CHAPTER IV

FINDINGS AND DISCUSSION

This chapter provides a detailed account of the research findings conducted at one of the universities in Indonesia, namely IAIN Kendari. Data were collected from 8 responses from a group of students enrolled in non-English language study programs. The researcherexplained the data collection process, calculations, and presentation. The results of this research aim to answer the research question of how students reflect on vocabulary learning using the Duolingo application to enhance their English vocabulary. The researcher presented the findings and their analysis in the discussion.

4.1. Findings

This section explains the data analysis based on thematic structure. The research aims to uncover the use of the Duolingo application as a tool employed by students to enhance their English vocabulary. The findings of this research are related to the reflections of the students as they seek rich insights into their thoughts regarding the use of the Duolingo application as a learning tool to improve their English vocabulary. These reflections encompass four questions related to the theoretical components based on Engeström (1987). They are Subject - Object for the Duolingo Application, Subject - Tool for the Duolingo Application, and Subject - Community for the Duolingo Application, and Subject - Division of Labor. To obtain more profound data, the researcher conducted

interviews with participants utilizing an aspect of English Vocabulary Learning adapted from (Tombury, 2002).

4.1   Strengths and Weaknesses of Duolingo Application (Subject – object)

Referring to how research participants assess the strengths and weaknesses of the Duolingo application based on their personal experiences and preferences. By collecting data and feedback from participants, this study identifies the strength and weakness of using Duolingo as a language learning tool.

> *"The strengths of it are that we can easily understand English vocabulary, and the app provides convenient access, allowing me to learn from anywhere with just a mobile phone, making it more engaging compared to traditional book learning, which can be quite tedious."* (P1)

> *"In my view, the strength of this application resides in its learning system designed akin to playing games, thereby rendering the learning process highly engaging and free from monotony."* (P8)

> *"The strength of this application is that the displayed vocabulary is easy to visualize as it relates to everyday life."* (P5)

> *"In my opinion, the strength is that we can easily comprehend each English vocabulary word due to the repetitive learning system. We can also learn how to speak and write in English, indirectly improving our English language skills."* (p4)

It is also in line with the interview data that the participant added some insight that it can be used repeatedly. As what P1 and P2 stated that

> *"I frequently review words as it aids in building my long-term memory, ensuring that the vocabulary I learn is not merely stored temporarily but remains retained for an extended period"* (P1).

> *"The method of repetition provides an opportunity to repeatedly hear the correct pronunciation, aiding me in honing my listening and pronunciation skills"* (P2).

This is reinforced by the interview findings from participants P1 and P3 stated that,

"Yes, I agree. Words that are easily visualized are easier to remember because we can create a visual image in our minds." (P1)

"The reason is simple, words that can directly evoke something form stronger connections in our memory." (P3)

The research findings demonstrate several significant strengths of this application. Among them is the ease in comprehending English vocabulary, facilitated by the app's convenient accessibility that enables learning from anywhere using just a mobile phone, rendering it more engaging compared to the often-tedious traditional book-based learning methods. The application's ability to present everyday, easily visualizable vocabulary stands as another strength. The instructional approach designed akin to gaming within the app greatly aids in making the learning process highly engaging and averting monotony.

Furthermore, interview findings from participants indicate the immense utility of reusing this application. Several participants mentioned their frequent revisitation of learned words to build long-term memory, ensuring that the vocabulary learned isn't merely stored temporarily but retained over an extended period. The repetition method also provides opportunities to repeatedly hear correct pronunciation, aiding in refining listening and pronunciation skills. These findings are reinforced by the viewpoints of other participants suggesting that easily visualized words are more memorable as they generate visual mental images. Additionally, there's agreement that words capable of directly evoking something forge stronger connections within our memory. However, the data also notes that most respondents found some shortcomings in the Duolingo application:

However, the drawback is that it requires an internet connection, so if there's no internet access, the app cannot be used." (P7)

The weakness in this application is that the narrator's pronunciation is still too fast in delivering sentences, making it sometimes difficult for me to understand the meaning or follow the pronunciation. (P8)

In the result above, several drawbacks of an application seemingly used for learning or training were addressed. One of the highlighted disadvantages is its dependence on an internet connection. As explained, without internet access, the application cannot be used, which can be problematic if users are in a location with an unstable internet connection. Furthermore, it was revealed that the narrator's speech rate in the application is too fast, which can make it difficult to understand the meaning or follow the pronunciation accurately. This could pose a significant hurdle, especially for users who are still learning or have a limited level of language comprehension. Lastly, there are also issues related to disruptive advertisements during the learning process within the application, which can interfere with the learning experience. Therefore, while this application may have its merits, like many others, there are several aspects to consider for enhancing the user experience.

4.2 Clarity of application features (Subject-tools).

Refers to the extent to which a tool or device has clarity in the use of its features. It is related to how easily users can understand and utilize the various features provided by the tool or device. A high level of clarity indicates that the features are user-friendly, well-documented, and transparent in their functionality. This ensures that users can easily comprehend and make use of the various

capabilities of the tool without confusion or ambiguity. This quality is highly

essential for enhancing the overall user experience and ensuring that the features

of the tool can be accessed and utilized easily.

> *"The available features within this application are easily understood for learning English vocabulary, especially the sentence structuring feature." (P2)*

> *"Yes, because the visually appealing display feature in the Duolingo application and the example sentences within that feature correspond to everyday life. Thus, I can practice those vocabularies when conversing with my friends." (P1)*

This is consistent with the interview data where the participant expressed positive remarks regarding sentence structuring within the application.

> *"I felt sufficiently challenged because creating sentences on Duolingo gave me a sense of creativity in learning languages, making the process more engaging and enjoyable. As a result, my vocabulary improved because I found it enjoyable." (P6)*

> *"I am delighted in constructing sentences within the Duolingo application because through the arrangement of these words, I can train my critical thinking." (P8)*

This is also consistent with the interview with participants that they practice the vocabulary they have learned in their daily lives.

> *"Yes, I use the vocabulary I've learned in writing short stories. With this vocabulary, I can freely express anything I want to write. Having a sufficient vocabulary makes it easier for me to express myself, and this helps train my critical thinking."(p4)*

> *"Yes, I usually practice the vocabulary I've learned in the Duolingo app in community forums where I enjoy applying these words while speaking. This helps the vocabulary stay in my memory longer, indirectly enhancing my English language skills." (P2)*

> *"Yes, I usually practice with my friend who enjoys English. I regularly engage in speaking practice. I endeavor to construct sentences from the words I have learned, which helps me train my speaking skills."(P8)*

In this study, it is evident that the features available in the Duolingo application are well understood for learning English vocabulary, especially the sentence structuring feature. This aligns with the testimonials of participants expressing positive views regarding sentence structuring within the application. Some participants indicated feeling challenged when creating sentences in Duolingo, which sparked a sense of creativity in their language learning process, making it more engaging and enjoyable. Consequently, their vocabulary improved as they found the process enjoyable.

Furthermore, other participants expressed delight in constructing sentences within the app because through arranging words, they could train their critical thinking. Moreover, participants demonstrated practicing the learned vocabulary in their daily lives, such as writing short stories, participating in community forums, and practicing speaking with friends. By employing this vocabulary, they felt more at ease expressing their thoughts, aiding in honing critical thinking and speaking abilities. The findings underscore the importance of user-friendly features in the Duolingo application, facilitating users to apply their language knowledge more effectively in daily life, providing a more enjoyable learning experience, and enhancing overall English language proficiency.

4.3 Community Engagement Benefits (Subject – community)

Referring to the extent to which research participants' engagement in the learning community using the Duolingo application affects their learning experience. This information will help the researcher gain a better understanding of the factors that influence participants' motivation and learning outcomes, as

well as how the community can serve as an effective source of support and learning in using the Duolingo application. By understanding this community engagement, the researcher can provide deeper insights into the effectiveness of the Duolingo application in supporting English language learning.

> *"Joining the Duolingo community has provided me with opportunities to engage in discussions and share experiences with fellow learners. We often discuss challenging words and phrases, which helps me better understand their contextual usage."* (P1)

> *"After becoming a part of the community, I have received numerous references that have allowed me to delve deeper into vocabulary expansion. I often receive recommendations for books, movies, or songs that aid in enriching my vocabulary."* (P2)

> *"Yes, I joined the Duolingo community a few weeks ago, and it has provided me with the opportunity to converse and write in English with like-minded individuals."* (P6)

> *"I joined the Duolingo community some time ago. Being part of this community has given me the chance to practice speaking with others, which has enriched my vocabulary, and there are members who regularly share vocabulary lists. This has helped me explore more vocabulary in various contexts."* (P8)

The results of this research illustrate the positive benefits of joining the Duolingo community in the context of learning the English language. Users who become members of this community have found various opportunities to engage in discussions and share experiences with fellow learners. The first and second statements indicate that joining the community provides an opportunity to discuss challenging words and phrases, which helps them better understand the contextual usage of these words. Additionally, they receive in-depth references and recommendations for expanding their vocabulary, such as books, movies, or songs that enrich their vocabulary. The sixth and eighth statements also highlight the

benefits of the community in speaking and writing in English with like-minded individuals.

This gives them the opportunity to practice and enrich their vocabulary through social interaction. The eighth statement also indicates that some community members regularly share vocabulary lists, which helps other members explore more vocabulary in various contexts. Overall, the Duolingo community provides a valuable learning experience in English, focusing on discussions, recommendations, and speaking practice. This illustrates how language learning can be enriched through collaboration with fellow learners in an online community. However, there is participant who did not join the community because they prefer self-directed learning

"I have not joined any community within the Duolingo application as I prefer to focus on self-study rather than group learning." (P5)

The responses from participant P5 illustrate that not all Duolingo application users choose to join the community within the app. This participant prefers to focus on self-directed learning rather than group learning. The reason for this choice is their personal preference for learning style. Some individuals are more comfortable learning on their own without social interaction, while others believe that participating in a community can enhance their learning experience. This reflects the diversity of learning preferences among app users, where some people prefer independent learning, while others seek interaction and collaboration with fellow learners. In the context of language learning, it is important to understand that there is no one-size-fits-all approach, and each individual has different preferences in how they learn and develop.

4. 4 Time Management in Duolingo (Subject – rules)

Referring to the extent to which participants are able to manage their own time in learning English vocabulary using the Duolingo application and how their personal time management influences productivity and learning outcomes. The research aims to assess the influence of personal time management on the effectiveness of using Duolingo as a tool for learning English vocabulary.

> *"My learning sessions typically last for 30 minutes per study session,." (P2)*
>
> *"I tend to allocate 1-2 hours for each study session;." (P5)*

"This is also consistent with interview data where participants provided additional insights that they have different study durations, as reflected in the responses from P1 and P7."

> *"I prefer dividing my vocabulary study time into shorter sessions as I find it more effective in gradually absorbing information. With this approach, I can concentrate on a set number of words in one session without feeling overwhelmed." (P1)*
>
> *"I usually engage in longer study sessions to ensure continuity in the material I'm learning, which makes it easier for me to comprehend. I perceive that learning in longer sessions provides me with the opportunity to explore a wider range of vocabulary and delve deeper into their contexts." (P7)*

The research findings indicate variations in the preferences for English vocabulary learning durations among the participants. Some participants opt for shorter learning sessions of around 30 minutes, citing enhanced focus with shorter durations while maintaining consistency in their learning. Conversely, other participants tend to allocate 1-2 hours per session, feeling more comfortable in completing the material in one go. Moreover, disparities in opinions exist among participants. Some tend to divide vocabulary learning time into shorter sessions,

believing that this incremental approach enables effective absorption of information without overwhelming themselves. On the other hand, other participants prefer longer learning sessions, finding it conducive to better comprehend the material, explore a broader range of words, and delve deeper into their contextual understanding. Therefore, the research demonstrates that effective learning time approaches can vary based on individual preferences.

4.1   Discussion

This section discusses the research findings with the aim of explaining and describing students' reflections on the use of the Duolingo application in vocabulary learning. It also considers, relates, and compares these findings to some previous research. In other words, the results are discussed in relation to prior research and their contributions to language learning through applications.

To begin, these findings confirm that students express both strengths and weaknesses in using the Duolingo application for English vocabulary learning. The most prominent strengths include the ease of understanding English vocabulary and convenient accessibility. According to Pramesti (2020), the Duolingo application has several strengths that make it an attractive choice for language learning, with high accessibility as a free application that allows users from various backgrounds to easily access it.

Furthermore, the ability to learn from anywhere using only a mobile phone without the need for textbooks is appreciated. This is in line with the research by Devi (2022), which found that conventional methods are often less engaging and do not encourage students to become independent learners. Additionally, engaging

features that enrich the learning process, especially conversational exercises in English and vocabulary repetition, are considered highly beneficial for understanding and memorizing vocabulary.

One emphasized aspect by the participants is a learning system resembling a game. With this approach, the learning process within the application becomes engaging and avoids the boredom often associated with conventional learning. Users feel more involved in learning because the presented approach triggers interest and active engagement in the learning process. This is in line with research by (Munday, 2016) stating that the Duolingo application presents a learning system resembling a game, with a series of challenges and game-like activities. Users complete increasingly difficult levels as they progress, earning points or rewards for correct answers and competing with themselves or friends. The interactive and game-like approach creates an enjoyable learning experience, motivating users to continue learning the language without feeling fatigued.

Furthermore, participants highlighted another strength, which is the ease of visualizing vocabulary presented within the application. The connection of vocabulary with everyday life makes it easier to understand and remember for users. When vocabulary is presented in contexts relevant to real life, users can quickly associate and apply that vocabulary in everyday situations.This aligns with the research by Devi (2022), stating that Duolingo excels in presenting easily understandable vocabulary. With a friendly learning approach, the app provides words and phrases in everyday contexts. Each word is accompanied by examples of usage in sentences, facilitating users to quickly understand and remember their meanings, supporting effective language learning progress.

The opinion from another participant emphasizes that this application employs a repetitive learning system. This repetitive learning method helps reinforce the understanding of English vocabulary and indirectly enhances speaking and writing skills in the language. With repeated exposure to the learning materials, users have a greater chance to comprehend and retain information in long-term memory. This aligns with research by Purwanto (2023), stating that the Duolingo app implements the repetition strategy as a core element of its language learning approach. The adaptive algorithm in the app adjusts exercises based on user progress, presenting more challenging material or introducing new vocabulary after correct answers. Daily tracking systems and daily exercises are designed to ensure users' regular engagement in practice and understanding of the material. With this concept of repetition, Duolingo creates a structured learning experience, ensuring consistent user participation for optimal retention. Overall, the research findings reflect that repetition is not merely a mechanical learning method but a comprehensive learning strategy with a positive impact on language understanding and vocabulary retention.

However, the main weakness of this application is related to its dependence on an internet connection. When the internet connection is unstable, learning in the application can be disrupted, requiring participants to wait for a stable connection. This is consistent with research by Ajisoko (2020), which states that network issues are a constraint in English vocabulary learning with the Duolingo application. Furthermore, the speed of the narrator's pronunciation is sometimes too fast, making it difficult for users to follow and understand the meanings or pronunciations of words. This suggests that the application needs to

consider an appropriate speed for delivering sentences, especially for beginners or learners at lower levels. Moreover, some students criticize the presence of disruptive advertisements during the learning process, which can diminish user motivation and concentration. These weaknesses need to be addressed to enhance the effectiveness and user experience of learning with the Duolingo application.

In this research, several users of the Duolingo application highlighted the excellence of the available features, especially the sentence formation feature in learning English vocabulary. Some users emphasized that the sentence structure feature in this application is easily comprehensible and contributes positively to learning English vocabulary. User experiences indicate that the sentence-building process in Duolingo provides adequate challenges and fosters creativity in language learning. Finding enjoyment in learning makes the learning process more engaging and enjoyable, facilitating vocabulary enhancement as it is considered a pleasant experience.

Other users also expressed their delight in constructing sentences within the Duolingo application. Through arranging these words, they could practice critical thinking skills. The ability to creatively compose sentences aids users in exercising their logical thinking. From various user experiences disclosed, it appears that the sentence formation feature in the Duolingo application offers significant benefits in learning English vocabulary. This feature not only facilitates comprehension but also provides challenges, enhances creativity, and hones critical thinking skills in the learning process.This aligns with the study by Herminingsih (2021), stating that Duolingo excels with its sentence construction feature, not only for improving writing skills but also effectively enhancing

student retention. This exercise encourages users to build language structure, deepen understanding of grammar, and strengthen connections between words in sentence contexts. With integrated repetition, Duolingo serves not only as a tool for understanding words but also effectively develops students' ability to construct sentences accurately and creatively.

In this study, it was found that users of the Duolingo application consistently apply the vocabulary they learn in their daily lives. Several participants emphasized that the visually appealing display feature in the Duolingo application, along with relevant sentence examples from everyday life, assists them in practicing vocabulary usage when interacting with friends. Additionally, other participants demonstrated the use of learned vocabulary in different contexts. One of these contexts involved employing vocabulary in writing short stories to freely express ideas. Utilizing this vocabulary aided in expression skills and enriched critical thinking abilities. There were also participants who used the learned vocabulary while communicating in community forums, practicing vocabulary in daily conversations.

Using vocabulary in communication contexts helped strengthen vocabulary and overall English language skills. Other users emphasized the importance of practicing with friends who are also interested in English. Through these exercises, they strive to use the learned vocabulary in forming sentences and everyday conversations, aiding in honing their speaking skills.From various perspectives of different users, it can be concluded that the Duolingo application provides opportunities for users to apply the vocabulary they learn in various real-life situations. This not only reinforces vocabulary comprehension but also

contributes to the comprehensive development of English language skills. This aligns with the research by (Yusda, Nanda, Pratiwi, &Haninun, 2020), which states that Duolingo focuses on everyday vocabulary, increasing relevance in the practical use of the language. By introducing vocabulary related to daily situations, users can directly apply what they learn in their everyday contexts. This approach helps build a practical vocabulary foundation for communication in the language being studied.

In this research, significant emphasis was found on the considerable benefits participants gained from their membership in the Duolingo community. This was primarily associated with the expansion of their vocabulary and English language proficiency. Several participants highlighted the crucial role of the community in facilitating discussions, exchanging experiences, and discussing challenging words and phrases. Such discussions aided participants in understanding the contextual usage of words in broader contexts.

In addition to discussions, participants also underscored the usefulness of references they received from the community. Some received recommendations for reading materials, films, or songs that not only supported the learning process but also helped enrich their vocabulary. The references obtained from the community assisted participants in broadening and deepening their vocabulary in various contexts.Furthermore, membership in the community provided participants with opportunities to interact with fellow learners who share a similar interest in learning English. Through interaction and communication within the community environment, participants could practice and enhance their English speaking and writing skills in real-life situations.

Overall, it can be concluded that membership in the Duolingo community not only benefits in vocabulary expansion but also plays a significant role in supporting a more holistic English language learning process. The community serves as a valuable platform for participants to obtain references, practice, engage in discussions, and interact with fellow learners, thereby contributing significantly to the improvement of their English language abilities. This aligns with research by Putri and Islamiati (2018) which states that community forums in the Duolingo application provide benefits such as sharing experiences, tips, motivation, friendships, and corrections. They allow users to improve their language skills, receive support, and interact with fellow learners.

Overall, the findings from this research emphasize the significant role of learning communities like Duolingo in enhancing English language skills through social interaction, collective contributions, and learning recommendations. Collaboration and information exchange within these communities add value to the learning experience of their members and help them develop English language skills more effectively. However, the statement from participant P5, indicating their choice not to engage in the Duolingo application community due to a preference for self-study over group learning, highlights individual preferences in learning methods. The decision not to join the community might stem from the desire to maintain focus on personal learning processes without relying on group interactions. Some individuals feel more comfortable and effective in learning independently, where they can manage study time and pace according to personal preferences without the limitations of community interaction. Moreover, the self-study approach often allows individuals to set personal learning goals, follow

learning paths that suit their needs, and maintain a comfort level without being influenced by group dynamics. However, the decision not to participate in the app's community does not diminish the value of their chosen self-learning approach, as each person has different learning preferences and styles that cater to their individual learning needs.

The duration of study significantly influences the vocabulary learning process. The impact of varying study durations can affect how individuals absorb, retain, and comprehend English vocabulary. Firstly, shorter study sessions tend to help maintain a high level of focus within a brief timeframe. This can enhance concentration and allow gradual information absorption without causing excessive mental strain. Although the number of vocabulary words learned in each session might be limited, this approach enables regular repetition, which is crucial in memorizing new words.

Conversely, longer study sessions provide the opportunity to explore a wider range of vocabulary at once. Extended durations permit individuals to delve deeper into the context of words, explore various nuances, and establish more profound connections. While sustaining focus during longer sessions may be more challenging, this approach allows for a more comprehensive understanding. Therefore, the impact of study duration in learning vocabulary can affect the level of concentration, the ability to absorb information, as well as the depth of understanding regarding the context and variations of vocabulary words. This highlights the importance of selecting study durations that align with individual preferences, which can significantly impact the effectiveness of learning and understanding English vocabulary.

In addition to the above, most early studies focused on the improvement of students' vocabulary through regular assessment but did not explore students' reflections on the learning experience in the application. Similarly, previous research has been conducted in the context of higher education, only exploring the improvement of students' vocabulary (Aji Soko, 2022). Furthermore, this research needs further exploration in the future as the improvement context primarily focuses on students' justification through reflection. While various literature suggests that the Duolingo application can enhance students' vocabulary in learning, this improvement can be further tested through specific vocabulary enhancement tests based on the application.

Based on the data generated from this research, the researcher elucidates the implications of this study, including its pedagogical implications. Pedagogically, this can be applied in formal education where teachers or instructors can employ this application in the process of teaching and learning English vocabulary through vocabulary-based technological means. Furthermore, students can utilize this application for vocabulary acquisition, either by following guidance from teachers or due to their personal motivation for self-directed learning. In higher education, the pedagogical implications are that the Duolingo application can serve as a reference to enhance, expedite, and facilitate foreign language learning, particularly English vocabulary, through the most fundamental element, which is vocabulary.