

OUT-OF-CLASS ENGLISH EXPOSURE AND RECEPTIVE VOCABULARY KNOWLEDGE AMONG RURAL EFL LEARNERS IN INDONESIA

Gusti Rayyan Noor^{1*}, Bambang Yudi Cahyono², Yazid Basthomi³, Maria Hidayati⁴

¹gusti.rayyan.2402218@students.um.ac.id, ²bambang.yudi.fs@um.ac.id, ³ybasthomi@um.ac.id,

⁴maria.hidayati.fs@um.ac.id

UNIVERSITAS NEGERI MALANG

Received: April 7, 2026; Accepted: June 13, 2026

ABSTRACT

This study examines the relationship between out-of-class English exposure and receptive vocabulary knowledge among rural junior high school students in Indonesia. Using a correlational research design, data were gathered from 102 students through a questionnaire and a Picture Vocabulary Size Test (PVST). Descriptive statistics identified the types and frequency of exposure, while Pearson's product-moment correlation examined its relationship with vocabulary knowledge. The analysis showed a weak and non-significant relationship between out-of-class exposure and receptive vocabulary knowledge ($r = .16$, $p > .05$), indicating limited shared variance between the variables. Students engaged in moderate levels of out-of-class exposure, predominantly through digitally mediated activities such as social media, music, and internet content, yet most demonstrated high scores on the receptive vocabulary test. This weak relationship suggests that exposure frequency alone may not sufficiently explain vocabulary development in rural EFL contexts.

Keywords: Out-of-class English Exposure, Receptive Vocabulary Knowledge, Rural EFL Context

A. INTRODUCTION

Out-of-class English exposure has been shown as a meaningful predictor of L2 vocabulary size (Busby, 2020; Leona et al., 2020), indicating that learners who interact more frequently with English outside formal classroom instruction tend to demonstrate stronger vocabulary knowledge. A substantial body of research highlights the role of media-based exposure, including watching television programs or online videos and reading digital or printed materials, in supporting vocabulary development (De Wilde et al., 2019; Peters, 2018; Peters et al., 2019; Dhaifi et al., 2024). Other studies emphasize game-based exposure, showing that playing video games in English can contribute to vocabulary learning, particularly when learners employ strategies such as inferencing during gameplay (Calfato & Clausen, 2024). Music-based exposure has also been associated with incidental vocabulary acquisition, as repeated exposure to English songs can facilitate vocabulary retention (Nie et al., 2022). In

addition, social media environments have been identified as informal spaces where learners encounter and acquire new lexical items during everyday interaction (Ali et al., 2025). These findings appear to indicate that authentic and self-initiated contact with English outside the classroom may provide meaningful language input that complements formal instruction and supports vocabulary growth.

However, access to English exposure may not be evenly distributed across educational settings, especially in contexts characterized by geographical and socioeconomic disparities. In Indonesia, rural schools often face structural issues, including limited teaching and learning resources, insufficient facilities, marginal status of English in the curriculum, students' low motivation and proficiency, and students' habit in using local languages in the school environment (Laila et al., 2023; Saiful & Triyono, 2018; Supriadi et al., 2023). Similar patterns have also been documented in other rural EFL contexts. For example, studies in rural Vietnam and Uganda indicate that learners experience restricted exposure and limited learning support from parents (Pham & Tran, 2025; Ssentanda et al., 2019), as well as in Thailand, where rural schools often lack authentic English practice, which is coupled with outdated and culturally disconnected materials (Kaosayapandhu, 2023). These limitations may limit the quantity and quality of meaningful English input, reducing opportunities for sustained exposure outside the classroom and ultimately hindering learners' vocabulary development. In order to understand how such exposure may contribute to vocabulary learning, the concept of out-of-class English exposure is discussed in the following section.

1. Out-of-Class English Exposure

Out-of-class English exposure is commonly conceptualized within the framework of informal or naturalistic language learning occurring beyond institutional settings (Benson, 2001). In literature, this phenomenon is often termed as Extramural English (Sundqvist, 2009), which refers to learners' voluntary interaction with English outside the classroom, with or without explicit intention to learn (Khulafiyah et al., 2021). Sundqvist and Sylvén (2016) further define this phenomenon as any self-initiated activity in which English is encountered or used beyond formal instruction, including activities mediated through digital or traditional media, as digital platforms may facilitate independent engagement with language resources outside the classroom. Other terms used in the literature include out-of-class English exposure (Peters et al., 2019) and Online Informal Learning of English (OILE) (Mahardika et al., 2023; Sockett, 2014), which emphasize similar interactions with authentic language input in everyday contexts. Studies have shown that these out-of-class exposures give benefits for learners' vocabulary growth (e.g., De Wilde et al., 2019; Peters, 2018; Peters et al., 2019; Calafato & Clausen, 2024; Nie et al., 2022), with such engagement often driven by personal interest that fosters increased motivation, commitment, and learner autonomy (Tajeddin et al., 2023; Wiwin et al., 2022).

However, the impact of these exposures is not the same across learners or settings. Vocabulary learning outcomes may depend on factors such as initial lexical knowledge and the nature of digital engagement. Laufer & Vaisman (2023) found learners who began with a larger vocabulary base tended to gain more new lexical forms from extramural digital activities than learners with a smaller vocabulary, indicating that prior vocabulary knowledge may facilitate the ability to retain unfamiliar words encountered during exposure. Studies further suggest that exposure frequency alone does not necessarily guarantee

learning, as vocabulary acquisitions depend on the extent to which learners attend to and process linguistic input. Repeated encounters are more effective when they occur in meaningful contexts that encourage inferencing and cognitive engagement, suggesting the processing depths mediates the relationship between exposure and learning outcomes (e.g., Teng, 2016; van den Broek, 2022). As a result, examining the extent of learners' out-of-class exposure is necessary for understanding potential sources of vocabulary development, particularly in contexts where opportunities for classroom input may be limited.

2. Receptive Vocabulary Knowledge

Vocabulary knowledge is fundamental for language skills, as it is defined by Butler (2019) as a “foundational element for language development”. Studies commonly distinguish between a receptive and productive dimension of vocabulary as well as between vocabulary breadth and depth (Laufer & Goldstein, 2004; Schmitt, 2014). Receptive vocabulary is defined as learners' ability to identify and understand word meanings during listening and reading, whereas productive vocabulary concerns how learners recall and produce the correct words in speaking and writing. Meanwhile, vocabulary breadth concerns the number of words known, while vocabulary depth reflects the quality of lexical knowledge, such as semantic and syntactic associations.

Receptive vocabulary knowledge typically expands earlier than productive ones because recognizing word meanings requires less cognitive effort than retrieving and producing words accurately (Laufer & Paribakht, 1998). Receptive knowledge is associated with the comprehension process in listening and reading, while productive knowledge demands greater control over lexical form and use (Pignot-Shahov, 2012). As learners interact with English through various activities such as watching videos, gaming, or engaging with online content, repeated encounters with words can gradually grow their receptive vocabulary, even without deliberate practice (De Wilde et al., 2019). For this reason, receptive tests are often used to examine vocabulary knowledge that results from exposure to language input outside the classroom. However, learners may recognize frequently encountered words without fully mastering their deeper meanings or productive use (González-Fernández, 2021; Schmitt, 2014). Recognition-based assessments therefore provide an appropriate way to measure vocabulary knowledge that develops through exposure. This study used the Picture Vocabulary Size Test (PVST), a picture-word matching test designed to estimate learners' receptive vocabulary size efficiently (Nation & Anthony, 2016).

In Indonesian context, previous studies have examined out-of-class English exposure in relation to overall proficiency or specific skills rather than vocabulary knowledge. Such exposure has been associated with general proficiency (Fatimah et al., 2025; Samosir, 2022), speaking and writing performance (Arfah & Zam, 2017), and perceived benefits of extramural activities (Emeral & Yulitriana, 2025). Although Samosir (2022) investigated rural junior high school students, receptive vocabulary knowledge was not examined directly, while study conducted in immersive English-speaking environments (Yasmin et al., 2024) do not reflect rural realities. Therefore, empirical evidence examining the relationship between out-of-class English exposure and receptive vocabulary knowledge among rural secondary school students in Indonesia remains limited.

Building on what has been discussed previously, these studies indicate that repeated encounters with language input outside the classroom may contribute to the accumulation of receptive vocabulary knowledge. However, the extent to which such exposure leads to measurable vocabulary outcomes is likely shaped by contextual conditions, levels of learner engagement, and opportunities for meaningful interaction with the input. Although studies conducted in rich resource environments have generally reported positive associations between out-of-class exposure and vocabulary knowledge, less is known about how these relationships function in rural settings where access to input and patterns of language use may differ substantially. Investigating this relationship is therefore necessary to determine whether patterns identified in more advantaged settings are similarly observable among rural secondary school learners.

To address this gap, the present study investigates the types and frequency of students' out-of-class English exposure, assesses their receptive vocabulary knowledge, and examines the relationship between these variables in a junior high school located in a rural area. By situating the analysis within a low-resourced rural context, this study provides evidence that contributes to a more context-sensitive understanding of how patterns identified in higher-resourced settings operate under different learning conditions. The present study operationalizes exposure according to how often learners engage in these activities outside the classroom. This approach focuses on learners' observable habits of engagement rather than processing depth, serving as an indirect way to estimate how much English input a learner actually encounters. Accordingly, the study addresses the following research questions:

1. What types and frequencies of out-of-class English exposure do students experience?
2. What is the level of students' receptive vocabulary knowledge as measured by the PVST?
3. What is the relationship between students' out-of-class English exposure and their receptive vocabulary knowledge?

B. METHOD

This study employed a correlational research design to examine the relationship between out-of-class English exposure and receptive vocabulary knowledge (Creswell, 2012). This design was used because the analysis aimed to explain patterns of covariation between students' out-of-class English exposure and their receptive vocabulary knowledge, rather than to establish causal relationships. For each participant, a total out-of-class English exposure score was generated from the sum of responses to nine questionnaire items measuring the frequency of engagement in different out-of-class English activities, and a total receptive vocabulary score was obtained from the Picture Vocabulary Size Test (PVST). The relationship between these variables was analyzed using Pearson's product-moment correlation coefficient.

The study was conducted at a public junior high school located in a rural area of South Kalimantan. The rural setting was selected to reflect learning environments where access to English exposure may differ from urban settings commonly examined in previous studies, particularly in terms of limited availability of learning resources and fewer opportunities for authentic interaction in English. The target population consisted of students in grade 7 through 9. A nonprobability, convenience sampling technique was used, as participation

depended on students' voluntary responses and their availability to complete the online questionnaire and test. However, the findings should be interpreted as representative of the participating students rather than generalizable to the broader population of rural EFL learners. All students were invited to participate voluntarily through a Google Form link distributed via the school administration. A total of 102 students submitted valid responses and constituted the final sample. Participant demographics are summarized in Table 1.

Table 1. Demographic Characteristics of Participants

Characteristic	Category	Frequency (n)	Percentage (%)
Gender	Female	60	58.8%
	Male	42	41.2%
Grade	7	30	29.4%
	8	44	43.1%
	9	28	27.5%

Two instruments were administered to collect data, which were an out-of-class English exposure questionnaire and a receptive vocabulary test. Both instruments were delivered in a single session through a Google Form. Before collecting the data, the researcher obtained permission from the school administration. An informed consent statement was included in the beginning of the online form, and only students who agreed to participate were able to proceed with the questionnaire. Participation was voluntary and anonymous, and responses were used only for research purposes.

First, the out-of-class English exposure questionnaire was adapted primarily from the exposure categories used in Peters (2018). This self-report questionnaire was administered because out-of-class English exposure occurs outside the classroom observation and is therefore most feasibly captured through students' reported exposure frequency. The instrument consisted of nine items, each of which represented one type of out-of-class English exposure activity, and was presented in the Indonesian language to enhance clarity and comprehension among participants. Each item required students to indicate how frequently they engaged in a specific activity, including listening to English music, watching English-language videos or television programs with or without subtitles, playing video games, reading books or comics, and accessing English content through the internet or social media. Responses were measured using a seven-point frequency scale ranging from 0 (never) to 6 (every day). The original response categories were adapted from Peters (2018), and an additional "every day" category was included to capture higher frequency exposure that may occur and to allow finer distinctions in students' exposure intensity. Item scores were summed to generate a total exposure score for each participant, with a possible range of 0 to 54. While the summed score represents overall frequency of exposure across diverse activities rather than equivalent linguistic intensity, this aggregation approach follows previous English exposure studies that treat exposure as a composite behavioral construct capturing learners' overall contact with English outside formal instruction (see Peters, 2018, for a similar use of composite exposure scores). For descriptive reporting, total scores were divided into three equal intervals representing low (0-18), intermediate (19-36), and high (37-54) exposure levels.

In addition, content validity was verified through an expert review by a senior professor in English Language Education, who evaluated the relevance and comprehensibility of each item in relation to the study constructs. Revisions were implemented based on the feedback. The internal consistency of the questionnaire was then examined using Cronbach's alpha calculated across the overall responses to the nine questionnaire items, which formed a total exposure score representing students' overall frequency of out-of-class exposure. The analysis indicated acceptable reliability ($\alpha = .71$) for the nine-item scale.

Students' receptive vocabulary knowledge was assessed using a picture-based vocabulary recognition test adapted from the framework of the Picture Vocabulary Size Test (PVST) developed by Nation and Anthony (2016). The PVST is a vocabulary test where learners select the picture that best represents the meaning of a given word from multiple options. The test has been used in previous studies investigating vocabulary knowledge (e.g., Amirian et al., 2022; Gyllstad et al., 2025). Gyllstad et al. (2025) reported acceptable reliability for the instrument with a Cronbach's alpha reliability coefficient of .79 for a shortened version of the PVST administered to young learners. This indicates satisfactory internal consistency and supports the use of the PVST as a measure of receptive vocabulary knowledge. In this study, a total of 30 items were included in the test with one point allocated to each correct answer, yielding a total possible score ranging from 0 to 30. The test was administered through Google Forms in the same session as the exposure questionnaire. Although the PVST has been previously validated, the test items were also reviewed by the same expert to ensure the appropriateness of word selection, picture clarity, and alignment with the construct of receptive vocabulary knowledge. This review was conducted to confirm contextual suitability for rural secondary school students in the study context. For descriptive purposes, total scores were grouped into three equal intervals representing low (0-10), intermediate (11-20), and high (21-30) levels of receptive vocabulary knowledge.

Furthermore, all responses from the questionnaire were analyzed to determine which out-of-class exposures and how often the students engage in them. Descriptive statistics were used to report frequency distributions for each exposure item and for the categorized exposure total. For students' receptive vocabulary knowledge, the same descriptive analysis was used. The PSVT totals were summarized, and the distribution across levels was reported as counts and percentages. Then, to examine the relationship between out-of-class English exposure and receptive vocabulary knowledge, a Pearson Product-Moment Coefficient Correlation (Pearson r) was used. Prior to conducting the correlation analysis, the assumptions of linearity, absence of extreme outliers, and normality were examined. First, scatterplot inspections indicated an approximately linear relationship between variables. Second, boxplots were examined to identify potential outliers and did not reveal any extreme values that would substantially influence the analysis. Third, normality was assessed using the Shapiro-Wilk test in which the result showed that exposure scores did not significantly deviate from normality ($W = .976$, $p = .056$), whereas the PVST scores revealed a deviation from normality ($W = .709$, $p < .0001$). Given the relatively large sample size ($N = 102$) and the robustness of Pearson's correlation to moderate violations of normality, this correlation analysis was considered appropriate for analyzing the relationship between the variables (Havlicek & Peterson, 1976).

C. FINDINGS AND DISCUSSION

This section outlines the study's findings and interprets them in connection to the research questions. The results are organized into three subsections. First, the types and frequency of out-of-class English exposure experienced by the students are reported. Next, the level of students' receptive vocabulary knowledge as measured by the PVST is presented. Finally, the relationship between students' out-of-class English exposure and their receptive vocabulary knowledge is examined.

1. Types and Frequency of Out-of-Class English Exposure

Students' engagement in out-of-class English exposure activities was examined using descriptive statistics based on responses to the exposure questionnaire. Table 2 presents the frequency of students' engagement across different exposure activities.

Table 2. Descriptive Statistics of Out-of-Class English Exposure Activities

Activity	Mean	Std. Dev.	Min	Max
E1_Listening to English Music	4.24	1.841	0	6
E2_Watching movies or YouTube videos in English without subtitles	2.35	2.160	0	6
E3_Watching movies or YouTube videos in English with subtitles	3.54	2.263	0	6
E4_Watching TV in English without subtitles	1.93	2.163	0	6
E5_Watching TV in English with subtitles	2.62	2.321	0	6
E6_Playing video games in English	3.03	2.543	0	6
E7_Reading books or stories in English	3.59	1.874	0	6
E8_Reading comics or magazines in English	2.34	2.141	0	6
E9_Seeing internet contents or social media in English	4.65	1.943	0	6

Overall, the students reported moderate levels of out-of-class English exposure. The total exposure score ranged from 4 to 54, with a mean of 28.28 (SD = 10.62), indicating that English was present in students' daily activities to some extent, though with considerable variation across individuals. As shown in Table 2, seeing English content on the internet or social media was the most frequent activity (M = 4.65, SD = 1.94), followed by listening to English music (M = 4.24, SD = 1.84). Activities involving audiovisual input with textual support were also relatively frequent, including watching movies or YouTube videos in English with subtitles (M = 3.54, SD = 2.26). Similarly, reading books or stories in English showed a comparable level of engagement (M = 3.59, SD = 1.87). Meanwhile, playing video games in English was reported at a moderate frequency (M = 3.03, SD = 2.54). In contrast, exposure through more traditional or less accessible media occurred less frequently. Watching television in English without subtitles was the least reported activity (M = 1.93, SD = 2.16), followed by watching movies or YouTube videos in English without subtitles (M = 2.35, SD = 2.16) and reading comics or magazines in English (M = 2.34, SD = 2.14). Also, watching television in English with subtitles was relatively infrequent (M = 2.62, SD = 2.32).

The descriptive results indicate that students engaged in moderate levels of out-of-class English exposure, with digital and audio-based activities occurring more frequently than traditional media exposure. Seeing English content on the internet and social media and listening to English music were identified as the most common activities, while watching television without subtitles and print-based exposure were relatively rare. This pattern aligns with previous studies demonstrating that contemporary out-of-class English exposure is predominantly mediated through online environments. Peters (2018) reported that internet use and audiovisual media constitute major sources of exposure associated with vocabulary development among Flemish EFL learners. In a similar vein, Gyllstad et al. (2025) identified digital games, television, and music as main sources of out-of-class exposure among young learners, indicating that incidental language contact today mostly occurs through informal digital engagement. Therefore, the present results suggest that rural learners are not characterized by a lack of exposure but rather by exposure patterns shaped through digitally accessible media.

In addition, the variability observed across exposure activities suggests that the effects of out-of-class exposure depend on learner characteristics and contextual factors. De Wilde et al. (2019) showed that vocabulary learning through out-of-school exposure interacts with learner proficiency and word-related variables, implying that exposure does not relate to all learners in the same way. Students' relatively limited engagement with English reading materials may also be related to their preferences for certain formats, as Indonesian junior high school students have been shown to favor printed reading materials over digital ones (Kharisma et al., 2021). These findings imply that rural students participate in digitally mediated out-of-class exposure, although differences in engagement type and intensity level may shape how strongly exposure contributes to vocabulary development.

2. Students' Receptive Vocabulary Knowledge

Students' receptive vocabulary knowledge was examined using the Picture Vocabulary Size Test (PVST). Descriptive Statistics for the total PVST scores are presented in Table 3.

Table 3. Descriptive Statistics of Receptive Vocabulary Knowledge

	Mean	Std. Dev.	Min	Max
PVST Score	25.06	5.71	5	30

As shown in Table 3, the students' PVST total scores ranged from 5 to 30, with a mean score of 25.06 (SD = 5.71). This indicates that, on average, the students demonstrated a relatively high level of receptive vocabulary knowledge, although individual scores varied considerably. To provide a clearer picture of students' vocabulary proficiency, the PVST scores were further categorized into low, intermediate, and high levels based on predetermined cut-off points. The distribution of students across these levels is presented in Table 4.

Table 4. Distribution of Receptive Vocabulary Levels

Vocabulary Level	Count (N)	Percentage (%)
Low	5	4.9
Intermediate	9	8.8
High	88	86.3

Table 3 shows that the majority of the students (86.3%) fell into the high receptive vocabulary level, while a smaller proportion were classified as intermediate (8.8%) and low (4.9%). This distribution suggests that most students in the sample demonstrated strong receptive vocabulary knowledge as measured by the PVST. The results further indicate that most participants obtained high PVST scores despite reporting only moderate levels of out-of-class exposure. This result suggest that the students possessed substantial recognition-based vocabulary knowledge even though their reported exposure to English outside the classroom was only moderate. However, the concentration of scores at the upper end of the scale suggests a restricted range of variability, which may weaken correlation coefficients. As noted in correlational designs, limited score variation can reduce observable associations even when relationships exist (Creswell, 2012). This statistical consideration is particularly relevant when interpreting the relationship in the present study.

To interpret these high scores more accurately, it is important to distinguish between vocabulary breadth and depth. High scores likely represented receptive breadth rather than lexical depth, since recognizing familiar words in the PVST is cognitively easier than producing them (Schmitt, 2014; Laufer & Paribakht, 1998). This suggests that while repeated incidental exposure can contribute to significant recognition-based word knowledge, it may not yet translate into deeper or more advanced language mastery (González-Fernández, 2021; Pignot-Shahov, 2012). In addition, high-frequency vocabulary is typically acquired earlier through repeated encounters with exposure, which may reduce variability among the students at similar proficiency levels (Schmitt, 2014). Although the PVST remains a valid tool for measuring vocabulary size, limited score variation may reduce sensitivity to individual differences. These results highlight the need to interpret receptive vocabulary scores in relation to test characteristics, statistical considerations, and the developmental nature of vocabulary learning.

3. Relationship between Out-of-Class English Exposure and Receptive Vocabulary Knowledge

To examine the relationship between students' out-of-class English exposure and their receptive vocabulary knowledge, a Pearson product-moment correlation analysis was conducted. The correlation results are presented in Table 5, and the distribution of scores is illustrated in Figure 1.

Table 5. Correlation Between Out-of-Class English Exposure and Receptive Vocabulary Knowledge

		Exposure Total	PVST Total Score
Exposure Total	Pearson Correlation	1	.160
	Sig. (2-tailed)		.109
PVST Total Score	Pearson Correlation	.160	1
	Sig. (2-tailed)	.109	

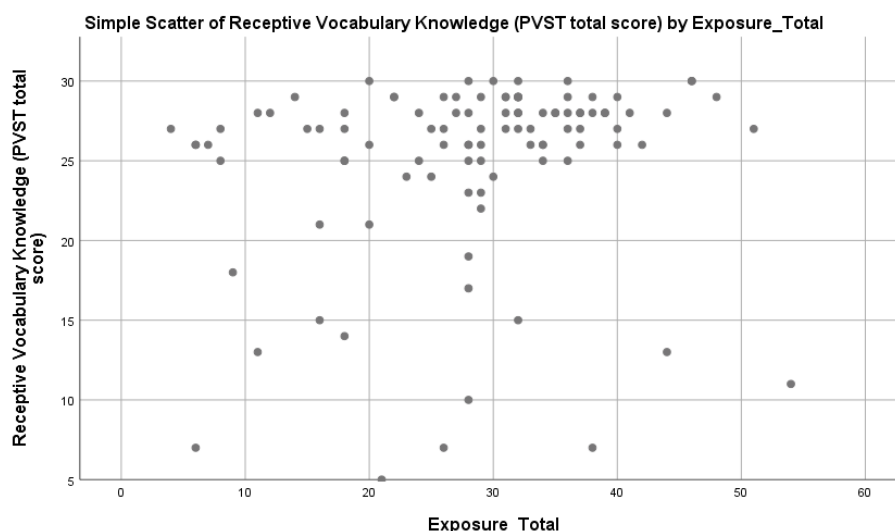


Figure 1. Scatterplot of the Relationship Between Out-of-Class English Exposure and Receptive Vocabulary Knowledge

The analysis revealed a weak positive correlation between total out-of-class English exposure and receptive vocabulary knowledge ($r = .16$, $p = .109$). The effect size was small ($r^2 = .026$), indicating limited shared variance between the two variables. As shown in Figure 1, receptive vocabulary scores were largely concentrated at the higher end of the scale across a wide range of exposure levels, and the overall distribution did not demonstrate a strong linear relationship between the variables. On one hand, previous studies conducted in high-resourced settings have generally reported positive associations between out-of-class English engagement and vocabulary growth. Exposure to English-language media has been linked to increased vocabulary knowledge (Peters, 2018), and out-of-class activities have explained substantial variation in academic vocabulary outcomes (Warnby, 2021). Similarly, strong relationships between out-of-class exposure and receptive vocabulary size have been reported among young learners in Norway, and early exposure has been shown to predict later vocabulary development (Busby, 2024; Gyllstad et al., 2025).

On the other hand, weaker relationships between the two have also been documented. Olsson and Sylvén (2015) found that although students frequently engaged with English outside school, out-of-class English engagement did not demonstrate a significant impact on longitudinal academic vocabulary progress. Likewise, Indrayani et al. (2024) reported only a low positive correlation between informal digital learning and overall English proficiency among Indonesian learners, suggesting that exposure frequency alone may not sufficiently explain language outcomes across language skills. These findings together indicate that exposure frequency does not necessarily translate into measurable vocabulary acquisition, as other contextual factors may moderate this relationship (Muniroh et al., 2025).

Given these weak associations, several factors may account for the limited relationship observed. Frequency measures may overlook qualitative differences in engagement since students may encounter English passively without sustained attention to linguistic form, and vocabulary acquisition is often influenced by the degree of learners' self-directed engagement rather than exposure frequency alone (Dhaifi et al., 2024). Additionally, classroom instruction may remain a primary source of vocabulary learning in rural EFL environments where learners have limited opportunities for authentic interaction in English (Samosir, 2022). The concentration of vocabulary scores at high levels may also have reduced variability, which might weaken observable correlations. Further, as early exposure

contact often has a more profound long-term impact than current engagement (Busby, 2024), students' prior exposure histories may not be fully captured by measures of present activity.

These findings together indicate that while out-of-class exposure is an important part of learners' language environments, exposure frequency alone may not guarantee vocabulary development in rural EFL contexts. This result implies that relationships identified in high-resourced settings may operate differently under various contextual conditions. Therefore, the study offers additional insight into a more context-sensitive understanding of out-of-class English exposure, showing that its relationship with vocabulary knowledge may depend not only on exposure frequency but also on learning conditions and opportunities for meaningful engagement. This means EFL teachers should not rely only on the exposure students engaged outside the classroom. Instead, teachers may need to provide guidance for helping students actually notice and use the vocabulary they encountered in out-of-class activities, thereby supporting more effective vocabulary learning in rural contexts.

D. CONCLUSION

The present study examined whether patterns widely reported in high-resourced settings between out-of-class English exposure and vocabulary knowledge are also observable among rural junior high school students in Indonesia. The findings reveal that students engaged in moderate levels of digitally mediated exposure, especially through music, social media, and internet content, whereas traditional media and print-based activities were less frequent. In addition, most students demonstrated relatively high receptive vocabulary knowledge as assessed by the PVST. However, the relationship between total exposure frequency and receptive vocabulary knowledge was weak and statistically non-significant, suggesting that vocabulary outcomes in rural EFL contexts may not be sufficiently explained by exposure quantity alone. The results imply that the contribution of out-of-class exposure to vocabulary development is likely mediated by qualitative aspects of engagement, past exposure history, classroom instruction, and other contextual factors. With respect to the third research question, therefore, while out-of-class exposure is an important part of learners' language environment, its association with vocabulary outcomes appears to depend more on how learners interact with the input rather than how often they interact.

These findings contribute to a more context-sensitive understanding of out-of-class exposure by showing that relationships identified in high-resourced settings might not transfer directly to rural learning environments. In addition, several limitations should be acknowledged. Given the convenience sampling approach, the findings should be viewed within the specific context of the study rather than representative of all rural learners. Furthermore, the reliance on self-reported exposure frequency may not fully capture the quality aspects of learners' engagement with English input. Therefore, to capture more nuanced developmental patterns, future studies may benefit from using qualitative measures of engagement, longitudinal designs, or vocabulary depth assessments. Further, broadening the sample to include more rural areas would allow stronger generalization and clearer identification of contextual moderators influencing the exposure-vocabulary relationship.

E. REFERENCES

Ali, E. H. F., Kottaparamban, M., Usmani, S., & Kk, M. J. (2025). Saudi students' perceptions of the influence of social media new vocabulary on English language proficiency. *Theory and Practice in Language Studies*, 15(2), 452–461.

- <https://doi.org/10.17507/tpls.1502.15>
- Amirian, S. M. R., Ghaniabadi, S., & Ghelichi, M. (2022). The power of aural and picture vocabulary size test in predicting Iranian EFL learners' viewing comprehension. *Journal of English Language Pedagogy and Practice*, 14(29), 170–193.
- Arfah, H., & Zam, A. Z. (2017). The contribution of exposure frequency to English speaking and writing performance of EFL learners at junior high school in Indonesia. *Voices of English Language Education Society*, 1(2). <https://doi.org/10.29408/veles.v1i2.441>
- Benson, P. (2001). *Teaching and researching autonomy in language learning*. Pearson Education.
- Busby, N. L. (2020). Words from where?: Predictors of L2 English vocabulary among Norwegian university students. *ITL – International Journal of Applied Linguistics*, 172(1), 58–84. <https://doi.org/10.1075/itl.19018.bus>
- Butler, Y. G. (2019). Teaching vocabulary to young second- or foreign-language learners: What can we learn from the research? *Language Teaching for Young Learners*, 1(1), 4–33. <https://doi.org/10.1075/ltl.00003.but>
- Calafato, R., & Clausen, T. (2024). Vocabulary learning strategies in extramural English gaming and their relationship with vocabulary knowledge. *Computer Assisted Language Learning*, 1–19. <https://doi.org/10.1080/09588221.2024.2328023>
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Pearson.
- De Wilde, V., Brysbaert, M., & Eyckmans, J. (2019). Learning English through out-of-school exposure: How do word-related variables and proficiency influence receptive vocabulary learning? *Language Learning*, 70(2), 349–381. <https://doi.org/10.1111/lang.12380>
- Dhaifi, I., Setyosari, P., Widiati, U., & Ulfa, S. (2024). Enhancing autonomous learning and vocabulary mastery through the effective utilization of online resources and word wall activities. *Al-Ishlah: Jurnal Pendidikan*, 16(3), 4301–4312. <https://doi.org/10.35445/alishlah.v16i3.5690>
- Emeral, & Yulitriana. (2025). Exploring Indonesian EFL learners' extramural English activities. *Teaching & Learning English in Multicultural Contexts*, 9(1), 1–12. <https://doi.org/10.37058/tlemc.v9i1.13858>
- Fatimah, E., Nurcholis, N., Widyastuti, K., Maulidia, A., & Mufidah, L. N. (2025). The influence of learning motivation, exposure to English, and learning strategies on English proficiency of Muslim students in Indonesia. *English Learning Innovation*, 6(2), 255–269. <https://doi.org/10.22219/englie.v6i2.40894>
- González-Fernández, B. (2021). Vocabulary knowledge: Lexical depth and its relationship with out-of-class exposure. In P. Szudarski & S. Barclay (Eds.), *Vocabulary theory, patterning and teaching* (pp. 19–45). Multilingual Matters.
- Gyllstad, H., Sundqvist, P., Peters, E., Rindal, U., Skar, G., & Ulfat, N. (2025). Young learners' receptive L2 English vocabulary knowledge in relation to extramural English exposure at the onset of formal instruction in Norway. *International Review of Applied Linguistics in Language Teaching*. <https://doi.org/10.1515/iral-2024-0289>
- Havlicek, L. L., & Peterson, N. L. (1976). Robustness of the Pearson correlation against violations of assumptions. *Perceptual and Motor Skills*, 43(3), 1319–1334. <https://doi.org/10.2466/pms.1976.43.3f.1319>
- Indrayani, N., Cahyono, B. Y., Mukminatien, N., & Ivone, F. M. (2024). Exploring informal digital language learning: How learning frequency counts. *JOLLT Journal of Languages and Language Teaching*, 12(3), 1392–1404. <https://doi.org/10.33394/jollt.v12i3.11366>

- Kaosayapandhu, M. (2023). Rural primary English education in Thailand. In *BRILL eBooks* (pp. 32–50). https://doi.org/10.1163/9789004549647_003
- Kharisma, A., Wulyani, A. N., & Astuti, U. P. (2021). Students' preference of digital or printed books/reading materials. *J-ELLiT (Journal of English Language Literature and Teaching)*, 5(2), 38–46. <https://doi.org/10.17977/um046v5i22021p38-46>
- Khulaifiyah, K., Widati, U., Anugerahwati, M., & Suryati, N. (2021). Autonomous learning activities: The perceptions of English language students in Indonesia. *Pegem Journal of Education and Instruction*, 11(3), 34–49. <https://www.pegegog.net/index.php/pegegog/article/view/1362>
- Laila, F. N., Prastiwi, Y., & Fauziati, E. (2023). Challenges of teaching English for elementary school students in Indonesian rural areas. *JPI (Jurnal Pendidikan Indonesia)*, 12(3), 436–443. <https://doi.org/10.23887/jpiundiksha.v12i3.57804>
- Laufer, B., & Goldstein, Z. (2004). Testing vocabulary knowledge: Size, strength, and computer adaptiveness. *Language Learning*, 54(3), 399–436. <https://doi.org/10.1111/j.0023-8333.2004.00260.x>
- Laufer, B., & Paribakht, T. S. (1998). The relationship between passive and active vocabularies: Effects of language learning context. *Language Learning*, 48(3), 365–391. <https://doi.org/10.1111/0023-8333.00046>
- Laufer, B., & Vaisman, E. E. (2023). Out-of-classroom L2 vocabulary acquisition: The effects of digital activities and school vocabulary. *Modern Language Journal*, 107(4), 854–872. <https://doi.org/10.1111/modl.12880>
- Leona, N. L., Van Koert, M. J., Van Der Molen, M. W., Rispen, J. E., Tijms, J., & Snellings, P. (2020). Explaining individual differences in young English language learners' vocabulary knowledge: The role of extramural English exposure and motivation. *System*, 96, 102402. <https://doi.org/10.1016/j.system.2020.102402>
- Mahardika, I. G. N. A. W., Widiati, U., Basthomi, Y., Suryati, N., & Sharif, T. I. S. T. (2023). Indonesian EFL teachers' practice of online informal learning of English: Perceived understandings and benefits to language skills. *The Journal of Asia TEFL*, 20(3), 524–544. <http://dx.doi.org/10.18823/asiatefl.2023.20.3.2.524>
- Muniroh, S., Andreani, S., Anugerahwati, M., Silfia, D. I., Metaria, & Sharif, T. I. S. T. (2025). A correlational study between students' competencies in English as a foreign language (EFL) vocabulary mastery, reading comprehension, and critical literacy. *Asia Pacific Journal of Educators and Education*, 40(2). <https://doi.org/10.21315/apjee2025.40.2.8>
- Nation, I. S. P., & Anthony, L. (2016). Measuring vocabulary size. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (Vol. 3, pp. 391–405). Routledge.
- Nie, K., Fu, J., Rehman, H., & Zaigham, G. H. K. (2022). An empirical study of the effects of incidental vocabulary learning through listening to songs. *Frontiers in Psychology*, 13, 891146. <https://doi.org/10.3389/fpsyg.2022.891146>
- Olsson, E., & Sylvén, L. K. (2015). Extramural English and academic vocabulary: A longitudinal study of CLIL and non-CLIL students in Sweden. *Apples – Journal of Applied Language Studies*, 9(2), 77–103.
- Peters, E. (2018). The effect of out-of-class exposure to English language media on learners' vocabulary knowledge. *ITL Review of Applied Linguistics*, 169(1), 142–168. <https://doi.org/10.1075/itl.00010.pet>
- Peters, E., Noreillie, A., Heylen, K., Bulté, B., & Desmet, P. (2019). The impact of instruction and out-of-school exposure to foreign language input on learners' vocabulary knowledge in two languages. *Language Learning*, 69(3), 747–782.

- <https://doi.org/10.1111/lang.12351>
- Pham, Q. T., & Tran, L. T. (2025). English learning and teaching in primary schools in rural Vietnam: A case study. *Journal of Language Teaching and Research*, 16(2), 386–399. <https://doi.org/10.17507/jltr.1602.04>
- Pignot-Shahov, V. (2012). Measuring L2 receptive and productive vocabulary knowledge. *Language Studies Working Papers*, 4, 37–45. https://www.reading.ac.uk/elal/-/media/project/uor-main/schools-departments/elal/lswp/lswp-4/elal_lswp_vol_4_pignot_shahov.pdf
- Saiful, J. A., & Triyono, S. (2018). EFL teachers' reflection in teaching English to EFL students of rural areas. *International Journal of Language Education*, 2(2), 1–13. <https://doi.org/10.26858/ijole.v2i2.5637>
- Samosir, H. (2022). Exploring the impact of limited English exposure on language proficiency among junior high school students in rural areas. *TEKILA: Journal of Language Teaching and Literature*, 1(2), 60–69. <https://tekilaojs.com/index.php/jltl/article/view/7>
- Schmitt, N. (2014). Size and depth of vocabulary knowledge: What the research shows. *Language Learning*, 64(4), 913–951. <https://doi.org/10.1111/lang.12077>
- Socket, G. (2014). *The online informal learning of English*. Palgrave Macmillan.
- Ssentanda, M., Southwood, F., & Huddleston, K. (2019). Curriculum expectations versus teachers' opinions and practices in teaching English in rural primary schools in Uganda. *Language Matters*, 50(2), 141–163. <https://doi.org/10.1080/10228195.2018.1536162>
- Sundqvist, P. (2009). *Extramural English matters: Out-of-school English and its impact on Swedish ninth graders' oral proficiency and vocabulary* (Doctoral dissertation, Karlstad University). DiVA Portal.
- Sundqvist, P., & Sylvén, L. K. (2016). *Extramural English in teaching and learning: From theory and research to practice*. Palgrave Macmillan.
- Supriadi, B., Patak, A. A., & Korompot, C. A. (2023). Teaching EFL in a rural school: Challenges and strategies. *PINISI Journal of Art, Humanity and Social Studies*, 3(3), 208–215.
- Tajeddin, Z., Hassani, A., & Bakhshandeh, N. (2023). Successful language learning out of the classroom: A case study of Iranian learners' activities. *Innovation in Language Learning and Teaching*, 18(4), 287–300. <https://doi.org/10.1080/17501229.2023.2296463>
- Teng, F. (2019). The effects of context and word exposure frequency on incidental vocabulary acquisition and retention through reading. *The Language Learning Journal*, 47(2), 145–158. <https://doi.org/10.1080/09571736.2016.1244217>
- van den Broek, G. S. E., Wesseling, E., Huijssen, L., Lettink, M., & van Gog, T. (2022). Vocabulary learning during reading: Benefits of contextual inferences versus retrieval opportunities. *Cognitive Science*, 46(4), e13135. <https://doi.org/10.1111/cogs.13135>
- Warnby, M. (2021). Receptive academic vocabulary knowledge and extramural English involvement – is there a correlation? *ITL – International Journal of Applied Linguistics*, 173(1), 120–152. <https://doi.org/10.1075/itl.21021.war>
- Wiwin, D., Widiati, U., & Tarisman. (2022). Digital media and its implication in promoting students' autonomous learning. *Journal of English Teaching*, 8(1), 97–106. <https://doi.org/10.33541/jet.v8i1.3284>
- Yasmin, Y., Afandi, M. D., Aquariza, N. R., & Authar, N. (2024). English exposure in English-speaking environment to vocabulary acquisition in junior high school. *Child Education Journal*, 6(2), 111–118. <https://doi.org/10.33086/cej.v6i2.6106>