

Technology and Livelihood Education Teachers' Technology Integration Influencing the Interest and Behavior of Students

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Abstract—This study aimed to determine the relationship between TLE teachers' technology integration and students' interest and behavior. Specifically, it sought to assess the level of TLE teachers' technology integration in terms of skill development, enhanced engagement, personalized learning, digital literacy, and collaboration and communication. It also examined the level of students' interest in terms of personal factors, teacher competence and support, experiential learning, resource availability, and career readiness, as well as students' behavior in terms of motivation, teaching methods, classroom environment, and social and home environment. Furthermore, it investigated whether there is a significant relationship between TLE teachers' technology integration and students' interest, and behavior. A quantitative research method employing the descriptive and correlational design was utilized in this study. Data were gathered from 150 student-respondents using a structured questionnaire. The collected data were analyzed using descriptive statistics such as mean and standard deviation to determine the levels of the variables, while the Pearson product-moment correlation coefficient was applied to test the significant relationship between teachers' technology integration and students' interest and behavior. The findings of the study revealed that teachers demonstrated a high level of technology integration across all measured dimensions. Similarly, students exhibited high levels of interest and positive behavior in TLE across all indicators. However, the results of the correlation analysis indicated that there is no statistically significant relationship between teachers' technology integration and students' interest, as well as their behavior. Furthermore, the correlation coefficients were generally very low, indicating weak or negligible relationships between all the variables. Although teachers' technology integration is widely implemented and positively perceived, it does not significantly influence students' interest and behavior in TLE within the context of the study. This resulted in the acceptance of the null hypotheses. Therefore, it is concluded that other factors beyond technology integration may play a more substantial role in shaping students' engagement and behavioral outcomes in the learning process. It is recommended that teachers continue integrating technology while also incorporating other effective instructional strategies that may directly influence students' interest and behavior. School administrators are encouraged to provide professional development programs that focus not only on technology use but also on pedagogical approaches.

Keywords— Technology Integration, Student Interest, Student Behavior, Technology and Livelihood Education (TLE), Correlation Study.

I. INTRODUCTION

The integration of technology in education has become a defining feature of 21st-century pedagogy, reshaping traditional teaching and learning paradigms. As digital innovations continue to advance, educational institutions are increasingly encouraged to adapt instructional practices that promote interactivity, efficiency, and learner engagement. In this context, the incorporation of technology within the classroom is not merely an enhancement of instructional delivery but a catalyst for transforming how students acquire knowledge, develop skills, and construct meaning from their learning experiences.

Within Technology and Livelihood Education (TLE), technology integration plays a vital role in supporting practical competencies and real-life skill application. The use of digital tools, such as multimedia resources, simulations, and online platforms, enhances the teaching-learning process by promoting authentic and learner-centered experiences. When effectively integrated, these technologies can support students' understanding and engagement in skill-based tasks.

Students' interest and behavior are also essential in the learning process. Interest reflects motivation and engagement, while behavior involves participation and interaction in class. These may be influenced not only by technology but also by teaching strategies and the learning environment.

This study aims to investigate the relationship between Technology and Livelihood Education teachers' technology integration and the interest and behaviors of students. Specifically, it seeks to identify the relationship between the TLE teacher's integration of technology in TLE and the students' interest and behavior, as well as to explore the pedagogical implications of these interactions.

1.1 Statement of the Problem

Problem/s which were addressed by the research

This study aimed to determine the level of TLE teachers' technology integration relates on students' interest and behavior.

1. What is the level of the TLE Teachers' Technology Integration in terms of:
 - 1.1 Skill Development;
 - 1.2 Enhanced Engagement;
 - 1.3 Personalized Learning;
 - 1.4 Digital Literacy; and

- 1.5 Collaboration and Communication?
2. What is the level of interest of students in terms of:
 - 2.1 Personal Factors;
 - 2.2 Teacher Competence and Support;
 - 2.3 Experiential Learning;
 - 2.4 Resource Availability; and
 - 2.5 Career Readiness?
3. What is the level of behavior of students in terms of:
 - 3.1 Motivation;
 - 3.2 Teaching Methods;
 - 3.3 Classroom Environment; and
 - 3.4 Social and Home Environment?
4. Is there a significant relationship between TLE teachers' technology integration and interest of student?
5. Is there a significant relationship between TLE teachers' technology integration and behavior of students?

II. METHODOLOGY

A quantitative research method employing the descriptive and correlational design was utilized in this study. Data were gathered from 150 student-respondents using a structured questionnaire. The collected data were analyzed using descriptive statistics such as mean and standard deviation to determine the levels of the variables, while the Pearson product-moment correlation coefficient was applied to test the significant relationship between teachers' technology integration and students' interest and behavior.

III. RESULTS AND DISCUSSION

This part presents the analysis, interpretation, and discussion of the data gathered in the study entitled "Technology and Livelihood Education Teachers' Technology Integration Influencing the Interest and Behavior of Students." The presentation of data follows the sequence of the research questions stated in Chapter 1, ensuring a systematic and logical flow of discussion.

The data collected from the respondents were analyzed using appropriate statistical tools. The weighted mean and standard deviation were utilized to determine the level of teachers' technology integration as well as the level of students' interest and behavior in Technology and Livelihood Education (TLE).

On the other hand, the Pearson Product-Moment Correlation Coefficient (r) was employed to examine the significant relationship between teachers' technology integration and students' interest and behavior. All statistical analyses were tested at a 0.05 level of significance.

Each table presented in this chapter includes the computed values along with their corresponding verbal interpretations based on the established scale. The results are carefully interpreted and analyzed to provide meaningful insights into how technology integration relates to students' learning interest and behavioral outcomes.

The first part of the analysis focuses on determining the level of Technology and Livelihood Education teachers' technology integration in terms of skill development, enhanced engagement, personalized learning, digital literacy, and collaboration and communication.

The succeeding sections present the level of students' interest and behavior in TLE, followed by the analysis of their relationship with teachers' technology integration, providing a clear overview of the study's key findings.

Level of TLE Teachers' Technology Integration

In this study, the level of teachers' technology integration in TLE were describe in terms of skill development, enhanced engagement, personalized learning, digital literacy, collaboration and communication and was determined by the mean and standard deviation.

Table 1. Level of TLE Teachers' Technology Integration in terms of Skill Development

Statements	Mean	SD	Remarks
Through the integration of technology, my TLE Teacher...			
1. ...uses digital tools to enhance my practical and technical skills in TLE.	3.95	0.83	Agree
2. ...helps me apply skills to real life TLE task.	3.96	0.83	Agree
3. ...provides technology-based activities that improve my problem-solving skills.	3.91	0.80	Agree
4. ...supports the development of my skills in competencies	4.01	0.79	Agree
5. ...allows me to practice and improve TLE skills independently.	3.95	0.79	Agree
Weighted Mean	3.96		
SD	0.81		
Verbal Interpretation	High		

Table 1 presents the level of teachers' technology integration in TLE in terms of skill development. As shown, students agree that through the integration of technology, the TLE Teacher uses digital tools to enhance their practical and technical skills in TLE. The teacher also helps them apply skills to real life TLE task and provides technology-based activities that improve my problem-solving skills.

Likewise, teacher supports the development of their skills in competencies and allows students to practice and improve TLE skills independently. The level of teachers' technology integration in TLE in terms of skill development attained the overall weighted mean of 3.96 with a standard deviation of 0.81, verbally interpreted as High.

This indicates that with the teacher's integration of technology students gain improvement with their problem-solving skills as well as practical and technical skills. In summary, the results indicate that the that teachers' integration of technology in TLE significantly contributes to the development of students' practical, technical, and problem-solving skills.

Table 2 presents the students' perception of teachers' technology integration in TLE. The table shows the mean scores, standard deviations, and verbal interpretations for each statement.

The results show that all statements obtained mean scores ranging from 3.90 to 4.06, verbally interpreted as "Agree." The highest mean (4.06) indicates that technology helps students stay focused during discussions, while the lowest (3.90) suggests that making TLE lessons more interesting is still positively perceived.

Table 2. Level of TLE Teachers' Technology Integration in terms of Enhanced Engagement

Statements	Mean	SD	Remarks
Through the integration of technology, my TLE Teacher...			
...makes TLE lessons more interesting	3.90	0.81	Agree
...encourages my participation in class discussions and activities	3.96	0.81	Agree
...motivates me to complete my TLE task and outputs	3.97	0.78	Agree
...helps me to stay focused during class discussion	4.06	0.83	Agree
...divides the activities for the whole day and let them present.	3.97	0.82	Agree
Weighted Mean	3.97		
SD	0.81		
Verbal Interpretation	High		

The overall weighted mean of 3.97, with a standard deviation of 0.81, is interpreted as "High," indicating that students generally view technology integration as beneficial. The low standard deviation also reflects consistency in their responses.

Table 3. Level of TLE Teachers' Technology Integration in terms of Personalized Learning

Statements	Mean	SD	Remarks
Through the integration of technology, my TLE Teacher...			
...provides individualized feedback and support through technology.	4.01	0.82	Agree
...enables me to learn at my own pace using digital tools.	4.05	0.79	Agree
...helps me review lessons I did not fully understand through technology.	3.91	0.80	Agree
...integrates online resources to help me gain a deeper understanding of lessons.	3.97	0.83	Agree
...supports the development of my learning needs through the use of technology.	3.96	0.83	Agree
Weighted Mean	3.98		
SD	0.82		
Verbal Interpretation	High		

The results show that all indicators have mean scores ranging from 3.91 to 4.05, interpreted as "Agree." The highest mean score (4.05) is for enabling students to learn at their own pace, while the lowest (3.91) is for helping students review lessons they did not fully understand. The overall weighted mean of 3.98 with a standard deviation of 0.82 is interpreted as "High." This indicates that teachers effectively use technology to support individualized learning. The findings imply that technology integration helps address diverse learning needs and promotes self-paced and supported learning among students.

Table 4 presents the level of teachers' technology integration in TLE in terms of digital literacy. The results indicate that all statements have mean scores ranging from 3.89 to 4.03, all interpreted as "Agree." The highest mean score (4.03) is for guiding students in applying digital skills safely and effectively, while the lowest (3.89) is for encouraging responsible use of technology. The weighted mean of 3.95 and standard deviation of 0.81 are interpreted as "High." This suggests that teachers are effective in developing students' digital literacy skills. The findings imply that

technology integration helps students become more competent and responsible users of digital tools in learning.

Table 4. Level of TLE Teachers' Technology Integration in terms of Digital Literacy

Statements	Mean	SD	Remarks
Through the integration of technology, my TLE Teacher...			
...helps me effectively use digital platforms in TLE through technology.	3.95	0.80	Agree
...encourages responsible use of technology.	3.89	0.84	Agree
...develops my ability to find and evaluate online information using digital tools.	3.97	0.79	Agree
...builds my confidence in using digital tools through technology.	3.91	0.82	Agree
...guides me in applying digital skills safely and effectively in learning tasks.	4.03	0.79	Agree
Weighted Mean	3.95		
SD	0.81		
Verbal Interpretation	High		

Table 5. Level of TLE Teachers' Technology Integration in terms of Collaboration and Communication

Statements	Mean	SD	Remarks
Through the integration of technology, my TLE Teacher...			
...facilitates collaboration with classmates on projects through technology.	4.07	0.81	Agree
...provides digital platforms where students can ask questions and discuss lesson.	3.99	0.78	Agree
...supports the organization of group tasks using digital tools.	4.04	0.83	Agree
...allows real-time collaboration through shared documents or platforms	3.97	0.81	Agree
...encourages students to show ideas through digital collaborative platforms.	3.93	0.79	Agree
Weighted Mean	4.00		
SD	0.81		
Verbal Interpretation	High		

Table 5 presents the level of teachers' technology integration in TLE in terms of collaboration and communication. The results show mean scores ranging from 3.93 to 4.07, all verbally interpreted as "Agree."

The highest mean score (4.07) is for facilitating collaboration among classmates, while the lowest (3.93) is for encouraging students to share ideas through digital platforms. The overall weighted mean of 4.00 with a standard deviation of 0.81 is interpreted as "High." This indicates that teachers effectively use technology to promote collaboration and communication among students. The findings suggest that digital tools enhance interaction, teamwork, and active participation in TLE learning activities.

Level of Interest of Students

In this study, the level of interest of students was described in terms of personal factors, teacher competence and support, experiential learning, resource availability, and career readiness. This was determined using the mean and standard deviation.

Table 6 presents the level of students' factors influencing interest in TLE in terms of personal factors. The table shows the mean scores, standard deviations, and verbal interpretations of indicators related to students' curiosity and confidence when technology is integrated into learning. The

results reveal that both indicators are verbally interpreted as “Agree,” with mean scores ranging from 3.95 to 4.08. The highest mean score (4.08) indicates that students’ curiosity drives them to explore new technological tools to improve their skills, while the lower mean score (3.95) shows that technology also helps strengthen students’ confidence in learning. Moreover, the overall weighted mean of 4.03 with a standard deviation of 0.83 is interpreted as “High.”

Table 6. Level of Interest of Students in terms of Personal Factors

Statements Through the integration of technology, as a Student...	Mean	SD	Remarks
...personal interest is present when learning through technology.	4.16	0.82	Agree
...motivation increases when technological tools are used in lessons.	3.88	0.82	Agree
...enjoyment is experienced when online platforms are integrated into TLE activities.	4.09	0.84	Agree
...curiosity drives the exploration of new technological tools to improve skills.	4.08	0.81	Agree
...confidence in learning is strengthened through the use of technology.	3.95	0.84	Agree
Weighted Mean	4.03		
SD	0.83		
Verbal Interpretation	High		

This suggests that personal factors such as curiosity and confidence are positively influenced by technology integration. It implies that the use of technology in TLE enhances students’ interest by encouraging exploration and supporting their confidence in the learning process.

Table 7. Level of Interest of Students in terms of Teacher Competence and Support

Statements Through the integration of technology, as a Student...	Mean	SD	Remarks
...motivation increases when technology is effectively integrated in class.	4.02	0.83	Agree
...learning improves with guided use of digital tools.	3.95	0.86	Agree
...inspiration to learn more grows when technology is integrated into lessons.	4.05	0.79	Agree
...appreciation is felt when access to online resources is allowed for class purposes.	3.97	0.82	Agree
...confidence in learning is strengthened through consistent teacher support in using technology.	3.99	0.78	Agree
Weighted Mean	4.00		
SD	0.82		
Verbal Interpretation	High		

Table 7 presents the level of students’ factors influencing interest in TLE in terms of teacher competence and support. The table shows the mean scores, standard deviations, and verbal interpretations of indicators related to how teachers’ use of technology affects students’ motivation, learning, and confidence.

The results reveal that all indicators are verbally interpreted as “Agree,” with mean scores ranging from 3.95 to 4.05. The highest mean score (4.05) indicates that students feel more inspired to learn when technology is integrated into lessons, while the lowest mean score (3.95) shows that learning improves with the guided use of digital tools.

Furthermore, the overall weighted mean of 4.00 with a standard deviation of 0.82 is interpreted as “High.” This

suggests that teacher competence and support in using technology positively influence students’ interest in TLE. It implies that effective integration of technology by teachers enhances motivation, confidence, and overall learning experience.

Table 8. Level of Interest of Students in terms of Experiential Learning

Statements Through the integration of technology, as a Student...	Mean	SD	Remarks
...learning becomes more efficient when technology enables the application of lessons in real-life situations.	4.05	0.83	Agree
...engagement increases when activities include digital simulations or demonstrations.	3.95	0.79	Agree
...understanding is enhanced when technology is used for practice.	3.93	0.83	Agree
...hands-on activities with digital tools make learning more meaningful.	4.03	0.84	Agree
...skills develop more effectively through interactive, technology-based experiences.	4.09	0.81	Agree
Weighted Mean	4.01		
SD	0.82		
Verbal Interpretation	High		

Table 8 presents the level of students’ factors influencing interest in TLE in terms of experiential learning. The table shows the mean scores, standard deviations, and verbal interpretations of indicators related to students’ engagement and skill development through technology-based learning experiences.

The results reveal that all indicators are verbally interpreted as “Agree,” with mean scores ranging from 3.93 to 4.09. The highest mean score (4.09) indicates that students believe their skills develop more effectively through interactive, understanding is enhanced when technology is used for practice.

Moreover, the overall weighted mean of 4.01 with a standard deviation of 0.82 is interpreted as “High.” This suggests that experiential learning through technology positively influences students’ interest in TLE. It implies that hands-on and interactive activities using digital tools enhance engagement, understanding, and skill development.

Table 9. Level of Interest of Students in terms of Resource Availability

Statements Through the integration of technology, as a Student...	Mean	SD	Remarks
...access to digital devices supports the completion of school tasks.	4.05	0.82	Agree
...reliable internet access enables efficient completion of assignments.	3.96	0.81	Agree
...the school provides adequate digital resources for TLE learning.	3.98	0.82	Agree
...limited resources negatively affect interest in using technology.	4.03	0.81	Agree
...availability of appropriate tools and materials enhances engagement with technology-based activities.	3.94	0.79	Agree
Weighted Mean	3.99		
SD	0.81		
Verbal Interpretation	High		

Table 9 presents the level of students’ factors influencing interest in TLE in deviations, and verbal interpretations of indicators related to access to digital tools.

The results reveal that all indicators are verbally interpreted as “Agree,” with mean scores ranging from 3.94 to 4.05. The highest mean score (4.05) indicates that access to digital devices supports students in completing school tasks, while the lowest mean score (3.94) shows that the availability of appropriate tools enhances engagement. Furthermore, the overall weighted mean of 3.99 with a standard deviation of 0.81 is interpreted as “High.” This suggests that resource availability positively influences students’ interest in TLE. It implies that access to devices, internet connectivity, and learning materials plays an important role in supporting students’ engagement and learning through technology.

Table 10. Level of Interest of Students in terms of Career Readiness

Statements Through the integration of technology, as a Student...	Mean	SD	Remarks
...learning with technology prepares me for future job opportunities.	3.97	0.82	Agree
...technology integration develops industry- relevant skills.	4.01	0.81	Agree
...the value of TLE subjects is recognized in preparing for real work settings.	4.07	0.82	Agree
...readiness to pursue careers in technology- based fields is strengthened.	4.01	0.84	Agree
...exposure to digital tools and practices enhances preparation for future professional tasks.	4.02	0.80	Agree
Weighted Mean	4.02		
SD	0.82		
Verbal Interpretation	High		

Table 10 presents the level of students’ factors influencing interest in TLE in terms of career readiness. The table shows the mean scores, standard deviations, and verbal interpretations of indicators related to how technology integration prepares students for future careers.

The results reveal that all indicators are verbally interpreted as “Agree,” with mean scores ranging from 3.97 to 4.07. The highest mean score (4.07) indicates that students recognize the value of TLE subjects in preparing them for real work settings, while the lowest mean score (3.97) shows that learning with technology prepares them for future job opportunities. Moreover, the overall weighted mean of 4.02 with a standard deviation of 0.82 is interpreted as “High.” This suggests that technology integration positively contributes to students’ career readiness.

Level of Behavior of Students

In this study, the level of behavior of students was described in terms of motivation, teaching methods, classroom environment, and social and home environment. This was determined using the mean and standard deviation.

Table 11 presents the level of factors influencing students’ behaviors in TLE in terms of motivation. The table shows the mean scores, standard deviations, and verbal interpretations of indicators related to students’ motivation when technology is integrated into learning. The results reveal that all indicators are verbally interpreted as “Agree,” with mean scores ranging from 3.93 to 4.05. The highest mean score (4.05) indicates that students believe their performance improves when digital tools are used in lessons, while the lowest mean score (3.93) shows

that technology increases eagerness to learn. Furthermore, the overall weighted mean of 4.00 with a standard deviation of 0.83 is interpreted as “High.” This suggests that technology integration positively influences students’ motivation. It implies that the use of digital tools enhances engagement, discipline, and persistence in completing learning tasks.

Table 11. Level of Behavior of Students in terms of Motivation

Statements Through the integration of technology, as a Student...	Mean	SD	Remarks
...eagerness to learn increases when technology is used in class.	3.93	0.82	Agree
...technology encourages greater discipline in completing tasks.	4.02	0.84	Agree
...performance improves when digital tools are incorporated into lessons.	4.05	0.82	Agree
...motivation remains high even during challenging TLE activities involving technology.	3.99	0.81	Agree
...engagement and persistence are enhanced through the use of technology in learning.	4.02	0.84	Agree
Weighted Mean	4.00		
SD	0.83		
Verbal Interpretation	High		

Table 12. Level of Behavior of Students in terms of Teaching Methods

Statements Through the integration of technology, as a Student...	Mean	SD	Remarks
...lessons are enhanced through the use of varied technology-based strategies.	4.03	0.86	Agree
...participation increases when lessons incorporate technology.	3.92	0.82	Agree
...understanding of complex topics improves with visual or interactive media.	3.91	0.85	Agree
...technology is adapted to fit the topic and students’ learning needs.	3.95	0.77	Agree
...engagement and learning outcomes are strengthened through innovative technology- based teaching methods.	4.02	0.79	Agree
Weighted Mean	3.97		
SD	0.82		
Verbal Interpretation	High		

Table 12 presents the level of factors influencing students’ behaviors in TLE in terms of teaching methods.

The table shows the mean scores, standard deviations, and verbal interpretations of indicators related to how technology-based teaching strategies.

The results reveal that all indicators are verbally interpreted as “Agree,” with mean scores ranging from 3.91 to 4.03. The highest mean score (4.03) indicates that students perceive lessons to be enhanced through varied technology-based strategies, while the lowest mean score (3.91) shows that understanding of complex topics improves with visual or interactive media.

Moreover, the overall weighted mean of 3.97 with a standard deviation of 0.82 is interpreted as “High.” This suggests that technology-integrated teaching methods positively influence students’ behavior. It implies that the use of diverse and innovative digital strategies enhances participation, understanding, and overall learning outcomes.

Table 13 presents the level of factors influencing students’ behaviors in TLE in terms of classroom environment. The table shows the mean scores, standard deviations, and verbal

interpretations of indicators related to how a technology-integrated classroom affects students' behavior.

Table 13. Level of Behavior of Students in terms of Classroom Environment

Statements	Mean	SD	Remarks
Through the integration of technology, as a Student...			
...focus is enhanced in a classroom where technology is used.	4.06	0.84	Agree
...engagement increases when technology is incorporated into group activities.	3.99	0.86	Agree
...confidence grows when sharing ideas in a technology-friendly classroom.	3.89	0.79	Agree
...comfort in learning rises in a tech-friendly environment.	3.97	0.80	Agree
...participation and collaboration are encouraged through the use of technology in the classroom.	3.91	0.78	Agree
Weighted Mean	3.97		
SD	0.82		
Verbal Interpretation	High		

The results reveal that all indicators are verbally interpreted as "Agree," with mean scores ranging from 3.89 to 4.06. The highest mean score (4.06) indicates that students' focus is enhanced in a classroom where technology is used, while the lowest mean score (3.89) shows that confidence grows when sharing ideas in a technology-friendly classroom. Furthermore, the overall weighted mean of 3.97 with a standard deviation of 0.82 is interpreted as "High." This suggests that a technology-supported classroom environment positively influences students' behavior. It implies that the use of technology helps improve focus, engagement, and participation in classroom activities.

Table 14. Level of Behavior of Students in terms of Social and Home Environment

Statements	Mean	SD	Remarks
Through the integration of technology, as a Student...			
technology is used at home to support learning in TLE.	3.95	0.85	Agree
...collaboration with classmates is facilitated through digital tools for projects.	4.04	0.82	Agree
...communication with my teacher is enhanced through online platforms.	3.93	0.82	Agree
...encouragement from peers and family supports the use of technology in learning.	3.95	0.79	Agree
...home and social environments contribute to skill development through technology-based activities.	4.01	0.83	Agree
Weighted Mean	3.98		
SD	0.83		
Verbal Interpretation	High		

Table 14 presents the level of factors influencing students' behaviors in TLE in terms of social and home environment, including mean scores, standard deviations, and verbal interpretations.

All indicators are interpreted as "Agree," with mean scores ranging from 3.93 to 4.04. The highest mean (4.04) shows that digital tools facilitate collaboration with classmates, while the lowest (3.93) indicates improved communication with teachers through online platforms. The overall weighted mean of 3.98 with a standard deviation of 0.83 is interpreted as "High," suggesting that social and home environments positively

influence students' behavior in TLE through peer, family, and technological support.

Significant Relationship Between Teachers' Technology Integration and Students' Interest in TLE

In this study, the significant relationship between the teachers' technology integration and students' interest in TLE were analyzed applying Pearson Correlation Coefficient using Minitab 14.

Table 15. Significant Relationship Between TLE Teachers' Technology Integration and Interest of Students

Teachers' Integration	Technology	Interest of Students				
		Personal Factors	Teacher Competence and Support	Experiential Learning	Resource Availability	Career Readiness
Skill Development	Pearson Correlation	.005	.039	.143	.043	.045
	Sig. (2-tailed)	.952	.639	.082	.602	.581
	N	150	150	150	150	150
Enhanced Engagement	Pearson Correlation	.059	.115	.125	.024	.085
	Sig. (2-tailed)	.471	.160	.127	.766	.300
	N	150	150	150	150	150
Personalized Learning	Pearson Correlation	.025	.029	.065	.016	.027
	Sig. (2-tailed)	.758	.726	.429	.848	.741
	N	150	150	150	150	150
Digital Literacy	Pearson Correlation	.110	.015	.121	.037	.110
	Sig. (2-tailed)	.179	.856	.140	.657	.180
	N	150	150	150	150	150
Collaboration and Communication	Pearson Correlation	.016	.062	.049	.002	.070
	Sig. (2-tailed)	.843	.453	.553	.981	.393
	N	150	150	150	150	150

Note * $p < .05$

Table 15 presents the correlation between Teachers' Technology Integration and Students' Interest in TLE. The results include Pearson correlation coefficients (r-values), p-values, and sample size (N=150) for each relationship. The results reveal that there are no significant relationships between as all p-values are greater than 0.05. This indicates that the different dimensions of technology integration such as skill development, enhanced engagement, personalized learning, digital literacy, and collaboration and communication do not have a statistically significant association on students' interest in terms of personal factors, teacher competence and support, experiential learning, resource availability, and career readiness.

This implies that while technology integration may be present in TLE instruction, it does not automatically translate into increased student interest. The very low correlation values further indicates that the relationship between these variables is negligible or weak, indicating minimal practical connection. These findings are supported by Wang et al. (2024), who found that technology integration does not always directly result in improved student outcomes unless supported by proper guidance and appropriate learning conditions. This suggests that the effectiveness of technology in education depends not only on its availability or use, but also on how it

is implemented within structured instructional strategies that actively guide student learning.

Similarly, Chiu (2022) emphasized that contextual factors such as support systems and learning environments influence how technology affects student engagement. This indicates that the absence of significant relationships may be due to other influencing factors beyond technology integration alone. Students' motivation and behavior may be influenced by a combination of personal, instructional, and environmental factors that are not solely dependent on technology use.

In addition, the effectiveness of technology integration may vary depending on how it is implemented and supported within the classroom. Therefore, technology should be viewed as one of several factors that contribute to student engagement and learning outcomes.

Table 16. Significant Relationship Between TLE Teachers' Technology Integration and Behavior of Students

Teachers' Technology Integration		Behavior of Students			
		Motivation	Teaching Methods	Classroom Environment	Social Home and Environment
Skill Development	Pearson Correlation	.024	.138	.070	.028
	Sig. (2-tailed)	.771	.091	.394	.737
	N	150	150	150	150
Enhanced Engagement	Pearson Correlation	.036	.085	.056	.038
	Sig. (2-tailed)	.659	.300	.497	.647
	N	150	150	150	150
Personalized Learning	Pearson Correlation	.101	.102	.039	.006
	Sig. (2-tailed)	.217	.212	.640	.942
	N	150	150	150	150
Digital Literacy	Pearson Correlation	.090	.077	.118	.057
	Sig. (2-tailed)	.273	.351	.151	.490
	N	150	150	150	150
Collaboration and Communication	Pearson Correlation	.024	.072*	.023	.004
	Sig. (2-tailed)	.775	.378	.781	.960
	N	150	150	150	150

Note * $p < .05$

Table 16 presents the significant relationship between Teachers' Technology Integration and Students' Behavior in TLE. The results include Pearson correlation coefficients (r-values), p-values, and a sample size of 150 respondents for each variable.

The findings reveal that there are no significant relationships between teachers' technology integration and students' behavior in TLE across all measured variables, as all p-values are greater than 0.05. This indicates that the different dimensions of technology integration - such as skill development, enhanced engagement, personalized learning, digital literacy, and collaboration and communication do not have a statistically significant relationship with students' behavior in terms of motivation, teaching methods, classroom environment, and social and home environment.

Although one variable (collaboration and communication with teaching methods) shows a slightly higher correlation, it is still not statistically significant, as its p-value exceeds the

0.05 threshold. Additionally, the correlation coefficients are generally very low, suggesting that the relationships between the variables are weak or negligible.

This implies that while teachers may integrate technology in various aspects of instruction, it does not necessarily influence or change students' behavior in TLE. Therefore, other factors beyond technology integration may play a more significant role in shaping students' behavior in the learning process.

These findings are supported by Bachová (2022), who found that technology integration does not automatically influence student behavior unless it is supported by structured teaching strategies and proper classroom management. Similarly, Bryan (2018) emphasized that technology affects student behavior only when combined with effective classroom design and instructor presence. This indicates that the lack of significant relationship may be due to the influence of other factors such as teaching methods, environment, and support systems rather than technology integration alone.

IV. CONCLUSION AND RECOMMENDATIONS

No significant relationship was found between teachers' technology integration and students' interest in TLE. Therefore, the null hypothesis was accepted. However, it does not necessarily translate into increased student interest, revealing that other factors may play a more substantial role in influencing students' interest in TLE.

Similarly, with regard to students' behavior, no significant relationship was observed between teachers' technology integration and students' behavior. Therefore, the null hypothesis was accepted. This implies that the various dimensions of technology integration are not significantly associated with students' behavior in terms of motivation, teaching methods, classroom environment, and social and home environment. Despite the high level of technology integration, it does not significantly relate to the students' behavior, indicating that behavioral outcomes may be affected by other factors beyond technology use in the classroom.

In light of the findings and conclusions of the study, the following recommendations are hereby proposed:

Curriculum planners may consider incorporating a balanced approach that combines technology integration with other instructional methods, ensuring that learning objectives related to students' interest and behavior are effectively addressed.

School administrators may provide continuous training and professional development programs that not only focus on technology integration but also emphasize effective pedagogical strategies that enhance student engagement and behavior.

Teachers may continue utilizing technology in their instruction, as it promotes a modern and engaging learning environment. However, they should also explore and integrate other teaching strategies that may more directly influence students' interest and behavior, such as interactive activities, differentiated instruction, and learner-centered approaches.

Students may be encouraged to actively participate in classroom activities and develop self-motivation and positive

learning behaviors, as these factors may contribute more significantly to their interest and engagement.

Future researchers may conduct further studies to explore other variables that could significantly influence students' interest and behavior, such as teaching styles, classroom environment, motivation, and socio-emotional factors. They may also use different research designs or larger samples to validate the findings of this study.

REFERENCE

- [1]. Bachová, K. (2022). The impact of technology integration on classroom management and student behavior. *European Journal of Educational Research*, 11(4), 2317–2328. <https://doi.org/10.12973/eu-jer.11.4.2317>
- [2]. Bryan, C. (2018). *Technology-enhanced teaching and learning in higher education: A review of literature.* *Distance Education Review*, 39(2), 145–160.
- [3]. Chiu, T. (2022). *School learning support and teacher technology adoption: Effects on student engagement.* *Journal of Educational Research*, 115(4), 501–515. <https://link.springer.com/article/10.1007/s11423-022-10096-x>
- [4]. Wang, J., Wang, Y., Zeng, H., & Li, X. (2024). Multi-scale deformable transformers for student learning behavior detection in smart classrooms. *Computers and Education: Artificial Intelligence*, 7, 100240. <https://doi.org/10.1016/j.caeai.2024.100240>