

Transformation in Learning: Interactive and Lecture Methods in Buddhist Education and Ethics at Metta Maitreya Junior High School

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ABSTRACT

This study aimed to evaluate the effect of varied and interactive learning methods, such as group discussions, role-playing, and multimedia tools, compared to traditional, lecture-based methods on student learning outcomes in Buddhist and Ethics Education for junior high school students. An experimental design was used with two groups: a control group that followed traditional, lecture-based instruction and an experimental group that applied these varied and interactive methods. The study involved 60 students, evenly divided between the two groups. Research instruments included questionnaires to assess student engagement and motivation, interviews to provide qualitative insights into student experiences, and essay tests to evaluate student learning outcomes. The results indicated that the experimental group achieved a higher average score (85.20) compared to the control group (74.50), with a t-test revealing a significant difference ($p < 0.01$) and a large effect size (Cohen's $d = 1.95$), indicating a substantial impact of the interactive methods. The study concluded that varied and interactive learning methods demonstrate greater effectiveness in improving student learning outcomes compared to traditional, lecture-based methods. These findings support the use of more dynamic teaching strategies in educational settings, though the study's limitations include a small sample size and lack of longitudinal data. Future research should expand the sample and incorporate long-term analysis to better understand the lasting effects of these methods.

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1. INTRODUCTION

The incorporation of Buddhist and ethical education in secondary schools is of utmost importance in shaping pupils' moral character and ethical comprehension. It not only establishes a spiritual basis but also fosters the cultivation of analytical thinking and fundamental life principles, which are becoming more important in light of rapid societal transformations and rising academic expectations (Chowdhury, 2016; Grigoropoulos, 2019; Sahin, 2018). Despite the acknowledged need for this education, current

instructional approaches, especially those that rely heavily on conventional lectures, sometimes fall short in effectively involving students or promoting profound understanding. Conventional approaches prioritise the passive transfer of information, which may have a detrimental effect on student motivation and knowledge acquisition (Farashahi & Tajeddin, 2018; Hartikainen, Rintala, Pylväs, & Nokelainen, 2019; Huang et al., 2020). Efficient learning techniques should not only convey academic knowledge but also foster students' character and integrity, indicating the need for well-crafted pedagogical strategies that guarantee a deeper comprehension and assimilation of ethical principles (Dakhi, Murniarti, Boiliu, & Masful, 2019; Lotulung, Ibrahim, & Tumurang, 2018).

The initial observations reveal significant variability in student learning outcomes. Out of 30 students, 25 (83.33%) scored below the minimum competency criteria (KKM) of 80, while only 5 students (16.67%) met or exceeded this threshold. This data highlights a considerable gap in student achievement, suggesting that the current lecture-oriented teaching method is not effectively supporting most students in reaching the required standards. Specifically, in the subjects of Buddhist Education and Ethics, a majority of students failed to achieve the KKM, pointing to a need for a reassessment of the instructional approach. Implementing more diverse and interactive teaching methods could enhance student comprehension and performance (Jacob & Centofanti, 2023; Novawan et al., 2020). This analysis provides a critical foundation for educators and schools to design targeted interventions aimed at improving the quality of education and fostering better academic results among students (Corcoran et al., 2018; de Boer et al., 2018; Madani, 2019).

Some of the main problems identified in the teaching of Buddhism and Ethics for junior high school students include the use of less varied learning methods, often dominated by monotonous lectures. This method can result in students' boredom and lack of interest in learning. Active involvement of students in discussions and group activities is very important for understanding the material in depth; however, currently this involvement is lacking. In addition, methods that do not take into consideration students' variations in learning styles, such as visual, auditory, and kinesthetic, can also hinder their understanding of the material. The lecture method tends to make students passive listeners, which can cause boredom and reduce learning motivation, and often does not pay attention to students' various learning styles. Limitations in developing critical and analytical thinking skills, as well as a lack of space for developing social and collaborative skills, are other weaknesses. In addition, the lecture method does not pay special attention to students who have learning difficulties, resulting in some students being left behind. Therefore, although useful in conveying information, this method needs to be complemented or replaced with a more interactive and varied learning approach to achieve optimal learning outcomes.

Extensive data exists to substantiate the advantages of using a wider range of interactive teaching approaches. Empirical evidence has shown that the use of group discussions, role-playing, and technology-enhanced activities may greatly raise student involvement, motivation, and understanding of the subject matter (Chen et al., 2018; Jensen, Holt, Sowards, Heath Ogden, & West, 2018; Vercellotti, 2018). Furthermore, learner-centred methodologies such as problem-based learning and collaborative projects promote active involvement, cultivate analytical thinking, and enable students to build their own comprehension, resulting in increased involvement and improved learning results (Hsbollah, H. M., & Hassan, 2022; Syahfutra, 2019; Wijnia, Noordzij, Arends, Rikers, & Loyens, 2024). In addition, this method reduces the boredom that often occurs in monotonous lecture methods, so that each student can learn in the most effective way for them, ensuring more optimal and relevant learning outcomes for real-world challenges (Farashahi & Tajeddin, 2018; Lotulung et al., 2018). Not only can these techniques alleviate the monotony often linked to lectures, but they also foster more interactive and inclusive learning environments. Notwithstanding the increasing fascination with diverse and participatory learning approaches, there is a scarcity of research that explicitly examines Buddhist and ethical education at the junior high school level, especially in Indonesia. The efficacy of interactive and adaptive teaching methods in moral and ethical education is substantiated by the research conducted by Teng et al. (2023) and Nurdiana (2023). However, it is important to note that these studies mostly concentrate on broad topics, therefore emphasising the need for more targeted enquiries in the field of Buddhist education.

The objective of this research is to fill this void by investigating the influence of interactive and student-centred learning approaches on student achievements in Buddhist and ethical education. Through an examination of strategies like group activities, problem-based learning, and technology-enhanced teaching, the study aims to provide fresh perspectives on the successful implementation of these approaches in Buddhist education. It is anticipated that the results would provide useful suggestions for enhancing the quality of Buddhist and ethical education, enabling students to acquire the abilities and understanding required to tackle scholastic obstacles and fulfil the ethical expectations of modern society.

2. METHODS

This study used an experimental design that included both control and experimental groups, namely a pre-test/post-test control group design. We chose this methodology to evaluate the effectiveness of diverse and interactive learning approaches in the field of Buddhist education and ethics, comparing them to conventional lecture-based approaches. The research included both pre- and post-tests to evaluate the changes in student learning outcomes before and after the treatments. This methodology enabled a precise and quantifiable comparison of the effects of various teaching methods.

We used a purposive sample technique to ensure that the chosen participants were representative of Grade IX students at Metta Maitreya Middle School. We selected a sample of sixty students and equally divided them into two groups: 30 individuals in the control group and 30 individuals in the experimental group. We chose to prioritise Grade IX kids due to their crucial academic phase, during which the capacity to comprehend intricate materials and cultivate critical thinking abilities becomes increasingly significant. We classified this grade level as a critical juncture in secondary education, where the efficacy of cutting-edge instructional approaches may have the greatest influence. Furthermore, we evenly distributed the control and experimental groups in terms of demographic features, including age and gender. The students in both groups were between 14 and 15 years old, and there was an equal number of male and female participants. The purpose of this demographic balancing was to mitigate any possible biases that may impact the results.

All participants adhered to a consistent standard curriculum that included Buddhist education and ethics as fundamental disciplines, ensuring a standardized educational foundation for both groups. The assessments were homogeneous, reducing the impact of confounding factors and ensuring students had a consistent basis in the studied topics, thereby facilitating a more reliable evaluation of the teaching approaches. While the experimental group experienced diverse and interactive learning approaches like group discussions, role-playing, and problem-based learning, the control group received conventional lecture-based training. We conducted an evaluation of the treatments' efficacy in enhancing student learning outcomes by comparing the pre-test and post-test data from both groups.

The study used three primary tools: questionnaires, interviews, and essay examinations, all carefully designed and evaluated for reliability and validity. The proposed questionnaire aimed to assess student participation, motivation, and impressions of the learning methodologies. We modified the items from previously validated instruments in educational psychology to ensure the questionnaire's applicability to the study's emphasis on Buddhist education and ethics. We conducted a trial phase of the questionnaire with a small cohort of 10 students from a different grade level before full implementation to identify any issues related to phrasing or language understanding. Cronbach's alpha verified the questionnaire's reliability after slight modifications, yielding a commendable internal consistency measurement of 0.85.

Semi-structured interviews with two instructors specialising in Buddhist and ethics education supplemented the questionnaire. The purpose of these interviews was to gather qualitative perspectives on the practical difficulties associated with implementing both conventional and interactive teaching approaches. We established the interview process by incorporating relevant topics from current literature and tested it with another instructor to improve the clarity and coherence of the questions. The interviews' feedback offered a deeper understanding of how various approaches affect classroom dynamics and student involvement.

We specifically designed this essay exam to assess student learning outcomes by directly evaluating their ability to use critical thinking and comprehend Buddhist and ethical teachings. We engaged subject matter experts throughout the test item production process to ensure the authenticity of the content. The examination consisted of open-ended questions that required pupils to use acquired ideas in practical situations, thereby evaluating not only the retention of information but also their analytical capability. Using a standardised rubric, two independent raters assessed the essay exams, resulting in an inter-rater agreement rate of 92%, which supported the dependability of the scoring procedure.

Putting these quantitative and qualitative studies together gave a full picture of how well different and interactive ways of learning work compared to traditional lecture-based teaching. Through the implementation of instrument piloting and the assurance of high reliability and validity, the research successfully generated strong results pertaining to the influence of teaching styles on student engagement and learning outcomes..

The data collection technique involved distributing questionnaires to 60 class IX students, conducting interviews with two teachers, and collecting essay test results from students. Questionnaire data was collected to get a general idea of students' perceptions of learning methods, while interview data provided in-depth qualitative information. Essay test results are used to measure student academic achievement. The questionnaire grid for students is presented in table 2.

Table 1. Student Experience Questionnaire with Varied and Interactive Learning Methods

No.	Statement	Scale			
		1	2	3	4
Student Experiences with Learning Methods					
1	Varied learning methods make lessons more interesting.				
2	I feel more involved in the lesson when the teacher uses interactive methods.				
3	I often ask questions during class discussions using interactive methods.				
Engagement and Motivation					
4	Group discussions helped me better understand the lesson material.				
5	The use of teaching aids in learning helps me understand concepts better.				
6	I am more enthusiastic about learning when teachers use various interactive techniques.				
7	Varied learning methods motivate me to study harder.				
8	I feel more satisfied with the way teachers teach using interactive methods.				
9	I enjoy lessons more with varied learning methods.				
Effectiveness of Varied and Interactive Learning Methods					
10	I felt the interactive method helped me understand the material more deeply.				
11	Project-based learning helps me apply theory to practice.				
12	The variety in teaching methods helps me see the material from different perspectives.				
13	Practical activities in class make it easier for me to remember the material.				
14	Varied learning gives me the opportunity to learn in different ways.				
15	Varied and interactive methods increase my independence in learning.				

2.1 Questionnaire Validity

The validity of the questionnaire is measured by looking at the correlation between each item and the total score. Pearson correlation is used to determine how well each item represents the construct being measured.

Table 2. Validity Item

Item	Pearson Correlation with Total Score
1	0.72
2	0.75
3	0.68
4	0.70
5	0.73
6	0.74
7	0.71
8	0.76
9	0.69
10	0.77
11	0.72
12	0.74
13	0.70
14	0.73
15	0.75

A Pearson correlation greater than 0.60 is considered good and indicates that each item has good validity in measuring the construct in question. Based on the results above, all items have a significant and strong correlation with the total score, so it can be concluded that this questionnaire has good validity. Next, the essay test is used to measure student learning outcomes in this subject. The essay test grid is presented as follows:

Table 3. The Essay Test Grid

No.	Question	Objective	Assessment criteria
1	Explain the basic concepts of Buddhism regarding the four noble truths and how these principles are relevant in everyday life.	Measures understanding of basic concepts of Buddhist teachings and students' ability to connect theory with practice.	Clarity of explanation, accuracy of information, relevance to everyday life.
2	Discuss the role of mediation in achieving inner peace according to Buddhist teachings. Give concrete examples from your life or someone else's.	Assess understanding of the role of mediation in Buddhist teachings and its practical applications.	Depth of discussion, connection to Buddhist teachings, quality of examples.
3	What is meant by precepts in Buddhism, and how can their application affect social relationships?	Measures understanding of etiquette and its application in a social context.	Accurate definition, application examples, influence on social relations.
4	Analyze how Buddhist ethical principles can be applied in conflict situations at school or in the family.	Assess students' ability to apply Buddhist ethical principles to real situations.	Logical analysis, relevance of ethical principles, proposed solutions.
5	Describe how understanding karma can influence a person's behavior in everyday life.	Measures understanding of karma and its impact on behavior.	Clear description, understanding of the concept of karma, application in everyday life.
6	Explain how the Buddhist teachings of non-attachment (anatta) can help a person overcome emotional difficulties.	Measures understanding of the concept of anatta and its application in overcoming emotional problems.	In-depth explanation, relevance to Buddhist teachings, practical application.

7	How can the Buddha's teachings on the middle path (middle path) be applied in daily decision-making?	Assess understanding of the middle way and its application in everyday decisions.	Understanding the middle ground, application examples, impact on decision making.
8	Discuss the differences between Buddhist ethics and ethics from other traditions (for example, other religious ethics or secular ethics).	Measures students' ability to compare and contrast Buddhist ethics with other ethics.	Depth of analysis, accuracy of differences, relevance of comparison.
9	Give examples of how Buddhist ethical values can be integrated into social activities at school.	Assess creativity in integrating Buddhist ethical values in social activities.	Quality of examples, relevance to Buddhist ethics, integration in social activities.
10	Evaluate the impact of learning Buddhist Education and Ethics on your attitudes and behavior during one semester.	Measuring critical reflection about the impact of learning on attitudes and behavior.	Depth of reflection, observed changes, relationship with teaching material.

The following are the results of the validity of the essay test based on the correlation between the score of each question and the total score:

Table 4. Essay Test Validity

No.	Question	Score
1	Explain the basic concepts of Buddhism regarding the four noble truths and how these principles are relevant in everyday life.	0.78
2	Discuss the role of meditation in achieving inner peace according to Buddhist teachings. Give concrete examples from your life or someone else's.	0.75
3	What is meant by precepts in Buddhism, and how can their application affect social relationships?	0.80
4	Analyze how Buddhist ethical principles can be applied in conflict situations at school or in the family.	0.77
5	Describe how understanding karma can influence a person's behavior in everyday life.	0.76
6	Explain how the Buddhist teachings of non-attachment (anatta) can help a person overcome emotional difficulties.	0.74
7	How can the Buddha's teachings on the middle path (middle path) be applied in daily decision-making?	0.79
8	Discuss the differences between Buddhist ethics and ethics from other traditions (for example, other religious ethics or secular ethics).	0.81
9	Give examples of how Buddhist ethical values can be integrated into social activities at school.	0.76
10	Evaluate the impact of learning Buddhist Education and Ethics on your attitudes and behavior during one semester.	0.77

A Pearson correlation greater than 0.70 was considered to indicate good validity. Based on the results above, all items have a significant and strong correlation with the total score, so it can be concluded that this essay test has good validity. Thus, this essay test is effective in measuring students' understanding of the main concepts of Buddhist teachings, students' ability to connect theory with practice, as well as critical reflection on learning Buddhist Education and Ethics. High validity indicates that each essay question makes a significant contribution to the student's overall assessment in this subject.

Data analysis techniques include descriptive analysis to describe the distribution of student learning outcomes as well as t-test analysis to determine the effectiveness of the learning methods used. The results of this analysis provide empirical evidence about the influence of varied and interactive learning methods on student learning outcomes, as well as identifying areas that require improvement in the learning process. With this comprehensive approach, research is expected to make a significant contribution to the development of more effective learning methods in the context of Buddhist and Ethics Education.

3. FINDINGS AND DISCUSSION

3.1 Interview result

For this research, the number of interview respondents was 2 Buddhist and Ethics Education teachers. For this research, the number of interview respondents was set at 2 Buddhist and Ethics Education teachers. The selection of these two respondents was based on several strong methodological considerations. First, these teachers have direct experience in teaching these subjects and can provide in-depth insight into the application of learning methods in the classroom. Second, they play an important role in designing and implementing the curriculum, so they have comprehensive knowledge about the effectiveness of the various learning methods used. Third, with a relatively small number of research subjects, it is hoped that in-depth interviews with these two teachers will produce rich and detailed qualitative data, which can holistically describe the challenges and successes in teaching Buddhism and Ethics Education. Finally, the involvement of two teachers allowed for triangulation of the data, which increased the validity and reliability of the research findings through the comparison of different perspectives. Therefore, these two respondents were chosen to provide representative and in-depth views in the context of this research. The conclusions from the interviews with 2 respondents are presented in Table 5.

Table 5. Interview Results

No.	Category	Question	Answer Notes
1	Learning methods	a. What learning methods do you currently use in teaching Buddhism and Ethics Education in class IX A?	Lecture and group discussion methods.
		b. How do you determine which learning method to apply? Are there any special considerations you took?	Based on the syllabus and previous evaluation results.
		c. How often do you use interactive methods (e.g., group discussions, project-based activities) compared to lecture methods?	About 30% of the time is interactive, the rest is lectures.
2	Student Engagement and Motivation	a. How do you assess students' level of engagement during lessons? Do you feel students are actively involved in the learning process?	Student engagement varies; some active, some less.
		b. What strategies do you employ to increase student motivation in lessons?	Use of rewards and giving positive feedback.
		c. Do you see a difference in student motivation and engagement between sessions using the lecture method and sessions using the interactive method?	Interactive methods tend to increase engagement.
3	Challenges and Problems	a. What are the main challenges you face in implementing current learning methods?	Incompatibility of methods with individual student needs.
		b. Are there any obstacles in using certain learning methods? If yes, what are these obstacles?	Constraints in time and limitations of interesting media.

4	Hope and Suggestions	c.	How do you overcome problems or obstacles that arise during the learning process?	Adapt methods and look for alternative media that are more effective.
		a.	What are your hopes regarding improvements or changes in the learning methods used?	More variety of methods and media to suit student needs.
		b.	Do you have suggestions for the development of more effective teaching methods in Buddhist education and ethics at this school?	Integrate technology and a more interactive approach.
		c.	How do you see the potential for using technology or new methods to improve the effectiveness of classroom teaching?	Technology can increase engagement and provide more varied material.

The results of interviews conducted with teachers at Metta Maitreya Middle School revealed several important findings regarding learning methods, student involvement and motivation, use of learning media, adaptation of methods to student learning styles, as well as challenges and hopes in teaching Buddhist and Ethics Education. Currently, the most frequently used learning method is lecture, although there is also the use of group discussions. The choice of learning method is based on the syllabus and previous evaluation results. Although there are efforts to integrate interactive methods such as group discussions and project-based activities, their application is still limited, only around 30% of learning time, while the rest is still dominated by lectures. Student engagement during lessons varied, with some students showing active engagement, while others were less engaged. Strategies such as the use of rewards and providing positive feedback have been implemented to increase student motivation. The interview results show that the interactive method tends to increase student involvement compared to the lecture method. However, the methods currently used are not completely flexible to meet the different learning needs of students. A greater variety of methods is needed to effectively accommodate students' individual needs. Extra attention and additional individual explanations are given to students who experience learning difficulties.

The main challenges faced in implementing learning methods are the method's incompatibility with individual student needs, time constraints, and limited media available. To overcome this problem, teachers try to adapt methods and look for alternative media that are more effective. Teachers hope that there will be improvements and additional variations in learning methods and media that suit students' needs. Suggestions include integrating technology and more interactive approaches to learning, as well as increasing the use of technology that can increase student engagement and provide more varied material. Overall, the results of these interviews show that despite efforts to implement more interactive and varied learning methods, there are still many challenges that need to be overcome. It is hoped that the integration of technology and increasing the variety of learning media will have a positive impact on the effectiveness of teaching and student involvement in learning Buddhist and Ethics Education.

3.2 Questionnaire Analysis Results

Based on the results of questionnaires given to 30 students in the experimental class, data analysis shows significant findings regarding the effectiveness of learning methods in the context of Buddhist education and ethics. The results of the questionnaire analysis regarding the learning methods applied by teachers in teaching Buddhism and ethics are as follows in figure 1:

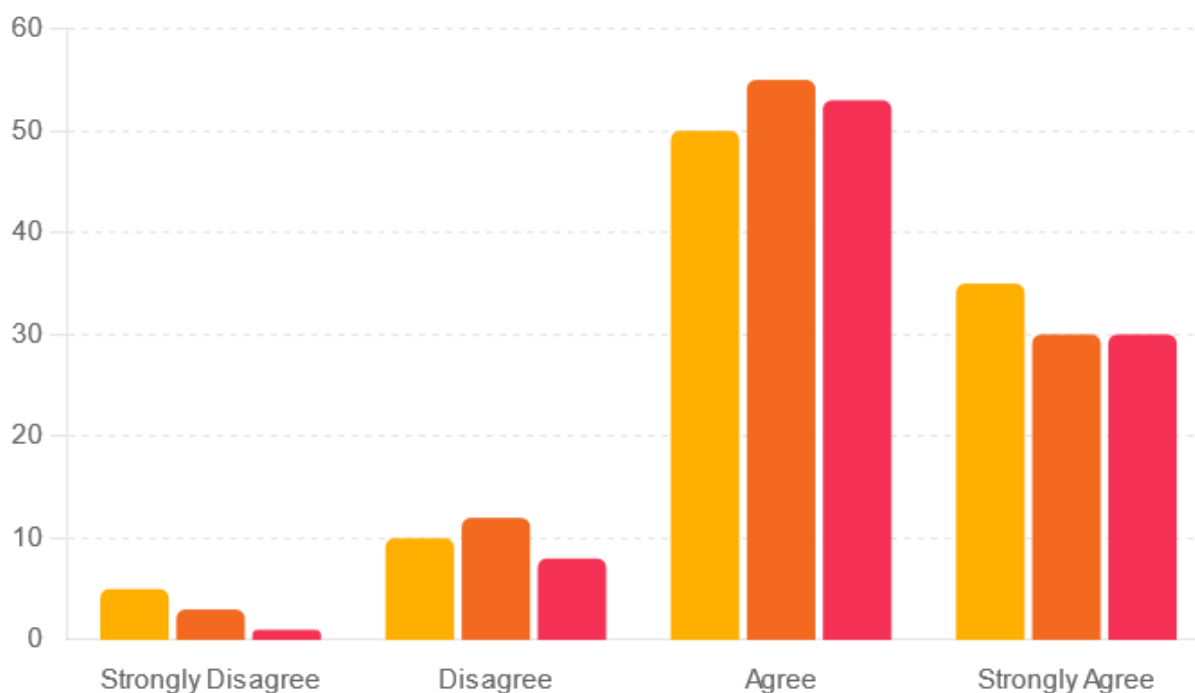


Figure 1. Questionnaire Analysis Results

The results of a questionnaire conducted on 30 students showed a very positive response to the varied and interactive learning methods applied. Data analysis revealed that the majority of students gave positive assessments on three main aspects: student experience with learning methods, engagement and motivation, and the effectiveness of varied and interactive learning methods.

Concerning student experiences with learning techniques, a significant majority (79%) of the students expressed agreement or strong agreement when questioned about the impact of diverse learning techniques on the improvement of lesson engagement and overall learning experience. A substantial proportion suggests that students saw these approaches as offering a much-needed respite from repetitive lectures and introducing other types of stimulation, sustaining their focus and interest throughout the educational sessions. A range of techniques proved to be very successful in addressing student discomfort, a crucial element that often hampers student focus and drive in conventional lecture-orientated settings.

The findings were particularly evident in the domain of engagement and motivation. The combined mean percentage of "agree" and "strongly agree" answers was 85.67%, which was the highest among the three elements assessed. The aforementioned results underscore the substantial influence of interactive learning approaches on student involvement and willingness. Research has shown that students who actively engaged in learning experiences, such as group discussions and project-based activities, reported higher levels of motivation and engagement with the subject matter. The increase in motivation is associated with students taking more responsibility for their learning process, as they are actively engaged rather than passive consumers of knowledge. Statistical evidence indicates that using interactive techniques in the classroom increases students' sense of worth, boosting their desire and dedication to studying.

On the topic of the effectiveness of varied and interactive learning techniques, 84.67% of students agreed or strongly agreed that these approaches were successful in enhancing their comprehension of course content and facilitating the application of theoretical ideas to real-life scenarios. This outcome highlights the significance of interactive instructional approaches in not only enhancing the understanding of theoretical concepts, but also in enabling the practical use of information in real-life situations. The capacity to link theoretical knowledge with practical application improves knowledge retention, as students may see the significance of their learning and its practical consequences outside

the confines of the classroom. These results suggest that diverse and interactive learning approaches not only enhance conceptual comprehension but also facilitate more efficient retention of knowledge by pupils.

In general, the survey findings suggest that students reacted well to the use of diverse and participatory learning approaches. These techniques not only increased student involvement and motivation, but also made classes more dynamic and engaging by improving the entire learning experience. The use of interactive teaching methods proved to be particularly successful in enhancing the learning quality, as shown by the consistently high proportions of positive feedback across all assessed areas.

The results of this research provide robust evidence in favour of using a wider range of interactive teaching methods in educational settings. By introducing variety into the repetitive nature of conventional lecture-based teaching, educational institutions may enrich students' learning experiences and more effectively facilitate their academic growth. As a result, it is advisable for educational institutions to incorporate diverse and interactive learning approaches into their curricula in order to optimize student involvement, motivation, and learning results, thereby unleashing their full academic capabilities.

3.3 Results of Descriptive Statistical Analysis

Table 6. Statistical description of student learning outcomes

Group	The number of students	Average Value	Standard Deviation	Minimum Value	Maximum Value
Experiments (Variable and Interactive)	30	85.20	5.80	75	95
Control (Monotonous Lecture)	30	74.50	4.50	60	78

Table 6 presents a descriptive statistical description of student learning outcomes from the two learning methods analyzed in this research, namely the varied and interactive learning method (experimental group) and the monotonous lecture method (control group). The experimental group, which used varied and interactive learning methods, consisted of 30 students with an average score of 85.20. The range of scores in this group is from 75 to 95, with a standard deviation of 5.80, indicating a degree of variation in scores around the mean. The maximum score achieved by students in this group was 95, indicating some students achieved very high results, while the lowest score was 75, indicating that even the students with the lowest scores in this group were still relatively high.

In contrast, the control group which applied the monotonous lecture method also consisted of 30 significantly more effective in improving student learning outcomes compared to monotonous lecture methods. These findings support the alternative hypothesis and suggest that the use of more dynamic and interactive learning methods can bring substantial benefits in educational contexts.

3.4 Comparison of the Distribution of Learning Outcome Values

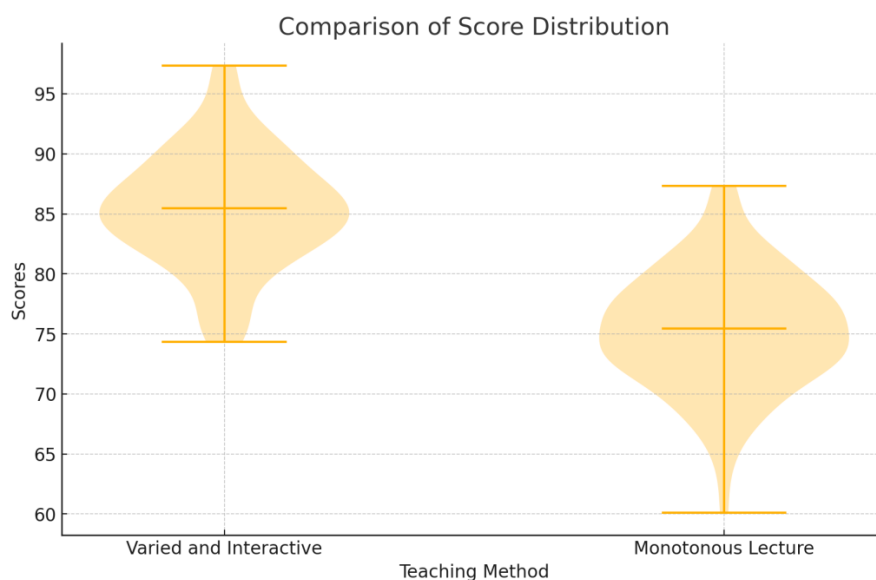


Figure 2. Comparison of the Distribution of Learning Outcome Values

Analysis of student learning outcomes shows that there are significant differences between varied and interactive learning methods and monotonous lecture methods. The distribution of learning outcome scores illustrated through a violin diagram reveals that students who are involved in varied and interactive learning methods have higher average scores and wider variations in scores compared to students who use the monotonous lecture method. The average score of students in the varied and interactive group was 85.20, with a score range between 75 to 95 and a standard deviation of 5.80. This shows that the method not only increases students' average grades but also covers various levels of students' understanding.

In contrast, the monotone lecture method shows a lower average value of 74.50, with a narrower range of values between 60 to 78 and a standard deviation of 4.50. The distribution of grades in this group is more concentrated, indicating less variation in learning outcomes. Students who study using the monotonous lecture method tend to get more consistent but lower grades overall.

In conclusion, varied and interactive learning methods are more effective in improving student learning outcomes compared to monotonous lecture methods. Varied and interactive methods not only increase grade point averages but also provide room for greater variation in learning outcomes, reflecting its ability to accommodate students' varying levels of understanding and learning styles. Therefore, it is recommended that more dynamic and interactive learning methods be applied in an effort to improve the quality of education and student learning outcomes.

Discussion

The goal of this study was to find out if different, interactive learning methods work better than traditional lecture-based methods for improving student achievement in Buddhist and ethics classes for Grade 9 students at Metta Maitreya Middle School. The primary results indicate that the experimental group, exposed to diverse and interactive techniques, achieved significantly higher scores than the control group, which followed a conventional lecture-based methodology. The mean score of the experimental group was 85.20, whereas the control group produced an average score of 74.5. The statistical significance of this difference was confirmed by the results of the t-test ($p < 0.01$). These findings illustrate the greater efficacy of diverse and interactive approaches in improving student learning results.

The findings of this research are in line with the results of previous studies which show that interactive technology-based learning methods can increase student motivation and involvement in moral and ethical subjects (Bombaerts et al., 2021; Harefa et al., 2024). However, this study expands the existing literature by providing an in-depth analysis of learning methods in the specific context of Buddhism and Ethics Education at the secondary school level. Research by Wong and Chiu (2019) which discusses the influence of project-based learning methods in character education also supports these findings, although this research focuses more on integration with Buddhist principles and ethics.

One of the main advantages of this research finding is the empirical evidence that supports the effectiveness of varied and interactive learning methods (Al-Fraihat, Joy, Masa'deh, & Sinclair, 2020; Tsay, Kofinas, & Luo, 2018). This method not only increases student grade point averages but also provides room for greater variation in learning outcomes, reflecting its ability to accommodate students' varying levels of understanding and learning styles (Cardino & Ortega-Dela Cruz, 2020). In addition, this research reveals that interactive methods can increase student engagement and motivation, which are important factors in the teaching and learning process (Sun, Hsieh, Sun, & Hsieh, 2018; Yu, Gao, & Wang, 2021). Varied and interactive learning methods have several significant advantages, including increasing student engagement through active participation in the learning process, providing more personalized learning by considering various learning styles, developing 21st-century skills such as critical thinking, communication, collaboration, and creativity, and improving understanding and retention of material. In addition, this method reduces boredom and increases student motivation by using various interesting learning techniques and tools (Dumford & Miller, 2018; El-Sabagh, 2021; Tzima, Styliaras, Bassounas, & Tzima, 2020).

From a practical standpoint, this research provides specific suggestions for schools and educational professionals. First and foremost, instructors should contemplate integrating a wide range of interactive techniques, such as group discussions, role-playing, and project-based learning, into their instructional approaches. These methodologies not only encourage active participation, but they also improve students' understanding of theoretical ideas through their application in real-life situations. For example, in the field of Buddhist and Ethics Education, instructors may use role-playing as a means to replicate ethical predicaments, thereby encouraging students to apply Buddhist concepts in the resolution of practical disputes. Nevertheless, implementing these approaches may pose difficulties, such as limited time availability and the need for teacher education in interactive methodology. In order to surmount these challenges, educational institutions should provide professional development programs that specifically target diverse and interactive teaching modalities, therefore ensuring that instructors possess the necessary skills to proficiently use these approaches.

Moreover, while the research presents compelling evidence for the advantages of diverse learning approaches, it is not devoid of inherent constraints. The study's somewhat limited sample size, with only 60 pupils from a single educational institution, is an inherent constraint. Therefore, the results' generalizability to diverse educational settings is limited. Moreover, the emphasis on Buddhist and ethics education, albeit a distinctive addition, implies that the findings may not be strictly applicable to other academic disciplines. Subsequent investigations should examine whether these approaches exhibit comparable efficacy across a wider spectrum of disciplines and educational settings. One additional constraint arises from the reliance on self-reported data obtained via questionnaires, which may induce biases because students may naturally provide socially desired answers. Observational data or longitudinal studies could enhance potential future research by comprehensively assessing the enduring impact of interactive learning approaches on student achievements.

Further research should also explore the use of these techniques in other educational environments, including schools with distinct religious or cultural orientations and pupils of various age cohorts. Furthermore, conducting longitudinal studies to investigate the enduring consequences of different learning approaches would provide significant knowledge on the long-term influence of these strategies on student involvement, retention, and academic achievement. Finally, it would be advantageous to explore how the incorporation of digital technology, such as educational applications

and online collaboration tools, might further augment the efficacy of interactive learning approaches in contemporary classrooms.

4. CONCLUSION

This study found that varied and interactive learning methods significantly improved student learning outcomes in Buddhist and Ethics Education compared to traditional lecture-based methods. Students in the experimental group demonstrated higher average grades and better engagement. However, the study has several limitations, including the sample being restricted to one school and one subject, as well as the lack of longitudinal data to assess the long-term impact of these methods. Future research should consider expanding the sample to include a wider range of schools, including those in different regions, socio-economic backgrounds, and educational systems, to assess the generalizability of these findings. Additionally, it would be beneficial to explore how these methods perform across various educational levels, such as primary, secondary, and tertiary education. Long-term studies would also help better understand the sustained effects of varied and interactive learning methods on student engagement, motivation, and academic performance over time.

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