

## Research Article

# ANALYSIS OF GENDER, ECONOMIC BACKGROUND, AND GAMING HABIT AS FACTORS CONTRIBUTING TO STUDENTS' ENGLISH PROFICIENCY

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**Abstract.**

This study aimed to investigate factors (gender, economic background, and gaming habits) contributing to students' English proficiency in an international class program of a private junior high school in Malang, Indonesia. Twenty-four 8<sup>th</sup> graders were involved in this study. The data were collected through an English proficiency test and an online questionnaire. The analysis of multiple regression was taken from the questionnaire and students' English proficiency test scores. The three aspects identified in the questionnaire were students' gender, economic background based on their parents' economic background, and gaming habits. The result showed no significant correlation between students' economic background and gaming habits toward their proficiency test scores. However, gender indicates a significant correlation with the score of students' English proficiency tests, where female students tend to have higher scores than male students.

**Keywords:** *students' English proficiency, International Class program, gender*

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**Published** 27 April 2023

Publishing services provided by  
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Selection and Peer-review under the responsibility of the IICB Conference Committee.

## 1. INTRODUCTION

The use of English as a medium of instruction in the international class program has been popularly practiced and acknowledged as essential due to its position as the universal language that is frequently used to communicate by all nations in many fields (Ernawati et al., 2021; Wan & Gao, 2020). Enabling English to be used not as the subject's content but the language instruction in all school subjects is therefore favored in today's era (Ernawati et al., 2021; Selvi, 2014). Implementing English as language instruction in Indonesia is often associated with competitive academic markets (Dearden, 2014; Kim & Tatar, 2018). Thus, parents who prefer to prepare their children for a better future commonly take them to acquire English language skills in a school providing more exposure to English (Haidar, 2019). Although most EMI implementations are still in higher

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education (Walkinshaw et al., 2017; Ernawati et al., 2021), it is suggested that preparing students in the early stages through the EMI learning process is crucial (Ernawati et al., 2021). Consequently, programs such as international or bilingual classes are increasing among low-level educators (Dearden, 2014). Among many countries, Indonesia has ranked number one in East Asia for having 113 international schools and more than 180 international class programs in the last 10 years (International School Database, 2022). Through this program, students are, therefore, commanded to acquire knowledge based on national and international curricula (Ernawati et al., 2021).

Remarking on the concept of the international class program, it is subsequent that students are required to have higher English proficiency higher than common regular students (Dearden, 2014). They also need to reach the broad range of higher skills requirements in all subjects as the curricula in this program are mixed with the adaptation of international curricula, which are commonly more complex (Conteh & Brock, 2011; Fox et al., 2014). On the other side, an international class program also facilitates students who speak bilingual and multilingual to have spaces to engage their multilingual needs. This program, therefore, lets students have a stabler and safer place accelerating their understanding of subjects by less worrying about the implausibility of using the English Language (Tagarelli et al., 2016). International classroom programs also give access to students' engagement through a systemically learning design that uses a multicultural and diverse environment, emphasizing a narrower academic focus or a broader communicative focus (Fox et al., 2014). Thus, it affects students' academic and social engagement (Fuad, 2018).

However, although such benefits of the international class program are admitted and favored by many societies (Curle et al., 2020; Dearden, 2014), it is also important to notice that such programs rely strongly on students' English language abilities as the bridge of their classroom learning communication (Lee et al., 2015). Moreover, even the international class program provides complex formal placement tests, it is still plausible that not all students share equal backgrounds, motives, and English language abilities (Lee et al., 2015; Conteh, 2015). This is central as their English proficiency deals directly with the success of their understanding of all subjects of learning. As a result, assessment becomes part of an important factor in examining the aspect of students' English proficiency. Assessment is also one of the major areas after curriculum that is studied regularly among scholars in Indonesia (Meisani et al., 2020). However, several considerations are addressed in investigating assessment whether it is internal or external factors (Fox et al., 2014).

Studies on the assessment of students' English proficiency commonly emphasize its validity and reliability (Zein et al., 2020). Such emphasis reflects the complexity and technique that assessment must have toward divergent conditions of the students (Yang et al., 2016). However, several challenges often occur in the process of assessing international class programs such as national guidelines, the lack of qualified English teachers, and other supplementary requirements for teaching English to young learners (Alwasilah, 2013; Meidasari, 2017). Previous studies also investigate internal factors such as students' genders and ages in relation to Students' English performance (Meisani et al., 2020). It is revealed that gender plays a significant role in partaking the result of students' English Skills (Curle et al., 2020). Such findings are further associated with the tendency of females that acquire language better than males (Fox, 2014). Another factor to be considered as the external factor for today's English proficiency is the Economy background (Hutchinson et al., 2018). It is suggested that the gap happened in the economy is brought as well to the education field, hence students' academic results even though each institution or the right government is highly responsible and able to minimize that (Hutchinson et al., 2018; Cockerill et al., 2021). Another factor revealed to affect students' the English language is exposure to language from the internet. It is further often associated with the gaming habit that is very popular among young learners (Lafta Jassim & Dzakiria, 2019; Sauce et al., 2022). Yet the consideration of external factors involving the students' experience of English exposure on the internet is rarely investigated (Wang, 2015). Other than that, the consideration of preparing, implementing, and utilizing English language assessment in appropriate order and stimulation, especially for young learners involves rather complex and requires special treatments (Meisani et al., 2020).

While the trend of international programs in Indonesia has also significantly risen (Dearden, 2014) the demand to assess how students in this program can reach the standard, especially in their English proficiency aspect should also be explored more. Therefore, this study attempts to determine the factors affecting students' English proficiency through the analysis of correlations between several variables. The variables investigated in this study include gender, parents' economic background, and gaming habit. The hypothesis in this study is that there is a certain aspect among variables of gender, gaming habits, and parents' economic background toward students' English proficiency test. Therefore, the statistical value of this hypothesis is expected to be positive so that the hypothesis can be proven (Creswell, 2014).

## 2. METHOD

This study employs quantitative research that uses questionnaires and English proficiency tests as data instruments.

### 2.1. Participants

The participants in this study are 24 8th-grade students consisting of 8 male students and 15 female students in one private middle school in Malang city, East Java, Indonesia. These samples are selected under the consideration of school teaching schedules and students' level of learning in one class of an international program that equally shared experienced the same English teaching and Learning process. Moreover, young learners at the age of 12 and above are the perfect age to be assessed their cognitive stage as they are already familiar with the task responsibility (McKay, 2006).

### 2.2. The Questionnaire

An online questionnaire utilizing the platform G-form was distributed to 24 students in one class of an international program. It seeks information on students' social backgrounds, including parents and gender. These two aspects are relevant social factors that are often associated as part of internal and external factors affecting students' English performance (Meisani et al., 2020). Further questions on the questionnaire also gather information on students' gaming habits, covering their duration of playing the game hence their addiction level.

### 2.3. English Proficiency Test

The English proficiency test is designed to measure students' English proficiency adapted from international curricula test book for young learners. The test is a paper-based test, given at the end of the semester. It consists of 40 questions consisting of 30 questions of multiple choice, 5 questions of comprehension questions, and 5 questions for critical thinking and comprehension. Each of the questions intrigues students' higher thinking skills; the details of the questions can be seen in the table below.

Based on the table above, each of the questions covers majorly higher-level questions such as analyzing the text, evaluating the ideas, and creating their consumption based on the full understanding. It also involves vocabulary and grammar knowledge on an

TABLE 1: Content of English Proficiency Test for International Class program.

Part	Components	Number of Questions	Skills tested	Number of Questions
1	Reading	1-3	Vocabulary Degree of comparison Making meaning	3 of multiple choice
		4-8	Vocabulary Grammar Making meaning	7 of multiple choice
		9-12	Making meaning from pictures grammar	3 of multiple choices
		13-17	Making inference Reading Comprehension (scanning, skimming, making inference) Grammar	5 of multiple choices
		18-22	Grammar Vocabularies Critical thinking	5 of multiple choices
		23-30	Reading comprehension (scanning, skimming, making inference) Critical thinking	8 of multiple choices
2	Reading	31-35	Critical thinking Vocabularies Meaning making Literature knowledge	Circling the correct words
3	Reading	36-40	Reading comprehension (scanning, skimming, making inference) Critical thinking	False and True statement

intermediate level among young learners. The design of the test is also following several theories shared by McKay (2006) and Musthafa (2010), where the questions are brief and varied, richly illustrated, adequately short, clearly instructed as well as contextually friendly for the students; questions also use language in their previous experience of learning are used to (Mckay, 2006; Musthafa, 2013). As for the scoring, part 1 has 3 points for each question which result in a total of 60 points, part 2 and 3 will earn 4 points for each of the questions, which results in 40 points for the combination. The total maximum score for the test is, therefore 100.

## 2.4. Data Analysis

The result of the online questionnaire was gathered first in an excel while the score of the English proficiency test is assessed using an answer key. Both the data were then analyzed using statistical analysis of the Software SPSS version 28.0. It focuses on the correlational aspect that measures multiple regression as there was more than one independent variable. To identify which variables, show a significant correlation, the coefficient regression with p must be under 0.05 was also applied. The value indicated the significant difference of the variable toward the dependent variables (Creswell,

2014). The result of the analysis is then presented and discussed with several theories stated in the literature review.

### 3. FINDINGS

The findings and discussion serve as the results of multiple regression and analyses between Students' English Proficiency Test scores and Variables contributing factors. The variables assessed here were all covered in the questionnaire covering gender, parents' economic background, and gaming habits.

#### Students' Results on the English Proficiency Test

As mentioned in the participants' section, as many as 24 students participated in both the questionnaire and the English proficiency test. However, there is a different number where female students are more than male with a difference of 6 students. Below is the table of their English proficiency test result

TABLE 2: Students' English Proficiency Score.

	Score															Mean	%
<b>Male Students</b>	76	78	76	70	58	78	64	72	80							<b>72</b>	<b>100%</b>
<b>Female Students</b>	78	80	84	72	84	74	78	78	80	84	86	72	74	80	70	<b>78</b>	<b>100%</b>

The score of English proficiency above shows how the majority of female students have a tendency to earn higher scores compared to male students. While the maximum score for male students is 80, female students are able to score up to 86. And while male students' lowest score can be 58 female students at 70. Overall, the average score of each female and male students indicate 6 points difference; this data indicates there are clear differences in English proficiency test between male and female students. The further correlation will be proven in the T-test analysis using SPSS below.

#### 3.1. English Proficiency Score, Gaming Addiction Level, and Gender

Using the SPSS T-Test in finding the coefficient, the data of the questionnaire imply there is a significant relationship between gender and Students' English proficiency. Game addiction does not imply a relation to it. The result can be seen in the table below.

Based on the table above, it reveals that the score for significant (Sig.) variable gender is  $0.042 < 0.05$  or under the number of 0.05, it means that gender is partially impacted

TABLE 3: Coefficient EPS, Gaming Addiction and Gender.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
1 (Constant)	84.128	3.973		21.173	<.001
Gender	-5.800	2.674	-.441	-2.169	.042
Game Addiction Level	-.034	1.140	-.006	-.030	.976

a. Dependent Variable: EPS Score

students’ English proficiency scores. Meanwhile, the other variable score which is game addiction shows 0.976 means that  $0.976 > 0.05$ , therefore it can be stated that the game addiction level partially is not related to students’ English proficiency Score. This data is further supported by the model summary below.

**R<sup>2</sup>-test**

TABLE 4: Model Summary of EPS, Gaming Addiction and Gender.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.443a	.196	.120	6.09888

a. Predictors: (Constant), Game Addiction Level, Gender

Based on the table output of the summary model, the value of R2 is 0.196 or 19.6%, therefore, there is a tendency that the variable of Game Addiction Level and Gender simultaneously affect English Proficiency scores which is 19.6%, whereas another number ( $100\% - 19.6\% = 81.4\%$ ) is affected by another variable outside of this regression of variable that is not analyzed in this study.

**English Proficiency Score, Gaming addiction level, and Parents' Economy Background**

**T-Test**

TABLE 5: Coefficient EPS, Gaming Addiction and Parents' Economy Background.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
1 (Constant)	79.960	5.096		15.690	<.001
Parent's Eco	-.765	1.207	-.136	-.634	.533
Game Addiction Level	-.731	1.284	-.123	-.569	.575

a. Dependent Variable: PAT Score

Based on Table 5 output of coefficients above, it can be concluded that the score of significant (Sig.) of variable parents Job is 0.533 because 0.533. Because of the value of sig.  $0.533 > 0.05$  or under 0.05, it can be concluded that Parent’s Job partially has no effect on the Students’ English Proficiency Score. Similarly, the significance value (Sig.) of the Game Addiction Level variable is 0.575. Because of the value of sig.  $0.575 > 0.05$ , it can be concluded that Game Addiction Level partially has also no effect on the Students’ English Proficiency Score. The model summary or R test also indicates the same result below

**R<sup>2</sup>-test**

TABLE 6: Model Summary of EPS, Gaming Addiction and Parents’ Economy Background.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.177a	.031	-.061	6.69592

a. Predictors: (Constant), Game Addiction Level, Parent’s Economy Background

Based on the SPSS Model Summary output on Table 6 above, it is known that the R2 value is 0.031 or 3.1%, it can be concluded that the Game Addiction Level and Parent’s Economy background variables simultaneously affect the PAT Score by 3.1%, while the rest ( $100\% - 3.1\% = 96.9\%$ ) is influenced by other variables outside this regression equation or variables that are not examined.

**4. DISCUSSION**

Based on the result of the Students’ English Proficiency test, it shows that the average of students in international class programs achieves varied levels from scoring 58 to scoring 86 on their English proficiency test. Even though the test is considered as a high-level English test based on the aspect inserted on the questions (see table 1), it still strengthens previous studies underpinning students’ divergency in English proficiency even when the system of their placement assessment has been standardized (Conteh & Brock, 2011). In accordance with that, the findings of this study also reveal different scores among students specifically between female and male students. Besides the gap in the average score where male students earn 72 and female students earn 78, the number of those who achieve the common standardized score which is 80 is also different in terms of gender. Among male students, there is only 1 student who earns 80 (11% of the male gender) while female students 7 (46% of the female gender). This data indicates another conclusion in line with previous studies revealing that female students tend to achieve language tests higher compared to male students (Zhogi, 2013). It



supports the theory that females obtain and perceive language in their brain better than males (Catalan, 2003) Such result of the score is then supported through the statistical analysis using SPSS where it is found a correlation of gender on English proficiency score with the value is  $0.48 < 0.05$ . This data then proves one hypothesis stated in this study that there is one variable correlated with Students' English Proficiency in international class programs which is gender. However, contrary to the gender variable, the data on Parents' economic background and its correlation with Students' English Proficiency scores reject the hypothesis as the value  $0.533 > 0.005$  indicates more than 0.05 so there is no correlation found (Creswell, 2014). This means that the finding is in line with the theories stated that some areas might not be directly affected with the economy divergences (Cockerill et al., 2021). Having the same result, the correlation data of students' gaming habits in the aspect of addiction level also show values partially  $0.976 > 0.005$  and  $5.75 > 0.05$  which both indicate more than 0.05. This means that there is also no significant correlation between students' gaming habit and their English proficiency tests in international classroom programs. Yet, the model summary indicate there is 3.1% Affection toward proficiency levels, but as the percentage is under 5% and it doesn't apply on independent correlation analysis, it is concluded as there is no significant correlation between these two variables. By this, it suggests that exposure to English through gaming does not affect students' process of acquiring English language skills in the international class program. Even though in some studies, game is revealed to enrich students' vocabularies (Lafta Jassim & Dzakiria, 2019; Sauce et al., 2022).

## 5. CONCLUSION

The purpose of this study is to find the answer to the hypothesis of variables gender, parents' economic background, and gaming habit that contribute as factors to students' English proficiency in international class programs. The key findings reveal there is one aspect which is the gender that proves the hypothesis of its contribution as one of the factors. The other two aspects of the hypothesis however are rejected on the hypotheses stated in this study which are parents' economic background and student gaming habits. This result brings implications regarding the divergence of male and female students even in international classroom programs in acquiring English languages. Certain specific approaches in teaching the English language to male and female students might be suggested for educators in the future. Other than that, this study also acknowledged limitation on the small number of participants. Thus, it is suggested for future studies involve more participants in their study as it will bring

broad data and involve more variations on the test focusing not only on the reading parts even on the speaking and any other aspect.

## ACKNOWLEDGEMENT

The researchers are grateful to Universitas Negeri Malang, Indonesia, for funding this research.

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