

Exploring the Correlation Between Study Duration, Educational Settings, and English Proficiency in University Students

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Abstract. Growing awareness of the importance of English language skills encourages students to begin learning English as early as possible. By the time they reach college level, the amount of time that students spent in learning English varies widely. This study aims to determine whether there is a correlation between the amount of time students spent studying English and the educational setting with the students' present level of English proficiency as college students. This study employs a quantitative method, utilizing a questionnaire about the length of time students have studied English, the educational settings and their proficiency test results as research instruments. The data of questionnaire involving 32 university students and their proficiency test were examined. The analysis indicates a weak positive correlation between proficiency test score and length of study, and a moderate positive correlation between proficiency test score and educational setting. Nevertheless, there are additional variables that need to be considered for future research, such as students' motivation and their attitudes towards learning English. These factors could provide a foundation for further studies.

Keywords: Educational setting; English learning; Proficiency test; Study duration

INTRODUCTION

Globalization has transcended many aspects of life, making no barriers in communication and connection in diverse fields and consequently creating the demand for a lingua franca in order to connect people. The English language has long become the answer to this need. Estimates show that the number of global English speakers will rise to roughly 1.52 billion people by the year 2024. Therefore, English language has become an essential tool for communication in the world today. In this light, the language is taught as early as possible in many learning environments in order to prepare the learners for the global competitive market.

Despite this growing importance, a very popular pattern across many faculties outside the humanities is to consider English as an accompanying course where students have to complete certain units alongside the main curriculum. However, the researcher strongly believes that speaking, writing, and understanding English is a great advantage especially now when the world is globalized and career opportunities depend on these skills more than ever. As a lecturer of English to the first semester students in various faculties, the researcher tends to give a proficiency test as a pre-test to the students to measure their starting level and to have some indicators for the following stages of the study. Every time this pre-test is implemented, the researcher is puzzled because there are consistently low scores in English proficiency test. Noticing this, the researcher decided to investigate whether there is a correlation between students' proficiency scores and the length of time they have spent studying English.

Several studies have explored the relationship between study duration and proficiency, often revealing a positive correlation between longer study periods and academic performance. It is generally considered that, as more time is spent on learning, performance will be better (Liu, 2022). Moreover, the current literature suggests that there is a rationally and statistically positive impact, on the general academic performance of a school when more time is allocated for teaching. Greater allotted instructional time has a statistically significant and positive impact on a school's average academic achievement (Jez & Wassmer, 2015). To achieve proficiency, the number of years dedicated to study is often predefined. Attaining academic English proficiency, which is crucial for success in school, may require 4 to 7 years of study (Hakuta, 2000). Achieving proficiency in a foreign language ordinarily requires from 4 to 6 years of study and should, therefore, be started in the elementary grades (Jassey, 1984).

In a recent classroom-based study, analysis of the two variables above, namely study duration and proficiency, revealed no substantial relationship between the length of study and proficiency levels. This outcome prompted the inclusion of an additional variable to determine other factors influencing proficiency levels. Specifically, the study examined educational settings, comparing the effects of formal and informal learning environments on student proficiency.

Formal and non-formal learning environments, naturally, differ in various ways. Formal education typically involves structured programs and institutions, while informal education encompasses unstructured, self-directed learning experiences throughout an individual's life (Jaldemark, 2020). Non-formal education is a mechanism that provides opportunities for everyone to enrich knowledge and technology through lifelong learning (Elice, Maseleno & Pahrudin, 2023). Non-formal learning is an intentional process from the learner's point of view, and the framework of planning or structuring activities may refer to the time, resources and goals of this non-formal process (Jurczynszyn, 2024).

Previous research has also explored the differences between formal and informal learning settings in terms of language acquisition. Students who participate in informal learning environments, such as language courses outside of school, tend to achieve better proficiency than those relying solely on formal education (Latifah & Zulaiha, 2023). Most teachers would probably agree that the more a student studies for exams outside of class, the better their exam scores (Barbarick & Ippolito, 2003).

This study aims to explore the possibility of a longer study duration impact on the proficiency score. However, the preliminary results showed that this was not true. The researcher found out that study duration by itself was not a very influential factor in determining proficiency scores. This result made the researcher revisit the research design which was the cause for the inclusion of a new variable: the educational setting, especially if the students took extra classes or just learnt English in schools. The results show that certain educational paths are positively related to proficiency scores, thus demonstrating the potential advantages of diversified learning environment.

METHOD

This study employs a descriptive quantitative method as it involves numerical data and statistical analysis. Quantitative techniques are particularly strong at studying large groups of people and making generalizations from the sample being studied to broader groups beyond that sample (Holton & Burnett, 2005). The participants of this study are 32 university students at the beginning of an English class.

Research tools are a questionnaire and a proficiency test. The questionnaire elicits responses on the years a participant has studied English and the kind of environment the participant studied the language, either formal or informal. The proficiency test, an adaptation from the TOEFL test, has sections of listening, structure, and reading.

This study examines two independent variables—study duration and educational setting—and one dependent variable, the TOEFL test results. The collected data is analyzed using a simple regression analysis to explore the correlation between study duration, educational setting, and the English proficiency levels of the students.

RESULTS AND DISCUSSION

The present research focused on the relationship between the length of time spent studying in a given environment and language English proficiency scores among university students. It shows the tendencies which indicate the effect of these factors on the outcome proficiency levels.

The results from the questionnaire indicate that all students had prior experience with English learning. Some had even studied the language for over a decade. Given the length of their study, it is expected that they possess a solid understanding of the language. Table 1 below presents the statistical report on the duration of the students' English studies before they took the questionnaire.

Table 1: Study Duration

Statistic	Study Duration	Interpretation
Mean	6.4 years	Average duration of English study among students
Median	8 years	Middle point of study duration distribution
Mode	more than 10 years	Most frequently reported duration of English study
Standard Deviation	4.3	Degree of variability in study duration among
Range	2 – more than 10 years	Minimum and maximum study durations reported

The questionnaire included questions about the participants' educational learning environment, specifically asking where they had studied English—whether exclusively in school or also through additional courses. The results reveal that some participants learned English only in formal settings, such as school, while others supplemented their studies with language courses. Table 2 below presents the statistical report on the findings related to the participants' educational learning environments.

Table 2: Educational Learning Environments

Statistic	Formal / Nonformal	Interpretation
Mean	0.5	Nearly equal distribution
Median	0	More participants are in the formal-only group
Mode	0 and 1	Formal only and formal+nonformal are both common
Standard Deviation	0.5	Variability in the educational learning environments
Range	0 -1	Binary variable; 0 (formal only), 1 (formal+nonformal)

Notes: The educational setting variable is binary. 0 represents students who have only studied English at school. 1 represents students who have studied English both in school and through additional courses.

Another instrument used for data collection is the proficiency test results. The test was adapted from the TOEFL paper-based test (PBT), which consists of three sections:

listening, structure, and reading comprehension. The scoring system follows the standard TOEFL scale, ranging from 310 to 677. The quantitative data obtained are shown in Table 3 below.

Table 3: Proficiency Test Score

Statistic	Score	Interpretation
Mean	413.8	Average proficiency score across all participants
Median	403	The central point of the data set
Mode	407	The most frequently occurring score
Standard Deviation	34.1	The spread of the proficiency score around the mean
Range	340 - 487	The difference between the lowest and the highest

The data in the table above indicate that the average score is 413.8. Based on the TOEFL proficiency categories outlined by Cakap (2023), the scoring criteria are as follows: 310–420 represents the Elementary Level, 420–480 corresponds to the Low Intermediate Level, 480–520 denotes the High Intermediate Level, and 520–677 signifies the Advanced Level. Therefore, it can be concluded that the average proficiency of the participants falls within the Elementary Level category.

Based on the questionnaire responses and test results, the relationship between study duration and proficiency test scores can be categorized as shown in the following table. This categorization demonstrates quite well the relationships and connections of these variables as they affect language proficiency levels. On average, participants with 1-3 years of English studies achieved scores of 394.4 with scores increasing after prolonged years of study. The highest average score of 448.0 was registered by respondents who studied English in the range of 7 to 9 years. Nevertheless, this pattern is not applicable to respondents who spent more than 10 years of study, as their average score dropped to 420.9 which is 28 points lower compared to the 7 to 9 year studied group. Thus, the data does not indicate that longer study durations consistently lead to higher proficiency test scores.

Table 4: Proficiency Test Score based on Study Duration

Length of Study	Average Score	Score Range	Number of Students
1 to 3 years	394.4	340 - 460	8
4 to 6 years	403.8	373 - 443	4
7 to 9 years	448.0	423 - 487	3
More than 10 years	420.9	377 - 467	17

Unlike the length of study, the educational setting demonstrates a distinct trend in proficiency scores among participants learning English in formal and informal environments. Learners who studied English solely in formal settings, such as schools, attained an average score of 399.4. On the other hand, those who blended the two types of learning got an average score of 429.4 which was much higher than other respondents. The results show that learners who practice formal and informal learning are expected to achieve better proficiency scores.

Table 5: Proficiency Test Score based on Educational Setting

Education Pathway	Average Score	Score Range	Number of Students
Formal education only	399.4	340 - 443	17
Formal and informal education	429.4	360 - 487	15

Correlations between variables were then examined using simple regression analysis. This was done to find out if study length, educational setting and levels of proficiency among participants are interrelated. The results of the regression analysis are presented below.

Table 6: Summary Output

<i>Regression Statistics</i>	
	0,4971
Multiple R	77
	0,2471
R Square	85
Adjusted R	0,1934
Square	12
Standard	30,356
Error	77
Observation	
s	31

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	8472,325	4236,163	4,596861	0,018777
Residual	28	25802,94	921,5337		
Total	30	34275,27			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95,0%</i>	<i>Upper 95,0%</i>
Intercept	378,9795	13,65519	27,75351	6,49E-22	351,0081	406,9509	351,0081	406,9509
2	2,367492	1,45067	1,631999	0,113877	5,3390	-0,6040754	-	5,339054
26,5641			2,416956	0,022415	4,050723	49,07881	4,050723	49,07881

R Square (0.238)- the R square value now moves up to approximately 23.76%, indicating that almost 23.8% of the variance in the TOEFL scores is possible to be described through the variables in the model discussed. Significance F (0.022): the overall model is statistically significant ($p < 0.05$) which means that the combination of variables significantly contributed to the prediction of the proficiency scores.

Coefficients:

Intercept (382.80) is a baseline proficiency score among the set of independent reference variables being at zero.

Length of Study Coefficient (2.04) means that for every additional unit of length, it would mean an additional increase by about 2.04 points in proficiency test scores. However, this is reflected by the p-value of 0.143, indicating a non-significance in effect, meaning that relationship may not be consistent.

Study Type Coefficient (25.58)- This coefficient indicates that students who study in both formal school and additional places (like courses) score about 25.58 points higher than those studying only in formal school. Also, since 0.029 is its p-value, it is proved to be significant ($p < 0.05$), so this relationship is likely meaningful.

The analysis suggests that there is a weak positive correlation between pre-test score and length of study, as well as a moderate positive correlation between pre-test score and educational setting. The categorization and comparison of means suggest that students who attend both formal and informal education tend to have higher pre-test scores compared to those who only attend formal education.

CONCLUSION

This research looked at the impact of study duration and educational pathway on English proficiency among university students. The results of the regression analysis indicate that education setting is one of the most significant variables influencing English proficiency, with students who learn through both formal and informal education attaining higher proficiency test scores than those who learn only through the formal education system. The length of study was not, however, a defining variable of English language proficiency.

The concerns such as the limited number of respondents and inability to generalize beyond the study should be taken into consideration. It is recommended that efforts be put in place for additional research in the same area using a larger sample and a more heterogeneous population and also looking at other possible variables that could account for the variation in English Proficiency levels of the respondents.

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