative to effective learning methods in increasing the learning interests of MI students. However, to get more accurate conclusions, further research is needed involving larger and representative samples and seeing the effectiveness of experiential learning learning in a longer period of time.

In the context of multiple intelligence -based experiential learning, students have the opportunity to apply their intelligence in various learning activities. For example, students can use verbal-linguistic intelligence in writing or speaking, logic-mathematical intelligence in problem solving, visual-spatial intelligence in visualizing concepts, kinesthetic intelligence in physical experiments, interpersonal intelligence in collaboration with classmates, intrapersonal intelligence in self-reflection, musical intelligence in music activities, and naturalist intelligence in nature observation.

With the opportunity to develop holistic intelligence, students feel more involved and have a deeper understanding of learning material. This contributes to the overall increase in learning interest of MI students. Thus, it can be concluded that multiple intelligence -based Experiential Learning learning is an alternative to effective learning methods in increasing the learning interests of MI students.

The findings of this study are in line with the results of previous studies that show that experiential learning based on various intelligences has been proven effective in increasing student learning interest (Cunha et al., 2023). In addition, previous research also indicated that Experiential Learning learning contributed in increasing student motivation,

participation, and learning achievement (Flores et al., 2021).

In addition, another also support these findings by concluding that experiential learning learning can increase motivation, participation, and student learning achievement (Jacob & Boyter, 2023). Through direct experience and experience based on experience, students tend to be more motivated, actively involved in the learning process, and achieve better achievements.

The results of this study are also in line with Howard Gardner's theory of multiple intelligence, which states that each individual has different intelligence and needs to be given learning in accordance with these intelligence (Gardner, 2011) Learning Experiential Learning based on multiple intelligence can accommodate the diversity of student intelligence and provide learning experiences that are more meaningful and relevant to the needs and characteristics of students.

However, it should be noted that the majority of previous research has been conducted at student samples at higher levels of education, such as universities and high schools. Therefore, it is important to conduct further research that can involve a broader sample of students and expand the scope of the learning context. Research involving students at lower levels of education, such as elementary and secondary schools, will provide more comprehensive insights on the effectiveness of multiple intelligence -based Experiential Learning learning.

In addition, further research also needs to look at the effectiveness of this learning method in a longer period of time. Although previous research findings show a positive impact in increasing the learning interest of MI students, it is not yet known whether the effect can be maintained in a longer period of time. Therefore, longitudinal research involving student monitoring in a longer period of time can provide a better understanding of the effectiveness and resilience of this learning approach.

In addition, research is also necessary to pay attention to different learning contexts. Multiple Intelligence-based Experiential Learning Learning Methods can be applied in various contexts of education, both in the formal school environment, outside of school, or in non-formal education arrangements. Therefore, research that involves variations in the context of learning can provide a more comprehensive understanding of the effectiveness of this method in increasing the

learning interest of MI students in various educational settings.

By conducting further research that involves a broader sample, a longer period of time, and variations in the context of learning, we can gain a deeper insight about the optimal effectiveness and application of Experiential Learning based on multiple intelligence. This can help educators and policy makers in developing better learning strategies and in accordance with the needs of MI students, with the aim of increasing their learning interest in a sustainable manner.

The practical implication of the results of this study is that multiple intelligence -based experiential learning can be an effective learning method of learning to increase the learning interest of MI students. In this case, the teacher can consider the use of this learning method in designing and implementing learning in class.

In addition, multiple intelligence -based experiential learning can also help teachers to maximize student potential and intelligence, as well as provide a more pleasant, interactive, and relevant learning experience with student needs and characteristics.

Theoretically, the results of this study can contribute to the development of learning theories and educational psychology. In this case, this research can prove that multiple intelligence -based learning is able to increase student interest in learning and maximizing the potential of students in dealing with learning materials.

However, keep in mind that this research still has limitations in terms of samples and measurement time. Therefore, greater and representative further research needs to be done to test the effectiveness of experiential learning in a longer period of time and in various learning contexts.

#### 4. Conclusion

Based on the results of the T-test using the non-parametric statistical method, a significant difference is found between the average value of the pre-test and post-test. The negative t value indicates that the average value in post-test is higher than the average value of the pre-test. Therefore, it can be concluded that the program or intervention given to respondents has a significant effect in increasing the value in post-test. Thus, alternative hypotheses (H<sub>A</sub>) can be accepted, which means that learning Experiential Learning based on multiple intelligence is proven effective in increasing student interest in learning.

The results of the study showed several further research suggestions that can be done. First, a more in-depth research was conducted to understand the factors that cause multiple intelligence-based experiential learning to increase post-test values. Furthermore, it is necessary to develop a more varied and creative intervention program in order to meet the needs and characteristics of different students. In addition, the comparison between multiple intelligence-based experiential learning with other learning methods can be done to determine the advantages and disadvantages of each method. In further research, it is also important to involve a larger and representative sample so that the results of the study can be applied widely and generally. Finally, further research involving a longer period of time, such as for one semester or one school year, needs to be done to measure the effectiveness of multiple intelligence -based experimental learning in a broader period of multiple time.

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