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INTEGRATING MORAL-SPIRITUAL VALUES INTO DIGITAL ENGLISH MATERIALS: EFFECTS ON LEARNING ENJOYMENT, ENGAGEMENT, AND ETHICAL LANGUAGE USE

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Abstract: This study aims to analyze the effect of Moral Spiritual Integrated Digital Materials and Perceived Ease of Use on Ethical Language Use Behavior in digital-based language learning, considering the role of Learning Enjoyment and Student Interest as mediating variables. Using a quantitative survey method, data were collected from 150 students through questionnaires. The respondents were selected using purposive sampling, with the criterion that they had used digital learning media in the learning process. Data analysis was performed using Structural Equation Modelling with

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Partial Least Squares (SEM-PLS), aided by the SmartPLS application. The results showed that Moral Spiritual Integrated Digital Materials and Perceived Ease of Use had a significant positive effect on Learning Enjoyment. Additionallu, Perceived Ease of Use also has a significant positive effect on Ethical Language Use Behavior. Furthermore, Learning Enjoyment is proven to have a significant positive effect on Student Interest. However, the direct effect of Moral Spiritual Integrated Digital Materials on Ethical Language Use Behavior is not significant. The analysis results also show that Learning Enjoyment and Student Interest act as mediating variables in the relationship between independent variables and Ethical Language Use Behavior.

Keywords: *digital learning, perceived ease of use, learning enjoyment, student interest, ethical language use behavior*

INTRODUCTION

In recent years, digital transformation in education has significantly changed the way learning processes at various levels of education. Advances in information and communication technology enable learning materials to be presented through various interactive, flexible, and accessible digital platforms. In English language learning context, the use of digital teaching materials no longer serves merely as a medium for delivering linguistic material, but also as a means of shaping learners' learning experiences, emotional engagement, and communication behavior in a digital environment (McCarthy et al., 2023). Digital teaching materials enable students to access a wider range of learning resources through text, video, audio, and interactive learning activities. This provides educators with the opportunity to design more engaging and contextual learning experiences. Various studies show that the use of technology in learning can increase learning flexibility, expand access to knowledge resources, and increase student engagement in the learning process (Anghelo Josué et al., 2023). Thus, the integration of digital technology in education has

become one of the main strategies for improving the quality of learning in the era of globalization.

However, most of the development of digital English teaching materials still focuses on improving linguistic competence and communication fluency, while the moral and spiritual aspects of language use have not received much systematic attention. In fact, language not only functions as a means of communication but also as a medium that represents the values, attitudes, and social identity of individuals in society. The use of unethical language in digital communication, such as hate speech, rude communication, and the dissemination of irresponsible information, demonstrates the importance of integrating ethical values into language learning (Dia, 2024). In the context of higher education that particularly has strong religious and social values, English language learning has strategic potential as a means of shaping ethical communication behavior. Thus, the development of digital English teaching materials that integrate moral and spiritual values is becoming increasingly relevant to ensure that language competence develops alongside ethical awareness in the use of language in the digital space (Gamage et al., 2021).

In addition to the value aspect of learning materials, technology also plays an important role in determining the success of digital learning. One concept that is widely used to explain the acceptance of technology in education is the Technology Acceptance Model (TAM), which emphasizes the importance of perceived ease of use in influencing users' attitudes and behavior towards technology (Haleem et al., 2022). When showing an ease of use, the students tend to be more open to utilizing it in the learning process. In contrast, emotional experiences in the learning process are also important factors that influence student engagement. Learning enjoyment is one of the affective factors that can increase students' intrinsic motivation to engage in learning activities. Enjoyable learning can increase students' attention to the material and encourages them to actively participate in the learning process (Tan et al., 2021).

Additionally, student interest is an important psychological factor in determining learning success. High interest can increase

attention, engagement, and students' desire to explore learning materials in greater depth. In technology-based learning, interest is often influenced by the design of learning materials, the quality of interaction, and the ease of use of digital learning systems (Schweder & Raufelder, 2022). Although a number of studies have examined the relationship between the use of digital learning technology, learning experiences, and student engagement, research that specifically examines the integration of moral-spiritual values in digital English teaching materials and their influence on ethical language use behavior is still very limited. Most previous studies have focused more on aspects of technology adoption, the effectiveness of digital learning, and user satisfaction with online learning systems (Balalle, 2024).

This research gap is becoming increasingly important to examine, given the increasing use of digital technology in learning and the expanding communication interactions of students in the global digital space. Therefore, research is needed that not only examines the technological aspects of learning but also considers the value dimension in shaping ethical communication behavior. Thus, this study aims to analyze the influence of Moral-Spiritual Integrated Digital Materials and Perceived Ease of Use on Learning Enjoyment and Student Interest, as well as their impact on Ethical Language Use Behavior in the context of digital-based English language learning. This study is expected to contribute theoretically to the development of literature on technology-based language learning and provide practical implications for the development of digital teaching materials that not only improve language competence but also shape ethical communication behavior in the digital age.

METHOD

Research Design

This study employed a quantitative research design using a survey method to test the causal relationships between variables in the proposed research model. This design was considered appropriate because it enables the researcher to statistically examine the influence between constructs and test hypotheses based on measurable data

collected from respondents. The research model of this study is presented in Figure 1, illustrating the hypothesized relationships among the five constructs examined in this study.

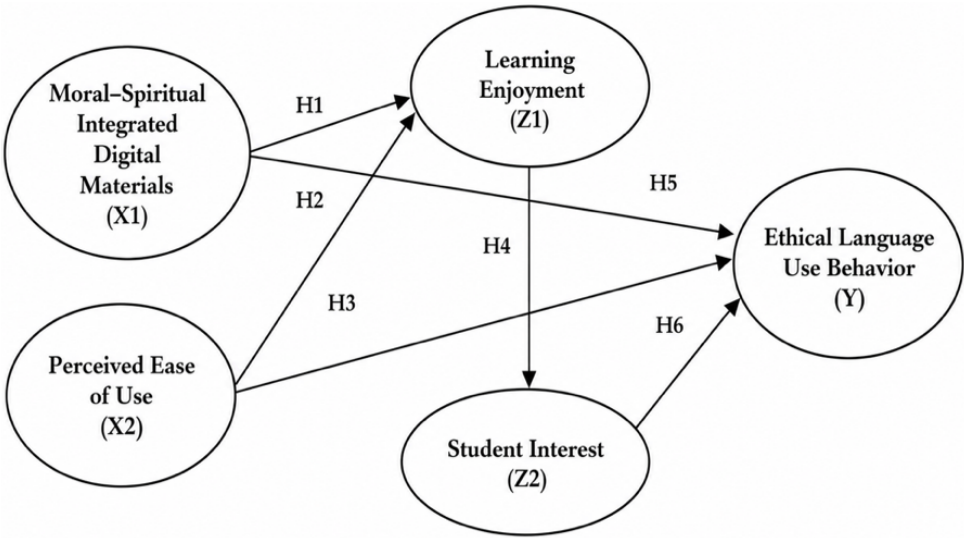


Figure 1. Research Model

Participants and Sampling

The participants of this study consisted of 150 students who had experience using digital teaching materials in English language learning. Participants were selected using a purposive sampling technique, that is, a technique for determining samples based on specific criteria relevant to the research objectives. The main criterion for respondents was that they had used digital-based English teaching materials, ensuring that they had relevant experience with the variables under study. This sample size was considered adequate for analysis using the SEM-PLS method, as several previous studies have shown that SEM-PLS can be applied effectively with a relatively moderate sample size, as long as it meets the minimum requirements for structural model analysis (Hair & Alamer, 2022).

Data Collection Instruments

Data were collected using a questionnaire consisting of several statement items designed to measure each research construct. All statement items were measured using a five-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"). This scale was considered effective for measuring respondents' perceptions, attitudes, and experiences related to the phenomenon under study (Lim, 2025).

Each variable was measured using five indicators, resulting in a total of 25 measurement items representing five research constructs: (1) Moral-Spiritual Integrated Digital Materials, which measures students' perceptions of the integration of moral and spiritual values in digital English teaching materials; (2) Perceived Ease of Use, which measures the ease with which students use digital teaching materials and technology-based learning systems; (3) Learning Enjoyment, which measures students' level of enjoyment or positive emotional experience during digital-based English learning; (4) Student Interest, which measures students' level of interest and attention toward English learning through digital media; and (5) Ethical Language Use Behavior, which measures students' behavior in using English ethically in digital communication. All items were adapted from theoretical concepts in previous studies relevant to educational technology, learning engagement, and character education in digital communication (Andrade, 2021).

The instrument's validity and reliability were tested prior to the main analysis. Construct validity was tested through outer loading, Average Variance Extracted (AVE), and discriminant validity, while construct reliability was tested through Composite Reliability and Cronbach's Alpha (Slater & Hasson, 2025).

Data Collection Procedures

Data collection was carried out by distributing questionnaires online through the Google Forms platform. This method was chosen because it facilitated the distribution process and enabled efficient data collection within a relatively short time. After the responses were

collected, the data were checked to ensure the completeness and consistency of respondents' answers before being processed further.

Data Analysis

Data analysis was conducted using Partial Least Squares-based Structural Equation Modeling (SEM-PLS) with the assistance of SmartPLS software. This method was chosen for its advantages in analyzing complex structural models with relatively limited samples and its lack of strict normal distribution assumptions. SEM-PLS is also capable of testing direct and indirect relationships between variables simultaneously within a single research model (Hair & Alamer, 2022).

Analysis was performed in two main stages: measurement model evaluation and structural model evaluation. Measurement model evaluation assessed the reliability and validity of the constructs used in the study, while structural model evaluation tested the relationships between research variables and measured the strength of influence between constructs through path coefficient values, R-square, and significance values based on the bootstrapping procedure (Kang & Ahn, 2021). The bootstrapping procedure generated t-statistics and p-values, allowing the researcher to statistically evaluate the strength of relationships between variables and determine whether the research hypotheses were accepted or rejected.

Ethical Considerations

This study did not require formal ethical approval from an institutional ethics committee, as it involved anonymous survey participation with no identifiable personal or sensitive data collected. Participation was voluntary, and informed consent was obtained from all respondents prior to data collection. Participants' confidentiality and anonymity were strictly maintained.

FINDINGS

Respondent Description

The respondents in this study consisted of 150 students who met the purposive sampling criteria, namely students who had used

digital-based English teaching materials in the learning process. These criteria were used to ensure that the respondents had relevant experience with the research variables, namely Moral-Spiritual Integrated Digital Materials, Perceived Ease of Use, Learning Enjoyment, Student Interest, and Ethical Language Use Behavior.

The characteristics of respondents in this study are described based on several categories, namely gender, age, semester of study, and frequency of use of digital teaching materials in English language learning. The description is presented in Table 1.

Table 1.
The results of validity and reliability test

Characteristics	Category	Number	Percentage (%)
Gender	Male	68	45,3%
	Female	82	54,7%
Age	17-20 Years	48	32,0%
	21-23 Years	76	50,7%
	> 24 Years	26	17,3%
Semester	Semester 2	32	21,3%
	Semester 4	46	30,7%
	Semester 6	40	26,7%
	Semester 8	32	21,3%
Frequency of use of digital teaching materials	Every Meeting	84	56,0%
	2-3 times a week	46	30,7%
	> twich a week	20	13,3%

Measurement Model Test (Outer Model)

The measurement model was tested to determine the validity and reliability of the indicators in measuring the research construct. This test was based on the outer loading value, Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE).

The indicators were declared valid if they had an outer loading value of more than 0.70. Based on the SmartPLS analysis results, all indicators in the Moral-Spiritual Integrated Digital Materials (X1), Perceived Ease of Use (X2), Learning Enjoyment (Z1), Student Interest (Z2), and Ethical Language Use Behavior (Y) variables had outer loading values above 0.70 with a range of 0.891 to 0.984, so all indicators were declared valid.

Construct reliability was assessed based on Cronbach's Alpha and Composite Reliability values. The analysis results show that the Cronbach's Alpha value ranges from 0.962 to 0.989, while the Composite Reliability value is in the range of 0.971 to 0.991, so that all constructs meet the reliability criteria. Convergent validity was also tested using the Average Variance Extracted (AVE) value, with a criterion of an AVE value greater than 0.50. The results of the analysis showed that all variables had AVE values between 0.870 and 0.958, so it can be concluded that all constructs in this study met the criteria for convergent validity.

Table 2.
Convergent Validity

Variabel	Item	λ	α	CR	AVE
Moral Spiritual Integrated Digital Materials (X1)	MSI1	0.967	0.983	0.986	0.935
	MSI2	0.970			
	MSI3	0.964			
	MSI4	0.961			
	MSI5	0.972			
Perceived Ease of Use (X2)	PEO1	0.969	0.969	0.988	0.944
	PEO2	0.971			
	PEO3	0.970			
	PEO4	0.967			
	PEO5	0.981			
Learnig Enjoyment (Z1)	LE1	0.977	0.989	0.991	0.958
	LE2	0.980			
	LE3	0.977			
	LE4	0.975			
	LE5	0.984			
Student Interest (Z2)	SI1	0.949	0.962	0.971	0.870
	SI2	0.954			
	SI3	0.934			
	SI4	0.933			
	SI5	0.891			
Ethical Language Use Behavior (Y)	ELU1	0.975	0.985	0.988	0.944
	ELU2	0.981			
	ELU3	0.978			
	ELU4	0.962			
	ELU5	0.961			

Description: MSI = Moral-Spiritual Integrated Digital Materials, PEO = Perceived Ease of Use, LE = Learning Enjoyment, SI = Student Interest, ELU = Ethical Language Use Behavior
Source: Researcher's compilation, SmartPLS (2026)

In addition to convergent validity, measurement model testing includes discriminant validity. Discriminant validity aims determine the extent to which a construct is truly different from other constructs in the research model. One method used to test discriminant validity is the Fornell–Larcker criterion, which compares the square root of the Average Variance Extracted (AVE) value on the diagonal with the correlation value between constructs. Based on the results of the analysis using SmartPLS, the AVE square root value for each construct is higher than the correlation value between other constructs. This shows that each variable in the study has an adequate level of difference, so it can be said that discriminant validity has been fulfilled.

Table 3.
Discriminant Validity (Fornell–Larcker Criterion Test)

Construct	Y	Z1	X1	X2	Z2
Ethical Language Use Behavior (Y)	0.971				
Learning Enjoyment (Z1)	0.724	0.979			
Moral-Spiritual Integrated Digital Materials (X1)	0.506	0.679	0.967		
Perceived Ease of Use (X2)	0.561	0.721	0.793	0.971	
Student Interest (Z2)	0.587	0.662	0.337	0.365	0.933

Description: MSI = Moral-Spiritual Integrated Digital Materials, PEO=Perceived Ease of Use, LE = Learning Enjoyment, SI = Student Interest, ELU = Ethical Language Use Behavior

Source: Researcher's compilation, SmartPLS (2026)

Table 4.
Hypothesis Testing

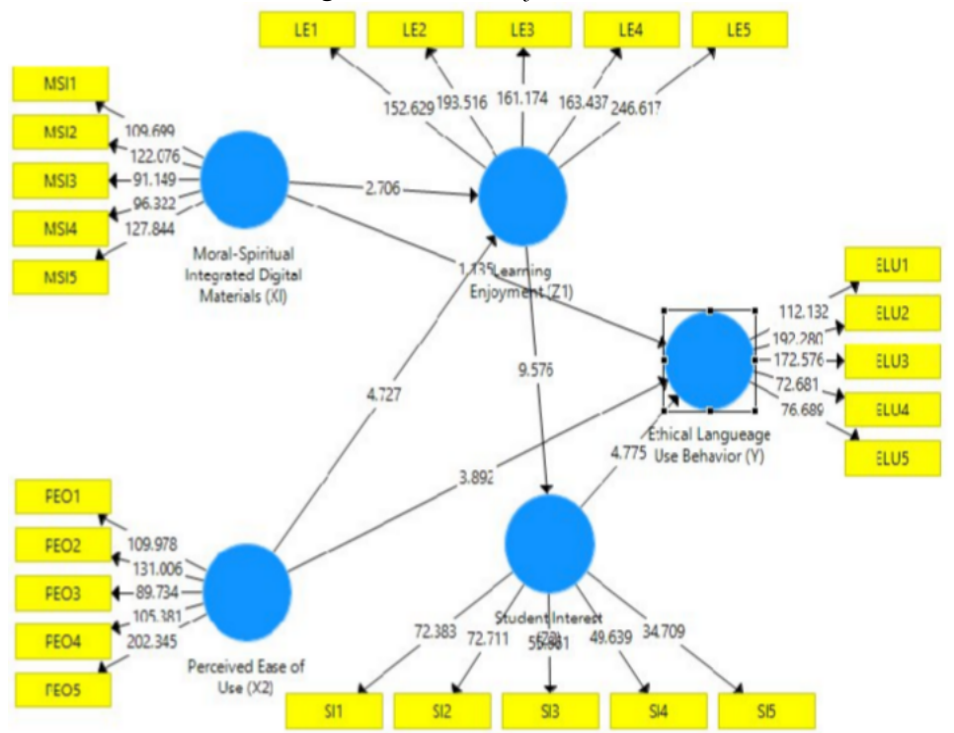
Hypothesis	Relationship	β	T-Statistic	P-Value	Description
H1	X1 → Z1	0.289	2.706	0.007	Influential & Significant
H2	X2 → Z1	0.491	4.727	0.000	Influential & Significant
H3	X2 → Y	0.317	3.892	0.000	Influential & Significant
H4	Z1 → Z2	0.662	9.576	0.000	Influential & Significant
H5	X1 → Y	0.107	1.135	0.257	Not Significant
H6	Z1 → Z2 → Y	0.288	3.652	0.000	Influential & Significant Mediation

Description: X1 = Moral-Spiritual Integrated Digital Materials, X2 = Perceived Ease of Use, Z1 = Learning Enjoyment, Z2 = Student Interest, Y = Ethical Language Use Behavior

Source: Researcher's compilation, SmartPLS (2026)

Overall, these results confirm that five of the six hypothesized relationships were statistically significant, with only the direct path from Moral-Spiritual Integrated Digital Materials to Ethical Language Use Behavior (H5) failing to reach significance. The complete structural model, including all path coefficients and indicator loadings, is illustrated in Figure 2.

Figure 2. SEM Analysis Result



DISCUSSION

This study identifies several important factors that influence Ethical Language Use Behavior in the context of digital-based language learning. The results show that the integration of Moral-Spiritual Integrated Digital Materials, Perceived Ease of Use, Learning Enjoyment, and Student Interest play an important role in shaping ethical language use behavior in a digital learning environment. Specifically, Moral-Spiritual Integrated Digital Materials (X1) and Perceived Ease of Use (X2) were both found to have a significant positive effect on Learning Enjoyment (Z1). Digital teaching materials that integrate moral and spiritual values make the learning process

more meaningful and relevant to students' lives, as materials containing ethical reflections and real-life examples increase students' emotional engagement (Wijayati et al., 2025; Desai & Wane, 2022; Cronqvist, 2024; Aljabr & Al-Ahdal, 2024). Similarly, when students find digital learning systems easy to use, they can focus more on the learning material without being distracted by technical difficulties, which enhances a more enjoyable learning experience (Putra et al., 2023; Yu, 2022; Oudat & Othman, 2024; Wang & Tahir, 2020).

Beyond its effect on enjoyment, Perceived Ease of Use (X2) was also found to have a significant positive effect directly on Ethical Language Use Behavior (Y). Easy-to-use learning platforms enable students to interact more actively and responsibly in digital communication, helping them understand appropriate communication practices in the online learning environment (Chen et al., 2025; Hu & Xiao, 2025; Mohd Nasir et al., 2021; Linus et al., 2025). In addition, Learning Enjoyment (Z1) was shown to have a significant positive effect on Student Interest (Z2), indicating that an enjoyable learning experience increases students' motivation to engage more deeply with the learning material (Hernik & Jaworska, 2018; Papakostas, 2024; Puspitasari et al., 2025; Ward-Seidel et al., 2024).

Interestingly, the direct relationship between Moral-Spiritual Integrated Digital Materials (X1) and Ethical Language Use Behavior (Y) was not significant, suggesting that this influence occurs indirectly through Learning Enjoyment and Student Interest as mediating variables (Kaewkitipong et al., 2023). This is supported by the finding that Learning Enjoyment (Z1) and Student Interest (Z2) jointly play a mediating role in shaping Ethical Language Use Behavior (Y): an enjoyable learning experience heightens students' interest, which in turn encourages more responsible and ethical use of language in digital communication (Holmes, 2018; Blinkoff et al., 2023; Eslit, 2023; Zhang et al., 2024). Taken together, these findings suggest that easy-to-use digital learning materials that integrate moral and spiritual values can create a positive learning experience, which increases students' interest in learning and ultimately shapes more ethical language use behavior.

Theoretically, this study contributes to the literature on digital learning by demonstrating the role of moral-spiritual integration in shaping learning enjoyment, which in turn influences student interest. These findings also reinforce the Technology Acceptance Model (TAM), confirming that Perceived Ease of Use is not only central to enhancing an enjoyable learning experience but also contributes directly to the formation of more ethical communication behavior in a digital learning environment (Schorr, 2023). Furthermore, the results affirm that affective factors such as learning enjoyment and student interest function as important psychological mechanisms that connect learning experiences with more ethical communication behavior (Kuo et al., 2024).

These findings also carry practical implications for education administrators, lecturers, and developers of digital learning systems. Educational institutions need to develop digital teaching materials that integrate moral and spiritual values alongside academic content to create more meaningful learning experiences. Developers of digital learning systems should prioritize ease of use, as user-friendly platforms increase student comfort and encourage active participation. Lecturers, in turn, need to design learning environments that foster enjoyment and interest, since engaging learning experiences encourage students to develop more ethical communication behaviors. Finally, strengthening ethical values in language use should be an integral part of English language learning in the digital age, particularly as digital communication becomes increasingly intensive and involves interactions across diverse cultural backgrounds.

CONCLUSION

This study analyzed the influence of Moral-Spiritual Integrated Digital Materials, Perceived Ease of Use, Learning Enjoyment, and Student Interest on Ethical Language Use Behavior in digital-based language learning. The results show that Moral-Spiritual Integrated Digital Materials and Perceived Ease of Use positively influence Learning Enjoyment, which in turn increases Student Interest. Perceived Ease of Use also has a direct positive effect on Ethical

Language Use Behavior. In contrast, Moral-Spiritual Integrated Digital Materials does not influence it directly, but rather works indirectly through Learning Enjoyment and Student Interest as mediating factors.

Overall, these findings indicate that effective digital learning depends not only on the technology used, but also on how enjoyable learning experiences and student interest are built through appropriate learning design. Integrating moral and spiritual values into digital teaching materials, together with ease of use of learning technology, can be an important strategy for improving learning quality while shaping more ethical language use in digital education. However, this study has several limitations. First, the relatively limited sample restricts generalizability. Future studies could use a larger and more diverse sample across institutions. Second, only two mediating variables were examined, namely Learning Enjoyment and Student Interest. Future research could incorporate additional variables such as learning motivation, digital engagement, or learning satisfaction. Third, this study focused solely on digital-based language learning. Future studies could test the model in other technology-based learning contexts to provide a broader understanding of ethical language use behavior.

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DECLARATION OF AI AND AI-ASSISTED TECHNOLOGIES

We confirm that this article was not created with the help of GEN AI. The applications used to create this article were only SEM PLS 3 for data analysis and DeepL Pro for independent English writing checks.

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