Technology Integration on English Language Learning: A Study of Students' Engagement at Language Department State Polytechnic of Bengkalis

Elfa Fanalisa[1,a)], Sari Diah Paramita[1,b)]

[1] *Language Department Bengkalis State Polytechnic Bengkalis, Indonesia*

[a)]Corresponding author: fanalisaelfa@polbeng.ac.id

Abstract. The aim of this study is to find out the Technology Integration and Student's engagement on English Language Learning at Language Department State Polytechnic of Bengkalis. The Respondents of this research were Seven Lecturers and 30 students of Language Department State Polytechnic of Bengkalis. Observation and questionnaires were used as instruments to figure out the integration of technology and students' engagement at Language Department. The finding revealed that integration of technology on English Language learning showed that the technology was adopted to support teaching and learning process more effective and efficient. Every course such as Writing, Listening, Speaking, Reading, Grammar and Translation had different approaches in using device and platform. In addition, integration of technology contributed positive engagement for students in cognitive, affective and behavioral aspects.

Keywords: *Technology integration, Language Learning , Students' Engagement.*

INTRODUCTION

In recent years, using technology in education has greatly changed how we teach and learn, especially in language courses. Digital tools help create a more interactive learning environment and support various teaching methods, which can improve student outcomes [12][1][2]. Integrating technology effectively is vital for increasing student participation which is important for successful learning [4]. Thus, the effective integration of technology in language courses can enhance the learning experience and drive ultimately contributing to overall academic success.

Moreover, technology can enhance students' motivation and involvement in language learning. digital platforms in language classes promote active learning and collaboration among students, leading to better language skills. Technology boosts students' motivation engagement, allowing them to interact with the course content in meaningful ways, thus improving their overall learning experience[4]. Engagement consists of Cognitive, emotional and behavioral. Behavioral engagement involves active participation in learning, which includes paying attention, demonstrating positive behaviors, and maintaining consistent attendance. Emotional engagement centers on students' attitudes toward school, including their sense of connection and belonging within the school environment. Cognitive engagement reflects a student's self-directed learning and use of strategies that enhance understanding, such as metacognitive approaches for planning, monitoring, and evaluating their own learning[15]. These dimensions together provide a comprehensive view of how students connect with and benefit from their educational experiences.

This study aims to investigate how technology is integrated into English language learning and how it affects student engagement at the Language Department of the State Polytechnic of Bengkalis. By looking at the experiences of both lecturers and students, this research seeks to understand how technology is used across various English language courses, including Writing, Listening, Speaking, Reading, Grammar, and Translation, and its effects on student engagement in cognitive, emotional, and behavioral aspects.

Through this research, we hope to contribute to the ongoing discussion about technology in language education and provide practical suggestions for teachers looking to enhance student engagement through effective technology us.

METHODS

The research model applied in this study is a mixed-method approach, combining both qualitative and quantitative methods in the data collection and analysis process. By utilizing this approach, researchers can achieve a deeper and more comprehensive understanding of the phenomenon under investigation, as it merges the strengths of both approaches [14].

The participants in this study were 6 lecturers who were teaching courses such as Speaking, Listening, Writing, Reading, Translation and Grammar in Language Department second semester year 2024 .To know the Technology Integration in on language learning in Language Department State Polytechnic of Bengkalis, qualitative data were gained by doing observation in teaching and learning process by using some observation checklist. While, Quantitative data were gained by distributing questionaires related to Students Engagement; Cognitive, Emotional and Behavioral Engagement.

After collecting the data, the percentage of the students' engagement at Language Department State Polytechnic of Bengkalis was revelaed, for this purpose, it was used the formula Sudijono [13]. :

$$P = \frac{F}{N} \times 100\%$$

Where;

P = Percentage
F = Frequency
N = Number of respondents

RESULTS AND DISCUSSION

Technology integration becomes the main part in optimizing instructional process in Language Department. Based on the data gathered form observation, there are some aspect and result can be shown in the process of teaching and learning. The integration in utilizing technology in teaching and learning writing can be seen as follow;

Table 3.1. Technology Integration in Writing Instruction

Aspect	**Result**
Frequently Used Devices	The lecturer used a computer/laptop as the main device in teaching Writing
Platform or LMS Used	The lecturer used Google Classroom as the main LMS platform to manage assignments, make announcements, and monitor student progress
Applications or Software to Assist Writing	The lecturer used Grammarly to help students improve their grammar and writing style
Use of Gamification or Interactive Tools	The lecturer used Padlet as an interactive tool in Writing instruction, allowing for collaboration and idea sharing
Websites or Online Reference Resources	The lecturer utilized Cambridge English Write & Improve to help students evaluate and improve their writing
Frequency of Technology Use for Providing Feedback	The lecturer occasionally provided feedback through technology such as Google Docs or Microsoft Word, facilitating the feedback process
Use of Video Tutorials or Podcasts	The lecturer did not use video tutorials or podcasts as supplementary tools in teaching Writing, due to time constraints.

The data shows that the lecturer primarily used a **computer/laptop** for teaching Writing, with **Google Classroom** as the main platform for managing assignments and monitoring student progress. The use of **Grammarly** highlighted the lecturer's focus on improving students' grammar and writing style, while **Padlet** encouraged

collaboration and idea sharing among students. Additionally, **Cambridge English Write & Improve** was used to help students independently evaluate and enhance their writing skills.

However, the lecturer only **occasionally** provided feedback through technology, such as **Google Docs** or **Microsoft Word**, and did **not use video tutorials or podcasts** due to time constraints. This suggests that while technology was integrated into many aspects of the writing instruction process, there is room for further enhancement, especially in providing more frequent feedback and incorporating multimedia resources

The result for technology integration in teaching and learning process of Listening can be seen in the following table.

Table 3.2. Technology Integration in Listening Instruction.

Aspect	**Result**
Frequently Used Devices	A computer/laptop and speakers were used as the main devices in teaching Listening
Platform or LMS Used	Google Classroom was used as the main platform for managing and distributing Listening materials.
Applications or Websites Frequently Used for Listening Materials	YouTube was the primary source used by the lecturer to provide Listening materials to students.
Use of Podcast Applications	The lecturer did not use podcast applications in teaching Listening
Use of Software to Create Listening Materials	The lecturer did not use software or other tools to edit audio/video for Listening materials
Websites or Online References Used	YouTube was used as the primary online reference in teaching Listening
Use of Gamification-based Interactive Learning Applications	The lecturer did not use gamification applications like **Kahoot or Quizizz** in teaching Listening.
Use of Social Media for Listening Materials	The lecturer did not use social media to share Listening materials with students
Use of Technology to Provide Feedback	Feedback for Listening assignments was only occasionally provided through technology tools like Google Forms

The data shows that the lecturer mainly used a **computer/laptop and speakers** to teach Listening, with **Google Classroom** as the main platform to manage and share materials. **YouTube** was the primary source for Listening materials, offering a wide range of content. However, the lecturer did not use **podcast apps** or **audio/video editing software** to create their own Listening materials, relying instead on available online resources.

The lecturer also did not use **gamification tools** like Kahoot or Quizizz, nor did social media play a part in sharing Listening materials. Feedback was only given **occasionally** through technology tools like **Google Forms**, showing limited use of digital tools for providing feedback and assessments. Overall, while technology was used, there were areas where it could be expanded to make learning more engaging and interactive. The following table shows the integration of technology in reading instruction.

Table 3.3. Technology Integration in Reading Instruction.

Aspect	**Result**
Frequently Used Devices	Computers/Laptops and Smartphones were used in teaching the Reading course.
Platform or LMS Used	No specific platform or Learning Management System (LMS) was used for teaching Reading.
Applications or Software Frequently Used	Adobe Acrobat Reader was often used for PDF annotation and to help students read materials.
Websites or Online Reference Resources	The lecturer used various websites related to the topic as online reference resources for teaching.

Use of Interactive Software for Reading	The lecturer used various interactive applications from the Playstore to support Reading instruction.
Frequency of Technology Use to Provide Feedback	Feedback on students' Reading assignments was occasionally provided through technology.
Frequently Used Devices	Computers/Laptops and Smartphones were used in teaching the Reading course.
Platform or LMS Used	No specific platform or Learning Management System (LMS) was used for teaching Reading.
Applications or Software Frequently Used	Adobe Acrobat Reader was often used for PDF annotation and to help students read materials.

The data indicates that the lecturer used **computers, laptops, and smartphones** to teach Reading. However, no specific **platform or Learning Management System (LMS)** was used to manage the course. Instead, **Adobe Acrobat Reader** was frequently utilized for annotating PDFs and helping students read materials, providing a simple but effective way to engage with texts. The lecturer also relied on **various websites** as reference resources and made use of **interactive applications** from the Playstore to support Reading instruction. Feedback on students' Reading assignments was only **occasionally** given through technology, indicating that while digital tools were used, feedback processes could be more frequent or consistent. The result for technology integration in teaching and learning process of Speaking can be seen in the following table

Table 3.4. Technology Integration in Speaking Instruction

Aspect	**Result**
Frequently Used Devices	Computers/Laptops, sound system, microphone were used in teaching speaking course.
Platform or LMS Used	Google Classroom and Zoom were used as the platform for teaching Speaking.
Applications or Software Frequently Used	Google Classroom and Zoom were used in Speaking course
Websites or Online Reference Resources	The lecturer used BBC and Youtube an online reference resource for teaching speaking
Use of Software for Interactive Speaking	The lecturer used **Learn to Speak English Deluxe 12**
Frequency of Technology Use to Provide Feedback	Feedback on students' speaking assignments was occasionally provided through technology.
Use of Videos or Podcasts as Supplementary Materials	The lecturer used student youtube as supplementary material for Speaking instruction.
Frequently Used Devices	Computers/Laptops were used in teaching the Grammar course.
Platform or LMS Used	Microsoft Teams was used as the platform for teaching speaking.

The data shows that the lecturer used **computers, laptops, a sound system, and a microphone** to teach the Speaking course, with **Google Classroom and Zoom** as the main platforms. These tools allowed for smooth communication and interactive learning in the course. **Google Classroom and Zoom** were also the most frequently used applications for managing lessons and interacting with students.

For additional resources, the lecturer used **BBC** and **YouTube** as online references for teaching Speaking, and the software **Learn to Speak English Deluxe 12** was used to support interactive learning. Feedback on students' speaking assignments was given **occasionally** through technology, while **student YouTube videos** were used as supplementary materials to enhance Speaking practice. In the Grammar course, the lecturer used **computers/laptops** and **Microsoft Teams** as the main platform. The following table shows the integration of technology in Grammar instruction.

Table 3.5. Technology Integration in Grammar Instruction.

Aspect	Result
Frequently Used Devices	Computers/Laptops were used in teaching the Grammar course.
Platform or LMS Used	Microsoft Teams was used as the platform for teaching Grammar.
Applications or Software Frequently Used	Microsoft Word was often used for its grammar check feature to help students improve their grammar.
Websites or Online Reference Resources	The lecturer used Cambridge English as an online reference resource for teaching Grammar.
Use of Software for Interactive Grammar Exercises	The lecturer used interactive software with video assistance to support grammar exercises.
Frequency of Technology Use to Provide Feedback	Feedback on students' Grammar assignments was occasionally provided through technology.
Use of Videos or Podcasts as Supplementary Materials	The lecturer used student project videos as supplementary material for Grammar instruction.
Frequently Used Devices	Computers/Laptops were used in teaching the Grammar course.
Platform or LMS Used	Microsoft Teams is used as the platform for teaching Grammar.

From the table, it can be seen that the lecturer used **computers and laptops** to teach the Grammar course, with **Microsoft Teams** as the main platform for managing lessons. **Microsoft Word** was frequently used for its **grammar check feature**, helping students improve their grammar skills. For additional resources, the lecturer used **Cambridge English** as a reliable online reference for teaching Grammar. Interactive grammar exercises were supported by software that includes **video assistance**, enhancing student engagement. Feedback on grammar assignments was provided **occasionally** through technology, and **student project videos** were used as supplementary materials to reinforce grammar learning. The integration in utilizing technology in teaching and learning Translation can be seen as follow

Table 3.6. Technology Integration in Translation Instruction.

Aspect	Outcome
Frequently Used Devices	Smartphones and Laptops were frequently used in teaching the Translation course.
Platform or LMS Used	Google Classroom was used as the platform to manage Translation learning.
Applications or Software Frequently Used	Google Translate was often used to assist students in the translation process.
Websites or Online Reference Resources	The lecturer used vk.com as one of the online reference sources for teaching Translation.
Use of Software for Interactive Translation Exercises	ChatGPT was used as software for interactive translation exercises.
Frequency of Technology Use to Provide Feedback	Feedback on students' Translation assignments was occasionally provided through technology.
Use of Videos or Podcasts as Supplementary Materials	YouTube videos were used as supplementary materials for Translation instruction.

The lecturer frequently used **smartphones and laptops** in teaching the Translation course, with **Google Classroom** as the main platform for managing the learning process. **Google Translate** was often used to assist students in their translation tasks, providing them with quick translation solutions.

For online reference resources, the lecturer used **vk.com** to support teaching, and **ChatGPT** was utilized for interactive translation exercises, allowing students to engage more actively in the process. Feedback on Translation assignments was given **occasionally** through technology, and **YouTube videos** were used as supplementary materials

to enhance students' understanding of translation concept. Thus, the data shows that technology is used in a structured way across different language courses. In the Writing course, the lecturer mainly uses a computer or laptop, Google Classroom, and Grammarly to manage assignments and help students improve their writing. Tools like Padlet and Cambridge English Write & Improve encourage collaboration and self-assessment. However, since feedback is provided only occasionally, there may be a missed opportunity for continuous student support. Timely feedback is crucial for effective learning, as it helps students understand their mistakes and improve [9]. Offering more frequent feedback could enhance student engagement and help them master writing skills.

In the Listening course, the lecturer uses YouTube and Google Classroom, but does not incorporate podcasts or editing software. This limits the variety of audio resources available to students. While feedback is given through Google Forms, expanding feedback methods to include more interactive options could be beneficial. Research shows that using multimedia and interactive elements can significantly boost student engagement and understanding[11]. Adding podcasts or creating customized listening materials could enrich the learning experience and encourage more student participation.

For the Reading, Speaking, Grammar, and Translation courses, the use of computers and platforms like Microsoft Teams and Google Classroom helps facilitate instruction. However, relying on traditional tools, such as Adobe Acrobat Reader for Reading and Microsoft Word for Grammar, along with limited feedback, suggests a need for more interactive resources. Incorporating gamification and various online platforms could make learning more engaging [6]. Additionally, using video tutorials and interactive applications can cater to different learning styles and deepen understanding across all language skills. Overall, while technology is used effectively in many ways, increasing the variety and frequency of these tools could greatly improve student learning outcomes.

Table 3.8. Technology Integration towards Students' Emotional Engagement

Category	Question	Responds	Percentage
Emotional Engagement	How do students feel when using technology in English language learning?	Very happy	35%
		Happy	65%
		Neutral	0%
		Unhappy	0%
		Very unhappy	0%
	Do students seem more motivated when using technology in English language learning?	Very motivated	65%
		Motivated	35%
		Neutral	0%
		Unmotivated	0%
		Unmotivated	0%
	Does the use of technology help students feel more confident when learning English?	Very confident	65%
		Confident	35%
		Neutral	0%
		Not Confident	0%
		Very unconfident	0%
	How often do students show greater interest in learning English when technology is used?	Always	0%
		Often	65%
		Sometimes	35%
		Rarely	0%
		Never	0%

The data shows that students have a positive emotional response to using technology in English language learning. **35% feel very happy**, and **65% feel happy**, with no students reporting neutral. In terms of motivation, **65% of students feel very motivated**, and **35% feel motivated** when technology is involved in their learning. Additionally,

the use of technology boosts students' confidence, with **65% feeling very confident** and **35% feeling confident**. When it comes to interest in learning English, **65% of students often** show greater interest when technology is used, while **35% sometimes** do. None reported a lack of interest.

Table 3.7. Technology Integration towards Students' Cognitive Engagement

Category	Question	Responds	Percentage
Cognitive Engagement	Does technology help students understand English concepts more easily?	Very active	35%
		Active	65%
		Neutral	0%
		Inactive	0%
		Very inactive	0%
	Do students complete tasks more often with technology?	Always	0%
		Often	65%
		Sometimes	35%
		Rarely	0%
		Never	0%
	How often do students engage in discussions or collaboration with peers through technology?	Always	0%
		Often	33%
		Sometimes	33%
		Rarely	34%
		Never	0%
	re students more likely to be on time when technology is used?	Always	0%
		Often	35%
		Sometimes	65%
		Rarely	0%
		Never	0%

The data indicates that technology significantly aids students in understanding English concepts. **35% of students are very active**, and **65% are active** in their learning when technology is used, with no students reporting a neutral or inactive status. In terms of task completion, **65% of students often** complete tasks with the help of technology, while **35% sometimes** do. Regarding engagement in discussions or collaboration with peers through technology, **33% of students often** engage, another **33% sometimes** do, and **34% report rarely** collaborating. Lastly, when it comes to punctuality, **35% of students are often on time** when technology is used, while **65% are sometimes** on time, indicating a positive trend in attendance related to technology use.

Table 3.9. Technology Integration towards Students' Behavioral Engagement

Category	Question	Responds	Percentage
Behavioral Engagement	How actively do students participate in English learning activities when using technology?	Very helpful	0%
		Helpful	100%
		Neutral	0%
		Not helpful	0%
		Very unhelpful	0%

	Do students find it easier to solve problems with the help of technology?	Strongly agree	0%
		Agree	100%
		Neutral	0%%
		Disagree	0%
		Strongly disagree	0%
	How often do students demonstrate critical thinking skills in learning?	Always	0%
		Often	35%
		Sometimes	65%
		Rarely	0%
		Never	0%
	How effective is technology in helping students stay focused and work independently?	Very effective	35%
		Effective	65%
		Neutral	0%
		Ineffective	0%
		Very ineffective	0%

The data shows that students are highly engaged in English learning activities when using technology, with **100% finding it helpful**. None of the students rated technology as neutral or unhelpful. Additionally, all students **agree** that technology makes it easier to solve problems, indicating a strong positive impact on their learning experience. When it comes to demonstrating critical thinking skills, **35% of students often** show these skills, while **65% sometimes** do, suggesting room for improvement in this area. In terms of focus and independent work, **35% find technology very effective**, and **65% find it effective**, with no students reporting that technology is ineffective. Overall, technology is viewed as a beneficial tool in enhancing behavioral engagement in English learning. The data shows that students have a positive experience using technology in English language learning, enhancing their emotional, cognitive, and behavioral engagement. According to Mayer's Cognitive Theory of Multimedia Learning, students learn better when lessons include different formats like text, audio, and video [11]. This is reflected in the data, as many students feel more confident and motivated when technology is part of their lessons, helping them grasp English concepts more easily. The findings support Constructivist Theory, which highlights the importance of active learning. The data indicates that students find technology helpful for participation and problem-solving, suggesting that interactive tools allow them to learn together [10]. Although students show critical thinking skills, there's still room for growth. Research suggests that teachers should create specific activities to foster critical thinking rather than relying only on technology [7]. Overall, the positive engagement levels indicate that technology can significantly improve learning experiences. By carefully integrating technology into lessons, educators can create an engaging environment that supports all aspects of learning, leading to better outcomes in English language education. This approach aligns with well-known educational theories, showing that when used effectively, technology can greatly enhance student learning.

CONCLUSIONS

Using technology in language teaching has led to positive outcomes for student engagement and learning. Tools like Google Classroom, Grammarly, and YouTube support teaching and encourage collaboration among students. However, there is still room for improvement, especially in providing more frequent feedback and including more interactive multimedia resources. By adding different technology tools, like podcasts and games, and offering personalized feedback, teachers can create a more engaging and effective learning environment that meets the varied needs of students and helps them better understand language skills.

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