CHAPTER I

INTRODUCTION

A. Background

As a worldwide communication tool, English is the language of international communication and is utilized in many different nations. English is considered to play a major role in the current globalization era, making it one of the languages that everyone, not just in Indonesia, needs to be proficient. (Utami et al., 2023, Silalahi, 2019). English has become the dominant global language, serving as a medium for international communication, business, education, and technological advancements (Zein, 2017). It is the primary language used in scientific research, global media, and digital communication, making proficiency in English a valuable skill in today's interconnected world. As a result, learning English has become a necessity for individuals seeking academic and professional growth. However, for beginner learners, acquiring proficiency in English presents several challenges, particularly in vocabulary acquisition.

For beginners, learning English is not just about acquiring a new language but also about gaining access to a wealth of resources and opportunities. English proficiency is often a prerequisite for higher education in prestigious universities, international job opportunities, and participation in global research and innovation (Turekisa, 2021). Moreover, English serves as

a bridge language, enabling individuals from different linguistic backgrounds to communicate effectively. For example, in multinational corporations, English is often the default language for meetings, reports, and emails (Liu & Reynolds, 2019). In the field of science and technology, English is the primary language for publishing research papers and sharing discoveries (Permana, 2020). Thus, for beginners, mastering English is a critical step toward achieving academic and professional success in a globalized world.

However, the importance of English as a global language also presents challenges for beginners. The pressure to learn English can be overwhelming, especially for those who come from non-English-speaking backgrounds. The complexity of the language, coupled with the lack of exposure to English in their daily lives, can make the learning process daunting. Additionally, the dominance of English in global communication can lead to linguistic inequality, where non-native speakers are often disadvantaged in academic and professional settings (Kaloeti et al., 2021). These challenges highlight the need for effective teaching strategies that can help beginners build a strong foundation in English, particularly in vocabulary.

Learning English as a beginner is often a daunting task. Beginners typically face challenges such as unfamiliar grammar rules, complex pronunciation, and a vast vocabulary with multiple meanings and irregular spellings. Additionally, the lack of exposure to English in their daily lives can hinder their ability to practice and reinforce what they have learned.

Traditional teaching methods, which often rely on rote memorization and repetitive exercises, can further demotivate beginners, leading to disengagement and poor retention of vocabulary.

One of the primary challenges faced by beginners is ensuring that learners can use the words they have learned in real-world contexts. Vocabulary learning is not just about memorizing words and their meanings; it is also about understanding how words are used in different contexts and being able to use them appropriately in communication. Research by (Permana, 2020) emphasizes the importance of teaching vocabulary in context, as this helps learners understand the meaning and usage of words more effectively. For example, teaching the word "run" in the context of a sentence, such as "She runs every morning," helps learners understand its meaning and usage better than simply memorizing the word and its definition.

Effective vocabulary teaching strategies for beginners include using a variety of techniques to reinforce vocabulary learning. These techniques may include using visual aids, such as pictures and flashcards, to help learners associate words with their meanings (Booton et al., 2023). For beginners, vocabulary is especially crucial because it lays the groundwork for all other language skills. Research by (Permana, 2020) highlights that vocabulary knowledge is a strong predictor of language proficiency and academic success. Beginners who master basic vocabulary are better equipped to engage with more complex language structures and contexts. However, traditional

methods of vocabulary teaching, such as rote memorization and repetition, often fail to engage beginners, leading to disinterest and poor retention.

The lack of exposure to English in daily life is another significant challenge for beginners. In many non-English-speaking countries, English is not widely used in everyday communication, making it difficult for learners to practice and reinforce what they have learned. This lack of exposure can lead to a gap between classroom learning and real-world application, hindering learners' ability to use English effectively in practical situations (Tareq, 2025). Additionally, the limited availability of English-language media, such as books, movies, and television shows, can further restrict learners' opportunities to immerse themselves in the language.

Beginners in English face multiple obstacles in their language learning journey. One of the most significant challenges is building a sufficient vocabulary base, which is crucial for comprehension and communication (Suraya Suraya & Fitry Maharani Siagian, 2024). Traditional language instruction often relies on rote memorization, making it difficult for learners to retain and effectively use new vocabulary (Agazzi, 2022). Moreover, pronunciation difficulties, irregular spelling patterns, and lack of contextual learning further hinder vocabulary acquisition (Aufa, 2018).

In addition, motivation and engagement play a vital role in language learning. Many beginner learners struggle with maintaining interest in English due to uninspiring teaching methods and a lack of interactive learning

opportunities (Booton et al., 2023). As a result, they may develop negative attitudes toward language learning, leading to poor retention and slow progress

Effective vocabulary instruction involves more than just memorizing word lists; it requires exposure to words in various contexts, repeated encounters with new vocabulary, and opportunities for active usage (Aşıkcan, 2023) . Consequently, educators must adopt innovative teaching strategies that enhance vocabulary and facilitate long-term retention.

Vocabulary output refers to the ability to recognize, understand, and use words effectively in various contexts. For beginners, acquiring a strong vocabulary is essential for developing reading, writing, speaking, and listening skills. Without sufficient vocabulary, learners struggle to understand texts, express themselves, or engage in meaningful conversations. Research by (Permana, 2020) emphasizes that vocabulary knowledge is a strong predictor of language proficiency and academic success. For English beginners, mastering basic vocabulary is the first step toward achieving fluency and confidence in the language. Vocabulary is a fundamental aspect of language proficiency. It refers to the ability to understand, use, and retain words in meaningful contexts (Idami, 2022). Research indicates that a strong vocabulary foundation is essential for reading comprehension, speaking fluency, and academic success (Shabrina & Taufiq, n.d.). Without adequate

vocabulary knowledge, learners struggle to construct sentences, understand texts, and engage in meaningful conversations.

Learning interest plays a crucial role in vocabulary acquisition. When students are interested in what they are learning, they are more likely to engage with the material, retain information, and apply their knowledge in real-world contexts (Utami et al., 2023). Conversely, a lack of interest can lead to disengagement, poor performance, and a negative attitude toward learning. For beginners, fostering learning interest is particularly important because it helps them overcome the initial challenges of learning a new language and builds their confidence.

Research by (Nurita et al., 2024) emphasizes the importance of intrinsic motivation in learning. Intrinsic motivation refers to the internal drive to engage in an activity for its own sake, rather than for external rewards. When learners are intrinsically motivated, they are more likely to persist in their efforts, even when faced with difficulties. For beginners, activities that spark curiosity, provide a sense of autonomy, and offer opportunities for mastery can enhance their intrinsic motivation and learning interest.

Technology has transformed the way vocabulary is taught and learned. Digital tools offer interactive, personalized, and immersive learning experiences that cater to diverse learning styles. Gamification has emerged as a powerful strategy for enhancing vocabulary output and learning interest.

Gamification involves incorporating game elements, such as points, levels, badges, and rewards, into non-game contexts to motivate and engage learners (Suraya Suraya & Fitry Maharani Siagian, 2024). In the context of vocabulary learning, gamification transforms traditional exercises into interactive and enjoyable activities, making learning more engaging and effective.

Research by Mukarromah & Agustina (2021) has shown that gamification can improve students' engagement, retention, and performance in language learning. For beginners, gamified activities provide a low-pressure environment where they can practice and reinforce their vocabulary skills without fear of failure. To address these challenges, educators need innovative tools and strategies that make vocabulary learning more accessible, engaging, and effective. Gamification and digital tools like Educaplay offer promising solutions by providing interactive and personalized learning experiences that cater to beginners' unique needs and learning styles. This not only boosts their confidence but also encourages them to take an active role in their learning. Platforms like Educaplay, which offer a variety of gamified vocabulary exercises, are particularly effective in enhancing vocabulary output and fostering learning interest among beginners.

Educaplay is an online platform that allows educators to create and share interactive learning activities, including quizzes, crosswords, word searches, and matching games. Designed to be user-friendly and versatile, Educaplay enables teachers to customize activities to suit their students' needs

and learning objectives (Imam et al., 2025). For vocabulary learning, Educaplay offers a range of activities that reinforce word recognition, spelling, and usage in a fun and engaging way. By turning vocabulary practice into a game, Educaplay not only enhances students' vocabulary ability but also fosters their interest and motivation to learn. Research by (Vargas-Saritama & Espinoza Celi, 2024) highlights that gamified platforms like Educaplay can significantly improve students' engagement and performance in language learning. For beginners, Educaplay provides an interactive and supportive environment where they can build their vocabulary skills while enjoying the learning process.

Moreover, to ensure that students do not merely memorize vocabulary but also understand and apply it within meaningful communic ative contexts, it is essential to implement a pedagogical model that emphasizes active, contextualized, and student-centered learning. One of the most widely recommended approaches to support this is Problem-Based Learning (PBL). PBL is rooted in constructivist learning theory, particularly Vygotsky's socio-cultural perspective, which posits that knowledge is best acquired through interaction, problem-solving, and social collaboration. In PBL, students are presented with real-life problems and are encouraged to actively engage in inquiry, discussion, and investigation to construct their own understanding (Arianti et al., 2024).

Within the context of language learning, PBL fosters authentic use of vocabulary through problem-solving tasks that require learners to comprehend, select, and produce relevant lexical items based on the situation presented. Rather than passively receiving vocabulary lists, learners engage in meaningful use of the language, which enhances retention, motivation, and communicative competence. For beginner-level learners, especially in elementary schools, PBL offers an engaging structure that promotes both linguistic development and critical thinking.

To further strengthen this model, the use of technology-enhanced tools is crucial. Among various educational technologies, Educaplay emerges as a powerful platform that can complement the PBL framework. Educaplay provides a wide array of interactive activity formats—such as matching games, crosswords, quizzes, dialogues, and word searches—which can be embedded into problem-based tasks. These activities do not only support vocabulary learning visually and contextually, but also stimulate learners' curiosity, autonomy, and enjoyment.

When Educaplay is integrated into PBL scenarios, students are given gamified tasks that simulate real-life situations—such as planning greetings for school events, solving puzzles related to action words, or designing dialogues for social interactions. These tasks require students to actively use new vocabulary in purposeful ways, thereby facilitating both productive vocabulary output and increased interest in learning (Infarlina & Makmur,

2023). In addition, the interactive nature of Educaplay aligns with young learners' cognitive and affective characteristics, offering a learning experience that is both developmentally appropriate and motivating.

Although existing research supports the use of gamification and digital platforms in vocabulary instruction, studies that specifically explore the synergistic effect of combining Educaplay with the PBL approach—particularly in Indonesian elementary school contexts—remain scarce (Pelajaran & Inggris, n.d.). The limited number of empirical studies on this topic points to a research gap, especially in understanding how such integration influences both the cognitive (vocabulary mastery) and affective (learning interest) aspects of beginner learners.

While vocabulary and learning interest are critical components of language learning, there is a lack of research on their specific impact on beginners. Most studies on vocabulary acquisition focus on advanced learners or general language proficiency, leaving a gap in our understanding of how beginners develop vocabulary output and what strategies are most effective in fostering their learning interest (Nurita et al., 2024). Additionally, there is limited research on the implementation of gamified platforms like Educaplay in teaching vocabulary to beginners.

In selecting a digital platform to support vocabulary learning, Educaplay was chosen over other gamified educational tools such as Kahoot, Quizizz, or Wordwall, due to its more comprehensive and content-integrated

design Vargas-Saritama & Espinoza Celi, (2024). While many gamification platforms focus primarily on quiz-based formats or competitive scoring systems, Educaplay offers a broader range of activity types that combine both instructional content and interactive gameplay. This makes it more suitable not only for assessment or review purposes, but also for introducing and delivering new vocabulary content within meaningful learning scenarios.

Educaplay allows educators to embed learning materials directly into the activity interface, such as explanations, example sentences, audio pronunciation, and visual cues—thus functioning both as a teaching tool and a practice platform. For example, before completing a word search or matching task, learners can first read brief notes or definitions about the target vocabulary within the same application environment. This integration of learning and interaction provides a more coherent and efficient learning process, especially for beginner learners who require both explicit vocabulary instruction and active engagement. Consequently, Educaplay not only supports motivation through game-based activities but also promotes deeper understanding and retention of language materials, making it highly relevant for the objectives of this study.

Therefore, this study aims to investigate the implementation of the Educaplay application in English learning for beginners by incorporating the Problem-Based Learning model. It focuses on two key variables: vocabulary output, as a measurable indicator of lexical development, and students'

learning interest, as a reflection of affective engagement. By evaluating the impact of this integration, the study intends to contribute to the development of innovative, technology-assisted, and learner-centered strategies for English as a Foreign Language (EFL) teaching—particularly at the primary education level in Indonesia.

In school that the researcher used to teach, particularly in EFL (English as a Foreign Language) contexts, students often struggle to acquire and retain basic English vocabulary. This issue is especially evident among beginners who lack exposure to English outside the classroom. Traditional teaching methods, which rely heavily on rote memorization and textbook-based learning, frequently fail to engage students or support long-term vocabulary retention. As a result, vocabulary output—students' ability to recall and use new words—remains limited. Furthermore, low student interest in language learning contributes to a lack of motivation and active participation during English lessons. While digital tools and gamified platforms have been increasingly integrated into modern education, their implementation in vocabulary instruction at the elementary level is still limited. There is a clear need to explore innovative and interactive approaches, such as the use of the Educaplay app, to improve vocabulary outputs and stimulate learning interest among beginner learners.

This study aims to address these gaps by exploring the relationship between vocabulary and learning interest among beginners and assessing the

effectiveness of Educaplay app in enhancing both. By examining the implementation of Educaplay app in teaching vocabulary output to beginners, the study seeks to provide valuable insights for educators, policymakers, and researchers.

This study is conducted in the context of a primary school, where English is taught as a second or foreign language. The participants are beginner-level students who are just starting to learn English. The study focuses on the use of Educaplay app as a supplementary tool to enhance traditional teaching methods and improve students' vocabulary output and learning interest. By examining the implementation of Educaplay app in this context, the study aims to provide insights into its effectiveness and potential as a teaching tool for English beginners.

The implementation of Educaplay app in English learning for beginners is expected to improve students' English and their interest in learning. This application not only offers learning materials that are appropriate for the beginner level, but is also designed to attract students' interest through an interactive and contextual approach. This study aims to explore the extent to which the implementation of Educaplay app can affect students' vocabulary output and interest in learning, as well as identify factors that support the success of the program.

Through this study, it is hoped that it can contribute to the development of more effective English learning strategies, especially for

beginner students. In addition, the results of this study are expected to be a reference for educators and policy makers in designing learning programs that can improve students' vocabulary output and interest in learning English.

B. Problem Statement

Based on the background statement, the researcher formulates the question as follows:

- To what extent does the implementation of Educaplay app improve vocabulary acquisition among beginner English students at SD Muhammadiyah 3 Parepare, as reflected in their vocabulary learning outputs?
- What are the instructional steps in teaching English for beginners using the Educaplay application within the framework of PBL SD Muhammadiyah 3 Parepare?
- What is the impact of Educaplay app on students' learning interest at SD Muhammadiyah 3 Parepare?

C. The Objective of the Research

Based on the problem statement, the objective of the research are:

1. **To examine the extent to which the implementation of Educaplay appenhances vocabulary acquisition** among beginner English students at SD Muhammadiyah 3 Parepare, as reflected in their vocabulary learning outputs.

2. To describe the instructional steps involved in teaching English for beginners using the Educaplay application based on the Problem-Based Learning (PBL) model at SD Muhammadiyah 3 Parepare.
3. To evaluate the impact of Educaplay app on students' learning interest in English language learning at SD Muhammadiyah 3 Parepare.

D. Significance of the Research

The significance of this research is separated into two components of significance, namely theoretical significances, and practical significances.

1. Theoretical significances, this research is expected to contribute to the field of English language teaching, particularly in the area of vocabulary acquisition and student engagement through digital-based instruction. By examining the implementation of Educaplay app in vocabulary learning for beginner students, this study offers empirical evidence that may support existing theories related to gamification, constructivism, and interest-driven learning. Moreover, the findings can enrich the theoretical discussion on the integration of educational technology in EFL (English as a Foreign Language) classrooms, especially in the context of young learners. The results are also anticipated to provide a basis for future research in developing vocabulary instruction models that are both interactive and motivating.

2. Practical significances, the result of this research expect to have some benefit not only for the researcher, but also for English teachers, students, and the next researcher. To English teachers, this study can be a reference to use Educaplay in English for beginner.

E. Scope of the Research

The scope of the research is restricted by discipline, content, and activity.

1. By discipline, the main focus of this research is on the application of technology in language learning, with an emphasis on Vocabulary output and increasing the learning interest of beginner students.
2. By content, this research analyzes how the Educaplay app is implemented in the English learning process for beginner students at SD Muhammadiyah 3 Parepare.
3. By activity, the researcher will be monitoring and documenting the program implementation process in the classroom during the research period to observe changes in vocabulary output and student learning interest.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter consists of some previous research findings, some pertinent ideas, a resume, conceptual framework, and hypothesis.

A. Some Previous Related Research Findings

1. (Wehbe, 2024) in her research concluded that Compared to standard teaching methods, students who utilized digital devices exhibited a substantially higher rate of vocabulary retention and application. The study also documented a rise in student involvement and enthusiasm when digital tools were employed, based on focus group feedback. These results highlight the potential of digital devices to enhance vocabulary instruction in elementary settings, leading to improved and more enjoyable learning outcomes. Future studies should examine the long-term impacts and effectiveness of various digital interventions.

   It can also be said that students using these devices exhibited superior vocabulary retention and application, coupled with increased motivation. Therefore, integrating digital tools into vocabulary instruction is a beneficial strategy for primary education.

2. (Aşıkcan, 2023) his research clarified that the action plans utilizing digital tools successfully boosted student vocabulary. This aligns with extensive

research affirming digital technology's power in language learning. The interactive and multimodal qualities of these tools are key to vocabulary acquisition. Digital platforms offer students diverse opportunities to expand their word knowledge. This study confirms that integrating technology into vocabulary instruction yields positive results. The dynamic nature of online activities allows for engaging and effective learning experiences, supporting the development of a robust vocabulary. Future implementation should consider the diverse range of digital tools available to maximize student learning.

The use of digital tools in the action plans proved successful in expanding student vocabulary. This aligns with a body of research highlighting the benefits of digital technologies for vocabulary acquisition. The multimodal and interactive features of these tools are demonstrably effective in vocabulary acquisition, and online activities provide a platform for students to expand their lexical understanding.

3. (Tareq, 2025) in his research concluded that students using educational games exhibited significantly higher engagement, motivation, and vocabulary retention due to the interactive and culturally relevant nature of these tools. Teachers noted challenges like technology access, game adaptation for diverse needs, and curriculum integration. They stressed the importance of professional development, culturally appropriate content, and innovative teaching strategies. This study highlights the

ability of games to support language acquisition, bridge cultural and linguistic differences, and improve learning results for Arab students, providing valuable insights for educational improvement.

By implementing these strategies, teachers can cultivate dynamic and nurturing classrooms that promote both language growth and academic success. This research offers significant contributions to game-based learning, highlighting the necessity of creative educational approaches to effectively address the varied requirements of contemporary students.

4. (Annisa et al., 2025) their research demonstrated the effectiveness of combining Educaplay and Problem Based Learning (PBL) in increasing the mathematics learning interest of tenth-grade students. Learning interest scores significantly increased, followed by active student participation in discussions and problem-solving. Students and teachers gave positive responses to this method, finding learning more enjoyable and relevant. The integration of Educaplay created an interactive learning atmosphere through quizzes and simulations, motivating students and building self-confidence. Overall, this study shows that Educaplay and PBL effectively enhance student interest and engagement in mathematics learning.

   The integration of Educaplay within the PBL model is effective in enhancing students' interest in learning mathematics. It is recommended that teachers more frequently utilize technology-based learning media and

implement the PBL model to create a more interactive and engaging learning environment

5. (Mata et al., 2024) The researcher developed an educational game based on interviews with educators, who suggested content from the textbooks they use in their teaching process. The researcher mapped the educators' suggested content to the game types in the educational game being developed. The material/content validity level was qualified as very good, and the media validity level was also qualified as very good. The practicality level, consisting of large group trials, was qualified as Practical; small group trials were qualified as Very Practical; and Educator Responses were qualified as Very Practical. Student learning outcomes after using the educational game increased by 0.21, or 21.46%.

   This research successfully developed a validated and practical educational game based on educators' input. The game's content and media were rated as "very good," and its practicality was confirmed through trials and educator feedback. Notably, student learning outcomes improved after using the game, demonstrating its effectiveness as a learning tool.

6. (Razak, 2024) his research indicated that the implementation of the interactive learning platform Educaplay effectively enhances students' understanding and learning interest. The use of Educaplay also prove effective in increasing active student participation. This success

demonstrates that learning with interactive media positively contributes to both student learning outcomes and their interest and engagement in learning activities. Initial challenges, such as students' adaptation to technology, can be overcome through better time management and clear technical guidance, allowing students to more easily adapt and actively participate.

Using Educaplay, an interactive learning platform, successfully improves student understanding, interest, and active participation. While initial tech-related challenges exist, they can be mitigated through effective time management and clear guidance, ultimately leading to positive learning outcomes and increased student engagement.

7. (Kronos, 2024) This research examined the impact of note-taking and Educaplay on EFL vocabulary learning, revealing that note-taking significantly outperformed Educaplay in vocabulary retention, suggesting its continued value as a traditional learning technique across academic levels and emphasizing the need for teacher instruction on effective note-taking. The results of the data analysis revealed that students who use the strategy of taking notes achieved better outcomes than those who use the web platform Educaplay, while Educaplay showed some improvement in vocabulary retention, it was less significant, indicating that while ICT tools can enhance student motivation, they do not replace established, effective learning strategies like note-taking.

Since ICTs have appeared in the educational field, traditional methods have been seen as obsolete, boring and old-fashioned tools and professors have replaced some techniques for technological devices to make their lectures more innovated and attractive.

8. (Vargas-Saritama & Espinoza Celi, 2024) in their research concluded that the application Educaplay-based activities in English classes effectively contextualized vocabulary learning, improving retention and expansion. Its user-friendly interface fostered active student participation and academic progress, highlighting its potential in diverse pedagogical settings. This aligns with research emphasizing effective technology integration for student-centered learning. While successful, further research is needed to explore Educaplay's long-term impact on EFL vocabulary retention and proficiency across various levels. Larger-scale studies, utilizing diverse research approaches, are also necessary to fully understand its potential as a teaching and learning resource for maximizing students' language learning experience.

   Using Educaplay is user-friendly interface and engaging tools fostered active student participation and academic achievement. The findings align with prior research emphasizing the importance of strategic technology integration for impactful, student-centered learning. Future studies should explore Educaplay's long-term effects on vocabulary and its broader

impact as a teaching resource, using diverse research methods and larger participant groups.

B. Some Pertinent Ideas

The researcher will explain some pertinent ideas that include the concept of joyful learning, a new normal era, and English for beginners.

1. Vocabulary Concept

a. Definition and importance of vocabulary.

According to (Agazzi, 2022) vocabulary goes beyond simply knowing word definitions; it involves a deep understanding of the meaning, usage, and relationships between words in various contexts. This includes the ability to recognize words, comprehend nuances of meaning, and use vocabulary effectively in oral and written communication. (Permana, 2020) Vocabulary is a crucial foundation for language proficiency, enabling individuals to understand complex texts, express ideas clearly, and participate in meaningful conversations. Without strong vocabulary, the ability to communicate in English will be severely limited.

The importance of vocabulary cannot be overstated, especially in the context of learning English as a foreign language. A broad vocabulary allows students to understand instructions, read academic texts, and write coherent essays (Booton et al., 2023).

Good vocabulary also contributes to students' ability to learn independently, as they can use dictionaries and other resources to expand their knowledge (Siregar, 2020). Furthermore, strong vocabulary facilitates effective communication in real-life situations, enabling students to interact with native speakers and participate in the global community.

b. The role of vocabulary in language proficiency

Vocabulary serves as the cornerstone of language proficiency, underpinning all four language skills: reading, writing, listening, and speaking. Without a robust vocabulary, learners struggle to comprehend authentic texts, express complex ideas, and engage in meaningful conversations (Permana, 2020). Vocabulary knowledge directly impacts reading comprehension, as unfamiliar words hinder understanding and fluency. In writing, a limited vocabulary restricts the ability to convey nuanced meanings and produce sophisticated texts(Agazzi, 2022).

Furthermore, vocabulary plays a crucial role in listening comprehension, as recognizing spoken words is essential for understanding spoken discourse. In speaking, a wide range of vocabulary enables learners to articulate their thoughts accurately and participate effectively in discussions. The breadth and depth of vocabulary knowledge influence overall language proficiency,

determining the learner's ability to communicate effectively in diverse contexts (Panfilova et al., 2022). Mastering vocabulary is not merely about memorizing isolated words; it involves understanding word meanings, usage, and relationships within sentences and texts. A strong vocabulary empowers learners to navigate language challenges, enhancing their overall language proficiency and communication skills.

c. Challenges in teaching vocabulary to beginners.

Teaching vocabulary to beginners presents unique challenges that require careful consideration. One significant obstacle is the limited attention span of young learners, making it difficult to maintain engagement during vocabulary lessons (Aladelah, 2024). Additionally, beginners often lack prior exposure to the target language, resulting in a narrow base of vocabulary knowledge. This necessitates a focus on high-frequency words and basic concepts to establish a solid foundation.

Another challenge lies in the diverse linguistic backgrounds of students, which can lead to interference from their native languages. Teachers must be aware of potential language transfer issues and provide clear explanations of vocabulary items. Furthermore, motivating beginners to learn new words can be challenging, especially when they struggle to see immediate

progress. Using engaging activities, real-life examples, and visual aids can help spark interest and make vocabulary learning more enjoyable (Moto et al., 2021).

Providing meaningful contexts for vocabulary learning is also crucial for beginners. Isolated word lists are often ineffective, as students may memorize definitions without understanding how to use the words in context. Teachers should incorporate storytelling, role-playing, and authentic materials to help students see the relevance of new vocabulary items (Sahib, 2019). Finally, assessing vocabulary knowledge in beginners requires creative approaches beyond traditional tests. Using games, picture prompts, and simple sentence completion tasks can provide a more accurate picture of students' understanding.

2. Problem-Based Learning (PBL) Method

a. Definition of Problem based learning

Problem-Based Learning (PBL) is a student-centered instructional method that uses real-world problems as the starting point for the acquisition of new knowledge. Originally developed in medical education, PBL has been widely adopted in other fields, including language learning (Barrows, 1986). In this approach, learners are given an ill-structured problem and are

expected to work collaboratively to investigate, analyze, and resolve the issue while constructing knowledge in the process.

According to Arianti et al., (2024), PBL encourages learners to be self-directed, collaborative, and reflective. It moves away from teacher-centered transmission of knowledge and instead fosters inquiry, research, and problem-solving skills. This method aligns well with constructivist learning theory, which posits that knowledge is actively constructed by the learner based on prior understanding and interaction with the environment.

b. Principles and Characteristics of PBL in Language Learning

In language education, PBL incorporates the use of authentic problems related to communicative contexts. Learners work in groups to understand the problem, identify vocabulary and structures needed to solve it, and produce a solution such as a dialogue, oral presentation, or written text (Hmelo-Silver, 2004). This makes language use more meaningful and memorable.

Key characteristics of PBL in language learning include:

- Emphasis on learner autonomy.
- Integration of language skills (speaking, listening, reading, and writing).
- Use of real-life or simulated tasks.

- Encouragement of collaborative learning.

These principles support the development of both linguistic competence and higher-order thinking skills. As noted by Richards and Rodgers (2001), the communicative function of language is best developed through problem-solving and task-based activities, making PBL highly compatible with vocabulary instruction.

C. The Implementation of PBL in English Vocabulary Instruction

Vocabulary is a core component of language learning, especially for beginners. PBL provides a dynamic context in which vocabulary is not only introduced but also used purposefully. Through activities like problem discussions, project presentations, and interactive media (e.g., Educaplay), learners encounter new words repeatedly and in meaningful contexts, promoting retention and active use (Pelajaran & Inggris, n.d.).

In the context of primary education, simple and relatable problems (e.g., preparing a greeting card, giving instructions to a friend, making a daily routine plan) can be used to encourage the use of vocabulary related to greetings, partings, and actions. This

contextualized use helps children build connections between words and their practical function.

d. The Advantages of PBL for Beginner Learners

Beginner learners are naturally curious and learn best through interaction, discovery, and play. PBL supports these characteristics by offering meaningful tasks that involve exploration and collaboration. According to Infarlina & Makmur, (2023) children construct understanding through doing and interacting, which aligns with the principles of PBL.

Benefits of using PBL with young language learners include:

- Increased motivation and engagement.
- Improved collaboration and communication skills.
- Enhanced critical thinking and problem-solving ability.
- Greater vocabulary retention through context and repetition.

When vocabulary is learned as part of a problem-solving process, it becomes embedded in memory through association and active use. This deep learning is more durable than rote memorization.

3. Learning Interest

a. Definition and theories of learning interest

Learning interest is a psychological state characterized by a feeling of engagement, curiosity, and enjoyment towards a particular subject or activity. It goes beyond mere attention, encompassing a sustained desire to explore and learn more about the topic at hand. (Utami et al., 2023) define interest as a "relatively enduring predisposition to re-engage particular content over time." This definition highlights the enduring nature of interest, distinguishing it from fleeting moments of attention.

Several theories attempt to explain the development and role of learning interest. One prominent theory is the four-phase model of interest development (Idami, 2022). This model posits that interest develops through four phases: triggered situational interest, maintained situational interest, emerging individual interest, and well-developed individual interest. Each phase represents a different level of engagement and commitment to the subject matter.

Another relevant theory is self-determination theory (Wahyuni & Naim, 2019), which emphasizes the importance of autonomy, competence, and relatedness in fostering intrinsic motivation and interest. According to this theory, learners are more likely to be interested in activities that they find personally meaningful, challenging, and connected to their social environment.

b. The role of intrinsic and extrinsic motivation in learning.

Motivation plays a pivotal role in the learning process, influencing students' engagement, effort, and persistence. It can be broadly categorized into intrinsic and extrinsic motivation, each with distinct impacts on learning outcomes. Intrinsic motivation arises from internal desires, such as curiosity, enjoyment, and a sense of accomplishment. Students who are intrinsically motivated engage in learning activities for their inherent satisfaction, leading to deeper understanding and greater creativity (Shopia et al., 2022).

Extrinsic motivation, on the other hand, stems from external rewards or pressures, such as grades, praise, or fear of punishment. While extrinsic motivators can be effective in prompting initial engagement, they may not foster sustained interest or deep learning (Shopia et al., 2022). The optimal learning environment often involves a combination of both intrinsic and extrinsic motivators, where students are both internally driven and externally supported. Teachers can cultivate intrinsic motivation by providing meaningful tasks, promoting autonomy, and fostering a sense of competence. Extrinsic motivators, such as positive feedback and recognition, can also play a supportive role in reinforcing learning behaviors.

c. The impact of learning interest on vocabulary acquisition.

Learning interest plays a crucial role in vocabulary acquisition, influencing students' engagement, motivation, and retention of new words. When students are genuinely interested in a topic or activity, they are more likely to pay attention, process information deeply, and make meaningful connections with new vocabulary items (Utami et al., 2023). This increased engagement leads to enhanced encoding and retrieval of vocabulary, resulting in improved vocabulary acquisition.

Furthermore, learning interest fosters intrinsic motivation, which is a powerful driver of learning. Students who are intrinsically motivated are more likely to engage in self-directed learning, seek out opportunities to use new vocabulary, and persist in the face of challenges (Fridayanti et al., 2021). This active engagement and persistence contribute to the development of a deeper and more robust vocabulary knowledge.

Research has shown that learning interest can significantly impact vocabulary acquisition in various contexts. For example, studies have found that students who are interested in the topics of reading materials acquire more vocabulary than those who are not (Wahyuni & Naim, 2019). Similarly, students who are interested

in games and activities are more likely to remember and use new vocabulary items (Fridayanti et al., 2021).

4. Gamification in Language Learning

a. Definition and principles of gamification

Gamification involves the application of game design elements and principles in non-game contexts to enhance user engagement and motivation. It transforms routine tasks into enjoyable experiences by incorporating mechanics like points, badges, leaderboards, and narratives (Mukarromah & Agustina, 2021). The core idea is to leverage the motivational power of games to encourage desired behaviors and learning outcomes. Gamification is distinct from game-based learning, which uses actual games for educational purposes; instead, it integrates game-like features into existing activities.

Key principles of gamification include providing clear goals, immediate feedback, and a sense of progression (Alakrash et al., 2022). These elements create a sense of accomplishment and encourage continuous engagement. Another important principle is the use of rewards, both intrinsic and extrinsic, to motivate users. Intrinsic rewards, such as a sense of mastery and autonomy, are particularly effective in fostering long-term engagement.

Gamification also emphasizes the importance of social interaction and collaboration, allowing users to connect and compete with others. These principles are applied to create a more engaging and motivating learning experience, turning mundane tasks into enjoyable challenges.

b. Benefits of gamification in language learning

Gamification offers numerous benefits in language learning, transforming traditional learning environments into engaging and interactive experiences. One key advantage is increased motivation. By incorporating game elements like points, badges, and leaderboards, gamification taps into learners' intrinsic and extrinsic motivation, encouraging them to actively participate and persist in their language studies (Vidimli, 2023).

Another benefit is enhanced engagement. Gamified activities provide immediate feedback, clear goals, and a sense of progression, making learning more dynamic and enjoyable. This heightened engagement leads to improved focus and retention of language concepts, including vocabulary and grammar (Mukarromah & Agustina, 2021). Gamification also fosters a sense of achievement and autonomy, empowering learners to take control of their learning journey.

Moreover, gamification promotes social interaction and collaboration. Multi-player games and collaborative tasks encourage learners to communicate and practice their language skills in a supportive environment. This social aspect enhances language fluency and cultural understanding. Additionally, gamification provides opportunities for personalized learning, allowing learners to progress at their own pace and focus on areas where they need improvement.

c. Examples of gamified platforms in education.

Numerous gamified platforms have emerged to revolutionize educational practices, transforming traditional learning into engaging experiences. One prominent example is Duolingo, a language-learning application that utilizes game-like elements such as points, levels, and streaks to motivate users. Duolingo's bite-sized lessons and interactive exercises make language acquisition accessible and enjoyable, promoting consistent practice and vocabulary retention (Alakrash et al., 2022).

Another popular platform is Kahoot!, a game-based learning tool that allows educators to create interactive quizzes and challenges. Kahoot! fosters a competitive and collaborative learning environment, encouraging students to actively participate and test their knowledge in a fun and engaging way. The

platform's real-time feedback and leaderboards enhance student motivation and engagement (Arianti et al., 2024).

Quizizz is a similar platform that offers customizable quizzes and games, enabling educators to tailor learning activities to specific curriculum objectives. Quizizz provides detailed reports and analytics, allowing teachers to track student progress and identify areas for improvement. These platforms demonstrate the potential of gamification to enhance student motivation, engagement, and learning outcomes in diverse educational contexts.

Educaplay is another versatile gamified platform that allows educators to create a wide range of interactive activities, including quizzes, word searches, crosswords, matching games, and video quizzes. It stands out by giving teachers the power to customize activities to suit their specific curriculum needs. Educaplay's flexibility allows for the integration of multimedia elements, making learning more dynamic and engaging. It provides a user-friendly interface that enables teachers to easily create and share interactive content, fostering student participation and reinforcing learning concepts. The platform's emphasis on customization and diverse activity types makes it a valuable tool for language learning and other educational subjects.

5. Educaplay app as a Teaching Tool

a. Overview of Educaplay and its items.

Educaplay is a versatile, web-based platform that empowers educators to create a wide array of interactive learning activities. It serves as a powerful tool for gamifying educational content, making learning more engaging and dynamic. The platform's user-friendly interface allows teachers to easily design activities without requiring advanced technical skills (Educaplay, n.d.).

Educaplay offers a diverse range of activity types, including quizzes, word searches, crosswords, matching games, and video quizzes. These activities can be customized to align with specific learning objectives and curriculum requirements. The platform also enables the integration of multimedia elements, such as images, audio, and video, enhancing the learning experience.

One of Educaplay's key items is its flexibility. Teachers can tailor activities to suit various learning styles and preferences, fostering personalized learning experiences. The platform also provides instant feedback, allowing students to track their progress and identify areas for improvement. Educaplay's collaborative items enable educators to share activities with colleagues and

students, promoting a collaborative learning environment (Annisa et al., 2025).

b. Previous studies on the effectiveness of Educaplay in language learning

Previous studies have highlighted the potential of Educaplay as an effective tool for language learning, demonstrating its ability to enhance student engagement and vocabulary acquisition. Research has shown that Educaplay's interactive activities, such as quizzes and matching games, can significantly improve vocabulary retention and comprehension (Imam et al., 2025). These studies suggest that the platform's gamified approach creates a more motivating learning environment compared to traditional methods.

Furthermore, Educaplay has been found to be particularly beneficial for beginner language learners. Its user-friendly interface and diverse activity types cater to various learning styles, making language learning more accessible and enjoyable (Vargas-Saritama & Espinoza Celi, 2024). Studies have also indicated that Educaplay can foster collaborative learning through shared activities and group tasks, promoting social interaction and communication skills (Nurita et al., 2024).

However, some studies have also pointed out the need for careful integration of Educaplay into the curriculum to maximize

its effectiveness. Researchers emphasize the importance of aligning Educaplay activities with learning objectives and providing clear instructions to students (Arianti et al., 2024). Overall, previous research suggests that Educaplay can be a valuable asset for language educators when used strategically.

c. Advantages of Educaplay for beginners.

Educaplay offers several advantages for beginner English learners, making vocabulary acquisition more engaging and effective. One of the primary benefits is enhanced student engagement. Traditional vocabulary learning methods, such as rote memorization, often fail to capture students' interest. Educaplay, with its interactive activities such as word searches, matching games, and quizzes, creates a more enjoyable learning environment, leading to increased participation and motivation (Motivasi et al., 2024).

Another advantage is improved vocabulary retention. Research suggests that learners remember words better when they interact with them in meaningful and contextualized ways (Imam et al., 2025). Educaplay provides opportunities for repetition and reinforcement, which strengthens memory recall. Additionally, Educaplay supports personalized learning, allowing teachers to tailor vocabulary exercises to the individual needs of students.

This adaptability helps beginners progress at their own pace, reducing anxiety and increasing confidence in language use (Razak, 2024).

Lastly, the platform's accessibility and flexibility make it a valuable tool for self-directed learning. Students can access Educaplay activities from any location, enabling continuous practice beyond the classroom setting (Annisa et al., 2025). These items position Educaplay as an effective tool for enhancing vocabulary output among beginner English learners.

C. Conceptual Framework

The conceptual is underlying in this research will give in the following diagram below:

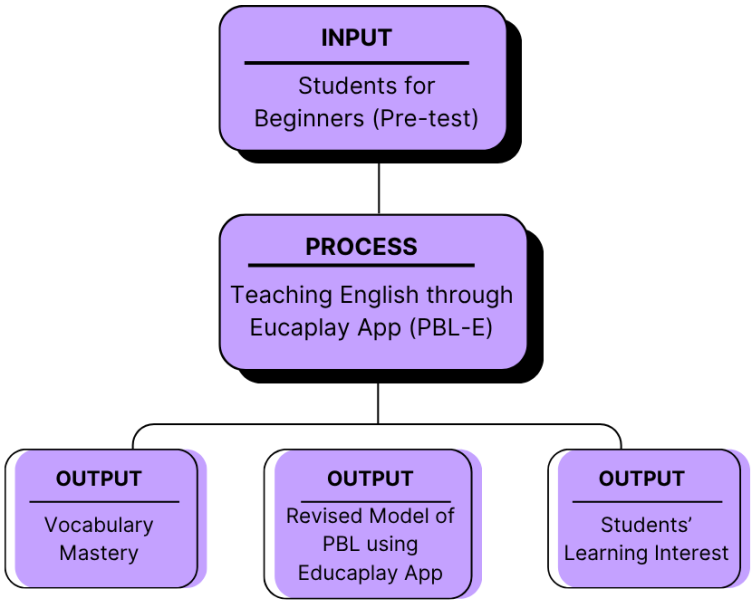


Figure 2.1 Conceptual framework

a. Input

In this stage, the data of students' English for beginners ability were collected by giving them a test named pre-test. The students answered some questions. This stage required one meeting to conduct.

b. Process

In this stage, the researcher provides treatment involving six meetings using the Educaplay application. The researcher will use various items such as learning materials, quizzes, word searches, and etc as media that will be used in the implementation for teaching English..

c. Output

In the output, the target to be achieved from this activity is to determine the resulting improvement in students vocabulary output after being taught using the Educaplay application with problem based learning (PBL) model and the students learning interest during the learning process. For this reason, the final evaluation questions and student response questionnaires.

D. Hypothesis

The researcher formulates two hypotheses as follows:

a. Ho (Null Hypothesis): The students' vocabulary command will not be significantly different after the intervention of the Educaplay application.

b. Ha (Alternative Hypothesis): The students' vocabulary command will be significantly better after the intervention of the Educaplay application.

CHAPTER III

RESEARCH METHOD

The researcher presented the research design, variables and operational definition of a variable, population and sample, the instrument of the research, procedure of collecting data, and technique of data.

A. Research Design

The research The researcher employs an experimental design to evaluate students' language proficiency. This study uses a one-group pretest-posttest methodology within a quantitative pre-experimental design. The Pre-test and Post-test groups participate in two observation sessions: the Pre-test is conducted before the treatment, and the Post- test is conducted immediately after. This design is considered experimental because there is minimal control over external variables. The one-group pretest-posttest design involves measuring a single group both before and after exposure to the treatment. This design will be illustrated as follows:

Pretest	→	Treatment or intervention	→	Posttest
O_1		X_1		O_2

Figure. 3. 1 Research Design

Where:

O1 : Pre-test giving before treatment

O2 : Post-test giving after treatment

X : Treatment

B. Variables and Definition of Variables

1. Research Variable

   There were two variables in this research namely independent variable and dependent variable.

   a. The independent variable is Teaching English for Beginners with Educaplay application.

   b. The dependent variable is English vocabulary knowledge of the Fourth-grade of SD Muhammadiyah 3 Parepare.

2. Operational Definition of the Variables

   English for beginners is young learners who are learning English. They are elementary school-age children who receive English lessons and the participants in this research are in fourth grade about 11-12 years old.

   Educaplay is a media that allows users, particularly educators, to create and share interactive multimedia learning activities. making learning more engaging and effective, especially for language learners. (Vargas-Saritama & Espinoza Celi, 2024) stated the Educaplay is the platform promotes **active learning, vocabulary retention, and student**

motivation by incorporating elements of gamification, which have been proven to enhance the learning experience.

C. Population and Sample

1. Population

   Experts have defined populations in various ways. According to Sugiyono (2014), a population is a collection of items, events, or indicators that are the focus of a study. Hinkel (2005) defines a population as the total set of entities or individuals to whom the study's findings apply. Dowling and Brown (2010) suggest that the population can be defined at any level of analysis as the class of potential subjects. In this study, the research populations consist of the Fourth grade students of SD Muhammadiyah 3 Parepare in the academic year 2024/2025.

2. Sample

   The researcher used a total sampling technique to take the sample of the research with the Fourth grade consists of 16 students as a sample of this research.

D. Instrument of the Research

According to Postlethwaite (2005), an instrument is developed by creating operational definitions of key variables and selecting and preparing tools (such as surveys, tests, and observation schedules) to measure these variables. Arikunto (2018) describes a research instrument as a tool used to collect data, making the research process more efficient and produce more accurate

results. The instrument that used in this research was an English test namely a multiple-choice test. The total number of the test was 20 items to measure the ability of the students to comprehend. The test will apply as a pre-test, a post-test, and give questionnaires. The pre-test was used to find out the comprehension of the students before giving treatment, the post-test was used to find out the English vocabulary knowledge after giving treatment, and give questionnaire to measure that the students get excited and happy during the learning.

E. The Procedure of Collecting Data

The data collected in the pre-test and post-test.

1. Pre-test

   For the **pre-test**, the researcher began by distributing the worksheets to all students. Clear instructions were then provided to ensure that students understood the tasks and procedures. Once the allocated time had ended, the researcher collected all the students' completed worksheets for further analysis.

2. Post-test

   Similarly, the **post-test** followed the same procedure. The researcher distributed the worksheets to the students, provided necessary instructions, and ensured clarity before the test began. At the end of the session, all worksheets were collected to be scored and compared with the pre-test

results, enabling the researcher to measure the improvement in students' vocabulary mastery after the intervention.

3. Questionnaire

The procedure of distributing and collecting the questionnaire was carried out in the following steps:

- The researcher explained the purpose of the questionnaire to the students to ensure they understood that their responses would be used for academic research only.
- The questionnaire sheets were distributed to all participants at the end of the final session.
- Clear instructions were given on how to fill in the responses by choosing one option that best represented their opinion.
- Students completed the questionnaire individually and honestly without discussion.
- After completion, all questionnaires were collected and prepared for analysis.

F. Treatment

The treatment actually will hold in the school. There are six meetings of this research.

1. Day 1

a. Syntax 1: Problem Orientation

1) The teacher will show a short video about how to greet ftiends

2) After showing the video, students express their opinions regarding the video

- What is shown in the video?
- Who are the characters involved in the video?
- Where did the incident occur?

b. Syntax 2: Learning Organization

Students form heterogeneous study groups and are given learning objectives

c. Syntax 3: Individual Exploration / Group Investigation

Students play a greeting game on Educaplay (searching for words).

d. Syntax 4: Result / Solution

Groups make a list of types of greetings.

e. Syntax 5: Developing / presentation

Students perform greeting dialogues in front of the class.

f. Syntax 6: Feedback and reflection

Students discuss when to use each greeting expression.

2. Day 2

a. Syntax 1: Problem Orientation

1) In this meeting, the teacher shows a short video about partings.
2) After showing the video, students express their opinions regarding the video

- What is shown in the video?

- Who are the characters involved in the video?
- Where did the incident occur?

b. Syntax 2: Learning Organization

The teacher explains the farewell expressions and forms groups.

c. Syntax 3: Individual Exploration / Group Investigation

Students complete the Educaplay matching game.

d. Syntax 4: Result / Solution

Groups create a list of parting phrases.

e. Syntax 5: Developing / presentation

Students present short parting dialogues.

f. Syntax 6: Feedback and reflection

Students reflect on useful parting expressions.

3. Day 3

a. Syntax 1: Problem Orientation

1) In this meeting, the teacher provides a dialogue worksheet related to greetings and parting.
2) After showing the picture, students express their opinions regarding the video
   - What is shown in the picture?
   - Who are the characters involved in the picture?
   - Where did the incident occur?

b. Syntax 2: Learning Organization

Students pair up to create a complete dialogue.

c. Syntax 3: Individual Exploration / Group Investigation

Students play the Educaplay dialogue game.

d. Syntax 4: Result / Solution

Groups make a list of types of greetings.

e. Syntax 5: Developing / presentation

Each pair writes a script that includes greetings and partings.

f. Syntax 6: Feedback and reflection

Class discussion about when to use each expression.

4. Day 4

a. Syntax 1: Problem Orientation

1) In this meeting, the teacher provides pictures on the screen related to daily activities.
2) After showing the video, students express their opinions regarding the video
   - What is happening in the picture?
   - Where did the incident occur?

b. Syntax 2: Learning Organization

Students brainstorm about the actions they take every day.

c. Syntax 3: Individual Exploration / Group Investigation

Students match Educaplay pictures.

d. **Syntax 4: Result / Solution**

   Students make a list of 5 action verbs with their meanings in Indonesian.

e. **Syntax 5: Developing / presentation**

   Each student creates and presents simple sentences.

f. **Syntax 6: Feedback and reflection**

   Students share their easiest and most difficult verbs.

5. **Day 5**

   a. **Syntax 1: Problem Orientation**

      The teacher challenges students to remember all previous verbs.

   b. **Syntax 2: Learning Organization**

      Students work individually.

   c. **Syntax 3: Individual Exploration / Group Investigation**

      Complete crossword puzzle in Educaplay.

   d. **Syntax 4: Result / Solution**

      Students discussing the answer.

   e. **Syntax 5: Developing / presentation**

      Each student explains at least 1 verb and provides example sentences.

   f. **Syntax 6: Feedback and reflection**

      Students mention their favorite verbs.

6. **Day 6**

   a. **Syntax 1: Problem Orientation**

The teacher provides random work images in Canva.

b. Syntax 2: Learning Organization

Students observe and think critically about the images.

c. Syntax 3: Individual Exploration / Group Investigation

Students guess and complete the quiz with the correct verbs based on the pictures in the educaplay application.

d. Syntax 4: Result / Solution

Students compare and discuss answers.

e. Syntax 5: Developing / presentation

Each student reads their quiz answers.

f. Syntax 6: Feedback and reflection

Students provide feedback and write learning impressions.

G. The technique of Data Analysis

To analysis the data that is collected through pre-test and post-test through quantitative analysis. The data was analyzed by employing the following procedures:

1. Calculating the students‟ scores:

   Students' score = Students gained a score

2. Classifying the student's score:

   The data classify into six classifications by referring to the scoring system as follows:

Table. 3.1 Classifying The Student's Score

Score	Description
91-100	Excellent
81-90	Very good
71-80	Good
61-70	Average
51-60	Bad
≤50	Very Bad

(Department Pendidikan Nasional)

3. Calculating the mean score of the class using the following formula:

$$\bar{X} = \frac{\Sigma Xi}{n}$$

Where :
$\bar{X}$=rata−rata
X=nilai data
n=banyak data

(Gay, at.al.2006)

4. The formula of standard deviation was presented as follows:

$$SD = \sqrt{\frac{\sum x^2 - \frac{(\sum x)^2}{n}}{n-1}}$$

SD : Standard Deviation
$\sum$x : Total of row score
N : Student of Total Number

(Gay, at.al.2006)

5. Finding the differences of mean score between the pre-test and the post-test bycalculating the value of the t-test, the formula as follows:

$$t = \frac{D}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{n}}{n-1}}}$$

t : Test of significance
∑ : The sum of the squares
N : Number of students
D : The difference between the paired score

(Gay, at.al.2006)

6. Analyze the expert validation data collected through a Likert scale, the researcher employed a quantitative descriptive method. Each of the eight validation statements was rated by an expert on a 4-point Likert scale with the following interpretation:

Table 3.2. The expert validation data collected

Score	Criteria
1	Not Valid
2	Less Valid
3	Valid
4	Very valid

The total score was calculated by summing the expert's ratings for all items. The percentage of validity was then computed using the following formula:

$$\textbf{Validity Percentage} = \left(\frac{\text{Total Score Obtained}}{\text{Maximum Possible Score}}\right) \times 100\%$$

Arikunto (2010)

7. Scoring questionnaire

In this study, the data obtained from the students' questionnaire—consisting of 15 statements that based on two main variables, namely **vocabulary output** and **students' learning interest**. The questionnaire aims to explore students' responses to the use of the *Educaplay* application in English language learning for beginners at SD Muhammadiyah 3 Parepare with response options of *Agree, Less Agree*, and *Disagree.*

According to (Fauza et al., 2023; Mujiarto, 2024; Rhamanda, 2022; Salmah, 2021) the aspects of interest are feelings of enjoyment, attention, and feelings of interest. The grid on the questionnaire can be seen in the following table.

Table 3.3. The Grid of Questionnaire Students Interest

NO	Dimension	Aspect	Number
1.	Feelings of Enjoyment	Content	5
2.	Attention	Method	5
3.	Feelings of Interest	Material	5
	Total		15

8. Criteria of Testing Hypothesis

To test the hypothesis, the researcher employs a **one-tailed hypothesis** to determine the effectiveness of the Educaplay application in improving vocabulary output and increasing students' learning interest. A one-tailed hypothesis is used when the research aims to test whether one variable has a **significantly higher (or lower)** effect than another, in a

specific direction. The researcher will use t-test with $\alpha = 0.05$ level of sigificance for independent sample, the formula degrees of freedom was (df) = n-1. The statistical hypothesis in this research as follows:

$$Ho : \mu 1 = \mu 2$$
$$Ha : \mu 1 \neq \mu 2$$

(Sugiono, 2010:119)

Ho : Null Hypothesis

Ha : Alternative Hypothesis

$\mu 1$: The means score of students before
$\mu 2$: The means score of students after

Ho: $\mu 1 = \mu 2$: There is no significant effect of teaching English through Educaplay app.
H1: $\mu 1 \neq \mu 2$: There is a significant effect of teaching English through Educaplay app. (Hastjarjo, 2019)

CHAPTER IV

FINDINGS AND DISCUSSION

A. Findings

This chapter presents the findings of the study based on the data collected through pre-tests, post-tests, and questionnaires. The findings are organized to address the research questions related to the implementation of Educaplay app in problem based learning (PBL) to enhance students' vocabulary output, the level of students' interest, and the relevant steps involved in implementing this approach.

1. The Impact of Educaplay App on Vocabulary Output

Test results were used to determine the study's conclusions in order to address the research questions. the impact of educaplay on vocabulary output was one of the research questions. The purpose of this study was to **examine the extent to which the implementation of Educaplay appenhances vocabulary acquisition** among beginner English, as reflected in their vocabulary learning. As shown in the table below, the frequency and percentage of the data were determined using the total score of the five aspects:

a) The percentage student’s score in the pretest

The students‘ score of rate persentage of Pre-Test analysis will explain through the tables below:

Table 4.1. The percentage student's score in the pretest.

Score	Classification	F	%
91 – 100	Excellent	-	-
81 – 90	Very Good	-	-
71 – 80	Good	1	6,25%
61 - 70	Average	10	62,50%
51 – 60	Bad	2	12,50%
1 – 50	Very Bad	3	18,75
Total		16	100%

The pretest results that among the 16 students, the majority were categorized as "Average". Three students with "Very bad", two students with "Bad". One student fell into the "Good" category, while no students achieved a "Very Good" and "Exelent". These results indicate that **no student achieved a score above 80,** which emphasizes the **low baseline vocabulary proficiency** at the beginning of the study.

b) The percentage student's score in post-test.

The students' score of rate persentage of Post-Test analysis will explain through the tables below:

Table 4.2. The percentage student's score in post-test.

Score	Classification	F	%
91 – 100	Excellent	3	18,75%
81 – 90	Very Good	8	50%
71 – 80	Good	4	25%
61 – 70	Average	1	6,25%
51 – 60	Bad	-	-
1 – 50	Very Bad	-	-
Total		16	100%

The posttest results that conducted after implementing Educaplay app with problem based learning. eight students achieved a "Very Good" score, four students with “Good” score, three students with “Excellent” score, one with “Average” score while no participants were categorized as "Bad," or "Very Bad." These findings highlight the implementation of Educaplay app in enhancing vocabulary output as most students advanced to the highest level of performance. The shift from a "Average" majority in the pretest to a predominantly "Good" performance post-treatment underscores the students’ ability in English has a good impact after being taught by Educaplay app with problem based learning as a method.

c) The mean score and standar deviation of Pre-Test and Post-Test

The result of students‘ Pre-Test and Post-Test, after calculating the mean score and standard deviation using formulas in chapter three were presented.

Table 4.3. The mean score and difference score were pre-test and post-test

	Mean Score		
Class	**Pre-test**	**Post-test**	**Gain Score**
IV	61,56	84,69	23,13

Table 4.3 shows about mean score of pretest and posttest. In the pretest, the mean score obtained by the students was 61,56 while in the posttest was 84,69. The result showed the researcher found an improvement after giving treatment, there was a significant difference of the students before giving treatment and after giving treatment. It indicated that the implementation of Educaplay application with problem based learning has an impact on students' English for beginners. It was proven by the score differences pretest and posttest value. The difference was 23,13 from pretest to posttest.

Table 4.4. Standard deviation and gain score pre-test and post-test.

Standard Deviation			
Class	**Pretest**	**Postest**	**Gain Score**
IV	12,21	7,41	4,80

Table 4.4 shows the standard deviation of pretest and posttest. The standard deviation obtained by the students in the pretest was 12,21, while in the posttest was 7,41. However, the standard deviation the Pre-Test is higher than Post-Test. The Pre-Test had a higher value because there was still a lot of variance in learning achievement. After giving some treatment the class had decended value in Post-Test even the class did not decrease significantly,

but at least the variance of the students learning achievment had been decreasing after the treatment. The result can be indicated that the treatment on the class was not done maximally. How ever the result shows that the standard deviation score was lower than before giving treatment The gain score of standard deviation in pretest to posttest was 4,80.

d) Hypothesis Testing

In hypothesis testing, the researcher used the t-test formula. The level of significance was $\alpha = 0,05$

Table 4.5. The result of statistical analysis of students.

Types of Test	T-test Value	T-table Value
Pretest and Posttest	1,91	1,75

The previous table shows that the t-test value and the t-table value After applying the t-test of testing hypothesis to know whether or not Educaplay application with problem based learning had an impact on the students in learning English. As the result pretest and posttest that the t-test value (1,91) higher than the t-table value (1,75) It means that the null hypothesis (Ho) was rejected and the alternative hypothesis (H1) was accepted. Therefore, the researcher concludes that the English ability of the Forth Grade Students of SD Muhammadiyah 3 Parepare who

implemented by Educaplay application was increased and had a good impact. It can be said that Educaplay application with problem based learning is one of the best way in the English leaming process to have an impact on English for beginners.

2. Instructional Steps for Integrating Educaplay App in PBL

a. **Initial Draft**

The researcher observed the full sequence of the learning process implemented across six teaching sessions. These sessions were carefully designed using the **Problem-Based Learning (PBL)** model and aligned with the daily lesson objectives focused on vocabulary topics such as **greetings, partings, and action verbs**. The instructional approach followed six main PBL syntax components:

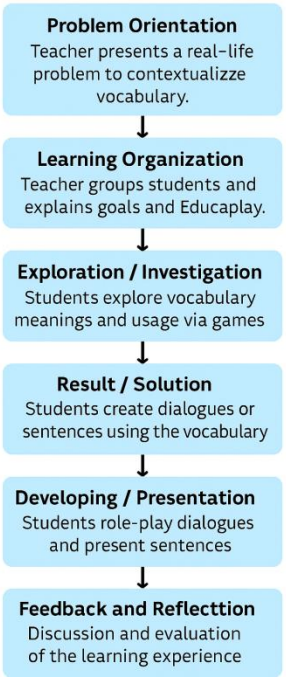


Figure 4.1. Syntax of PBL with Educaplay App

The diagram presents the six main syntaxes of the Problem-Based Learning (PBL) model adapted for vocabulary learning through Educaplay. It starts with **Problem Orientation**, where teachers present real-life contexts. Then, in **Learning Organization**, students are grouped and introduced to goals and the Educaplay app. During **Exploration**, learners engage with vocabulary through interactive games. In **Result/Solution**, they create dialogues or sentences, which are presented in the **Developing/Presentation** phase. Finally, in **Feedback and Reflection**, students evaluate their learning. This model encourages engagement, comprehension, and interest through technology-integrated problem-solving.

Table 4.6. Instructional steps using Educaplay app based on PBL syntaxs.

Day	PBLSyntax	Objective	Learning Activities	Technology
1	Problem Orientation	Stimulate students' curiosity about greetings.	Watch a short greeting video; answer guiding questions.	YouTube / LCD
	Learning Organization	Form cooperative groups.	Students form study groups with teacher's guidance.	–
	Exploration / Investigation	Introduce greeting vocabulary.	Students play **word search game** on Educaplay.	**Educaplay App**
	Result / Solution	Summarize types of greetings.	Groups make a list of greeting expressions.	–
	Developing / Presentation	Practice greeting expressions.	Perform short greeting dialogues in front of class.	–
	Feedback and Reflection	Reflect on appropriate use of greetings.	Discuss when to use each greeting in daily life.	–
2	Problem Orientation	Introduce parting expressions through context.	Watch video on partings and discuss characters, setting.	YouTube / LCD
	Learning Organization	Introduce learning goals and group roles.	Teacher explains the objective and assigns groups.	–
	Exploration / Investigation	Discover parting expressions.	Students play **matching game** on Educaplay.	**Educaplay App**
	Result / Solution	Compile list of parting phrases.	Groups create a categorized list of parting expressions.	–
	Developing / Presentation	Use expressions in context.	Perform farewell dialogue in groups.	–
	Feedback and Reflection	Reflect on commonly used expressions.	Share experiences and usefulness of each expression.	–
3	Problem Orientation	Analyze use of greetings and partings in conversation.	Observe dialogue worksheet and answer guiding questions.	Printed Worksheet
	Learning Organization	Encourage collaboration.	Pair up students to complete the dialogue.	–
	Exploration / Investigation	Practice conversational skills.	Play **dialogue game** on Educaplay.	**Educaplay App**
	Result / Solution	Identify appropriate vocabulary in context.	Group identifies greetings/partings used in dialogue.	–
	Developing / Presentation	Produce dialogue with both greetings and partings.	Write and present own dialogues.	-
	Feedback and Reflection	Reflect on proper usage.	Class discussion on placement and purpose of expressions.	–

Day	PBLSyntax	Objective	Learning Activities	Technology
4	Problem Orientation	Introduce verbs through observation.	Observe daily activity pictures and answer questions.	Picture / LCD
	Learning Organization	Activate prior knowledge.	Brainstorm actions commonly done in daily life.	–
	Exploration / Investigation	Learn new action verbs.	Play **image-matching game** on Educaplay.	**Educaplay App**
	Result / Solution	Translate new verbs.	List 5 new verbs and their Indonesian meanings.	–
	Developing / Presentation	Practice using verbs in sentences.	Present simple sentences using the new verbs.	–
	Feedback and Reflection	Self-evaluate vocabulary difficulty.	Share easiest and most difficult verbs learned.	–
5	Problem Orientation	Recall previous vocabulary.	Teacher gives a quick challenge to recall verbs.	-
	Learning Organization	Encourage independent practice.	Students work individually.	–
	Exploration / Investigation	Reinforce vocabulary understanding.	Complete **crossword puzzle** in Educaplay.	**Educaplay App**
	Result / Solution	Apply vocabulary in new context.	Students discussing the answer.	-
	Developing / Presentation	Explain vocabulary knowledge.	Share one verb and give an example sentence.	–
	Feedback and Reflection	Identify favorite vocabulary.	Say which verbs they liked most and why.	–
6	Problem Orientation	Apply vocabulary knowledge to new images.	Observe random job/activity images and guess actions.	Canva / LCD
	Learning Organization	Encourage critical thinking.	Discuss and think about matching verbs.	–
	Exploration / Investigation	Identify correct verbs.	Complete **Educaplay quiz** by matching correct verbs.	**Educaplay App**
	Result / Solution	Review and evaluate answers.	Compare answers with classmates.	–
	Developing / Presentation	Check understanding of vocabulary.	Read aloud their quiz answers.	–
	Feedback and Reflection	Give final impressions.	Provide peer feedback and write down learning reflection.	-

The six-day instructional process implemented in this study integrated the Educaplay application with the Problem-Based Learning (PBL) model to enhance vocabulary learning for beginner English students. On **Day 1**, the focus was on greeting expressions; students watched a video and discussed its context, collaborated in groups, played a word search game on Educaplay, and performed greeting dialogues. **Day 2** introduced parting expressions through a video stimulus, followed by group activities involving matching games and short farewell dialogues. On **Day 3**, greetings and partings were combined; students analyzed a dialogue worksheet, played a dialogue game, wrote complete scripts, and performed them, fostering integration of both expressions. **Day 4** shifted to action verbs, where students interpreted daily activity images, matched verbs to pictures via Educaplay, and created simple sentences, strengthening their vocabulary comprehension and usage. On **Day 5**, the review continued with a crossword puzzle game on Educaplay to reinforce previously learned verbs. Students explained selected verbs in original sentences and shared reflections on their learning progress. Finally, **Day 6** assessed mastery of action verbs; students matched verbs to random images in a quiz format and presented their answers with example sentences, concluding with reflective discussions. Each day followed the six PBL phases: Problem

Orientation, Learning Organization, Exploration, Result/Solution, Developing/Presentation, and Feedback/Reflection. The use of Educaplay across all sessions provided interactive, engaging, and visually supported learning experiences. These activities not only enhanced vocabulary output but also promoted collaboration, communication, and learner autonomy, showing that PBL combined with digital tools can effectively support vocabulary development and student interest in primary-level English learning.

To ensure the appropriateness and pedagogical validity of the instructional design integrating Educaplay within the Problem-Based Learning (PBL) framework, the researcher conducted expert validation with a specialist in language education and instructional design. The validation was conducted by **Prof. Dr. Ammang Latifa, M.Hum**, on July 16, 2025. The validation consisted of eight evaluation statements representing each phase of the six PBL syntaxes and their alignment with the Educaplay-based learning process. Each statement was scored on a 4-point Likert scale (1 = not valid, 4 = very valid).

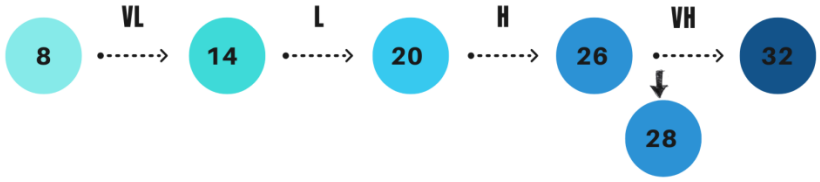
The results of the expert assessment are summarized in the following table:

Table 4.7. Expert validation

No	Validation Statement	Score	Validity (%)
1	Problem Orientation phase presents contextual vocabulary problems.	4	100%
2	Learning Organization phase includes clear group structure and goals.	4	100%
3	Exploration phase allows interactive vocabulary investigation via Educaplay.	4	100%
4	Result/Solution phase guides students to accurate linguistic solutions.	3	75%
5	Developing/Presentation phase enables communicative vocabulary use.	4	100%
6	Feedback and Reflection phase helps students assess their understanding.	3	75%
7	Educaplay supports all PBL phases integratively.	3	75%
8	PBL syntax implementation is pedagogically appropriate for beginners.	3	75%
	Total Score	28	
	Maximum Score	32	
	Overall Validity Percentage		**87.5%**

This result indicates that the implementation of PBL syntax in the Educaplay-based vocabulary instruction model reached a **"very valid"** level of expert approval. According to **Arikunto (2010),** instruments scoring above 75% are considered valid for use in educational research.

Figure 4.2. Score of Validatiom Model/Syntax of PBL with Educaplay App



The overall assessment, the total score was 28 out of 32, indicating a very good level of validity for the instructional model used in this research. The expert noted that the steps generally adhered well to the core principles of PBL as outlined by Barrows (1986) and Hmelo-Silver (2014). In particular, the Problem Orientation, Learning Organization, and Exploration phases were rated highly effective due to their contextual and collaborative nature, supported by Educaplay's interactive features.

The expert validation confirmed that the instructional steps integrating Educaplay within the PBL framework are pedagogically appropriate and well-aligned with the needs of beginner English learners. The activities demonstrated strong relevance to vocabulary instruction through contextualized tasks, student collaboration, and interactive technology use. However, several areas were recommended for refinement. These include: (1) enhancing the Result/Solution phase with detailed rubrics to ensure linguistic accuracy and alignment with

learning objectives; (2) strengthening the Feedback and Reflection phase through structured metacognitive tools such as journals or peer feedback, in line with Kolb's experiential learning theory; and (3) expanding technological integration by combining Educaplay with other platforms to support deeper reflection and collaborative problem-solving. The validator emphasized that the innovation of this model lies in its sociocultural and constructivist foundation, supported by PBL, digital tools, and 21st-century skills development. With minor adjustments, the model offers a comprehensive and replicable approach for technology-enhanced, student-centered vocabulary learning.

b. Revision of Instructional Step of Educaplay

Based on expert validation feedback, particularly the comments provided by Prof. Dr. Ammang Latifa, M.Hum., several refinements were made to enhance the instructional step flow of Educaplay-based vocabulary learning using the PBL model. The initial instructional design (as shown in Figure 4.1) presented a general alignment of Educaplay activities with the six syntaxes of Problem-Based Learning (PBL). However, after considering suggestions regarding the need for more contextualized problem presentation, integration of media tools, and clearer linkage with

each syntax phase, the model was revised to reflect a more structured and pedagogically grounded sequence.

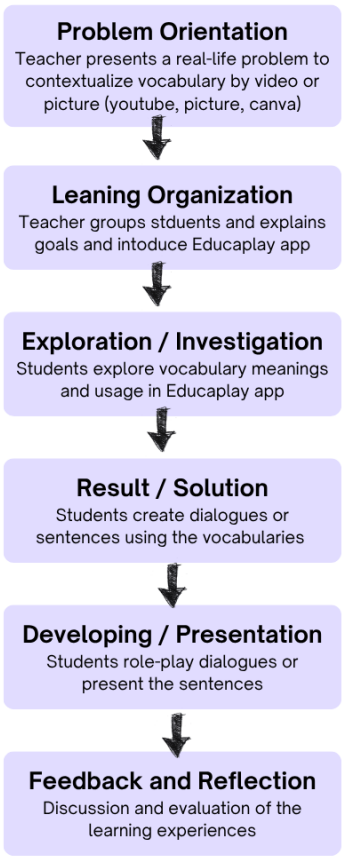


Figure 4.3. Syntax of PBL with Educaplay App (PBL-E)

The revised flowchart (as shown in Figure 4.2) includes more specific instructional strategies in each PBL phase. For instance, the *Problem Orientation* step now explicitly suggests the use of multimedia (e.g., YouTube videos, images, Canva) to stimulate real-life context. The *Learning Organization* phase includes instructions to introduce Educaplay and clarify group goals. The

Exploration/Investigation and *Result/Solution* stages are better aligned with digital interaction tasks and language output creation. In addition, the *Feedback and Reflection* phase incorporates a clearer emphasis on reflective learning experiences

3. The Influence of Educaplay App on Student Learning Interest

To assess the impact of the Educaplay application on students' interest in learning English, a questionnaire was administered to fifth-grade students at SD Muhammadiyah 3 Parepare after the implementation of Educaplay in their vocabulary lessons. The questionnaire consisted of 15 statements divided into three dimensions of learning interest: **Feelings of Enjoyment**, **Attention**, and **Interest**. Each item was rated using a 3-point Likert scale: *Agree (A)*, *Less Agree (LA)*, and *Disagree (DA)*.

Table 4.8. Quisionnaire

No	Questionnaire Statement	Persentage (%)		
		A	**LA**	**DA**
Feelings of Enjoyment				
1.	I feel that learning becomes more enjoyable with Educaplay.	95%	5%	-
2.	*I don't feel bored when learning using Educaplay.*	94%	6%	-
3.	*I am happy when the teacher uses Educaplay during English class.*	91%	9%	-
4.	*I feel more enthusiastic to learn when using Educaplay.*	90%	10%	-
5.	*In general, I feel that learning with the Educaplay application is very beneficial.*	93%	7%	-

Attention				
6.	*Educaplay makes me more active during English class.*	95%	5%	-
7.	*The features in Educaplay attract my attention while learning.*	95%	5%	-
8.	*The pictures and sounds in Educaplay help me learn vocabulary.*	96%	4%	-
9.	*I understand the meaning of vocabulary better after using Educaplay.*	90%	10%	-
10	*It is easier for me to remember English words after playing games in Educaplay.*	90%	10%	-
Interest				
11	I feel very interested in using the Educaplay application.	95%	5%	-
12	I prefer learning English vocabulary with Educaplay compared to the usual method.	90%	10%	-
13	I want to use Educaplay again in my English lessons.	95%	5%	-
14	The Educaplay application helps me remember new vocabulary.	94%	6%	-
15.	I feel that the vocabulary I learned from Educaplay is easy to use.	92%	8%	-
	Average	**93%**	**7%**	**-**

The results of the analysis of students' interest in the use of educaplay app Problem Based Learning (PBL) are presented across three primary aspects: Feelings of Enjoyment, Attention, and Interest. The findings demonstrate overall positive responses, with each aspect scoring highly, indicating the effectiveness and appeal of this innovative learning approach.

The results of the analysis indicate that the level of students' interest in learning achieved an average score of 93%. This score

signifies that students exhibit a very high level of interest in the learning approach being implemented. The findings highlight the effectiveness of the method in engaging students and fostering their enthusiasm for the learning process. The average results for each aspect can be seen in the table below.

Table 4.9. Students' Interest

No	Aspect	Average		
		A	**LA**	**DA**
1.	Feelings of Enjoyment	92,6%	7,4%	-
2.	Attention	93,2%	6,8%	-
3.	Interest	93,2%	7,4%	-
	Average	**93%**	**7%**	**-**

The first aspect, Feelings of Enjoyment, to question 1 to 5 received an average score of 92,6%. Students expressed that they enjoyed the learning process, particularly due to the engaging nature of podcast content and the interactive design of the project-based learning method. The authenticity and relevance of the podcast material, which closely aligned with real-life communication scenarios, were key factors that made the learning experience enjoyable. This indicates that learning through educaplay application felt more like “playing” than studying podcasts effectively created a positive and stimulating learning environment for students.

The second aspect, Attention, to question 5 to 10 where 93%

agreed that Educaplay helped students **focus better during English lessons.** Many students stated that they found themselves **paying more attention to vocabulary use, pronunciation, and spelling** when interacting with Educaplay games. The integration of Educaplay app into problem based tasks further reinforced their ability to focus on and engage with the material in meaningful ways.

The third aspect, Interest to question 11 to 15 received the highest average score of 93,2%, reflecting the overall positive inclination of students towards learning English using Educaplay. Most students stated they would like to use Educaplay again in the future and preferred it over traditional methods such as textbook memorization or repetition. The high interest scores suggest that the method aligns well with students' learning preferences and effectively fosters their intrinsic motivation to improve their vocabulary.

The findings highlight that the integration of Educaplay with **Problem-Based Learning (PBL)** also played a key role in developing sustained interest. PBL presented real-life problems that gave meaning to vocabulary learning, while Educaplay offered engaging digital tools to explore and express that learning. The synergy between content relevance and digital interaction proved to be highly motivating. It can be concluded that Educaplay successfully supports the **affective and motivational dimensions** of language

learning.

B. Discussion

This section delves into a comprehensive discussion of the findings presented in the preceding chapter, aiming to interpret the results in relation to the established research questions, relevant literature, and theoretical frameworks. The discussion is structured to address the impact of the Educaplay application on vocabulary output, the instructional steps involved in its integration with Problem-Based Learning (PBL), and its influence on students' learning interest.

1. The Impact of Educaplay App on Vocabulary Output

The present study aimed to investigate the extent to which the implementation of the Educaplay application enhances vocabulary acquisition among beginner English students at SD Muhammadiyah 3 Parepare, as reflected in their vocabulary learning outputs. The findings unequivocally demonstrate a significant positive impact of integrating the Educaplay app within a Problem-Based Learning (PBL) framework on students' vocabulary acquisition. The pretest results revealed that the majority of students scored below the average threshold, indicating limited vocabulary mastery prior to the intervention. This outcome can be attributed to several factors. Firstly, students had minimal exposure to English vocabulary in interactive or meaningful contexts. Most vocabulary instruction they previously

received relied on rote memorization, without adequate application in communication-based tasks. Secondly, a lack of engaging media or technology contributed to students' low motivation and retention. In many cases, vocabulary was taught as isolated word lists rather than being embedded in real-life scenarios. Additionally, beginner-level learners, especially at the elementary stage, often struggle with abstract learning unless supported with visual and contextual cues (Aşıkcan, 2023, Imam et al., 2025). Without tools like Educaplay, which offer multisensory and gamified reinforcement, students are more likely to forget words or fail to understand their usage. The limited classroom interaction and passive learning also hindered vocabulary acquisition, as students were rarely asked to produce or present language in meaningful ways. These findings support the need for more dynamic, student-centered instructional strategies such as Problem-Based Learning (PBL) and digital learning tools, which were introduced during the treatment phase of this study.

This statistical significance definitively confirms that the implementation of the Educaplay application with PBL had a positive and significant impact on the English ability of the fourth-grade students at SD Muhammadiyah 3 Parepare. This finding is consistent with broader research advocating for the effectiveness of digital tools in language education, as interactive and multimodal approaches

enhance vocabulary learning. The contextualized and meaningful learning provided by Educaplay activities, as suggested by previous research, directly contributed to improved retention and vocabulary expansion. The findings from this study are in line with previous research that emphasizes the effectiveness of digital gamified tools in enhancing vocabulary learning. For instance, studies by (Mukarromah & Agustina, 2021, Vargas-Saritama & Espinoza Celi, 2024) demonstrated that learners retained more vocabulary and were more motivated when exposed to interactive, game-based applications. Similarly, the integration of PBL in language instruction has been shown to increase student engagement and deeper processing of vocabulary, as learners actively apply words in collaborative, real-world problem-solving contexts. Therefore, the results of this study reinforce the theoretical and empirical support for combining PBL and digital media like Educaplay. Therefore, the study strongly concludes that integrating Educaplay within a PBL framework is an effective strategy for enhancing vocabulary output for beginner English learners.

2. Instructional Steps for Integrating Educaplay App in PBL

The study meticulously observed and documented a six-day instructional sequence, with each session carefully designed to align with the Problem-Based Learning (PBL) model's six syntax

components: Problem Orientation, Learning Organization, Exploration/Investigation, Result/Solution, Developing/Presentation, and Feedback/Reflection. This structured approach ensured a consistent and coherent pedagogical implementation. The integration of Educaplay was embedded strategically within these PBL phases across various vocabulary topics, including greetings, partings, and action verbs. For instance, on the first day, the learning topic focused on greeting expressions. The session began with the Problem Orientation phase, where the teacher presented a short video demonstrating how people greet one another in everyday situations. Students were guided to observe and respond to key questions such as: What is shown in the video? Who are the characters involved? and Where did the interaction occur? This encouraged students to connect the vocabulary with real-life contexts. During the Learning Organization phase, students were divided into heterogeneous groups and received clear learning goals. The Exploration/Investigation phase involved playing a greeting-based word search game on Educaplay, allowing students to familiarize themselves with common expressions interactively. In the Result/Solution phase, each group compiled a list of greeting types identified through the game. They then moved to the Developing/Presentation stage by performing greeting dialogues in front of the class, promoting practical usage and oral fluency. Finally,

the session concluded with Feedback and Reflection, in which students discussed when and how each greeting should be used based on formality and context.

The second day addressed parting expressions. The class began with another video illustrating farewell scenarios, which served as the Problem Orientation stage. Students discussed the characters, settings, and expressions they observed. In the Learning Organization stage, the teacher provided explanations on parting phrases and assigned students into groups. For Exploration, students played a matching game on Educaplay to associate expressions with appropriate contexts. As part of the Result/Solution phase, each group listed useful parting phrases such as 'Goodbye', 'See you later', and 'Take care'. In the Developing/Presentation phase, students created and performed dialogues using those expressions. The session ended with Feedback and Reflection, where students reflected on the new phrases and discussed their appropriate use in daily communication.

On the third day, the learning integrated both greeting and parting expressions. During the Problem Orientation, the teacher provided a worksheet with a dialogue picture, prompting students to analyze who the characters were, what was happening, and the social context. The Learning Organization phase involved pairing students to complete and write dialogues. In the Exploration phase, they played an

Educaplay dialogue game combining both greeting and parting expressions. As a Result/Solution, students summarized the vocabulary and phrases they used. During the Developing/Presentation stage, each pair wrote and presented a complete dialogue that integrated both types of expressions. Finally, in the Feedback and Reflection stage, the teacher led a class discussion on how and when to apply these expressions appropriately in everyday interaction.

The fourth session focused on introducing common action verbs. For the Problem Orientation, the teacher displayed pictures representing daily activities on a screen. Students were asked to interpret what actions were being performed and in what context. In the Learning Organization stage, students brainstormed actions they perform regularly. The Exploration phase included matching action words with images through Educaplay. This visual interaction helped reinforce understanding and memory. However, during this session, a technical problem occurred as some of the tablets could not be used due to system errors, which limited the number of available devices. To address this issue, the teacher decided to form small groups, allowing students to collaborate and share the available tablets. This adjustment not only solved the technical difficulty but also enhanced teamwork and peer learning as students worked together to complete the Educaplay tasks. As a Result/Solution, students wrote down five

action verbs along with their Indonesian meanings. In the Developing/Presentation phase, each student constructed and presented simple sentences using the verbs. The session concluded with Feedback and Reflection where students shared which words were easiest and most difficult, fostering metacognitive awareness.

The fifth day aimed to review and reinforce previously learned action verbs. During the Problem Orientation, the teacher prompted students to recall all verbs learned in previous sessions. In the Learning Organization phase, students worked individually. Exploration involved solving a crossword puzzle on Educaplay using the correct verbs. This activity encouraged independent recall and vocabulary reinforcement. As a Result/Solution, students completed the puzzle and compared their answers with peers. In the Developing/Presentation phase, each student selected one verb, explained its meaning, and used it in an original sentence. The session ended with Feedback and Reflection, as students shared their favorite verbs and described how they might use them in real-life situations.

The final day was dedicated to demonstrating mastery of action verbs. The Problem Orientation phase involved showing random job- or task-related images via Canva. Students observed these and discussed potential associated actions. During Learning Organization, they engaged in critical thinking to match actions with visuals. In the

Exploration phase, students completed a quiz on Educaplay to match verbs to pictures. However, during this session, a technical issue occurred because several tablets could not be used, which prevented some students from accessing the quiz individually. To overcome this problem, the teacher instructed all students to stand in front of the class and play the Educaplay quiz together through the LCD, operated via the teacher's laptop. This adjustment not only resolved the technical difficulty but also created a more collective learning atmosphere, where students actively participated by answering together and discussing the correct choices. As a Result/Solution, they compared and discussed answers in pairs or groups. In the Developing/Presentation stage, students presented their quiz results and shared the sentences they had created using the vocabulary. Finally, Feedback and Reflection were conducted through both verbal sharing and written notes, allowing students to express what they had learned and how they felt about using Educaplay in their language learning journey.

The consistent application of Educaplay across all sessions provided interactive, engaging, and visually supported learning experiences. This deliberate integration allowed students to move beyond passive reception of information, fostering active participation and exploration of vocabulary meanings and usage through gamified

activities. The activities were designed to promote collaboration, as students worked in groups to solve problems and create dialogues (Annisa et al., 2025). The "Result/Solution" phase, where students created dialogues or sentences using the newly acquired vocabulary, and the "Developing/Presentation" phase, involving role-playing and presenting sentences, directly leveraged the vocabulary learned through Educaplay's interactive exercises.

Ultimately, the detailed instructional steps demonstrate a systematic and effective approach to combining a robust pedagogical model (PBL) with a versatile digital tool (Educaplay). This synergy not only enhanced vocabulary output, as evidenced by the test results, but also promoted crucial 21st-century skills such as collaboration, communication, and learner autonomy (Kacetl & Klímová, 2019, Herwiana, 2015). The findings confirm that PBL, when combined with interactive digital tools like Educaplay, can effectively support vocabulary development and student interest in primary-level English learning.

The validation results from Prof. Dr. Ammang Latifa, M.Hum, provided constructive insights into the strengths and areas for enhancement in implementing the six syntaxes of Problem-Based Learning (PBL) within an Educaplay-supported English vocabulary learning framework. According to the expert evaluation, the

instructional design received an overall high score (28 out of 32), indicating a strong alignment between PBL principles and the learning activities designed for beginner English learners.

The **high scores in the first three phases**—Problem Orientation, Learning Organization, and Exploration/Investigation—highlight the effectiveness of contextualized problems, collaborative group structures, and interactive media in engaging students at the early stages of the learning cycle. These findings support theories from Barrows (1986) and Hmelo-Silver (2004), who emphasized that meaningful problems and active student involvement enhance language retention and problem-solving abilities.

The revision of the instructional steps in the Educaplay-based vocabulary learning process was guided by expert feedback to enhance the alignment between PBL syntaxes and digital learning activities. Initially, the instructional steps followed the general flow of the six phases of PBL (Barrows, 1986), yet lacked specific implementation strategies suited to vocabulary learning in beginner EFL contexts. After validation, adjustments were made to clarify each phase. For example, the Problem Orientation phase was revised to incorporate multimedia stimuli such as videos and images to stimulate contextual learning—an approach aligned with Mayer's Cognitive Theory of Multimedia Learning (Mayer, 2009), which posits that learners absorb

and retain vocabulary better when exposed to both verbal and visual input. Moreover, the Feedback and Reflection phase was refined by including structured reflective tools such as guided questions and peer evaluations to promote deeper metacognition, in line with Kolb's (1984) Experiential Learning Cycle and the principles of reflective pedagogy.

Furthermore, the integration of Educaplay was re-evaluated using the TPACK framework (Mishra & Koehler, 2006), which emphasizes the need for a balanced intersection of technological, pedagogical, and content knowledge. While Educaplay excels in the exploration and presentation stages through interactive games and vocabulary tasks (González-Lloret & Ortega, 2014), it was necessary to supplement its use in other PBL stages—such as problem formulation and reflection—by suggesting complementary platforms like Padlet and Google Docs. These revisions ensured that the instructional model not only supports the development of vocabulary output but also fosters student collaboration, critical thinking, and learning interest. Studies by Yunus et al. (2020) and Shadiev & Yang (2020) confirm that well-structured gamified digital environments, when combined with inquiry-based learning models like PBL, significantly enhance learner engagement and vocabulary retention, particularly among young learners.

3. The Influence of Educaplay App on Student Learning Interest

The third research question sought to determine the impact of the Educaplay app on students' learning interest at SD Muhammadiyah 3 Parepare. The findings from the student interest questionnaire provide compelling evidence of a significantly positive influence. This high score is consistent with the notion that when students are intrinsically motivated, they exhibit greater enjoyment and commitment to learning.

Previous studies have consistently highlighted the positive impact of gamified media and the integration of technology in enhancing students' interest in learning, particularly in language acquisition. One notable study by Booton et al., (2023) found that gamification in education significantly increased learner engagement and motivation. Their findings indicated that when learning is presented through game-like features—such as immediate feedback, levels, rewards, and interactivity—students demonstrate greater persistence and enjoyment, especially in repetitive tasks like vocabulary drills.

Similarly, Permana, (2020), Timur, (2023) Vargas-Saritama & Espinoza Celi, (2024), Ainun Arsyad & Nur, (2024) conducted a meta-analysis of digital based learning tools like Kahoot!, Quizizz, Linoit and Educaplay, and concluded that the combination of visual

content, time-bound challenges, and interactive elements makes students more attentive and emotionally involved. Their study emphasized that these platforms reduce boredom, promote competitive yet safe learning environments, and foster active participation—all of which are key components of learning interest.

Additionally, (Utami et al., 2023) developed the *Four-Phase Model of Interest Development*, which shows that interest can be triggered and sustained when learners are exposed to novel, meaningful, and personally relevant learning experiences. In the context of this study, the use of Educaplay within a Problem-Based Learning (PBL) model meets all these criteria: students solve real-life communication problems, collaborate with peers, and interact with digital media that supports visual and auditory learning styles.

The findings also reveal that the synergy between Educaplay and PBL was instrumental in sustaining this high level of interest. PBL presented real-life problems that contextualized vocabulary learning, making it relevant and meaningful. Educaplay then provided the engaging digital tools for students to explore and express that learning actively. This combination of relevant content and interactive digital experience proved to be highly motivating, demonstrating how well-designed instructional approaches, leveraging technology, can successfully support the affective and motivational dimensions of

language learning. The results strongly support the notion that interactive platforms like Educaplay can significantly boost student interest, leading to more effective and enjoyable learning experiences, particularly for vocabulary acquisition.

CHAPTER V

CONCLUSION AND SUGGESTION

A. Conclusion

This study aimed to investigate the implementation of the Educaplay application within a Problem-Based Learning (PBL) framework to enhance vocabulary acquisition and student learning interest among beginner English students at SD Muhammadiyah 3 Parepare. Based on the analysis of the data collected through pre-tests, post-tests, and questionnaires, the following conclusions can be drawn:

1. The implementation the Educaplay application in combination with the Problem-Based Learning (PBL) model significantly improved students' vocabulary output and increased their interest in learning English. In addition, students responded positively to the learning process, as reflected in their questionnaire responses and classroom behavior. The use of Educaplay not only made learning more enjoyable but also facilitated student collaboration, and motivation. These factors contributed to greater vocabulary retention and more confident language use among beginner learners.
2. The instructional steps for integrating Educaplay in PBL were systematically implemented and effective. The study followed a six-day instructional process designed according to the six PBL syntax

components: Problem Orientation, Learning Organization, Exploration/Investigation, Result/Solution, Developing/Presentation, and Feedback/Reflection. Educaplay activities, such as word searches, matching games, and crossword puzzles, were strategically embedded within these phases across various vocabulary topics. This structured integration provided interactive and visually supported learning experiences, which not only enhanced vocabulary output but also promoted collaboration, communication, and learner autonomy.

In summary, the findings robustly support the effectiveness of integrating the Educaplay application within a Problem-Based Learning model for beginner English students, yielding significant improvements in vocabulary acquisition and fostering a very high level of learning interest.

B. Suggestion

Based on the conclusion presented in the previous sub-chapter, the researcher would like to give some suggestions for the future research as follows:

1. As teachers, they should be strongly encouraged to integrate interactive digital platforms like Educaplay more frequently into their English lessons, as this research clearly demonstrates its positive effect on vocabulary output and student engagement. It is also crucial for educators to systematically implement the Problem-Based Learning (PBL) model, as its structured phases, when combined with engaging tools, create a

highly effective learning environment. Furthermore, teachers should utilize a diverse range of Educaplay activities to cater to different learning styles and keep students consistently engaged. Addressing initial technology adaptation challenges by providing clear technical guidance and focusing on intrinsic motivation, leveraging the engaging nature of Educaplay and PBL, will enable students to perceive learning as enjoyable and self-rewarding.

2. For the next reseacher
    a. Investigate Long-Term Effects and Diverse Contexts: Future research should conduct longitudinal studies to understand the sustained impact of Educaplay and PBL on vocabulary retention and overall language proficiency. It is also important to expand these studies to different academic levels and varied educational settings to assess the generalizability of the findings.
    b. Explore Specific Features and Broader Methods: Researchers should focus more specifically on the impact of individual Educaplay features on particular language learning aspects (e.g., pronunciation, grammar). Utilizing mixed-methods approaches, including diverse qualitative methods like detailed interviews and observations, will yield richer data.
    c. Conduct Comparative Studies and Teacher Perspectives: Future studies should compare Educaplay with other digital learning

platforms or traditional methods to highlight its unique benefits. Additionally, exploring teachers' perspectives, challenges, and best practices regarding Educaplay and PBL integration from a broader sample of educators is crucial.

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