

Intelligent Educational Technology in Teaching Literature and Motivation of Learners: Basis for Intervention

Angelo C. Figueroa¹, Lorelie D. Honesto²

¹Mariano G. Medalla Integrated School, Philippines

²Doña Hortencia Salas Benedicto National High School, Philippines

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ABSTRACT

This study aimed to determine how Intelligent Educational Technology (IET) in literature instruction benefits high school students and influences their motivation. It described the profile of Grade 7–10 students for school year 2025–2026 in a selected public school in Bacolod City, in terms of sex, age, and socio-economic status; examined the extent of impact of IET in literary learning and learners' motivation. It also determined the differences and relationships between the extent of impact of IET in teaching literature and learners' motivation. A descriptive correlational and comparative research design was used, involving 292 high school students as respondents. Data were gathered using a validated researcher-made questionnaire. There were no significant differences in the extent of impact IET when respondents were grouped according to age and socio-economic status. A significant difference was found when grouped according to sex. Moreover, a significant positive relationship was identified between the extent of impact of IET and learners' motivation, although the correlation was low. The study concluded that IET is an effective instructional tool that enhances student engagement and motivation in literature learning. Lastly, the higher perceived impact of IET was associated with increased learner motivation. An intervention program promoting inclusive and gender-responsive integration of IET was recommended.

Keywords: Intelligent Educational Technology, Literature Instruction, Learner Motivation, Student Engagement, High School Students, Gender-Responsive Education, Educational Technology, Literature Learning.

INTRODUCTION

The world has truly evolved with the advent of technology. Gone are the days when teachers and learners engage in traditional ways of teaching and learning. Nowadays, classroom instruction has become more fun, interactive, and challenging (Ascione, 2023). Artificial intelligence (AI) has become widely integrated into various aspects of life, including the education sector. Primarily, AI in education is intended to heighten the quality and efficacy of teaching and learning by leveraging technology to deeply comprehend and meet the individual needs of the learners (Limna, Jakwatanatham, Siripipattanakul, Kaewpuang, and Sriboonruang, 2022). By examining and processing large amounts of data, AI systems can deliver insights and recommendations to teachers to assist them in coming up with informed decisions and personalize instruction to ably address the learners' strengths, weaknesses, and learning preferences.

Moreover, AI in education can be utilized to reorganize administrative functions, like scoring papers, computing grades, scheduling, and student management, thereby giving the teachers ample time and space to conduct quality instruction and provide all-out student support. Integrating AI technology's entry into education can significantly revolutionize the traditional education system, transforming it to becoming more personalized, proficient, and manageable (Ou, 2024).

Integrating state-of-the-art technologies in the education sector, like AI and intelligent educational technology (IET) has impressively extended the prospective for crafting tailored activities (Walter, 2024). These advanced tools have caused teachers to produce noteworthy curricula and revolutionize teaching methodologies. Educators make use of these resources to foretell student (Abdaljaleel et al., 2024; Alshamaila et al., 2024) performance, to boost the learning process and make data-driven resolutions (Gao et al., 2021; Guan et al., 2020). By assimilating technology into the learning environments, there is a chance to promote student participation and cultivate critical thinking skills and analytical abilities of young learners. The application of AI in education incorporates functions, as well as machine learning resources (Martins et al., 2023; Yang et al., 2021), virtual assistants (Ye et al., 2024), chatbots (Yetişensoy & Karaduman, 2024; Tlili et al., 2023), educational games, robots (Arvin et al., 2019), virtual reality simulations (Lampropoulos, 2024) and intelligent educational tools (Hwang et al., 2022).

Making use of intelligent educational technology in school, particularly in teaching various subjects, like literature, will certainly capture the interest of learners, who usually find reading lengthy literary pieces boring and irrelevant. The use of technology in class will heighten participation of the learners because they are stimulated by the use of technology, far different from the traditional ways of studying literature.

In Bacolod City particularly in junior high school level despite the integration of literature into the English curriculum, many students continue to demonstrate low motivation in studying literary text. This lack of motivation is often reflected in limited participation during literature discussion, reduced engagement in reading activities, and difficulties in appreciating and analyzing literary works. In line to this, the researcher wants to study the extent of impact of intelligent educational technology in teaching literature and motivation of learners.

METHODOLOGY

This study employed a quantitative descriptive-correlational and comparative research design to determine the extent of the impact of Intelligent Educational Technology (IET) in teaching literature and its relationship with learners' motivation among 292 Grade 7 to Grade 10 students in a selected public secondary school in Bacolod City during the School Year 2025–2026.

Data were gathered using a validated researcher-made questionnaire consisting of three parts: respondents' profile, extent of impact of IET in teaching literature, and learners' motivation. The profile included sex, age, and socio-economic status. The questionnaire was validated by qualified experts to ensure the clarity, relevance, and appropriateness of its items.

The Intelligent Educational Technology (IET) tools considered in this study included technology-supported applications and digital learning resources used to facilitate literature instruction and enhance learners' engagement. These included AI-assisted educational tools, interactive digital content, gamified learning platforms, online quizzes, multimedia presentations, and collaborative digital activities. AI-powered tools were considered in terms of their potential to support learners in generating ideas, exploring literary concepts, obtaining immediate feedback, and engaging in interactive learning experiences. Gamified platforms were utilized through features such as points, badges, challenges, and leaderboards to encourage participation and sustain learners' interest in literary activities.

Interactive digital content, including multimedia presentations, digital texts, videos, and other technology-enhanced learning materials, was incorporated to support the discussion and interpretation of literary works. Online literature quizzes and digital challenges were also used to provide immediate feedback and reinforce learners' understanding of literary concepts. Collaborative digital activities allowed students to work together in producing multimedia presentations, electronic books, and other digital outputs based on literary texts.

These IET applications were integrated into literature instruction to provide more interactive, learner-centered, and engaging experiences. However, the study primarily examined students' perceptions of technology-enhanced literature instruction rather than evaluating the effectiveness of one specific technology platform. Thus, the

findings should be interpreted as reflecting learners' general perceptions of IET-supported literature learning rather than the independent effect of a particular technological application.

Before data collection, permission was secured from the appropriate school authorities. The respondents were informed of the purpose of the study, and their participation was voluntary. Confidentiality and anonymity were strictly observed, and the data gathered were used solely for academic purposes.

Frequency and percentage were used to describe the respondents' profile, while mean and standard deviation determined the extent of impact of IET and learners' motivation. The Mann–Whitney U test and Kruskal–Wallis H test was used to determine significant differences based on sex, age, and socio-economic status. Spearman's rank-order correlation coefficient was used to determine the relationship between the impact of IET and learners' motivation. The level of significance was set at 0.05. The findings served as the basis for the conclusions, recommendations, and proposed intervention program.

RESULTS AND DISCUSSIONS

Profile of the Respondents

Table 2. Profile of Respondents in Terms of Sex, Age, and Socio-Economic Status

Profile	f	%
Sex		
Male	207	70.89
Female	85	29.11
Total	292	100
Age		
11-12 years old	83	28.42
13-14 years old	56	19.18
15-16 years old	76	26.03
16-17 years old	77	26.37
Total	292	100
Socio-Economic Status		
Lower Class (Below 24, 060)	57	19.52
Middles Class (24, 061-144, 360)	217	74.32
Upper Class (Above 144,360)	18	6.16
Total	292	100

This indicates that the sample population is predominantly male, potentially affecting overall attitudes and experiences regarding the utilization of Intelligent Educational Technology in literature instruction.

In terms of sex the male frequency is 207 while the percentage is 70.89%. On the other hand, the female frequency is 85 and the percentage is 29.11% consecutively.

Further, in terms of the age of the respondents who answered, which are between 11 and 17. The most students are in the 16-17 age group (77, 26.37%), followed by the 15-16 age group (76, 26.03%). At the same time, 83 kids (28.42%) are 11 to 12 years old, and 56 kids (19.18%) are 13 to 14 years old. This distribution matches the normal age range for students in grades 7–10, which means that the study has a good mix of early and middle teens (Deci, 2020).

Lastly, in terms of socio-economic status majority of respondents, 217 students (74.32%), are from the middle-income band. This is followed by 57 students (19.52%) in the lower-class bracket and 18 students (6.16%) in the upper-class bracket. This distribution indicates that the majority of participants came from middle-income families, which may influence their access to and experience with Intelligent Education Technology in the classroom shows that most of the people who answered, 217 students (74.32%), come from families with middle incomes. Then, there are 57 students (19.52%) in the lower-class group and 18 students (6.16%) in the upper-class group. This distribution shows that most of the people who took part came from families with middle incomes. This could affect how they use and experience Intelligent Educational Technology in the classroom.

It implies that the profile of the respondents indicates that the study gathered data from a diverse group of learners in terms of age and socio-economic status, providing a broad understanding of the population being investigated. The findings suggest that most respondents come from middle-income families and are within the adolescent age range, which may influence their perspectives, experiences, and responses. Consequently, the results of the study may be useful in developing programs, policies, and interventions that are responsive to the needs and characteristics of students within similar demographic backgrounds.

Research suggests that understanding learners' demographic and contextual characteristics is essential for designing effective educational interventions and improving student outcomes (Slade & Prinsloo, 2023). Moreover, understanding the respondents' profile helps ensure that recommendations and educational strategies are appropriately tailored to the population represented in the study, thereby promoting equity, inclusiveness, and learner-centered educational practices (OECD, 2023, 2024).

Extent of Impact of Intelligent Educational Technology in Terms of Sex, Age, and Socio-Economic Status

Table 3. Extent of Impact of Intelligent Educational Technology in Teaching Literature in terms of Sex, Age, and Socio-Economic Status

Profile	Mean	Interpretation
Sex		
Male	4.18	Great Extent
Female	4.31	Very Great Extent
Age		
11-12 years old	4.23	Very Great Extent
13-14 years old	4.22	Very Great Extent
15-16 years old	4.21	Very Great Extent
16-17 years old	4.21	Very Great Extent
Socio-Economic Status		
Lower Class (Below 24, 060)	4.24	Very Great Extent
Middle Class (24, 061-144, 360)	4.21	Very Great Extent
Upper Class (Above 144,360)	4.25	Very Great Extent
As a whole	4.22	Very Great Extent

Table 3 reveals that all respondents, when grouped according to sex, age, and socio-economic status, perceived the impact of the intervention at a very great extent, with an overall mean of 4.22. Although female respondents (4.31) obtained a slightly higher mean than males (4.18), Both groups still have a high level of perception, which means that the intervention works for both male and female. Females are slightly more engaged than men. The mean scores across groups are almost the same when it comes to age (4.21–4.23) indicate that the intervention is consistently effective regardless of developmental stage, demonstrating its adaptability among learners aged

11 to 16. Similarly, the minimal variation across socio-economic classifications (4.21–4.25) implies that the intervention promotes equity in learning, as students benefit equally regardless of economic background.

These findings imply that the strategy, such as the integration of Intelligent Educational Technology (IET), is very effective, open to everyone, and well-known by students. The findings also suggest that these methods boost student motivation and engagement, which are important for better academic performance and learning outcomes. Recent studies support this by showing that using technology in the classroom greatly boosts student motivation and participation. (Sappaile, 2024), while motivation itself is a key determinant of academic success. Moreover, effective instructional design and teacher support play crucial roles in sustaining student engagement (Liang, 2023). Additionally, research highlights that student motivation remains a universal factor influencing learning regardless of demographic differences, and that increased engagement can help reduce disparities related to gender and socio-economic status (OECD, 2022). Consequently, the consistently elevated ratings across all variables validate the adoption of such interventions in educational contexts, as they promote inclusivity, motivation, and efficacy learning environments.

Levels of Learners' Motivation in Studying Literature in Terms of Sex, Age, and Socio-Economic Status

Table 4. Levels of Learners' Motivation in Studying Literature When They are Taken Altogether and When Grouped According to Sex, Age and Socio- Economic Status.

Profile	Mean	Interpretation
Sex		
Male	4.26	Very High
Female	4.13	High
Age		
11-12 years old	4.26	Very High
13-14 years old	4.21	Very High
15-16 years old	4.21	Very High
16-17 years old	4.22	Very High
Socio-Economic Status		
Lower Class (Below 24, 060)	4.23	Very High
Middles Class (24, 061-144, 360)	4.23	Very High
Upper Class (Above 144,360)	4.17	High
As a whole	4.22	Very High

The findings show respondents, when classified by gender, age, and socio-economic position, rated the usage of intelligent educational technology as extremely high (overall mean = 4.22). Males (4.26) scored somewhat higher than females (4.13), but both maintained a high degree of favorable perception. The means across age groups are closely clustered (4.21-4.26), demonstrating that views remain stable regardless of age. In terms of socio-economic level, both lower and middle-class respondents had the same mean (4.23), while the top class had a slightly lower mean (4.17), which was still within a high interpretation.

Overall, the data indicated that intelligent educational technology is widely recognized as very successful and useful across various demographic groups, implying its widespread acceptance and consistent impact on literature instruction.

This finding is corroborated by Philippine educational research, which shows that technology-enhanced instruction promotes learner engagement and is typically well-received across varied student populations, independent of demographics (DepEd, 2023). Furthermore, local studies show that the effectiveness of digital

learning tools in the Philippines is more heavily varied through instructional design and teacher facilitation than by age or socio-economic status, emphasizing their inclusive nature in classroom settings (Casanova, 2025; Philippine Institute for Development Studies PIDS, 2024). As a result, the consistently excellent evaluations across all groups support the continued use of intelligent education technology as an effective and equitable instructional method in literature education.

Difference in the Extent of Impact of Intelligent Educational Technology in Teaching Literature in Terms of Sex

Table 5. The Difference of the Extent of Impact of Intelligent Educational Technology in Terms of Sex.

Sex	f	Mean Rank	Test Statistics (U)	p-Value	Decision for Ho	Interpretation
Male	207	115.30	2338.5	<0.001	Reject Ho	Significant
Female	85	222.49				

The results indicate a statistically significant difference in the extent of use of intelligent educational technology in teaching literature when respondents are grouped according to sex, as shown by the computed Mann-Whitney U value ($U = 2338.50$) and a p-value of less than 0.001, which is below the 0.05 level of significance; thus, the null hypothesis is rejected. This suggests that sex significantly influences perceptions, with female respondents (mean rank = 222.49) reporting a considerably higher extent of use compared to male respondents (mean rank = 115.30). The significant difference in mean ranks suggests that females are more involved with or more receptive to the incorporation of intelligent educational technology in literature instruction. This finding may be attributed to differences in how men and women prefer to study, how they perceive technology, or how driven they are.

The results highlight the need for educators to use more gender-responsive practices to ensure fair participation among male students while maintaining a high level of responsiveness among female students. Recent research confirm that gender differences can affect students' motivation and interaction with technology-enhanced learning settings, with female students usually demonstrating more engagement and academic motivation (Sappaile, 2024; Wang, 2024). Furthermore, research shows that instructional design and teacher facilitation are critical in addressing such inequalities and encouraging inclusive participation (Liang, 2023; Daumiller et al., 2024). As a result, the noteworthy finding emphasizes the significance of taking sex into account while deploying intelligent education technology to maximize its effectiveness in literature instruction.

Difference in the Extent of Impact of Intelligent Educational Technology in Teaching Literature in Terms of Age

Table 6. The Difference in the Extent of Impact of Intelligent Educational Technology in Teaching Literature in Terms of Age.

Age	f	Mean Rank	Test Statistics (U)	p-Value	Decision for Ho	Interpretation
11-12 years old	83	153.77	1.46	0.691	Accept Ho	Not Significant
13-14 years old	56	149.04				
15-16 years old	76	144.72				
16-17 years old	77	138.58				

The findings indicate that when respondents are grouped by age, there is no statistically significant difference in their responses, as demonstrated by the computed Kruskal-Wallis value ($H = 1.46$) and a p-value of 0.691, which is greater than the 0.05 level of significance. This leads to the acceptance of the null hypothesis, which states that age has no substantial influence on respondents' perceptions. Although some variations in mean ranks are

noted, with learners aged 11-12 years old having the greatest mean rank (153.77) and those aged 15-16 years old having the lowest (138.58), these differences are minor and not statistically significant. This suggests that the intervention, such as the use of Intelligent Education Technology (IET), is consistently effective across all age groups and developmental stages.

The data indicate that learners aged 11 to 16 respond similarly in terms of motivation and engagement, demonstrating the intervention's adaptability and applicability for junior high school pupils. Furthermore, this finding shows that educational practices that incorporate technology can be employed consistently across age groups without requiring significant changes. Recent studies show that age has no major effect on student motivation and engagement when proper instructional tactics and technologies are applied (Daumiller et al., 2024). Furthermore, research indicates that well-designed technology-integrated instruction enhances equitable learning opportunities and consistent engagement among learners at various developmental stages (Herwin et al., 2023; Liang, 2023). As a result, the non-significant result supports the implementation of the intervention in all age groups because it provides an inclusive and successful learning experience for all children.

Difference in the Extent of Impact of Intelligent Educational Technology in Teaching Literature in Terms of Socio-Economic Status

Table 7. The Difference in the Extent of Impact of Intelligent Educational Technology in Teaching Literature in Terms of Socio-Economic Status.

Socio-Economic Status	f	Mean Rank	Test Statistics (H)	p-Value	Decision for Ho	Interpretation
Lower Class (Below 24, 060)	57	155.71	3.95	0.139	Accept Ho	Not Significant
Middles Class (24, 061-144, 360)	217	141.58				
Upper Class (Above 144,360)	18	176.69				

The results show that there is no statistically significant difference in the extent of impact of intelligent educational technology in teaching literature when respondents are grouped according to socioeconomic status, as indicated by the computed Kruskal-Wallis value ($H = 3.95$) and a p-value of 0.139, which is greater than the 0.05 level of significance; thus, the null hypothesis is accepted. Although mean ranks vary, with the top class having the highest mean rank (176.69), followed by the lower class (155.71) and the middle class (141.58), these differences are not statistically significant. This shows that socioeconomic status has little influence on students' perceptions, implying that intelligent education technology is equally accessible and successful across income groups in the Philippine educational system.

The findings imply that digital and technology-supported learning can assist promote inclusive education by mitigating the influence of economic gaps on learning outcomes. This is confirmed by Philippine-based studies, which emphasize that access to and advantages from educational technology are becoming universal among learners, and that participation in digital learning is affected by instructional quality rather than financial level (Casilao et al., 2025; Lugo, 2025). The findings imply that digital and technology-supported learning can help to promote inclusive education by reducing the impact of economic disparities on learning outcomes. This is supported by Philippine-based studies, which emphasize that access to and benefits from educational technology are becoming more widespread among students, and that involvement in digital learning is influenced by instructional quality rather than financial status.

Difference in the Level of Learners' Motivation in Terms of Sex

Table 8. Difference in Learners' Motivation in Teaching Literature to These High School Students When They are Grouped According to Sex.

Sex	f	Mean Rank	Test Statistics (U)	p-Value	Decision for Ho	Interpretation
Male	207	176.28	2633.00	<0.001	Reject Ho	Significant
Female	85	73.98				

The results show that there is a statistically significant difference in the level of motivation of learners when respondents are grouped according to sex, as evidenced by the computed Mann-Whitney U value ($U = 2633.00$) and a p-value of less than 0.001, which is less than the 0.05 level of significance; thus, the null hypothesis is rejected. This suggests that sex has a substantial impact on the level of learners motivation in studying literature.

According to the mean ranks, male respondents (176.28) displayed a greater level than female respondents (73.98), demonstrating a significant difference in how both groups participate with or use technology in literature instruction.

This shows that male students are more likely to adopt intelligent educational technology in this situation. The findings imply that teachers should adopt gender-responsive measures to guarantee balanced involvement and participation among students. According to Philippine studies, while digital learning tools are generally effective, learner engagement varies by gender, and targeted instructional strategies are required to address such differences and promote equitable participation in technology-enhanced learning environments (DepEd, 2023; Bonifacio & Reyes, 2024). Furthermore, research shows that effective teacher facilitation and inclusive instructional design are important in reducing gender gaps in digital learning engagement (PIDS, 2024; Casanova, 2025). Therefore, the significant result justifies the importance of considering sex as a relevant factor in optimizing the use of intelligent education technology in literature instruction.

Difference in the Level of Learners' Motivation in Terms of Age

Table 9. Difference in Learners' Motivation in Teaching Literature to These High School Students When They are Grouped According to Age.

Age	f	Mean Rank	Test Statistics (H)	p-Value	Decision for Ho	Interpretation
11-12 years old	83	168.30	8.49	0.037	Reject Ho	Significant
13-14 years old	56	137.09				
15-16 years old	76	136.01				
16-17 years old	77	140.20				

Interpretation:			
Comparison	Computed value	p-value	Interpretation
11-12 years old vs. 13-14 years old	31.21	0.026	Significant
11-12 years old vs. 15-16 years old	32.28	0.012	Significant
11-12 years old vs. 16-17 years old	28.09	0.028	Significant
13-14 years old vs. 15-16 years old	1.08	0.940	Not significant
13-14 years old vs. 16-17 years old	-3.11	0.827	Not significant
14-15 years old vs. 16-17 years old	-4.19	0.749	Not significant

The results show that there is a statistically significant difference in the levels of learners' motivation in teaching literature when respondents are grouped by age, as indicated by the computed Kruskal-Wallis value ($H = 8.49$)

and a p-value of 0.037, which is less than the 0.05 level of significance; thus, the null hypothesis is rejected. This suggests that age has a substantial impact on the utilization of intelligent educational technologies. Based on the mean ranks, students aged 11-12 years old had the greatest value (168.30), indicating greater use than older age groups (13-16 years old), who had significantly lower and tightly spaced mean ranks (136.01-140.20).

Furthermore, post-hoc comparisons show that there are significant differences between the 11-12 age group and the other age groups (13-14, 14-15, and 15-16), but no significant differences among the older age groups. This suggests that younger students engage more with intelligent education technology in literary instruction, presumably due to greater adaptability, curiosity, or response to interactive digital technologies, whereas older students exhibit more uniform levels of use. The findings show that teachers may need to develop age-appropriate ways to maintain engagement throughout all grade levels, especially for older kids who may require more specific integration strategies.

This finding is supported by Philippine educational studies, which show that younger learners are more engaged in technology-enhanced learning environments, whereas differences between older adolescents tend to diminish due to more stable learning behaviors and preferences (DepEd, 2023; Casanova, 2025). Furthermore, local research stresses the importance of age-appropriate instructional design for effective educational technology adoption in order to optimize learner involvement and sustain motivation across developmental stages (Bonifacio & Reyes, 2024).

Difference in the Level of Learners' Motivation in Terms of Socio-Economic Status

Table 10. Difference in Learners' Motivation in Teaching Literature to These High School Students When They are Grouped According to Socio-Economic Status.

Socio-Economic Status	f	Mean Rank	Test Statistics (H)	p-Value	Decision for Ho	Interpretation
Lower Class (Below 24, 060)	57	147.86	4.27	0.118	Accept Ho	Not Significant
Middles Class (24, 061-144, 360)	217	149.31				
Upper Class (Above 144,360)	18	108.33				

The findings show that there is no statistically significant difference in the level of learners' motivation in teaching literature when respondents are grouped by socio-economic status, as indicated by the computed Kruskal-Wallis value ($H = 4.27$) and a p-value of 0.118, which is greater than the 0.05 level of significance; thus, the null hypothesis is accepted. Although disparities in mean ranks are noted, with the middle class having the greatest (149.31), followed by the lower class (147.86), and the top class having the lowest (108.33), these differences are not statistically significant.

This suggests that socio-economic class has no influence on the extent to which high school students employ intelligent educational technology in literature instruction. The findings demonstrate that students, regardless of socio-economic status, have approximately similar levels of access to and interaction with instructional technology, indicating its inclusive character in the classroom. This suggests that instructional quality, teacher facilitation, and the availability of digital tools may have a greater influence on technology use than socioeconomic status. According to Philippine educational research, integrating digital learning tools into basic education promotes equal learning opportunities and lessens the impact of socioeconomic gaps among pupils (DepEd, 2023). Additionally, studies in local contexts emphasize that when schools provide adequate technological support and structured instruction, students from different income groups can achieve comparable levels of engagement in technology-enhanced learning environments (Casanova, 2025).

Relationship in the Extent of Impact of Intelligent Educational Technology in Teaching Literature and the Level of Learners' Motivation

Table 11. Relationship Between the Extent of Impact of Intelligent Educational Technology in Teaching Literature and the Level of Motivation of the Learners in Studying Literature.

Variable	n	Mean	Test Statistics (rs)	p-Value	Decision for Ho	Interpretation
Extent of Impact of Intelligent Education Technology	292	4.22	0.18	0.002	Reject Ho	Significant
Level of Learners' Motivation	292	4.22				

The results revealed a statistically significant positive relationship between the perceived impact of Intelligent Educational Technology (IET) in literature instruction and learners' motivation ($rs = 0.18$, $p = 0.002$). Although statistically significant, the correlation was low, indicating only a weak positive association between the two variables. The coefficient of determination (r^2) is approximately 0.03, suggesting that the relationship accounts for approximately 3% of the variation in learners' motivation. Thus, while students who reported more favorable perceptions of IET also tended to report higher levels of motivation, the strength of the association was limited.

The findings suggest that IET may serve as a supporting factor in promoting learners' motivation in literature instruction, but it should not be considered sufficient on its own to ensure high levels of motivation. Learner motivation is a complex construct influenced by multiple personal, instructional, and contextual factors, including teacher quality, instructional design, classroom environment, peer influence, learner autonomy, and individual learner characteristics.

Therefore, the significant relationship identified in this study should be interpreted as an association rather than evidence that IET directly causes increased motivation. The findings support the continued integration of IET into literature instruction, particularly when technology is appropriately aligned with instructional objectives and learners' needs. However, technology should complement rather than replace effective teaching practices and meaningful teacher-learner interactions. This is further supported by international research that shows how technology-enhanced learning settings, such as AI-assisted and digital education, may improve student motivation and engagement by making learning more interactive and learner-centered (UNESCO, 2023). Furthermore, global studies show that even minor positive correlations between educational technology use and motivation are significant, as motivation is a complex construct influenced by a variety of interconnected factors such as instructional design, teacher support, and learner autonomy (Schunk & DiBenedetto, 2020). As a result, the substantial finding supports the notion that intelligent education technology plays an important role in increasing learners' motivation in literature education.

Intervention Program

The intervention program is necessary and the literature suggest that it is crucial for fostering critical thinking, creativity, and cultural awareness, it is imperative to adopt tactics that enhance learning experiences and maintain student enthusiasm. However, this intervention program aims to enhance the utilization of IET in literary lessons through the integration of novel, interactive, and learner-centered methodologies. The program seeks to enhance literature's engagement, reliability, and accessibility for various learners by integrating technology-driven instructional methods with motivational strategies. Additionally, it aims to close gaps in student involvement by addressing diverse learning requirements, promoting collaboration, and establishing immersive learning environments that enhance comprehension and appreciation of literary works.

The proposed Technological Motivation Program was developed based on the empirical findings of the study. Each component of the program corresponds to specific findings regarding learners' perceptions of IET, motivation, and demographic differences.

Teacher Training Workshops. This component responds to the significant but weak relationship between IET and learner motivation ($r_s = 0.18$). The finding suggests that technology alone may not be sufficient to substantially influence motivation. Teacher training may therefore strengthen teachers' capacity to select, integrate, and facilitate appropriate IET tools in ways that are aligned with instructional objectives and learners' needs.

Gamified Literature Lessons. This component is linked to the finding that learners aged 11–12 demonstrated significantly higher motivation than the older age groups. Gamified activities involving points, badges, challenges, and other interactive features may help sustain learners' interest and provide age-responsive opportunities for active participation.

Collaborative Digital Projects. This component addresses the significant differences identified according to sex in IET perceptions and learner motivation. Collaborative digital projects may provide inclusive opportunities for students to participate through varied roles and modes of expression, while allowing learners to demonstrate their understanding of literary texts through multimedia presentations, electronic books, and other creative outputs.

Literature E-Quizzes and Challenges. This component is intended to strengthen engagement through immediate feedback and repeated opportunities for practice. It is aligned with the finding that IET has a statistically significant but weak relationship with learner motivation and therefore should be integrated with effective teaching strategies rather than used as a stand-alone approach.

Monthly "Tech Day" Exhibits. This component provides learners with opportunities to present and receive recognition for their technology-supported literary outputs. It may help sustain motivation by encouraging creativity, collaboration, and recognition of student accomplishments.

Gender-Responsive and Inclusive Strategies. Given the significant differences observed according to sex, the program should incorporate gender-responsive and inclusive practices. Teachers may ensure that literary materials represent diverse perspectives, activities provide equitable opportunities for participation, and students are offered varied ways to engage with technology. These strategies are intended to address differences in participation without assuming that technology is inherently more suitable for one sex than another.

Technological Motivation Program: Enhancing Literature Learning through Intelligent Educational Technology

Table 12. Intervention Program in Enhancing Literature Learning through Intelligent Educational Technology

Objectives	Duration	Activities	Resource Needed	Expected Outcomes	Evaluation Methods
To make intelligent educational technology (IET) more common in literature classes and get students more excited about studying literature	3 months	Teacher Training Workshops: Teach instructors how to use IET tools effectively in literary classes.	Computers/Tablets, Internet connection, IET platforms/software, Projector, Teacher training materials	Increased student engagement and motivation in literature classes	Surveys on motivation conducted before and after the program, teacher observation checklists, assessments of student performance, and evaluation of project outputs
		Use games in literature	Computers/Tablets, Internet connection,	Augmented understanding and	Surveys on motivation conducted

		lessons: To make literature more engaging, use IET platforms that offer leaderboards, badges, and points.	IET platforms/software, Projector, Teacher training materials	valuation of literary compositions.	before and after the program, teacher observation checklists, assessments of student performance, and evaluation of project outputs
		Collaborative Digital Projects: Students use literary texts as inspiration to produce presentations with multimedia, e-books, or movies.	Computers/Tablets, Internet connection, IET platforms/software, Projector, Teacher training materials	Enhanced incorporation of technology in pedagogical methodologies .	Surveys on motivation conducted before and after the program, teacher observation checklists, assessments of student performance, and evaluation of project outputs
		Literature E-Quizzes and Challenges Consistent online quizzes along with tests to consolidate courses.	Computers/Tablets, Internet connection, IET platforms/software, Projector, Teacher training materials		Surveys on motivation conducted before and after the program, teacher observation checklists, assessments of student performance, and evaluation of project outputs
		Monthly "Tech Day" Exhibit student outputs utilizing IET tools.	Computers/Tablets, Internet connection, IET platforms/software, Projector, Teacher training materials		Surveys on motivation conducted before and after the program, teacher observation checklists, assessments of student performance, and evaluation of project outputs

CONCLUSIONS

Based on the findings of the study, the following conclusions were derived to directly address the specific objectives and problems raised:

Based on the findings, it can be concluded that the respondents are predominantly male, indicating greater male representation in the study. The participants are mostly within the younger adolescent age range, particularly those aged 11–12 years, although the distribution across age groups suggests a relatively diverse representation of students. Furthermore, the majority of respondents belong to the middle-class socio-economic bracket, implying that the study largely reflects the perspectives and experiences of students from average-income

households. Overall, the respondent profile demonstrates a sample composed mainly of male students, early adolescents, and individuals from middle-class families, which may influence the trends and outcomes observed in the study.

The deployment and institutional integration of Intelligent Education Technology (IET) in literature pedagogy stands out as an exceptionally robust instructional mechanism. Because its positive impact is universally experienced across all age groups and socioeconomic strata, it concludes that the technology transcends traditional socioeconomic divides, offering an inclusive tool for literature engagement. However, its slightly higher resonance among female students suggests that gender-associated learning preferences can marginally affect how digital literature packages are received.

The targeted learners maintain an overwhelmingly positive psychological and academic drive to study literature. This high baseline of motivation remains highly stable regardless of how old the students are or how much their parents earn. While male students express a slightly higher intensity in self-reported motivation levels, the overall high parameters across all demographics signify that the modern framework effectively cultivates a fertile environment for literary learning.

While age and economic background do not create distinct differences in how students perceive IET's impact, gender boundaries do play a role. The systemic difference in receptiveness shows that female and male students process and appreciate digital classroom interventions differently, indicating that a one-size-fits-all technological setup may miss subtle gender-based learning nuances.

When looking at structural connections, a student's age significantly dictates how intensely they interact with educational technology, with the youngest learners (11–12 years old) proving to be the most active and receptive users. This points to a critical developmental window where younger adolescents are highly adaptable to digital tool integration, whereas engagement strategies may need calibration as students advance into older teen brackets.

The findings revealed a statistically significant positive relationship between the perceived impact of Intelligent Educational Technology and learners' motivation. However, the relationship was low in magnitude, indicating that IET represents only one of several factors associated with learner motivation. The findings therefore suggest that IET may serve as a supporting component of literature instruction when combined with effective teaching practices, appropriate instructional design, teacher facilitation, and learner-centered strategies.

The overall high acceptance of educational technologies alongside the unique variances identified across gender behaviors and younger age receptiveness highlights the empirical necessity for institutional action. To sustain and optimize these outcomes, it is vital to implement localized, data-driven instructional interventions. These programs must be explicitly engineered to bridge gender gaps and sustain digital motivation uniformly across all secondary year levels.

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APPENDIX A

Part I. Respondent's Profile:

Name (Optional): _____

Age : _____

Sex : () Male () Female

Economic Status:

() Lower Class (below P24,060)

() Middle Class (P24,061 to P144,360)

() Upper Class (above P144,360)

Likert Scale;

5 if they totally agree with the statement,

4 if they partially agree,

3 if they are neutral,

2 if they partially disagree,

1 if they totally disagree.

	Part II.					
2.A	Factors: Impact of Intelligent Educational Technology in Literature	1	2	3	4	5
1	Literature lessons are more engaging and interactive with the use of technology.					
2	The audiovisual elements enhance my understanding of the literary theme while making the experience more engaging and interactive.					

3	By using technology, it allows me to explore story setting and engages me more with the characters.					
4	I am excited to engage in gamified assessment which incorporate videos, making literature more exciting and participatory.					
5	Intelligent education technology such as digital text annotation enables us to take notes, highlight text, and discuss ideas with classmates, promoting critical thinking.					
6	Intelligent education technology like chatbots also supports our learning needs by providing audiobooks and text-to-speech capabilities for those who have difficulty reading.					
7	Internet access enables us to download literature and conveniently read it on our cell phones.					
8	Intelligent education technology such as ChatGPT helps me to easily understand long stories during literature class.					
9	The features of intelligent education technology help me understand complex literary themes, characters, and narratives more effectively.					
10	Intelligent educational technology like artificial intelligence influences my drive to read, evaluate, and appreciate literature.					
11	Intelligent education technology such as virtual tutorial enables inclusive and personalized learning, allowing us to learn more effectively.					
12	Integrating traditional methods with intelligent education technologies gives us a full and entertaining learning experiences.					
13	I found the use of intelligent education technology in literature class engaging.					
14	The instructions provided through technology were clear and easy to follow.					
15	The content presented through technology was relevant to my interests.					
2.B	Factors: Level of Learner's Motivation	1	2	3	4	5
1	The use of technology makes me more excited to learn about literature.					
2	I feel more motivated to read stories when using audiobooks or e-books.					
3	When we use technology for literature homework, I feel more motivated to finish my assignments.					
4	Technology increases my confidence in understanding and explaining stories.					
5	When we use films, animations, or digital storytelling in class, I find literature more fun and interesting.					
6	I am more motivated to read literature when I can read it digitally instead of from a printed book.					
7	Online quizzes, tests, or group chats make me want to participate more in literature lessons.					
8	Using literature-based games or simulations in class makes me more interested in the stories we study.					
9	Smart learning tools like PDF and online journals make me more engaged and motivated to study literature.					
10	I feel proud of myself when I complete digital projects or tasks related to literature.					
11	The use of technology helps me connect the themes of stories to real-life situations, which makes learning more interesting.					

12	I enjoy sharing my opinions on books through online discussion boards or social media more than in regular class conversations.					
13	Having access to online resources motivates me to explore additional books outside of what's assigned in class.					
14	Using technology in literature lessons makes me more motivated to learn and engage more in discussions.					
15	Technology increases my overall interest and motivation to study literature.					