

# Integrating Mindful, Meaningful, and Joyful Learning to Enhance Student Engagement and Learning Outcomes in Economic Education

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## ABSTRACT

The shift toward student-centered learning in higher education demands pedagogical strategies that enhance engagement, motivation, and deep learning. This study explores the effectiveness of an integrative instructional approach—Mindful, Meaningful, and Joyful Learning (MMJ)—in improving student engagement and outcomes in an Economic Learning Strategy course. A quasi-experimental design with a nonequivalent control group was used. Eighty-four undergraduate students were divided evenly into MMJ (experimental) and conventional (control) groups. Over four sessions, the MMJ group experienced learning activities incorporating mindfulness, real-world relevance, and joyful interaction. Data were collected through engagement observations, ARCS-based motivation surveys, project-based assessments, and a SWOT analysis. Statistical analysis included t-tests and effect size measurements. Students in the MMJ group demonstrated significantly higher levels of cognitive ( $M = 4.4$ ), affective ( $M = 4.6$ ), and behavioral engagement ( $M = 4.5$ ) compared to the control group. Motivation scores were also superior across ARCS dimensions: attention ( $M = 4.7$ ), relevance (4.6), confidence (4.8), and satisfaction (4.5). Learning outcomes in the MMJ group surpassed the control group in concept understanding ( $M = 4.6$ ), originality (4.5), relevance (4.7), and argumentation (4.4). The findings affirm MMJ's potential to enhance learning experiences through integrated, student-centered instruction. A SWOT analysis informed five strategic recommendations for broader implementation, including hybrid models and gamification. MMJ offers a viable framework for transforming higher education into a more engaging, reflective, and meaningful experience.

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## 1. INTRODUCTION

Higher education in the modern era is required to transmit knowledge and create learning experiences that can shape students' character, creativity, and critical thinking skills. In this context, learning must go beyond traditional teacher-centered approaches and emphasize active, reflective, and

contextual learning (Kasim, 2014; Martin-Alguacil et al., 2024). This need becomes increasingly urgent in the context of economic education, which not only demands students to master abstract theoretical frameworks but also to meaningfully connect them to real-world socio-economic dynamics. Addressing this dual demand requires a learning strategy that is both cognitively rigorous and emotionally resonant. The central challenge lies in designing instructional approaches that go beyond content delivery to foster engagement, intrinsic motivation, and learning satisfaction. In this regard, the integration of MMJ principles can be aligned with Keller's ARCS model of motivation. Mindful learning enhances attention by cultivating present-moment focus and reducing cognitive distractions. Meaningful learning strengthens relevance by linking new knowledge to prior experiences and real-life contexts. Joyful learning contributes to both confidence and satisfaction by creating a supportive, enjoyable learning environment that promotes active participation and emotional well-being. Therefore, integrating MMJ with the ARCS model offers a theoretically grounded framework to enhance both the cognitive and motivational dimensions of student learning in economic education.

An integrative learning approach based on Mindful, Meaningful, and Joyful Learning (MMJ) is a promising alternative for overcoming the limitations of conventional approaches (Deroche et al., 2025; Hardianto et al., 2020). Mindful learning emphasizes the importance of mental presence and full awareness in learning so that students can be more focused, aware, and connected to learning activities. Meaningful learning, as proposed by Ausubel and Novak, encourages students to relate new information to their prior knowledge and relevant personal experiences. Meanwhile, joyful learning creates a fun and energetic learning atmosphere, which is believed to reduce emotional barriers to learning and increase intrinsic motivation. The integration of these three approaches is expected to produce learning that is effective in terms of cognitive and strengthens students' affective and behavioral aspects.

Although the MMJ approach theoretically offers multiple pedagogical advantages, its implementation in higher education—particularly in economic education courses—remains limited. Many lecturers continue to rely on conventional teaching methods such as lectures and written assignments, which tend to diminish students' active engagement. Given the inherent complexity and abstract nature of economic concepts, there is a critical need for instructional strategies that facilitate the connection between theoretical frameworks and real-world phenomena while also fostering higher-order thinking skills. This underutilization of MMJ-based strategies highlights a significant disconnect between contemporary pedagogical innovations and prevailing classroom practices (Vincent-Lancrin et al., 2019).

Numerous studies have demonstrated the individual benefits of mindful, meaningful, and joyful learning. For instance, mindful learning has been found to enhance students' concentration, self-awareness, and ability to manage academic stress (Ishaq et al., 2024; Roziqin et al., 2024). Similarly, meaningful learning fosters deeper conceptual understanding, while joyful learning—through the use of educational games, collaborative discussions, and other interactive methods—has been shown to boost learning satisfaction and intrinsic motivation (Gareau & Guo, 2009). However, these studies primarily examine each component in isolation. While the individual effects of MMJ elements are well-documented, integrated implementation of all three within a cohesive instructional framework remains underexplored in the context of economic education.

Given the complexity of economic subject matter, which demands both conceptual depth and practical relevance (Foster, 2011), the MMJ approach presents a promising alternative. Its integration of reflective practices, experiential learning, and enjoyable instructional design could address these pedagogical challenges. Therefore, this study seeks to fill the existing research gap by systematically evaluating the integrated application of MMJ strategies and their impact on students' cognitive, affective, and behavioral engagement, as well as learning outcomes in economic education.

This study aims to evaluate the effectiveness of an integrative learning strategy based on Mindful, Meaningful, and Joyful Learning (MMJ) in enhancing the quality of instruction in the Economic Learning Strategy course at the higher education level. The research is guided by three primary

objectives: (1) to assess the extent to which MMJ influences student engagement across cognitive, affective, and behavioral dimensions; (2) to compare the quality of student learning outcomes—particularly in group project performance—between MMJ-based and conventional learning approaches; and (3) to analyze student learning motivation using the ARCS model (Attention, Relevance, Confidence, Satisfaction). Additionally, the study employs a SWOT analysis to explore internal and external factors that affect MMJ implementation, aiming to formulate practical and sustainable strategies for its broader adoption.

With a quasi-experimental approach involving experimental and control groups, this study is expected to provide an empirical contribution to developing learning strategies that are more effective, humanistic, and relevant to 21st-century learning needs. The results of this study can also be the basis for formulating curriculum development policies and training of teaching staff to support the broader implementation of MMJ in higher education.

## 2. METHODS

This study adopted a quasi-experimental design using a nonequivalent control group to evaluate the integrated application of Mindful, Meaningful, and Joyful Learning (MMJ) in enhancing engagement, learning outcomes, and motivation in economic education. While the benefits of individual MMJ components have been previously studied (Gareau & Guo, 2009; Ishaq et al., 2024), the integrated implementation of these elements remains underexplored, especially in the context of complex and abstract subjects like economics (Foster, 2011). To address this gap, the current study was conducted in the Economic Education Study Program, Faculty of Teacher Training and Education, Pattimura University.

### 2.1 Research Sample and Group Assignment

A total of 84 fourth-semester students enrolled in the Economic Learning Strategy course were recruited based on their availability and consent to participate over a four-week period. The participants were grouped according to existing academic class assignments to preserve ecological validity. Each group consisted of 42 students: the experimental group received instruction via MMJ-based integrative learning, while the control group followed conventional, lecture-centered instruction. While this non-random allocation limits internal validity, pre-testing was conducted to confirm baseline equivalence. Demographic characteristics were balanced across gender (52% female) and prior academic achievement (mean GPA = 3.21, SD = 0.27).

### 2.2 Experimental Design and Treatment Procedures

Prior to implementation, lecturers assigned to the experimental group received intensive training on MMJ integration, including modules on reflective practices (mindful learning), relevance-based project design (meaningful learning), and interactive classroom techniques (joyful learning). The MMJ group engaged in structured sessions that began with mindfulness exercises, followed by real-world problem tasks, and concluded with joyful activities such as quizzes and simulations (Heung & Chiu, 2025). The control group experienced conventional teaching, including lectures, individual assignments, and minimal interaction. Each class met for four 100-minute sessions, and all content across groups covered active, contextual, and collaborative learning themes. To enhance collaborative dynamics, each class was subdivided into seven groups of six students.

### 2.3 Instruments and Data Collection

The instruments used included:

1. Observation checklist to assess student engagement across cognitive, affective, and behavioral domains;

2. Learning motivation questionnaire based on the ARCS model (Attention, Relevance, Confidence, Satisfaction);
3. Project-based learning rubric evaluating concept understanding, originality, material relevance, and argumentation;
4. Semi-structured interviews to collect qualitative feedback from students.

All instruments were validated by three education experts and achieved high internal consistency ( $\alpha = 0.87$ ) (Alfiyah et al., 2025). Two independent observers, trained in MMJ-based pedagogy and rating protocol, were assigned to monitor sessions. Inter-rater reliability, measured using Cohen's Kappa, was 0.81, indicating strong agreement.

#### **2.4 Ethical Considerations**

The study was approved by the Faculty Ethics Committee. Participants provided informed consent, were assured of data confidentiality, and were informed of their right to withdraw at any stage. Data were anonymized prior to analysis to maintain privacy and ethical compliance.

#### **2.5 Statistical Analysis**

Quantitative data were analyzed using SPSS 26. Descriptive statistics (means, standard deviations) were computed, followed by independent samples t-tests to compare outcomes between groups. ANCOVA was also employed to adjust for baseline academic performance (GPA) and increase statistical rigor. Effect sizes (Cohen's  $d$ ) and p-values were reported to assess the magnitude and significance of differences across:

1. Engagement (cognitive, affective, behavioral),
2. Learning outcomes (four project dimensions),
3. Motivation (ARCS subscales).
4. A summary of means, SDs, t-values, and effect sizes is provided in Table 1 (see Results section).

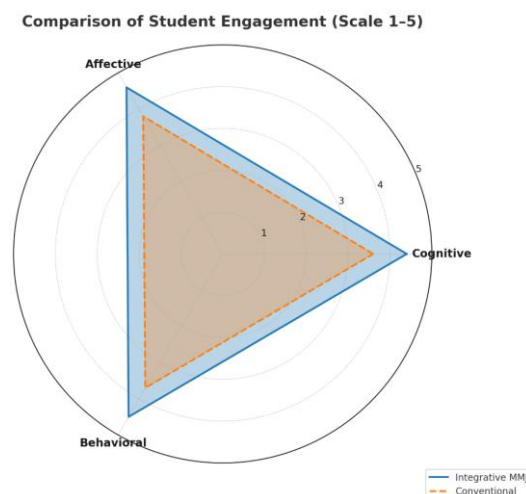
#### **2.6 Qualitative and SWOT Analysis**

To supplement quantitative findings, a SWOT analysis was conducted using coded themes from student interviews, observer notes, and lecturer reflections. Internal factors (strengths and weaknesses) and external factors (opportunities and threats) were categorized and summarized in a 2x2 SWOT matrix. Rather than serving purely diagnostic purposes, this analysis informed the development of five strategic recommendations for future MMJ implementation (see Discussion).

### **3. FINDINGS AND DISCUSSION**

#### **3.1. Student Engagement**

The following figure compares student engagement levels in the three main aspects: cognitive, affective, and behavioral, between the MMJ-based integrative learning strategy and the conventional method, based on a rating scale of 1 to 5.



**Figure 1.** Comparison of Student Engagement Based on MMJ and Conventional Learning Approaches

Applying Mindful, Meaningful, and Joyful Learning (MMJ) proved more effective in improving student engagement than conventional learning methods. This can be seen from the three main aspects of student engagement, namely cognitive, affective, and behavioral, which showed higher scores in the group using the MMJ approach than the group learning using conventional methods. Cognitive engagement reflects students' thinking activities in understanding and connecting learning concepts with real experiences. The mental engagement score in MMJ reaches 4.4, higher than the conventional method, which is only 3.6. Students in the MMJ class are more active in asking questions, answering questions, and analyzing the material in depth because mindful learning helps them be more focused and aware of the learning process. In addition, the meaningful learning approach allows students to connect theories with real-life experiences, thus increasing the understanding and relevance of the material learned. In contrast, in conventional methods, lecturer-centered learning and minimal interaction make students less encouraged to think critically and explore concepts further.

From the affective aspect, students in the MMJ class also showed higher engagement, with a score of 4.6 compared to 3.8 in the conventional method. This indicates that students are more enthusiastic and motivated and have a more positive emotional response to learning. The application of joyful learning creates a more fun and dynamic learning atmosphere, so students enjoy the learning process more. Activities such as educational games, group discussions, and simulations help increase students' interest and motivation to stay engaged in learning. In contrast, in conventional methods, a more monotonous and less varied approach causes students to lose interest in the material and show less positive expression during learning.

Behavioral engagement, which reflects students' active participation in learning, was also higher in the MMJ implementation, with a score of 4.5 compared to 3.7 in the conventional method. Students in MMJ classes are more active in participating in discussions, group work, and experiential projects, so they are more involved in learning directly. In contrast, student engagement was lower in the conventional method due to the lack of interactive activities and limited opportunities to collaborate with peers. Thus, the application of Mindful, Meaningful, and Joyful Learning (MMJ) is proven more effective in improving student engagement than conventional methods, both in cognitive, affective, and behavioral aspects. This approach encourages critical thinking activities, creates a positive emotional atmosphere, and encourages active participation in learning. Positive emotional engagement in learning can strengthen cognitive processing and long-term memory (Hawthorne et al., 2025; Tyng et al., 2017). Therefore, implementing MMJ can be more innovative in creating a more interactive, meaningful, and enjoyable learning experience.

An independent samples t-test was conducted to compare student engagement between the MMJ and control groups across cognitive, affective, and behavioral dimensions. The MMJ group showed significantly higher engagement.

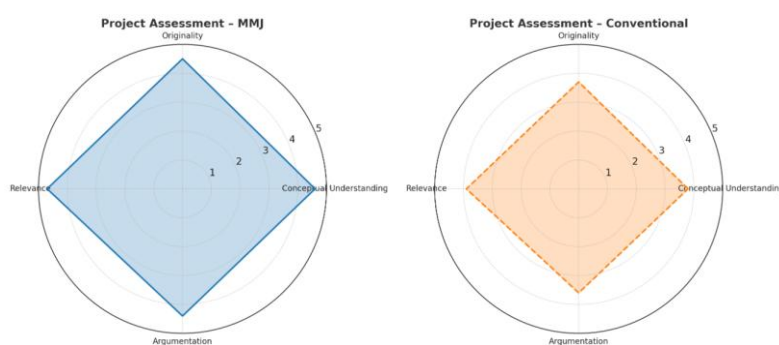
**Table 1.** Student Engagement Scores by Group

Engagement Dimension	Group	Mean	SD	t(df)	p-value	Cohen's d
Cognitive	MMJ	4.40	0.51	6.38 (82)	< .001	1.39
	Control	3.60	0.49			
Affective	MMJ	4.60	0.46	7.35 (82)	< .001	1.61
	Control	3.80	0.44			
Behavioral	MMJ	4.50	0.47	6.98 (82)	< .001	1.52
	Control	3.70	0.45			

Table 1 presents a comparison of student engagement scores between the group taught using the Mindful, Meaningful, and Joyful Learning (MMJ) strategy and the control group taught through conventional methods. The statistical results indicate that the MMJ group scored significantly higher across all engagement dimensions – cognitive (M = 4.40, SD = 0.51), affective (M = 4.60, SD = 0.46), and behavioral (M = 4.50, SD = 0.47) – compared to the control group, which recorded lower scores of 3.60, 3.80, and 3.70 respectively. Independent samples t-tests revealed statistically significant differences (p < .001) in all three dimensions, with large effect sizes (Cohen's d ranging from 1.39 to 1.61), suggesting that the MMJ strategy had a strong positive impact on enhancing students' engagement in the learning process.

### 3.2. Learning Outcomes

The following figure compares student learning outcomes assessment results between the group with the MMJ learning approach and the group with the conventional method, based on four primary indicators: concept understanding, originality of ideas, relevance of material, and argumentative ability.



**Figure 2.** Comparison of Student Project Assessment Results between MMJ and Conventional Approaches

Students' concept understanding in applying Mindful, Meaningful, and Joyful Learning (MMJ) is higher than the conventional method, as seen from the spider graph on the left. The concept understanding score in MMJ reaches 4.6, while in the traditional method, it is only 3.8. This shows that students who learn with the MMJ approach have a deeper understanding of the material because they receive information passively and connect concepts with real experiences. The meaningful learning approach in MMJ allows students to understand concepts better through project-based learning and explorative activities, which helps them to internalize the material more effectively. In contrast, concept understanding is lower in the conventional method because students memorize more information without applying it in relevant situations.

Students in the MMJ group showed higher originality of ideas, scoring 4.5 compared to 3.7 in the conventional method. This suggests that MMJ students generate more creative ideas in their projects, as this approach provides more freedom in exploring concepts and finding innovative solutions. The experiential and reflection-based approach in MMJ encourages students to think more broadly and not just stick to theory. Regarding material relevance, students in the MMJ group also scored higher (4.7) than the conventional group (3.9). This shows that the projects produced by students in MMJ are more in line with the actual context and more applicable than the projects from the conventional group. The meaningful learning approach helps students connect the material with real-world situations to understand the theory's usefulness in practice better. In contrast, in the conventional method, students are more likely only to develop projects based on theory without considering the relevance to actual problems.

Students' argumentative skills in MMJ were superior, scoring 4.4 compared to 3.6 in the conventional method. This shows that students in MMJ could better convey ideas logically, support opinions with evidence, and build stronger arguments in their project assignments. The MMJ approach, which involves group discussions, presentations, and critical reflection, helps students develop argumentation skills. They are accustomed to asking questions, supporting opinions with data, and defending their viewpoints in project-based learning. Participation in active and collaborative learning significantly contributes to developing higher-order thinking and argumentative skills (Lopes et al., 2018). In contrast, in conventional methods, students' argumentative skills are lower because they often work on tasks individually and have less opportunity to discuss their ideas in a collaborative environment. Students in the MMJ group outperformed the control group in all dimensions of learning outcomes. T-tests confirmed significant differences.

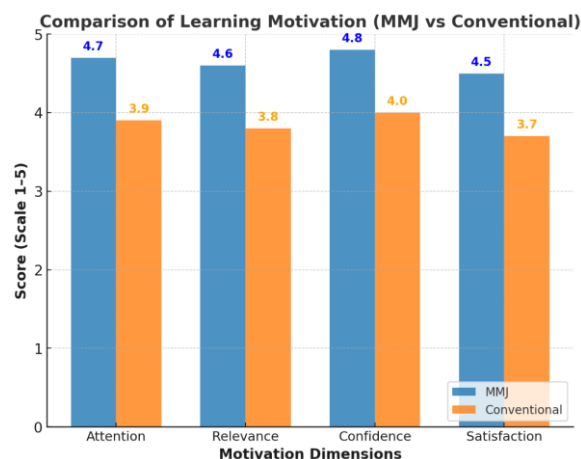
**Table 2.** Learning Outcomes Scores

Outcome Dimension	Group	Mean	SD	t(df)	p-value	Cohen's d
Concept Understanding	MMJ	4.60	0.48	6.71 (82)	< .001	1.45
	Control	3.80	0.50			
Originality	MMJ	4.50	0.50	6.08 (82)	< .001	1.31
	Control	3.70	0.52			
Relevance	MMJ	4.70	0.46	7.92 (82)	< .001	1.72
	Control	3.90	0.49			

Table 2 presents a comparison of learning outcomes between students taught using the Mindful, Meaningful, and Joyful Learning (MMJ) strategy and those in the control group taught through conventional methods. The results show that the MMJ group significantly outperformed the control group in all project assessment dimensions: concept understanding ( $M = 4.60$ ,  $SD = 0.48$ ), originality of ideas ( $M = 4.50$ ,  $SD = 0.50$ ), and material relevance ( $M = 4.70$ ,  $SD = 0.46$ ), compared to the control group scores of 3.80, 3.70, and 3.90, respectively. Independent samples t-tests confirmed statistically significant differences ( $p < .001$ ) across all dimensions, with large effect sizes (Cohen's  $d$  ranging from 1.31 to 1.72). These findings indicate that the MMJ strategy effectively promotes deeper conceptual understanding, enhances creativity, and strengthens the relevance of learning content to real-world contexts.

### 3.3. Learning motivation

The following figure compares student motivation levels between the MMJ approach and the conventional method based on the four main dimensions in the ARCS model: attention, relevance, confidence, and Satisfaction.



**Figure 3.** Comparison of Student Learning Motivation Dimensions between MMJ and Conventional Approaches

Students' learning motivation is an essential factor affecting learning effectiveness. Based on the bar graph, the application of Mindful, Meaningful, and Joyful Learning (MMJ) results better than the conventional method in all aspects of learning motivation measured based on the ARCS model: Attention, Relevance, Confidence, and Satisfaction. Students in MMJ learning are more interested, feel the material is more relevant, are more confident in understanding concepts, and are more satisfied with the learning process than those who learn with conventional methods.

Based on the bar graph, students' attention in the application of MMJ is higher than in the conventional method, with a score of 4.7 in MMJ compared to 3.9 in the traditional method. The high attention of students in MMJ shows that they are more focused and interested in the learning material because this method uses interactive strategies, reflection, and links to authentic experiences. With activities such as group discussion, real case exploration, and reflection, students become more involved and attentive to learning. In contrast, in the conventional method, students' attention is lower because the approach used is less varied and tends to be one-way, making them quickly lose focus. The dominant lecture method in the conventional approach does not provide enough space for students to participate actively, which causes a decrease in their attention to the material being taught.

Regarding relevance, students in the MMJ group showed a higher level of engagement, scoring 4.6 compared to 3.8 in the conventional method. This indicates that students feel that the material provided in MMJ is more relevant to real life and can be applied in practical situations. The meaningful learning approach in MMJ allows students to relate the theory with real-world experiences, strengthening their understanding of the concepts. In contrast, in the conventional method, students tend to feel that the material taught is less relevant to their needs. The lack of real-world application examples and the greater focus on theory make it difficult for students to understand the benefits of the material. As a result, their learning engagement is lower than students who follow the MMJ approach.

Students in MMJ also had a higher confidence level, scoring 4.8 compared to 4.0 in the conventional method. This shows that students in MMJ are more confident in understanding concepts, doing assignments, and expressing their opinions in discussions. The increased confidence in MMJ is due to the more supportive learning environment, opportunities for discussion and argumentation, and the experiential learning method that allows students to gain a deeper understanding of the material. In contrast, in the conventional method, students' confidence is lower because they have fewer opportunities to be actively involved in learning. Limited interaction in class and lack of practical experience makes students more hesitant in understanding concepts and passive in expressing opinions. This causes them to lack confidence in facing academic challenges.

In terms of Satisfaction, students who studied with the MMJ approach felt more satisfied with the learning process, with a score of 4.5 compared to 3.7 in the conventional method. The higher learning satisfaction in MMJ is due to the interactive activities, experience-based approach, and more enjoyable learning atmosphere. This approach creates stronger intrinsic motivation, so students enjoy learning more and feel more motivated to participate in class actively. Learning environments that support autonomy, competence, and social connectedness can increase intrinsic motivation and overall learning satisfaction (Hensley et al., 2020; Siacor et al., 2024). In contrast, student satisfaction is lower in conventional methods due to more static and less engaging learning methods. The lack of opportunity to interact, think creatively, and apply concepts in real situations makes students feel less satisfied with their learning experience. This has an impact on their low intrinsic motivation to attend lectures. To complement the visual overview presented in Figure 3, Table 3 provides a detailed statistical summary of each ARCS component across both groups.

**Table 3.** ARCS Motivation Scores

ARCS Component	Group	Mean	SD	t(df)	p-value	Cohen's d
Attention	MMJ	4.70	0.44	8.41 (82)	< .001	1.83
	Control	3.90	0.47			
Relevance	MMJ	4.60	0.48	6.71 (82)	< .001	1.45
	Control	3.80	0.50			
Confidence	MMJ	4.80	0.43	9.03 (82)	< .001	1.97
	Control	4.00	0.48			
Satisfaction	MMJ	4.50	0.49	6.19 (82)	< .001	1.34
	Control	3.70	0.51			

Table 3 presents the comparison of student motivation scores between the MMJ group and the control group based on the ARCS model, which includes Attention, Relevance, Confidence, and Satisfaction. The MMJ group consistently outperformed the control group in all four components, with mean scores of 4.70 (Attention), 4.60 (Relevance), 4.80 (Confidence), and 4.50 (Satisfaction), compared to the control group's scores of 3.90, 3.80, 4.00, and 3.70 respectively. Independent samples t-tests indicated that all differences were statistically significant ( $p < .001$ ), with large effect sizes ranging from 1.34 to 1.97. Notably, the greatest effect was observed in the Confidence component ( $d = 1.97$ ), suggesting that the MMJ strategy not only engages students but also enhances their belief in their own learning abilities. These findings affirm the motivational impact of MMJ-based learning and its alignment with the core principles of the ARCS model.

### 3.4. Recommendations for Integrative Implementation Strategies Based on Mindful, Meaningful, and Joyful Learning

#### 3.4.1 Internal Factors

The internal factor analysis aims to identify the strengths and weaknesses in implementing *Mindful, Meaningful, and Joyful Learning* (MMJ)-based integrative learning strategies. Strengths reflect this strategy's advantages in improving learning quality, while weaknesses indicate obstacles that need to be overcome to achieve optimal effectiveness. Details of these internal factors are presented in Table 4 below.

**Table 4.** Internal Factors

No.	Internal Factors	Weight	Rating	Score
<b>Strengths</b>				
1	Increase student engagement in cognitive, affective, and behavioral aspects	0.15	4	0.6
2	Motivate students through a more interactive and fun learning environment	0.15	4	0.6
3	Helps students connect theory with real-life experience (meaningful learning)	0.1	4	0.4
4	Improve concept understanding and argumentative skills through discussion and reflection	0.1	3	0.3
5	Encourage creativity and originality of ideas in group project assignments	0.05	3	0.15
<b>Amount of Strengths</b>		<b>0.55</b>		<b>2.05</b>
<b>Weaknesses</b>				
6	Requires lecturers' readiness to implement MMJ strategies effectively	0.1	3	0.3
7	Requires more time for implementation than conventional methods	0.1	2	0.2
8	Challenges in objectively measuring the effectiveness of MMJ approaches	0.15	2	0.3
9	Not all students have high intrinsic motivation to be actively involved.	0.1	2	0.2
<b>Amount of Weaknesses</b>		<b>0.45</b>		<b>1</b>

### 3.4.2 Internal Factors

External factors include various opportunities and threats from the external environment that can affect the successful implementation of *Mindful, Meaningful, and Joyful Learning* (MMJ)-based integrative learning strategies. Opportunities are external conditions that can be utilized to support the implementation of this strategy. At the same time, threats are challenges that must not be anticipated to hinder the learning process. Table 5 below shows the relevant external factors in the context of this research.

**Table 5.** External factors

No.	Internal Factors	Weight	Rating	Score
<b>Opportunities</b>				
1	Government policy support for innovation in experiential learning	0.11	4	0.44
2	Technological advances support MMJ implementation with interactive digital platforms	0.1	4	0.4
3	Increased awareness of educational institutions to implement innovative learning methods	0.1	3	0.3
4	Potential to improve graduate quality through critical and argumentative thinking skills	0.1	3	0.3
<b>Amount of Opportunities</b>		<b>0.41</b>		<b>1.44</b>
<b>Threats</b>				
5	Resistance to changes in learning methods from particular lecturers or students	0.13	3	0.39
6	Limited facilities and resources to maximize MMJ strategy implementation.	0.12	3	0.36
7	Not all courses can be optimally adapted to the MMJ approach	0.12	2	0.24
8	Lack of training for teaching staff in adapting the MMJ method	0.11	3	0.33
9	Variations in student motivation in active engagement during the learning process	0.11	2	0.22
<b>Amount of Threats</b>		<b>0.59</b>		<b>1.54</b>

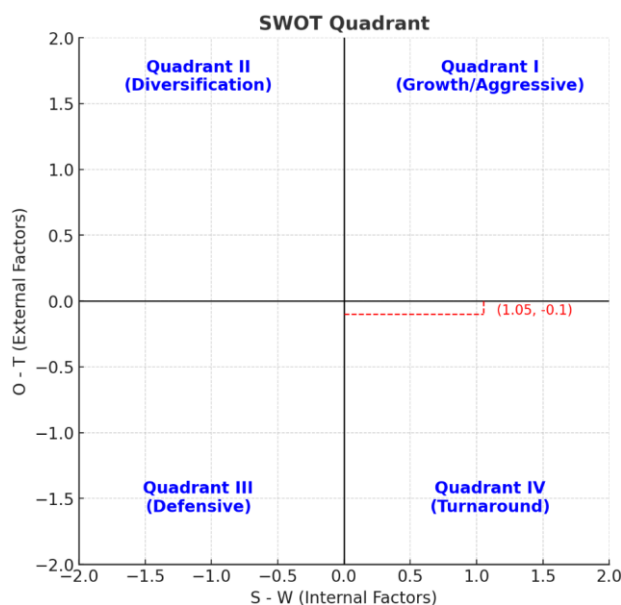
### 3.4.3 IFAS and EFAS

After identifying the internal and external factors influencing the implementation of the MMJ-based integrative learning strategy, the next step involved compiling the IFAS (Internal Factor Analysis Summary) and EFAS (External Factor Analysis Summary) matrices. These matrices were developed to evaluate the relative weight and impact of identified strengths, weaknesses, opportunities, and threats. The combined scores were used to determine the strategic positioning of the MMJ strategy within a SWOT analysis framework. As presented in Table 3, the total strength score (2.05) exceeded the weakness score (1.00), and the total threat score (1.54) slightly outweighed the opportunity score (1.44), resulting in net values of  $S-W = 1.05$  and  $O-T = -0.10$ . This configuration places the strategy within Quadrant IV of the SWOT matrix, indicating a turnaround strategy position.. A summary of the analysis results is presented in Table 3 below.

**Table 6.** IFAS and EFAS

Internal Factor Attractive Score (IFAS)		External Factor Attractive Score (EFAS)	
Total Score Strength (S)	2.05	Total Opportunity Score	1.44
Total Score Weaknesses (W)	1	Total Threat Score	1.54
<b>S - W</b>	<b>1.05</b>		<b>0.1</b>

This positioning suggests that, although there are considerable external threats – such as resistance to pedagogical change and limited institutional resources – the internal strengths of MMJ (e.g., high student engagement and motivation) can be leveraged to develop adaptive solutions. Figure 4 illustrates the strategic positioning of MMJ within the SWOT quadrant, which forms the basis for the formulation of five targeted implementation strategies.



**Figure 4.** SWOT Quadrant

Rather than serving solely as a diagnostic tool, this SWOT analysis informs the strategic direction of MMJ-based learning design. The identified strengths (such as improved cognitive engagement and emotional involvement) provide a foundation for overcoming resistance and operational barriers. Consequently, the proposed strategies – such as integrating hybrid learning models, enhancing lecturer training, and incorporating gamification – are not abstract recommendations but are grounded in both empirical data and contextual needs. It is important to acknowledge the limitations of this study, including its relatively small sample size ( $n = 84$ ), short duration (four meetings), and non-randomized

class assignment, which may limit the internal validity and generalizability of the findings. Moreover, while MMJ showed strong effectiveness in the context of economic education, it may require significant adaptation in disciplines with different pedagogical demands, such as the hard sciences or technical fields. Nonetheless, this study contributes to the growing body of research on holistic learning approaches. Similar to (Gareau & Guo, 2009), who found that game-based and interactive instruction improved student motivation, this study reinforces the potential of joyful, experiential, and reflective learning. Furthermore, it extends the literature by demonstrating that the combined implementation of MMJ elements, when strategically aligned to institutional strengths and pedagogical challenges, offers a viable framework for advancing student-centered learning in higher education.

### 3.4.4 Integrative Implementation Strategy Based on Mindful, Meaningful, and Joyful Learning

#### 1. Improving Student Engagement with Hybrid Learning Methods

One of the main challenges in implementing integrative learning strategies based on Mindful, Meaningful, and Joyful Learning (MMJ) is the resistance of some lecturers and students to changes in learning methods that are no longer entirely conventional. The habit of one-way lectures, lack of interaction, and limited facilities and resources often become obstacles to implementing MMJ optimally. The hybrid learning approach is a promising strategic alternative to answer this challenge. This approach combines face-to-face learning with digital technology-based learning so that the flexibility and meaningfulness of the learning process can still be maintained. Through the use of interactive videos, online discussion forums, simulation platforms, and project-based assignments relevant to real life, students are engaged intellectually, emotionally, and socially. In addition, integrating online mindfulness sessions, game-based quizzes, and virtual group discussions can create a fun and immersive learning atmosphere. This strategy also allows lecturers to be more adaptive in structuring teaching materials and providing real-time feedback. Hybrid learning consistently produces better learning outcomes than entirely traditional learning, mainly because combining digital and interactive approaches can increase flexibility and learner engagement (Hamad, 2015; Wahyudin et al., 2023). Thus, the hybrid learning method can maintain and even increase student engagement in cognitive, affective, and behavioral aspects, even though it faces limited facilities and resistive attitudes toward learning innovations.

#### 2. Establish a Continuous Training Program for Teaching Staff

The successful implementation of Mindful, Meaningful, and Joyful Learning (MMJ) is fundamentally shaped by the readiness and competence of teaching staff in adapting these principles into daily instructional practices. However, in practice, many lecturers still lack both theoretical understanding and hands-on experience in applying MMJ strategies effectively. The absence of structured, in-depth training programs often leads to a lack of confidence, particularly when teaching demands high levels of classroom interaction, the use of educational technology, and the facilitation of reflective and experiential learning. To address these challenges, educational institutions must establish systematic and sustainable professional development programs. These initiatives should include technical workshops, one-on-one or peer mentoring, and the creation of lecturer learning communities to foster collaboration and the exchange of best practices. Training materials should emphasize practical strategies for integrating MMJ into both theoretical and practicum-based courses. As noted by de Jong et al. (2022), continuous, contextualized, and collaboration-oriented training enhances teaching quality and supports effective adaptation to pedagogical innovation (de Jong et al., 2022). Through consistent and relevant training, lecturers are better equipped to foster an active, enjoyable, and meaningful learning environment. Such preparation also empowers them to design creative project-based assignments and to increase both student motivation and engagement.

However, it is essential to approach the generalization of MMJ with caution. While MMJ is well-suited to disciplines that emphasize interaction, reflection, and contextual application—such as education, social sciences, and the humanities—it may not transfer seamlessly to more structured or

procedural fields such as engineering, mathematics, or laboratory-based sciences. In these contexts, the adaptation of MMJ would require thoughtful alignment with the discipline's epistemological foundations and instructional norms. Therefore, implementation efforts should be discipline-sensitive, ensuring that MMJ elements are flexibly integrated in ways that maintain instructional coherence and academic rigor.

### 3. Adapting MMJ Approach to Course Characteristics

The Mindful, Meaningful, and Joyful Learning (MMJ) approach offers great potential in creating a holistic and enjoyable learning experience. However, it is essential to realize that not all courses can fully implement this strategy, especially courses that are theoretical, memorization-based, or have a dense curriculum load. For this reason, it is necessary to develop a flexible and adaptive approach by integrating MMJ elements into previously used methods. For example, in theoretical courses, lecturers can add mindful learning elements through reflective activities such as journal writing or short meditation before starting the lecture and insert meaningful learning through case study-based discussions relevant to students' real lives. On the other hand, practicum courses are more suitable for implementing joyful learning directly through collaborative projects, simulations, educational games, or field practice. Alignment between learning approaches, course characteristics, and student needs is the key to creating meaningful and effective learning (Amalia et al., 2024; Redden et al., 2007). Such adjustments allow lecturers to maintain the essence of MMJ while respecting the unique characteristics of each course. Thus, this strategy improves students' conceptual understanding and encourages them to be more cognitively active, emotionally engaged, and behaviorally participatory during the learning process.

### 4. Optimizing Resource Use with Collaborative Learning

Limited facilities are one of the obstacles often faced in implementing integrative learning strategies based on Mindful, Meaningful, and Joyful Learning (MMJ), especially in educational institutions that do not have adequate supporting facilities. However, this obstacle does not have to be the main barrier to creating a quality learning experience. One effective solution is to optimize available resources by implementing community-based collaborative learning. This strategy emphasizes cooperation between students through study groups, collaborative projects involving community issues, and interactive discussions that can be conducted in person and online. This activity does not require sophisticated technology or special facilities but can foster students' active involvement, sense of responsibility, and critical thinking skills. In addition, students can also be directed to utilize various open resources such as online scientific journals, learning videos, virtual simulations, and digital educational platforms that can be accessed for free. Social interaction and collaboration are the primary keys to building knowledge and skills through the zone of proximal development (Kurniawati, 2024). With this approach, the learning process can still occur contextually and meaningfully despite the limitations. This collaborative strategy also encourages independent learning and strengthens the connection between theory and actual practice in the field.

### 5. Building a Reward and Gamification System to Increase Student Motivation

One of the significant challenges in implementing Mindful, Meaningful, and Joyful Learning (MMJ) learning strategies is the variation in intrinsic motivation levels among students. Not all students are naturally driven to actively engage in the learning process, especially when encountering challenging material or learning methods different from the norm. To address this challenge, implementing reward systems and gamification is an effective strategy to increase student motivation and engagement. Gamification creates a more dynamic, competitive, and fun learning atmosphere without compromising the essence of meaningful learning. Students can be awarded points, badges, or other forms of recognition for their active participation, project achievements, or creativity in completing tasks. In addition, using game elements such as interactive quizzes, game-based simulations, weekly challenges, and class leaderboards can arouse students' passion and curiosity on an ongoing basis. Gamification in an educational context can improve engagement, motivation, and

learning outcomes through elements of competition and symbolic rewards that stimulate active participation (Nacional, 2023; Smiderle et al., 2020). This strategy indirectly stimulates student engagement in cognitive aspects through problem-solving, affective aspects through enjoyable learning experiences, and behavioral aspects through active and consistent participation. Thus, reward systems and gamification can create a more inclusive, competitive, and inspiring learning environment.

#### 4. CONCLUSION

This study confirms that the integrative learning strategy based on Mindful, Meaningful, and Joyful Learning (MMJ) significantly enhances the quality of instruction in the Economic Learning Strategy course. Compared to conventional methods, students exposed to MMJ demonstrated substantially higher levels of cognitive, affective, and behavioral engagement, stronger conceptual understanding, improved argumentative skills, and greater learning motivation. These outcomes were supported by triangulated evidence from classroom observations, project-based assessments, and students' reflective responses on their learning experiences.

Drawing from the SWOT analysis, five actionable development strategies were formulated to optimize MMJ implementation. First, introducing hybrid learning models to address infrastructural limitations and resistance to pedagogical change. Second, providing ongoing professional development for lecturers to strengthen their instructional readiness and MMJ-related competence. Third, contextualizing MMJ to fit the distinct nature of each course to ensure relevance and sustainability. Fourth, leveraging collaborative, community-based learning approaches to maximize available resources. Fifth, incorporating gamification and recognition systems to reinforce student motivation over time. These strategic directions serve not only as an implementation guide but also as a foundation for formulating more human-centered, interactive, and context-sensitive education policies in higher education.

This study contributes to educational research by offering an empirical model that integrates reflective, meaningful, and joyful learning practices within a coherent instructional strategy—validated through both quantitative and qualitative data. It also informs practice by outlining a framework for adapting MMJ in diverse instructional settings. Future research should explore the scalability of MMJ in disciplines such as STEM, vocational education, and across culturally and demographically diverse student populations. Longitudinal studies are also recommended to assess the sustained impact of MMJ on academic performance and learner autonomy over time.

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