

Language Exposure and Indonesian Secondary Students' Language Accuracy

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Abstract. Language exposure has been empirically evident to enhance language learning. This study examined the relationship among a group of Indonesian secondary students who gain language exposure from various starting periods and their performance and examined whether their number of words and errors in written production differed substantially. The inference was that the number of words' rise reflected the students' writing errors. The analysis results also showed no significant difference between the number of words and errors in hand. The reception of the linguistic input confirmed the importance of the correct input and exposure quality.

Keywords – language exposure, language acquisition, accuracy in writing, error analysis

1 Introduction

The number of international schools that use English as a key instructional language has grown. In the GESS Indonesia education exhibition and conference on 26-28 September 2018, Indonesia took the lead in the region with 198 international schools (The Jakarta Post, 2018). These schools have indeed given opportunities for their students to have early exposure to the English language. The students are introduced to a formal English environment.

Technology growth boosts the use of English worldwide, which benefits the students for English learning. Johnson (2021) mentioned that 25.9 percent of global internet users use English in the first place. Chinese ranked second with a share of 19.4 percent. Students gain English online through online games or on social media.

English's popularity is associated with the expansive increase of English exposure globally. Szmigiera (2021) demonstrated that there were 1.35 billion people in the world who spoke both native and second language English.

Language exposure is any input that enhances language learning. In addition to reading, exposure can also be expanded to task-based learning, where various inputs (listening, speaking, and writing) integrate learning goals in different situations (Mohamed, 2018).

Empirical research has indicated that language exposure supports language acquisition and improved language performance for learners (Al Zoubi, 2018; De Wilde et al., 2020). Students with intensive English exposures outscored students with limited English exposure in PISA (Agirdag & Vanlaar, 2018).

Most of the studies have been focused on the effect of language exposure on vocabulary development or learners' speaking performance (Akbarian et al., 2020; De Wilde et al., 2020; Muñoz, 2014; Nontasee & Sukying, 2021; Peters, 2018; Peters et al., 2019). The findings have revealed the positive effect of language exposure on learners' language proficiency.

The focus of this study was on the association between language exposure and linguistic accuracy in the writings of pupils. Its purpose was to evaluate the connection between the number of words and errors in student writing and determine whether there was a significant difference in word production and the number of writing errors across students who had a different language exposure time.

In non-native English speakers, English writing in both educational and professional contexts is becoming particularly crucial (Leki, 2001). The fundamental prerequisite for writing is to transmit the message from the author to the audience smoothly. Both linguistic and semantics skills are essential (Shaker Almahameed & Al-Shaikhli, 2017). Thus, student authors should adequately or without language error review their style standards and the length of their writings. Unlike speaking, the essay should be free from any linguistic error.

The examination was done through the number of errors performed on students' writing. Analyzing the error is significant since errors are a "natural and valuable part of the language learning process" (Lightbown and Spada, 2013, p. 156). Corder (1967) noted that errors demonstrate how far students have advanced, give researchers evidence regarding second language learning, provide students with opportunities to learn and test hypotheses about language.

This study might show the significance of language exposure and its interference with the pedagogical field by illuminating the relationship between language exposure and the linguistic errors of pupils.

1.1. Language Exposure and Language Acquisition

Language exposure is "the contact that the learners have with the target language that they are attempting to learn" (Al Zoubi, 2018, p. 152). Exposure or input referring to any linguistic data exposed to the learners leads to language acquisition. They could be verbal, written, visual, or tactile (Wong, 2018). High-quality input enhances learners' nativelike linguistic performance (Slabakova, 2016).

Students encounter exposure formally in the classroom and informally outside the classroom. In schools, teachers have an essential role as the source of learning and a model for the correct language. Students' learning is guided through a curriculum set, and explicit instructions have been the central part. The teachers provide feedback for the students to acquire the appropriate language. The feedback is expected to build students' language awareness to notice and build their hypothesis (Li et al., 2015). This process activates automation that links past information to a new situation and fosters language acquisition competence.

On the other hand, outside the classroom, exposure is in more varied forms of activities, such as watching movies, playing online games, listening to the radio, or chatting with friends on social media. It potentially maximizes the opportunity for the learners to interact in a natural communication setting. The informal natural exposure increased the fluency. Shresta (1998) compared two groups of Nepals who were solely exposed to English in the classroom setting and another group of Nepal's trekking guides who were exposed to English through a more natural environment (and never participated in formal English courses or classes). It shows that explicit instructions have resulted in greater accuracy, while natural exposure has

contributed to fluency. In addition, out-of-class exposure enriches learners' vocabulary. Peters (2018) reported that over 4,000 words might be learned casually via television.

Exposure contributes to language production (Peters et al., 2019). Krashen (1985) in Gitsaki (2018) mentioned the effect of comprehensible input on language acquisition. It was said that second language learners could acquire the language when they encounter massive comprehensible input and when their affective filter is low. Language learning is theoretically maximized when students are exposed to any structures that somewhat exceed the current level of competence and are subject to a low-anxiety setting.

Empirical studies have shown that "repeated encounters" foster fluency, and it is not the starting period of the exposure that has been the success factor, but the quality of the language input (Matushevych et al., 2017; Peters, 2018; Peters et al., 2019). The starting age is not a decisive factor in long-term oral performance, but linguistically rich contact with native speakers and exposure to input improves language development (Muñoz, 2014).

Krashen (1982) introduced the acquisitional learning hypothesis, which explained that language acquisition might happen naturally and unconsciously. When learners grow in an English environment, they acquire the language and gain proficiency. This process resembles first language acquisition. Intensive exposure is an excellent aid for the learners to develop the language.

Next is the monitor hypothesis. In this case, the learners "draw on what they have acquired when they engage in spontaneous communication" (Lightbown and Spada, 2013). The implicit and explicit exposure of the language raises learners' language awareness and enables them to use the correct terminology and make any necessary alterations.

The comprehensible input hypothesis explains that acquisition happens when the language input is understandable and one level slightly beyond the learners' level (VanPatten et al., 2019). Long (1983) in (Wong, 2018) claimed the necessity of modified input, meaning negotiation, between the interlocutors. Engagement is of most benefit to learners to achieve language skills.

1.2. Accuracy in Writing

When it comes to writing, it is "no-one's mother tongue" (Badley, 2020, p. 1). Writing is challenging to both native speakers and non-native speakers. It requires the coverage of "orthography, morphology, lexicon, syntax, as well as the discourse and rhetorical conventions of the L2" (Barkaoui, 2007, p. 35). The language components and the indicated audience should be given detailed attention, implying that registries are highlighted. The linguistic accuracy and semantics cannot be neglected.

Writing is a process of conveying ideas that take several procedures, including outlining, drafting, and editing. Brown & Lee (2015, p. 437) suggested the list of micro and macro skills for writing production:

Micro skills:

1. Produce graphemes and orthographic patterns of English.
2. Produce writing at an efficient rate of speed to suit the purpose.
3. Produce an acceptable core of words and uses appropriate word order patterns.
4. Use acceptable grammatical systems (e.g., tense, agreement, pluralization), patterns, and rules.
5. Express particular meaning in different grammatical forms.

Macro skills:

6. Use cohesive devices in written discourse.
7. Use the rhetorical forms and conventions of written discourse.
8. Appropriately accomplish the communicative functions of written texts according to form and purposes.
9. Convey links and connections between events and communicate such relations as the main idea, supporting the idea, new information, given information, generalization, and exemplification.
10. Distinguish between literal and implied meanings when writing.
11. Correctly convey culturally specific references in the context of the written text.
12. Develop and use a battery of writing strategies, such as accurately assessing the audience's interpretation, using prewriting devices, writing with fluency in the first drafts, using paraphrases and synonyms, soliciting peer and instructor feedback, and using feedback for revising and editing.

Writing has been one of the most challenging tasks. Therefore, errors seem undeniable. Richard (1974) categorized the sources of errors into two: interlingual errors and intralingual (and developmental errors). Interlingual errors are caused by interference in the mother tongue. Learners tend to direct translation from their mother tongue and apply the same rules to their second language production. Language difficulties or problems induce intralingual (or developmental errors, which resembles first language acquisition).

According to Richard (1971), Intralingual errors are classified as four: overgeneralization errors (the learner creates a maladaptive structure based on the other forms in the target language), ignorance of rule restrictions (the learner apply rules to a context where they are not appropriate), incomplete application of rules (The learner is unable to use a fully developed structure), and false hypothesis (A learner does not grasp the target language's distinction entirely).

Errors detection is helpful for learning. It provides feedback on language performance for students, teachers, and researchers. A better solution could be developed to address the problem by detecting the error.

2 Methodology

The participants were designed for all the Indonesian nine-grade students at an international school. However, the participant's selection was laid on 47 ninth-grader Indonesian students who participated in the survey form.

All students attended a school that used English predominantly as Classroom Instructional Language. However, English language exposure had been introduced in a different starting period. The survey has revealed that 4 of them grew in an English-speaking environment, 8 of them knew English in grade 1, while the rest were intensively engaged in English starting from pre-school (or Play Group). The students had contacted to English exposure in a different period.

The students wrote an essay on their research of the Digital World. The report should present the Rationale, Research Question, Presentation of Different Perspectives, Possible Courses of Consequences, Action to Take, and Personal Reflection. The students were guided on producing their writing report in 7 weeks of 1x60 minutes meeting and finally attached their writing files in Google Classroom. The writing was automatically counted in numbers (in

Microsoft Word, word count), and the AWE (Automated Writing Evaluation) detected each essay's errors. Using SPSS 18, the input data was then quantitatively analyzed to determine the association between the number of words and errors and to recognize any substantial difference in the number of words and the number of errors between students with different English exposure periods.

2.1. Finding and Discussion

Table 1. Descriptive Statistics Number of Words and Number of Errors in Students' Writing

		Number_of_words	Number_or_errors
Number_of_words	Pearson Correlation	1	.575**
	Sig. (2-tailed)		.000
	N	47	47
Number_or_errors	Pearson Correlation	.575**	1
	Sig. (2-tailed)	.000	
	N	47	47

** . Correlation is significant at the 0.01 level (2-tailed).

Table 1 presents the correlation between the number of words and errors in students' writing essays. A Pearson product-moment correlation coefficient was computed to assess the relationship between the number of words and the number of errors produced in students' papers. There was a positive correlation between the two variables, $r=0.575$, $n=47$, $p=0.000$. It showed a positive correlation between the two variables. An increase in words was connected with the rise in the number of mistakes in students' writing.

Table 2. The Starting of Exposure and Number of Words

error_number					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1603.887	2	801.944	.396	.675
Within Groups	89100.921	44	2025.021		
Total	90704.809	46			

A one-way between-subjects ANOVA was conducted to compare the period of language exposure among the students (a group of students who have been exposed to English earlier than pre-school, since pre-school, and since elementary) and the students' number of words writing production. There was no significant difference in students' number of word writing presentations at the $p < 0.05$ level for three groups of students [$F(2,44)=4.83$, $p=0.13$]. These results suggest that different language exposure did not significantly differ in the students' number of writing words, as shown in Table 2.

Table 3. The Starting of Exposure and Number of Writing Errors

word_number					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1182103.294	2	591051.647	4.828	.013
Within Groups	5386828.025	44	122427.910		
Total	6568931.319	46			

The same procedure for analyzing ANOVA was used to compare the linguistic exposure period among the students (a group of students who have been exposed to English earlier than pre-school, after pre-school, and since elementary school) with the number of writing errors made by the students. There was no substantial difference in the number of writing errors made by the students at the level of $p < 0.05$ for t .

The finding revealed no significant difference among the students exposed to English before pre-school, during pre-school, and during the elementary period, in the number of word writing production and error writing. The finding supports Munoz's (2014) study, which found that the starting age was not correlated to oral performance. He stressed that contact with native speakers made a significant contribution to oral success.

Students raised in an English-speaking environment could advantage from early learning of the language. A natural setting helps to increase fluency (Shresta, 1998).

However, language learning, conscious attention to language form, works to improve students' language proficiency. Although some of the students started late receiving the exposure, the analysis had shown that their performance could be the same as the students who experienced earlier exposure in terms of words production and numbers of errors. The learner reward of mastering classroom language aligns with the monitor hypothesis (Krashen, 1982).

However, another factor that might affect students' language performance is intake. According to (Corder, 1967, p. 165), not every exposure or input would be "available for going in." The control is in learners'. Krashen (1982) claimed the comprehensible input and low affective filter, an anxiety-free environment, are the keys to success in language learning. It is a mandate for the teacher to provide exposure and ensure that the input becomes the students' intake by introducing the learners to an authentic exposure (Akbarian et al., 2020).

The errors shown in students' writing represent the interlingual (adopting the first language style into the second language style) and intralingual factors (overgeneralization errors, ignorance of rule restrictions, incomplete application of rules, and false hypothesis). Language exposure or input is assumed to remedy the errors. The teacher could directly address the grammatical mistakes and give feedback that assists learners in language improvement (Luo & Liu, 2017).

3 Conclusions

This study explored the relationship between the students receiving language exposure from different starting periods and their writing output and analyzed whether there was a substantial difference between them in their number of productions and written errors. The result noted that the number of words increased suggested the number of mistakes in students' writing. The study's finding also revealed that the number of writing words and errors in hand was not significantly different. It exposes the importance of the amount of the proper input, which can be done through explicit instructions rather than the starting period of receiving the input.

The study participants were limited to a number group of students, which can be seen as a limitation of the generalizability findings. A suggestion for further study is to investigate the type and the amount of language exposure in depth. The discovery might help the learners adopt the language input pattern that promotes their language production, either in speaking or writing.

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