

## THE EFFECTIVENESS OF MULTIPLE INTELLIGENCE-BASED QUANTUM LEARNING MODEL ON SOCIAL SKILLS AND SOCIAL STUDIES LEARNING OUTCOMES (A QUASI-EXPERIMENTAL STUDY AT SMP NEGERI 23, 32, AND 41 BANDUNG CITY)

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### ABSTRACT

This research was motivated by the moderate to low achievement of IPS learning outcomes and students' social skills at SMP Negeri 23, 32, and 41 Bandung City. This study aimed to examine the effectiveness of the Multiple Intelligence-based Quantum Learning model in improving students' social skills and IPS learning outcomes. A quantitative method with a quasi-experimental approach and non-equivalent control group design was employed. The subjects were 192 eighth-grade students divided into experimental and control groups. Data were collected through pre-tests, post-tests, and Likert-scale questionnaires. The Independent Sample t-test indicated no significant difference in IPS learning outcomes between students taught using the Multiple Intelligence-based Quantum Learning model and those taught using conventional learning, as the significance value was greater than 0.05. However, the identical mean scores reported for both groups should be rechecked against the raw data to ensure the accuracy of data input and statistical processing. The novelty of this study lies in showing that, although the model did not produce statistically significant differences in cognitive learning outcomes, it provided practical benefits by creating a more active, interactive, and enjoyable IPS learning environment. The model also encouraged student participation, social interaction, and the development of diverse intelligence potentials.

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### INTRODUCTION

National Education has a strategic role in forming quality Indonesian human beings, as mandated in Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System, Article 3. The mandate emphasizes that education is not only oriented toward knowledge mastery, but also toward the development of

students' attitudes, values, social responsibility, creativity, independence, and national character. Therefore, educational innovation is a top priority in achieving the integrity of a nation (Bali & Masulah, 2019). Education is also a continuous and never-ending process that aims to produce a quality generation who upholds cultural values and Pancasila principles (Sujana, 2019). However, this ideal has not been fully reflected in Social Studies (IPS) learning practices, particularly in several junior high schools in Bandung City.

In the context of 21st-century learning, IPS should not merely transfer concepts, but should also develop students' social skills, collaboration, responsibility, critical awareness, and character. This is in line with the Deep Learning approach, which emphasizes Joyful, Meaningful, and Mindful learning, as well as the strengthening of the Eight Dimensions of Graduate Profiles and the Seven Habits of Great Indonesian Children (7 KAIH). Nevertheless, the implementation of IPS learning at SMP Negeri 23, SMP Negeri 32, and SMP Negeri 41 Bandung City still shows a gap between expected learning outcomes and classroom reality. The percentage of students' IPS learning completeness has not fully reached the Learning Objective Completeness Criteria (KKTP) set by the schools. This indicates that IPS learning has not yet been able to optimally support students' cognitive achievement and social development.

The main problem lies in the dominance of conventional learning models that are still teacher-centered. In practice, IPS learning is often delivered through lectures, question-and-answer activities, and individual assignments. This model tends to position students as passive recipients of information, limits opportunities for interaction, and does not provide sufficient space for students to learn according to their different potentials, characteristics, and learning styles. As a result, students' social skills are not optimally developed, as shown by low participation in discussions, weak cooperation in groups, limited responsibility for group tasks, and dependence on teacher direction. Thus, the problem is not only low learning outcomes, but also the failure of conventional learning to create active, collaborative, and meaningful learning experiences.

This condition becomes more critical when viewed from the perspective of Multiple Intelligences theory by Howard Gardner. Students do not have a single form of intelligence, but possess diverse intelligences, such as visual-spatial, verbal-linguistic, interpersonal, musical-rhythmic, naturalist, bodily-kinesthetic, intrapersonal, and logical-mathematical intelligence. Conventional learning that relies heavily on verbal explanation and individual written tasks tends to benefit only certain types of intelligence, while students with other dominant intelligences receive fewer opportunities to demonstrate their potential. Therefore, a learning model is needed that can accommodate students' diverse intelligences while simultaneously encouraging active participation and social interaction.

The Quantum Learning model is considered urgent and relevant to address this gap because it emphasizes the creation of a conducive, enjoyable, meaningful, and participatory learning environment. Quantum Learning was first initiated by Bobbi DePorter and Mike Hernacki, who developed the principles of Dr. Georgi Lozanov, a Bulgarian educator known for suggestology or suggestopedia (Anggraeni & Alpian, 2018). Compared to conventional models, Quantum Learning is more capable of building students' motivation, emotional involvement, interaction, and confidence in learning. Previous research by Edriati et al. (2016) shows that Multiple Intelligences-based Quantum Teaching can improve mathematics learning achievement. Lisnawati et al. (2020) also found that Quantum Learning is effective in reducing students' learning boredom. Furthermore, Basuki Tri Harnoto et al. (2021) showed that the implementation of Quantum Teaching with a Multiple Intelligences approach can increase student involvement in learning.

The integration of Quantum Learning and Multiple Intelligences is therefore not merely an alternative model, but an urgent pedagogical response to the weaknesses of conventional IPS learning in Bandung junior high schools. Quantum Learning provides an active, joyful, and meaningful learning framework, while Multiple Intelligences ensures that learning activities are designed based on students' diverse potentials. This integration allows IPS teachers to create varied learning experiences through discussion, visualization, movement, reflection, collaboration, and

contextual problem-solving. As a result, students are expected not only to understand IPS concepts, but also to develop cooperation, responsibility, communication, and active participation.

Based on this gap, this study focuses on examining the effectiveness of the Multiple Intelligences-based Quantum Learning model on students' social skills and IPS learning outcomes through a quasi-experimental study at SMP Negeri 23, SMP Negeri 32, and SMP Negeri 41 Bandung City. The research problem in this study is whether the Multiple Intelligences-based Quantum Learning model is more effective than conventional learning in improving students' social skills and IPS learning outcomes.

### Method

This research uses a quantitative method because it aims to measure the effectiveness of the Multiple Intelligence-based Quantum Learning Model on social skills and IPS learning outcomes of SMP Negeri 23, 32, and 41 Bandung City students in a systematic and measurable manner. This research uses a quantitative method with a Quasi-Experimental approach, specifically using a non-equivalent control group design. In this design, research subjects or research participants were not selected randomly to be involved in the experimental group and the control group. The research population consisted of approximately 896 grade VIII students covering SMP Negeri 23, 32 and 41 Bandung City who are active in Dapodik and active in IPS learning. This research uses the purposive sampling technique in selecting samples.

The experimental groups, consisting of class 8C at SMPN 23, class 8E at SMPN 32, and class 8B at SMPN 41, with 32 students in each class, received IPS learning using the Multiple Intelligence-based Quantum Learning Model. Meanwhile, class 8D at SMPN 23, class 8F at SMPN 32, and class 8A at SMPN 41, also with 32 students each, were designated as the control groups and followed IPS learning with conventional methods.

The treatment in the experimental group was implemented through the Multiple Intelligence-based Quantum Learning Model in IPS learning, particularly on the topic of conflict and social integration. The treatment followed the TANDUR syntax of Quantum Learning, consisting of Tumbuhkan/Grow, Alami/Experience, Namai/Label, Demonstrasikan/Demonstrate, Ulangi/Repeat, and Rayakan/Celebrate. Each stage was modified to accommodate students' various intelligences, including linguistic, logical-mathematical, visual-spatial, interpersonal, intrapersonal, kinesthetic, musical, and naturalistic intelligence.

In the Grow stage, the teacher stimulated students' motivation and curiosity by connecting the topic of social conflict with real-life situations, such as peer conflict, differences of opinion in groups, or social problems in the community. In the Experience stage, students were given case studies related to conflict and social integration. They worked in groups to identify the causes of conflict, the parties involved, the impacts of conflict, and possible solutions. This activity encouraged interpersonal, linguistic, and logical-mathematical intelligence through discussion, argumentation, and cause-and-effect analysis.

In the Label stage, the teacher guided students to formulate key IPS concepts, such as social conflict, types of conflict, causes of conflict, accommodation, assimilation, and social integration. Students were encouraged to create concept maps, comparison tables, or visual summaries to support visual-spatial intelligence. In the Demonstrate stage, students presented their understanding through group presentations, role-play, posters, or case analysis. These activities allowed students with kinesthetic, linguistic, visual, and interpersonal strengths to express their understanding more actively.

In the Repeat stage, the teacher strengthened students' understanding through question-and-answer sessions, short quizzes, summaries, and individual reflection. Students were asked to restate important concepts and relate them to daily life. Finally, in the Celebrate stage, the teacher gave appreciation for students' participation, cooperation, confidence, and learning achievements through praise, group rewards, or positive feedback. This stage aimed to increase students' motivation, self-confidence, and engagement in learning.

To ensure that the treatment was implemented in a controlled manner, the same learning tools were used in all experimental classes, including teaching modules, student worksheets, learning media, observation sheets, and time allocation. The main difference between the experimental and control groups was the learning model applied. The experimental group received IPS learning through the Multiple Intelligence-based Quantum Learning Model, while the control group received conventional learning through lectures, question-and-answer activities, and assignments. Therefore, the effectiveness of the treatment could be measured objectively through the comparison of pre-test, post-test, questionnaire, and classroom observation results.

Data collection was carried out using various instruments designed to obtain accurate, relevant, and in-depth information. The main instrument used is the Pre-test and Post-test. The test was compiled in the form of 20 multiple choice questions designed to assess the mastery of basic IPS concepts. In addition to written tests, this research also used a questionnaire to explore subjective aspects of learning such as interest, motivation, self-confidence, and student involvement. This questionnaire was compiled in the form of a Likert scale (1-5) with 42 statement items reflecting various dimensions and indicators of each variable. Class observation was also used to monitor the dynamics of learning in the classroom, recording interactions between students during the application of the model.

Data analysis was carried out with a quantitative approach to measure the effectiveness of the model. Data obtained from questionnaires regarding learning effectiveness and student involvement were analyzed using a descriptive statistical approach, including the calculation of the Mean to determine the tendency of students in responding to each statement. Standard Deviation was calculated to determine the distribution of data and the level of consistency of responses. To determine the development of understanding of student learning outcomes, normalized gain score (N-Gain) was used to compare pre-test and post-test data. Normality testing was carried out using the Shapiro-Wilk test, considering the sample size. The homogeneity of variance test was conducted using Levene's Test with a significance level of 0.05. Finally, hypothesis testing was carried out using the independent sample t-test with a significance level of 0.05.

## RESULTS AND DISCUSSION

### General Overview of the Research

This research was conducted at three public junior high schools located in the Andir District, Bandung City, West Java Province, namely SMP Negeri 23 Bandung, SMP Negeri 32 Bandung, and SMP Negeri 41 Bandung. These three schools were chosen because they have relatively the same environmental characteristics, are located within the same educational area, and have relevant social context links with the focus of the research.



Figure 1. Research Location 1 SMP Negeri 23 Bandung

The first research location is SMP Negeri 23 Bandung, located at Jalan Raya Arjuna No. 20–22, Ciroyom Village, Andir District, Bandung City. This school is one of the public schools under the auspices of the Bandung City Education Office. SMP Negeri 23 Bandung was established on July 3, 1979, and has 984 students guided by 42 professional educators. Institutionally, SMP Negeri 23 Bandung has a commitment to creating superior students through the "MANTAP" vision, which is to realize students who are independent, responsible, religious, achievement-oriented, and have an environmental culture.



Figure 2. Research Location 2 SMP Negeri 32 Bandung

The second research location is SMP Negeri 32 Bandung, located at Jalan Raya Arjuna No. 18, Ciroyom Village, Andir District, Bandung City. SMP Negeri 32 Bandung was established on September 24, 1993, with 701 students guided by 41 educators. This school has a strategic role in supporting education in the Andir region and is in close proximity to other schools, creating a competitive and collaborative academic atmosphere.



Figure 3. Research Location 3 SMP Negeri 41 Bandung

The third research location is SMP Negeri 41 Bandung, located at Jalan Arjuna No. 18, Ciroyom Village, Andir District, Bandung City. This school was established in 1994 and has been accredited A (Very Good) with a score of 91. SMP Negeri 41 Bandung has 1,010 students with diverse social, economic, and cultural backgrounds. Geographically, SMP Negeri 41 Bandung is in a dynamic environment, close to market areas and community settlements, and has access to public transportation such as the train station. The school has the vision: "Realizing students who are Religious, Superior, and Environmental Cultured," which is described in the **ARJUNA** character concept (Appreciative, Religious, Champion, Nationalist, and Care for the Environment).

### Description of Respondent Data

This study involved two classes as subjects, namely the experimental class and the control class. The experimental class consisted of classes 8C, 8E, and 8B, totaling 32 students, and utilized the application of the Multiple Intelligence-Based Quantum Learning model in the learning process. Meanwhile, the control class consisted of classes 8D, 8F, and 8A, totaling 32 students, following conventional learning. The classes at the three research locations have comparable characteristics in terms of student numbers and academic backgrounds, making them suitable as samples in this research.

### Instrument Validity and Reliability Results

Before the instruments were used as data collection tools, testing was first conducted on the quality of the instruments to ensure that each statement was able to measure the studied variables accurately and consistently. Instrument testing in this study included validity and reliability tests on the Multiple Intelligence-based Quantum Learning model variable (X) and the Social Skills and IPS Learning Outcomes variables (Y).

Validity tests were conducted using the Pearson Product Moment correlation technique with a significance level of 5% ( $\alpha = 0.05$ ). An item is declared valid if the r-calculated value is greater than the r-table (0.207) or has a significance value (Sig.) smaller than 0.05.

**Table 1.** Validity Test of Variable X

Item	r hitung	Sig.	Keterangan
<i>VARX1</i>	0,655	0,000	<i>Valid</i>
<i>VARX2</i>	0,534	0,000	<i>Valid</i>
<i>VARX3</i>	0,571	0,000	<i>Valid</i>
<i>VARX4</i>	0,655	0,000	<i>Valid</i>
<i>VARX5</i>	0,534	0,000	<i>Valid</i>
<i>VARX6</i>	0,563	0,000	<i>Valid</i>
<i>VARX7</i>	0,655	0,000	<i>Valid</i>
<i>VARX8</i>	0,534	0,000	<i>Valid</i>
<i>VARX9</i>	0,600	0,000	<i>Valid</i>
<i>VARX10</i>	0,655	0,000	<i>Valid</i>
<i>VARX11</i>	0,534	0,000	<i>Valid</i>
<i>VARX12</i>	0,674	0,000	<i>Valid</i>
<i>VARX13</i>	0,655	0,000	<i>Valid</i>
VARX14	0,534	0,000	Valid
VARX15	0,674	0,000	Valid
VARX16	0,655	0,000	Valid

Item	r hitung	Sig.	Keterangan
VARX17	0,534	0,000	Valid
VARX18	0,674	0,000	Valid
VARX19	0,655	0,000	Valid
VARX20	0,534	0,000	Valid
VARX21	0,611	0,000	Valid
VARX22	0,655	0,000	Valid
VARX23	0,534	0,000	Valid
VARX24	0,569	0,000	Valid

Based on the test results, it was found that all items in variable X, namely 24 statement items (VARX1 to VARX24), had r-calculated values ranging from 0.534 to 0.674. Additionally, all items had a significance value of 0.000, which is smaller than 0.05. Therefore, it can be concluded that all statement items for the Multiple Intelligence-based Quantum Learning model variable are declared valid.

Table 2. Validity Test of Variable Y1

Item	r hitung	Sig.	Keterangan
<i>VARY1.1</i>	0,613	0,000	<i>Valid</i>
<i>VARY1.2</i>	0,511	0,000	<i>Valid</i>
<i>VARY1.3</i>	0,721	0,000	<i>Valid</i>
<i>VARY1.4</i>	0,547	0,000	<i>Valid</i>
<i>VARY1.5</i>	0,528	0,000	<i>Valid</i>
<i>VARY1.6</i>	0,684	0,000	<i>Valid</i>
<i>VARY1.7</i>	0,561	0,000	<i>Valid</i>
<i>VARY1.8</i>	0,542	0,000	<i>Valid</i>
<i>VARY1.9</i>	0,630	0,000	<i>Valid</i>

The validity test results for variable Y1 showed that all 9 statement items (VARY1.1 to VARY1.9) had r-calculated values ranging from 0.511 to 0.721. All items also had a significance value of 0.000.

Table 3. Validity Test of Variable Y2

Item	r hitung	Sig.	Keterangan
<i>VARY2.1</i>	0,422	0,000	<i>Valid</i>
<i>VARY2.2</i>	0,399	0,000	<i>Valid</i>
<i>VARY2.3</i>	0,590	0,000	<i>Valid</i>
<i>VARY2.4</i>	0,224	0,034	<i>Valid</i>
<i>VARY2.5</i>	0,455	0,000	<i>Valid</i>
<i>VARY2.6</i>	0,524	0,000	<i>Valid</i>
<i>VARY2.7</i>	0,432	0,000	<i>Valid</i>
<i>VARY2.8</i>	0,431	0,000	<i>Valid</i>
<i>VARY2.9</i>	0,580	0,000	<i>Valid</i>

The validity test results for variable Y2 showed that all 9 statement items (VARY2.1 to VARY2.9) had r-calculated values ranging from 0.224 to 0.590. All items had significance values smaller than 0.05, ranging from 0.000 to 0.034.

Reliability testing was conducted using the Cronbach's Alpha technique. For variable X, a Cronbach's Alpha value of 0.763 was obtained. For variable Y1, a value of 0.745 was obtained. For variable Y2, a value of 0.685 was obtained. All values are above the minimum threshold of 0.60, indicating that the instruments have good internal consistency and are reliable.

### Descriptive Analysis Results

Descriptive analysis was performed to describe and summarize the research data.

Table 4. Descriptive Statistics of Variable X

Descriptive Statistics						
	N	Minimum	Maximum	Sum	Mean	Std. Deviation
TOTALVARX	90	46	108	7777	86.41	13.882
Valid N (listwise)	90					

Based on the descriptive analysis for variable X, the average value (mean) was 86.41 with a minimum value of 46 and a maximum of 108. This mean value indicates that generally, the score for variable X is in a fairly high category.

Table 5. Descriptive Statistics of Variable Y1

Descriptive Statistics						
	N	Minimum	Maximum	Sum	Mean	Std. Deviation
TOTALVARY1	90	12	45	3171	35.23	6.146
Valid N (listwise)	90					

For variable Y1, the mean value obtained was 35.23 with a minimum of 12 and a maximum of 45. This indicates that variable Y1 is generally in a fairly high category.

Table 6. Descriptive Statistics of Variable Y2

Descriptive Statistics						
	N	Minimum	Maximum	Sum	Mean	Std. Deviation
TOTALVARY2	90	19	42	2958	32.87	4.577
Valid N (listwise)	90					

For variable Y2, the mean value obtained was 32.87 with a minimum of 19 and a maximum of 42. This indicates that variable Y2 is also in a fairly high category.

### Pre-test and Post-test N-Gain Results

To determine the development of students' learning outcome understanding, pre-test and post-test data were analyzed using normalized gain scores.

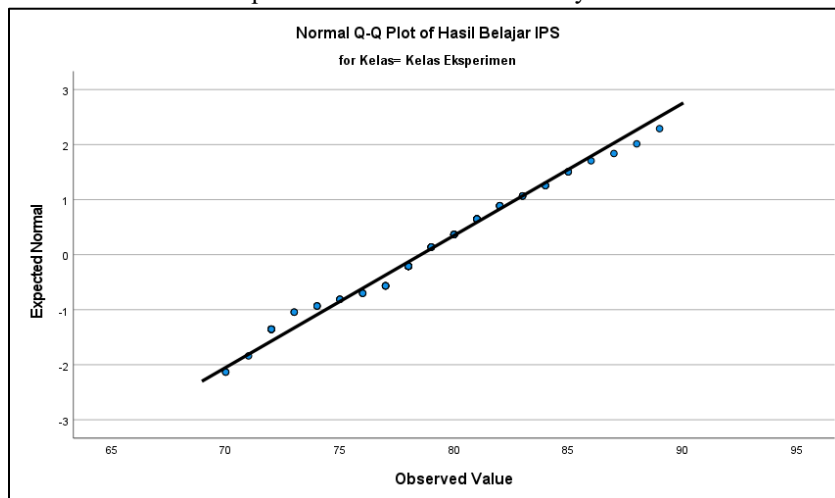
Table 7. Descriptive Statistics of Pre-test and Post-test

Descriptive Statistics						
	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Pre Test Kontrol	90	50	83	67.83	7.230	52.275
Post Test Kontrol	90	70	89	78.54	4.168	17.374
Pre Test Eksperimen	90	50	83	67.83	7.230	52.275
Post Test Eksperimen	90	70	89	78.54	4.168	17.374
Valid N (listwise)	90					

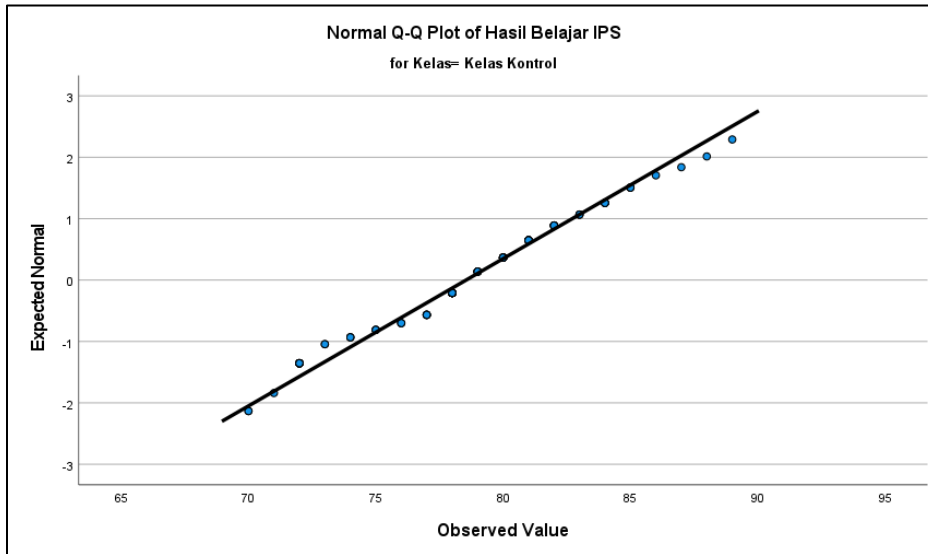
In the control class post-test, the mean increased to 78.54 from a pre-test mean of 67.83. In the experimental class, the pre-test mean was 67.83, and the post-test mean increased to 78.54. This indicates an increase in learning outcomes for both groups.

### Normality and Homogeneity Tests

The normality test was used to determine whether the data obtained was normally distributed. Based on the Shapiro-Wilk test, a significance value of 0.058 was obtained for the control class and 0.058 for the experimental class. Since these values are greater than 0.05 (Sig. > 0.05), it can be concluded that the IPS learning outcome data for both the control and experimental classes are normally distributed.

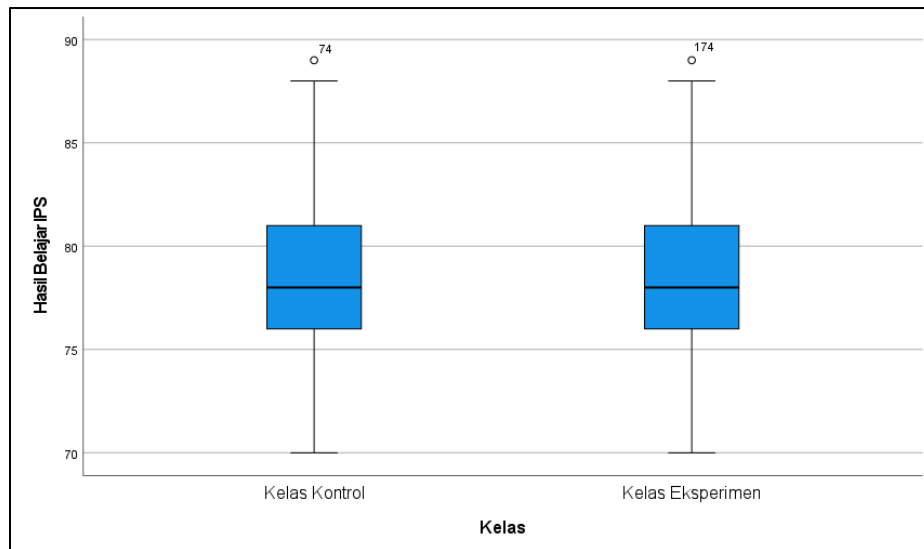


**Figure 4.** Normal Q-Q Plot of IPS Learning Outcomes for Experimental Class



**Figure 5.** Normal Q-Q Plot of IPS Learning Outcomes for Control Class

Visually, the Q-Q Plots show data points spreading around the diagonal line and following its direction, indicating a normal distribution.



**Figure 6.** Boxplot Comparison of IPS Learning Outcomes

The homogeneity of variance test using Levene's test showed a significance value of 1.000. Because this value is greater than 0.05 (Sig. > 0.05), it can be concluded that the variance of the IPS learning outcome data between the control and experimental classes is homogeneous.

### Hypothesis Testing

Hypothesis testing was conducted with a significance level of 0.05. Based on the t-test results, the mean IPS learning outcome for the control class was 78.54 and for the experimental class was 78.54. Because these values are the same, there is no difference between the IPS learning outcomes of the two groups.

**Table 8.** Independent Samples t-test Results

Group Statistics					
	Kelas	N	Mean	Std. Deviation	Std. Error Mean
Hasil Belajar IPS	Kelas Kontrol	90	78.54	4.168	.439
	Kelas Eksperimen	90	78.54	4.168	.439

The Independent Sample t-test showed a significance value (Sig. 2-tailed) of 1.000, which is greater than 0.05. Therefore, there is no significant difference between the IPS learning outcomes of students in the experimental and control classes.

### Discussion

#### Effectiveness of Multiple Intelligence-Based Quantum Learning Model

Based on the data analysis, the mean IPS learning outcome for both classes was 78.54. Descriptively, there is no difference in the average learning outcomes between the two groups. Statistical testing confirmed this, as the significance value of 1.000 > 0.05 led to the conclusion that the Multiple Intelligence-based Quantum Learning model has not yet shown significant effectiveness in improving IPS learning outcomes compared to conventional learning.

The absence of a significant difference in IPS learning outcomes does not necessarily indicate that the Multiple Intelligence-based Quantum Learning model was ineffective in the learning process. This finding needs to be interpreted more carefully because learning outcomes measured through written tests often reflect cognitive achievement in a narrow sense, while the model applied in this study emphasizes broader learning experiences, including interaction, participation, confidence, collaboration, and student engagement. Therefore, the similarity of post-test scores between the experimental and control groups may occur because the instrument used was more sensitive to measuring conceptual mastery than to capturing changes in learning behavior and social participation. In other words, students in the experimental class may have experienced meaningful improvement in the learning process, but this improvement was not fully represented in the multiple-choice test scores.

Another possible explanation is related to the duration of the treatment. The Multiple Intelligence-based Quantum Learning model requires sufficient time for students to adapt to varied learning activities, such as group discussion, role-play, visual mapping, reflection, presentation, and collaborative problem solving. If the treatment was conducted within a relatively limited period, the model may have been able to improve students' classroom activeness and social interaction, but not yet strong enough to produce a statistically significant difference in cognitive test scores. This is reasonable because changes in learning outcomes, especially in IPS concepts such as conflict and social

integration, require repeated practice, conceptual reinforcement, and continuous exposure to contextual learning situations.

### **Differences in Social Skills and Learning Outcome Improvement**

Based on the analysis at SMPN 23, SMPN 32, and SMPN 41 Bandung, there was no significant difference in the improvement of IPS learning outcomes between the two groups. Both the experimental group using the Multiple Intelligence-based Quantum Learning model and the control group using conventional learning showed balanced improvements. Regarding social skills, improvements also occurred in both groups, but the increase did not show a significant difference between the experimental and control groups. This indicates that the learning model used has not been able to provide a noticeably different impact compared to conventional learning in improving students' social skills.

This condition shows that the increase in social skills and classroom participation should be understood as a practical effect of the learning process, even though it was not strong enough to produce a statistically significant difference. In the experimental class, the Multiple Intelligence-based Quantum Learning model provided students with more opportunities to interact, express opinions, work in groups, and demonstrate understanding through various activities. These activities directly support the development of social skills, especially communication, cooperation, empathy, and confidence. However, the improvement in these aspects may not immediately appear in the form of higher test scores because social skills and cognitive learning outcomes are measured through different indicators.

This also explains why practical aspects of learning, such as student activeness, cooperation, communication, and classroom participation, could improve even though the test scores remained the same. The Quantum Learning model based on Multiple Intelligence provides more opportunities for students to express their understanding through different modes of learning. Students who may not be dominant in written tests can still show progress through discussion, visual representation, role-play, or group presentation. Thus, the model's impact appears more clearly in the learning process than in the final test score.

### **Magnitude of the Multiple Intelligence-Based Quantum Learning Model Effectiveness**

Although statistical differences were not significant, the application of the Multiple Intelligence-based Quantum Learning model provided an important contribution to the IPS learning process by creating an atmosphere that was more active, varied, and student-centered. Practically, this model significantly influenced the quality of the learning process. This is seen from more active student involvement, increased social interaction, and the opportunity for students to develop their various intelligence potentials. Thus, it can be concluded that overall, the model has a large influence on improving the quality of the learning process, even if this improvement is not yet significantly reflected in quantitatively measured learning outcomes.

Compared with previous research, the findings of this study show both similarity and difference. Previous studies generally reported that Quantum Learning and Multiple Intelligence-based approaches can improve students' motivation, participation, and learning achievement when implemented consistently and over a sufficient period. However, in this study, the improvement was more visible in practical classroom aspects than in statistically significant learning outcomes. This difference may be caused by several factors, including the relatively short treatment duration, the limited sensitivity of the multiple-choice test instrument, and the possibility that both experimental and control classes had similar initial academic abilities. Therefore, the non-significant statistical result should not be interpreted as a total failure of the model, but rather as an indication that the model's strongest contribution in this research lies in improving the quality of the learning process, while its effect on cognitive learning outcomes requires longer implementation and more varied assessment instruments.

## CONCLUSION

Based on the results of research and data analysis regarding the application of the Multiple Intelligences-based Quantum Learning model on social skills and IPS learning outcomes of students at SMPN 23, SMPN 32, and SMPN 41 Bandung City, it can be concluded as follows: First, the application of the Multiple Intelligences-based Quantum Learning model in IPS learning has not shown significant effectiveness in improving student learning outcomes compared to conventional learning. This is shown by the results of hypothesis testing which shows no significant difference between the experimental class and the control class. Second, there is no significant difference in the improvement of social skills and IPS learning outcomes between students who follow learning using the Multiple Intelligences-based Quantum Learning model and students who follow conventional learning. Both groups showed a relatively balanced increase.

Third, although statistically it does not show a significant influence, the application of the Multiple Intelligences-based Quantum Learning model provides a large enough contribution practically in improving the quality of the learning process. This model is able to create a more active, interactive, and pleasant learning atmosphere, and encourages student involvement in the learning process, especially in the development of social skills.

This finding implies that the success of IPS learning should not be measured only through cognitive test scores, but also through the quality of classroom interaction, student participation, communication, cooperation, and confidence. Therefore, IPS teachers are encouraged to apply the Multiple Intelligences-based Quantum Learning model as an alternative learning strategy to strengthen students' social learning experiences, especially in topics that require discussion, perspective-taking, problem solving, and social reflection.

From a practical and policy perspective, schools need to provide support for teachers through training, collaborative lesson planning, and the development of learning instruments that assess not only cognitive achievement but also social skills and learning engagement. The implementation of this model does not have to burden teachers with the demand to immediately increase test scores. Instead, teachers can apply it gradually by integrating simple activities such as group discussions, role-play, visual mapping, reflection journals, peer feedback, and appreciation activities into IPS lessons. In this way, the model can be used realistically in classroom practice while still supporting the goals of the curriculum.

For future researchers, it is recommended to conduct studies with a longer treatment duration, a larger and more diverse sample, and more sensitive assessment instruments. Future research should combine multiple-choice tests with performance-based assessment, observation rubrics, interviews, portfolios, and social skills scales so that the impact of the model can be measured more comprehensively. Further studies may also compare the effectiveness of this model across different IPS topics, school contexts, and student characteristics to determine under what conditions the Multiple Intelligences-based Quantum Learning model can produce stronger effects on both social skills and cognitive learning outcomes.

## REFERENCES

- Assyakurrohim, D., Ikham, D., Sirodj, R. A., & Afgani, M. W. (2023). *Metode Studi Kasus dalam Penelitian Kualitatif Jurnal Pendidikan Sains dan Komputer Metode Studi Kasus dalam Penelitian Kualitatif*. March. <https://doi.org/10.47709/jpsk.v3i01.1951>
- Basuki Tri Harnoto, Rahyu Setiani, B Widuroyekti, Dwi Sambada, Dwikoranto, & Lindsay N. Bergsma. (2021). The Implementation of the Quantum Teaching Strategy with Multiple Intelligence Approach at State Senior High School. *IJORER: International Journal of Recent Educational Research*, 2(1), 73–85. <https://doi.org/10.46245/ijorer.v2i1.78>
- Bobbi de porter, mark reardon, sarah singer nourei. (2000). *QUANTUM TEACHING* (3 ed.). Kaifa Bandung.

- Conference, I., Science, A. S., Hendrawan, J. H., Program, S. E., & Cimahi, S. P. (2024). *SMART COLLABORATION : With students returning to the classroom , personalized , student-centered learning is possible .( Pimdee et al ., 2024 ). 01(01), 335–341.*
- Cresswell, J. W. (2018). *30 Keterampilan Esensial untuk Peneliti Kualitatif*. Pustaka Pelajar.
- Cresswell, J. W. (2019). *Reasearch Design, Pendekatan Kualitatif, Kunatitatif, dan Campuran* (A. Fawaid (Ed.)). Pustaka Pelajar.
- Creswell, J. W. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed. (Ed.)). Sage Publications.
- Dan, P., Kecerdasan, I., Pondok, D. I., Daarul, P., & Kotabumi, K. (2025). *Lughotuna : Jurnal Pendidikan Bahasa Arab ( MULTIPLE INTELLEGENCE ) DI PONDOK PESANTREN DAARUL KHAIR KOTABUMI. 2, 1–11.*
- Djalil Bisri. (n.d.). ISSN: 1693 – 6922 Paradigma, Prinsip dan Aplikasi..... *Jurnal Lentera, 1693–6922, 28–36.*
- Efrizal, D., Safitri, N., Harafilo, S. P., Lestari, L., & Fitri, Y. (2025). *MENINGKATKAN MOTIVASI AKADEMIK SISWA DI SMP NEGERI 6 KOTA BENGKULU.*
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2024). (2024). *Multivariate Data Analysis* (9th ed.). In *Multivariate Data Analysis (9th ed.)* (1 ed.).
- Irfan Abraham, Y. S. (2022). *DESAIN KUASI EKSPERIMEN DALAM PENDIDIKAN : LITERATUR. 8(3), 2476–2482.* <https://doi.org/10.36312/jime.v8i3.3800/http>
- Jual, H., Di, P., Sindang, D., Kec, K., & Barat, R. (2023). *1, 2 1,2. 3(1), 123–128.*
- Lisnawati, L., Suryaningsih, S., & Muslim, B. (2020). Penerapan Model *Quantum Learning* Sebagai Upaya Menurunkan Kejenuhan Belajar Siswa Dalam Mempelajari Kimia. *Jambura Journal of Educational Chemistry, 2(1), 18–27.* <https://doi.org/10.34312/jjec.v2i1.2731>
- Ma'ruf Zahran. (2019). Q Uantum Learning : Spesifikasi , Prinsip , Dan Faktor. *JRTIE: Journal of Research and Thought of Islamic Education, 2(2), 141–157.*
- Maulidi, A. (2022). Implementasi Model Pembelajaran *Quantum Learning* dalam Meningkatkan Motivasi Belajar. *Fakta: Jurnal Pendidikan Agama Islam, 2(1), 13.* <https://doi.org/10.28944/fakta.v2i1.698>
- Mea, F., Tinggi, S., Kristen, A., Bangsa, A., Guru, K., Guru, I., & Dinamis, K. (2024). *KREATIVITAS DAN INOVASI GURU DALAM MENCIPTAKAN. 4(3), 252–275.*
- Mushfi, M., Iq, E., Aisyah, S., Nurul, U., & Probolinggo, J. (n.d.). *QUANTUM LEARNING . 184–195.*
- Porter, bobbi de. (2000). *Quantum Learning* (IV). Kaifa.
- Rudiana, H., Purba, M. A., & Hendrawan, J. H. (2025). *Pengaruh Pendekatan Quantum Learning Berbasis Multiplei Intelligences terhadap Keterampilan Sosial dan Prestasi Belajar IPS di SMP Negeri 23 Bandung. 01(05), 1547–1552.*