

Student Perception of Using Arknights Game to Develop Vocabulary Mastery

 <https://doi.org/10.31004/jele.v11i5.3264>

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ABSTRACT

Vocabulary remains one of the toughest hurdles for those learning English, and surprisingly, narrative-driven mobile games are emerging as a unique way to gain language exposure outside the usual classroom environment. This research delves into how Indonesian players of the mobile game Arknights pick up and understand English vocabulary through its engaging, story-rich content. Using a qualitative approach, the researchers collected open-ended responses from player, mostly university students, and performed a thematic analysis on the data. Data identified five main themes: player characteristics, the difficulties of reading unfamiliar or literary language, the introduction of new vocabulary through the main story and dialogues, using strategies like using translation tools and contextual clues, the players' views on their vocabulary growth. Most participants noted that the game's vocabulary posed a real challenge, often filled with literary or old-fashioned terms; however, the repeated exposure throughout the storyline helped them remember these words. The findings suggest that vocabulary acquisition in this setting happens informally, fueled by ongoing exposure and self-directed problem-solving rather than traditional teaching methods.

Keywords: *Vocabulary Acquisition, Game-Based Learning, Thematic Analysis*

Article History:

Received 02nd September 2026

Accepted 24th September 2026

Published 01st October 2026



INTRODUCTION

English language acquisition has become increasingly important in contemporary society because English functions as a major means of communication across countries and cultures. Vocabulary is a fundamental component of language learning; however, many learners experience difficulties in acquiring, retaining, and using new words effectively. These difficulties are not only associated with the complexity of the English language but also with changes in learning environments resulting from digital technology. As educational practices continue to evolve, researchers have increasingly explored ways in which vocabulary can be learned beyond traditional classroom instruction. Digital games have attracted particular attention because they can provide repeated exposure to language within meaningful and engaging contexts. Research on digital game-based vocabulary learning indicates that learner engagement can contribute positively to vocabulary development, with behavioral, cognitive, and emotional engagement interacting during the learning process (Zhang et al., 2023).

Game-based learning may also influence learners' motivation and willingness to engage with English independently. Ahmed et al. (2022) reported that game-based learning can support EFL learners' motivation and reduce learning-related anxiety, suggesting that games can create a more engaging learning environment. In this context, learners may encounter English while reading instructions, interpreting narratives, understanding character dialogues, or solving problems rather than studying vocabulary as isolated items. Plass et al. (2015) further explain that effective game-based learning involves cognitive and motivational processes that can support meaningful learning. Similarly, Krath et al. (2021) emphasize that game-based learning and related approaches can be understood through multiple theoretical

perspectives, including those concerned with motivation, engagement, and learning. Therefore, digital games may provide opportunities for learners to encounter and process English according to their own interests and pace.

The potential of games for vocabulary development is particularly relevant because players are repeatedly exposed to language through different textual and dialogic forms. In MMORPG environments, for example, players may encounter vocabulary through quests, item descriptions, character interactions, and communication with other players (Azzam et al., 2025). Such exposure can create opportunities for vocabulary learning because words are encountered while learners are attempting to accomplish meaningful gameplay objectives. Hashemi (2021) also highlights the importance of vocabulary knowledge for language learning and communication. More recent research provides further evidence that vocabulary learning can occur through gaming outside formal classroom settings. Calafato & Clausen (2025) found that vocabulary learning strategies such as inferencing, consulting language references, and note-taking during extramural English gaming were associated with aspects of learners' vocabulary knowledge. Thus, vocabulary encountered during gameplay may function not merely as a list of words to memorize but as linguistic input connected to immediate communicative or gameplay-related purposes.

The process of encountering unfamiliar vocabulary in games may involve both incidental and intentional learning. Calvo-Ferrer & Belda-Medina (2021), in their study of *Among Us*, found that gameplay could support both incidental and intentional L2 vocabulary learning, while repetition contributed positively to vocabulary learning. Similarly, Lee (2023) found that incidental vocabulary acquisition in a game-enhanced learning environment was influenced by factors such as word salience, learner interest, and attention to captions. These findings are relevant to *Arknights*, where players repeatedly encounter terminology while attempting to understand storylines, complete stages, upgrade characters, and interpret game mechanics. When players encounter unfamiliar words, they may use dictionaries, translation tools, contextual inference, visual information, or discussions with other players to construct meaning. Consequently, vocabulary learning through *Arknights* may involve a combination of repeated exposure, contextual inference, self-directed learning, and purposeful attention.

Arknights provides a particularly interesting environment for examining this process because it combines role-playing elements, strategic gameplay, extensive storytelling, and character-centered narratives. Throughout the game, players encounter specialized terminology such as "Rephasic Enantiodromia," "Nucleic Crystal Sinter," and "Coagulative Nodule," as well as more familiar but contextually specialized terms such as "Terminal," "Operator," "Contingency Contract," "Stage," "Elite 2" (E2), and "Mastery 9" (M9). These terms occur in different gameplay contexts, including story progression, character development, item collection, and strategic planning. Although some terminology may initially be difficult to understand, repeated encounters can provide opportunities for learners to recognize forms and associate them with particular meanings or gameplay functions. Research on single-player video games has similarly shown that gameplay can contribute to incidental lexical learning, particularly through learners' exposure to vocabulary embedded within the game environment (Sze-to & Jung, 2022).

The contextual nature of *Arknights* terminology is also relevant to the role of motivation, engagement, and problem-solving in language learning. Rather than receiving vocabulary independently from a teacher, players encounter words because they need to understand instructions, follow narratives, identify items, or determine how to progress through the game. Kazu & Kuvvetli (2023), for example, investigated digital game-based language learning among EFL students and reported evidence concerning students' vocabulary acquisition and perceptions of game-based learning. In addition, Wulantari et al. (2023) discuss the role of gamification in English language teaching and highlight the potential of game-related elements to support learner engagement. The social dimension of gaming may further extend vocabulary exposure because players can communicate with other members of gaming communities, discuss strategies, interpret story events, and exchange information about characters and game mechanics. Nadila et al. (2020) similarly identified self-confidence as an

important consideration in students' English-speaking experiences, while [Sari & Aminatun \(2021\)](#) reported learners' perceptions concerning vocabulary development through English-language media. These perspectives suggest that English exposure can extend beyond formal classroom interaction.

The relevance of gaming as an informal language-learning environment is further supported by recent research on digital games and incidental vocabulary acquisition. [Weisi & Hajizadeh \(2025\)](#), for instance, found that young EFL learners exposed to vocabulary through Minecraft gameplay performed better than learners in a conventional memorization condition, suggesting that gameplay may provide a useful supplementary context for lexical development. Research by [Zhang et al. \(2023\)](#) likewise demonstrated that active engagement in digital game-based vocabulary learning was positively associated with vocabulary development. These findings do not mean that every digital game automatically produces vocabulary learning; rather, they indicate that factors such as engagement, exposure, contextual relevance, attention, and learning strategies can shape what learners gain from gameplay. Therefore, examining learners' actual experiences with Arknights is important for understanding how its English terminology is encountered, interpreted, remembered, and potentially incorporated into learners' vocabulary knowledge.

Based on these considerations, this research focuses on students who engage with Arknights and examines their perceptions of the game as a tool for vocabulary development as well as the influence of its terminology on their English learning experiences. The study is particularly interested in how players respond to unfamiliar vocabulary, what strategies they employ when comprehension fails, and how repeated exposure through storylines, character dialogues, item descriptions, and gameplay terminology contributes to their perceived vocabulary development. The focus on Arknights is significant because its continuously expanding narrative and specialized terminology provide a rich environment for examining vocabulary learning beyond formal classroom instruction. Rather than assuming that playing the game automatically improves English proficiency, this research seeks to understand how learners themselves experience and interpret vocabulary learning during gameplay. The findings may contribute to the growing discussion of extramural English and digital game-based language learning by providing a more specific account of vocabulary exposure and self-directed learning through a narrative-driven role-playing game.

METHOD

This research employs a qualitative design by [Creswell \(2017\)](#) to explore the influence of Arknight terminology on vocabulary acquisition and comprehension in students. A questionnaire was distributed within a community group of Arknight players, collecting responses from 210 individuals. The participant pool included both high school and university students, with the latter constituting the majority of the respondents. This diverse participant demographic, sourced from an engaged gaming community, provides valuable insights into how continuous exposure to in-game English terminology can facilitate a connection between informal gaming experiences and formal academic education.

The thematic analysis approach is utilized to identify and interpret patterns of meaning that emerge from participants' responses from [Clarke & Braun \(2017\)](#). This design prioritizes the understanding of recurring themes in the ways participants engage with, process, and derive meaning from Arknight terminology, capturing collective patterns across the data set rather than focusing on the individual lived experiences of any participant. Purposive sampling is implemented to select participants who can contribute rich and meaningful data relevant to the research focus. The information for this study was collected questionnaire, structured into five sections. The first section, Respondent Profile gathered essential background information, such as the duration of time participants have been playing Arknight and the average length of their gaming sessions. The second section, Reading Difficulties, investigated the issues participants encountered when reading in-game text, focusing on words or phrases that were challenging to understand. The third section, Vocabulary

Learning, assessed how participants comprehended and remembered new vocabulary they encountered during gameplay. The fourth section, Learning Strategies, explored the methods participants utilized to understand or learn difficult words, such as making educated guesses from context, employing translation tools, or conducting external searches. The fifth section, Views on English Improvement, prompted participants to articulate their thoughts on whether and how their English skills had progressed as a result of their gaming experience

FINDINGS AND DISCUSSION

This section outlines the results obtained from the thematic analysis of the questionnaire responses gathered from all participants. The findings are categorized into five themes, which were identified to reflect the recurring patterns in how respondents interact with Arknights' English-language content, encounter and learn new vocabulary, and comprehend unfamiliar terms. The data then into five themes for finding and four for discussion. The first theme respondent characteristic, second reading difficulties or barrier, Third Acquisition new vocabulary, then fourth strategy for understanding vocabulary and lastly impact on the vocabulary understanding

Respondent Characteristic

This theme encapsulates the overall gaming habits and educational backgrounds of the participants, offering insight into the frequency with which they engaged with the game's English-language material. The respondents predominantly consisted of seasoned and regular players of Arknights, with the majority indicating that they played daily or almost daily for durations ranging from thirty minutes to an hour, and a significant portion engaging in even longer gaming sessions. Most of the respondents were university students, while high school students represented a smaller yet still considerable demographic. This ongoing and frequent interaction with the game ensured that the respondents were regularly exposed to its English-language narrative content over an extended period, rather than experiencing it sporadically.

Reading Difficulties or Barrier

This theme encapsulates the unique challenges that respondents encountered while reading the narrative content of the game, along with their insights into the origins of these challenges. A significant number of respondents expressed difficulties when engaging with the story content of Arknights. The most commonly cited issue was the complexity of vocabulary, with respondents characterizing the language in the narrative as archaic, poetic, or otherwise unfamiliar when compared to everyday English. Furthermore, several respondents pointed out that the game's technical and setting-specific terminology, which is associated with its science fiction and post-apocalyptic themes as one of participant stated contributed to their confusion. A smaller group of respondents also noted that long or densely structured sentences hindered their understanding, suggesting that reading barriers were present not only at the level of individual words but also in the way those words were constructed into sentences.

Acquisition New Vocabulary

This theme examines the ways in which respondents encountered new vocabulary during gameplay, as well as the specific points within the game where this exposure was most commonly observed. Almost all respondents noted that they came across new vocabulary while playing, whether it was frequently or occasionally, with very few claiming that this never happened. The main story was most frequently identified by respondents as the primary source of this new vocabulary, while character dialogue, operator descriptions, and event-specific narratives were also recognized as contexts in which unfamiliar words were found. Although gameplay elements and character voice lines were mentioned as sources, they were cited less prominently than the main narrative itself. The vocabulary that respondents recalled encountering was often literary or formal in nature, featuring words that are not typically used in everyday spoken English.

Strategy for Understanding Vocabulary

This theme delineates the particular strategies that respondents employed when faced with unfamiliar vocabulary, demonstrating how they managed instances of confusion during gameplay. When respondents encountered words, they did not comprehend the most frequently mentioned tactic was utilizing machine translation tools like Google Translate. In addition to this, respondents also noted the use of online dictionaries, deducing meanings from the context of the sentence or scene, and leveraging visual elements within the game to enhance their understanding. Generally, respondents viewed contextual and visual indicators as beneficial for interpreting unknown vocabulary, indicating that translation tools were typically used in conjunction with, rather than as a replacement for, contextual analysis.

Impact on Vocabulary Understanding

This theme encapsulates the respondents' views on whether their interaction with Arknights has enhanced their overall understanding and retention of English vocabulary. A significant number of respondents expressed that playing Arknights had a beneficial effect on their comprehension of English vocabulary. They linked this effect to the repeated exposure to new words in various narrative contexts, including the main storyline, side events, and character-specific dialogues, which they believed helped solidify their word recognition over time. Furthermore, several respondents illustrated how encountering unfamiliar vocabulary in the narrative motivated them to actively search for its meanings to follow the storyline, suggesting that their engagement with the narrative itself was instrumental in fostering vocabulary-seeking behaviour. Taken together the finding revealed that vocabulary acquisition in this context emerges informally through long exposure of the Arknights game narrative.

Reading Difficulty and Barrier

The findings suggest that the main challenge faced by respondents was related to academic vocabulary and terminology unique to the Arknights universe. Instead of viewing this as a solely negative result, this challenge can be interpreted as indicative of the game's narrative intricacy, which offers both a hurdle and a chance for players to learn. This perspective is consistent with the theory of incidental vocabulary learning, which posits that encountering unfamiliar terms within a meaningful context can facilitate vocabulary development, even without formal teaching. Thus, the very complexity that respondents perceived as an obstacle may also serve as a catalyst for vocabulary enhancement, as it consistently exposes players to words that extend beyond their current vocabulary knowledge. For example, most of participant expresses that the vocabulary they often found when reading the story is hard and rarely encountered in real life setting and lean more into poetic and literature but there also participant that expressed that they don't have any problem when reading Arknights narrative that game presented.

Acquisition New Vocabulary

Participants' accounts of discovering new vocabulary mainly through narrative element and character interactions this indicate that the game serves as a context-driven platform for language acquisition. Frequent exposure throughout various narrative instances enables players to link word meanings to particular in-game contexts, characters, or occurrences, thereby seemingly enhancing retention more effectively than isolated or singular exposure could facilitate. This aligns with the overarching notion that contextual meaning-making, as opposed to mere memorization, is fundamental to the internalization of incidental vocabulary.

Strategy for Understanding Vocabulary

Illustrate how participants proactively handled their own understanding without formal guidance. The employment of translation tools, dictionaries, and visual aids indicates a trend of self-directed learning, where players assumed responsibility for addressing gaps in comprehension as they emerged during gameplay. These methods seem to have served as a

link between initial perplexity and ultimate understanding, enabling respondents to mitigate the challenges presented by unfamiliar terminology without the need for an external teacher or classroom environment.

Impact on Vocabulary Understanding

Finally, this highlights the generally favourable view respondents have regarding their vocabulary enhancement due to gameplay. This observation bolsters the larger assertion that digital games featuring intricate narratives can function as a vehicle for incidental English language acquisition. Continuous and repeated interaction with English text in an immersive narrative setting seems to facilitate vocabulary growth while concurrently improving reading comprehension.

CONCLUSIONS

This research investigated students' perceptions of Arknights as a tool for vocabulary development and the influence of in-game terminology on language acquisition. The findings indicate that students generally viewed the game positively, particularly because repeated exposure to the main storyline, side events, and character dialogues enhanced English vocabulary recognition and retention. Unfamiliar terms often encouraged students to seek definitions to better understand the plot, although context-specific vocabulary sometimes presented significant challenges. Nevertheless, some participants perceived these difficulties as enriching the narrative experience, suggesting that productive struggle may support incidental learning. New vocabulary was primarily acquired through self-directed learning, with participants using translation tools, dictionaries, contextual inference, and visual aids when comprehension failed. The amount of vocabulary acquired varied according to playing duration, story progression, community engagement, and educational background. Thus, in-game terminology functioned as recurring, contextually meaningful cues rather than static words to memorize. Future research using semi-structured interviews could provide deeper insights into players' real-time vocabulary processing.

ACKNOWLEDGEMENTS

All praise belongs to Allah SWT, whose guidance and mercy made the completion of this research possible. Every step of this journey, however uncertain it sometimes felt, was carried by faith that things unfold as they are meant to. The researcher extends heartfelt gratitude to my beloved mother, whose unwavering love, patience, and quiet sacrifices have been the foundation of every achievement in this life. Her prayers were felt in every late night and every moment of doubt. Sincere appreciation is also owed to the dosen pembimbing and dosen penguji, whose guidance, patience, and critical insight shaped this research from a rough idea into a finished study. Their willingness to correct, question, and encourage made all the difference. To family, thank you for the steady support that asked for nothing in return, and for believing in this path even when it wasn't always clear where it led. To friends who shared in the late nights, the setbacks, and the small victories along the way, thank you for reminding the researcher that no journey has to be walked alone. Every fall was met with a hand to get back up, and every doubt was met with encouragement to keep going. This work stands as proof that no effort, however small, is ever wasted and that trepidation may not stop what comes, but it should never stop how we choose to live.

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