IS TOEFL COMPULSORY FOR INDONESIAN UNIVERSITY STUDENTS? A CORRELATIONAL STUDY BETWEEN TOEFL SCORES AND STUDENTS' ACADEMIC ACHIEVEMENT

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ABSTRACT

Many private universities in Indonesia compel their students to attain certain TOEFL scores as one of the requirements for graduation. TOEFL scores have been regarded as the only parameter for measuring the English competence of the university graduates. The choice of TOEFL is based on the fact that TOEFL is most well-known criterion reference test for foreign language learners, especially in Indonesia. The issues that we want to address are: (1) whether TOEFL entry test's scores can predict the students' final TOEFL scores and GPA scores? And (2) whether there is a correlation between the students' TOEFL scores and their GPA. To answer the research questions, we conduct a survey research towards our university graduates. The participants for this study were 90 fresh graduates of English Department Bina Nusantara University. The data were in the form of the students' TOEFL scores gained from their entrance test, and the TOEFL scores obtained as the graduation requirement, as well as their final GPA. The data were processed quantitatively using SPSS program to find the predictive validity of the entry TOEFL scores and also the correlation between the students' TOEFL scores with their final GPA. GPA was chosen to represent the students' academic achievement during their study in the university. The results of this study revealed that the entry TOEFL scores have a moderate predictive power to the final TOEFL scores. However the pre TOEFL scores do not have enough predictive power for the academic success of the students as measured by their final GPA. There are other factors that determine the academic achievement of the students such as students' motivation for studying English. The findings imply that the application of TOEFL as the compulsory requirement for graduation should be revised. There will be other options that might be more suitable to the students' needs.

Keywords: *TOEFL, English proficiency, graduates, GPA,* correlation

INTRODUCTION

In this globalization era, more and more students are studying in universities outside their country of origins. Most of these students are enrolled in English-speaking countries such as the US, UK, Canada or Australia. Because of the influx of international students, universities in English speaking countries face a major challenge in identifying students who can meet their admission requirements and also are likely to succeed in completing their academic program (Abunawas, 2014). The vast majority of these universities rely on standardized tests such as TOEFL and IELTS in making placement decision as well as for predicting the candidates' academic success (Kokhan & Lin, 2014). Both tests are frequently used so that Leung & Lewkowicz (2006) claim that they are "almost the household of professional circle". However, TOEFL test is gaining more popularity since it is used by more than 9,000 academic institutions in 130 countries, with majority located in the US (Ling, Powers, & Adler, 2014). The policy of using standardized test, in particular TOEFL, for admission requirement is also adopted by many universities in Indonesia, especially private universities such as Bina Nusantara University in Jakarta.

Gu, Lockwood, & Powers (2015) mention that Educational Testing Service (ETS) created TOEFL test for measuring English proficiency of EFL/ESL students intending to continue their education at higher institutions in English speaking countries. It evaluates the test takers' English skills: listening, reading, speaking, and writing regarding how they perform on academic tasks. Similarly Kokhan & Lin (2014) assert that TOEFL test can measure the ability of non-native speakers of English to use and understand English in an academic context. These statements imply that TOEFL test has at least two purposes. First, it is used to measure the English proficiency of the test takers before entering the academic institution. Thus, the score of the test can be used as the basis for placement decision. Second, it can also be used to predict the candidate's academic performance during their study in the university.

The present study will explore more on the second purpose, i.e. the predictive value of the TOEFL test to achieve academic success. In our institution, TOEFL test is required for placement decision as well as for graduation requirement. Thus, a student should take two tests, the first one as an admission test and the second one should be taken before graduation. Students should be able to attain certain score in the final TOEFL test before they are eligible for graduation. Besides the TOEFL test, the students' academic performance can also be seen from their Grade Point Average (GPA). Therefore, there are three research questions that are going to be explored in this study:

1) To what extent TOEFL entry test scores can predict the students' final TOEFL scores?
2) To what extent TOEFL entry test scores can predict the students' final GPA?
3) How do the students' final TOEFL scores relate to their GPA?

The main concern of this study is whether the TOEFL test has sufficient predictive validity to determine the students' academic success in the university. Bachman and Palmer (1996) defined predictive validity in the context of language testing as "the extent to which the given assessment predicts the candidates' future performance in the target language use domain (p.46). While Bachman & Palmer's definition denotes the candidates' future performance as their English proficiency, we would like to extend this term into the students' overall academic performance, as can be measured by the students' GPA. GPA also has the advantage of not only being used as an indicator of academic performance but also as a predictor of academic success (Kuncel, Hezlett, & Ones, 2001) to be the most commonly used criterion measure of students' academic performance (Kuncel et al., 2001)

Several researchers have examined the predictive value of the TOEFL test related to the academic performance of the students (Annor, 2010; Seaver, 2012). However, the results vary. A number of researchers have found a positive association between students' TOEFL scores and academic performance (e.g. Cho & Bridgeman, 2012; Torres & Zeidler, 2002; Wait & Gressel, 2009; Cotton & Conrow, 1998; Dooey & Oliver, 2002) However, some others have found low correlation between students' TOEFL scores and academic performance (e.g. Feast, 2002; Hill, Storch, & Lynch, 1999; Huong, 2001; Kerstijens & Nery, 2000). Thus, so far, these researches have provided inconclusive evidence as to whether TOEFL should be used as an indicator of students' academic performance.

METHODOLOGY

Participants: The participants for this study were 90 Binus University students who have just graduated from English Department. They consisted of 38 students from 2017 batch and 52 students from 2016 batch.

Instruments: There are three instruments used as the data for this research. The first one is TOEFL scores taken from Binus admission test. The second is the TOEFL scores obtained before the students graduate. The third one is the students' final GPA after studying for four years in English Department.

Data Collection and Analysis: The scores taken from pre TOEFL and post TOEFL and GPA were processed using SPSS program, version 20. There were two analyses undertaken, namely linear regression analysis and correlation analysis. Linear regression analysis was done to find the probability of using pre TOEFL score to predict the post TOEFL score, as well as to predict the students' academic performance as measured by GPA. Meanwhile, correlation analysis was done to see the relation between TOEFL score and GPA

ANALYSIS

1. The Predictive value of pre TOEFL test toward the post TOEFL test

A regression analysis was conducted to identify whether the students' scores of the entry TOEFL can predict the scores of post TOEFL.

Table 1 : Descriptive Statistics

	Mean	Std. Deviation	N
TOEFL – post	520.07	55.680	90
TOEFL -- pre	490.67	62.459	90

Table 1 show that the mean score of TOEFL obtained by the students when they first entered the university is 490.67. On the contrary, the mean score of TOEFL taken before they graduated is 520.07. Obviously, there is an increase of 29.4 points which indicates that students' mastery of English has improved during their study in English Department.

Meanwhile, the following table shows the regression analysis results to find out the probability of using the pre -TOEFL scores to predict the students' achievement in the post- TOEFL.

Table 2 : Model Summary

Model	R	R Square	Std. Error of the Estimate
1	.690[a]	.477	40.507

From table 2, it can be seen that the correlation between pre and post TOEFL score is r = 0.690. This means that there is a strong positive relationship between TOEFL pre-test and TOEFL post-test. A strong positive relationship indicates that the higher score that the students obtained in the pre-test, the more probable that they obtained higher scores in the post-test. However, the contribution of the pre-test against the post-test is only $r^2 = 0.477$. That number suggests that the pre-test will only contribute 47.7% to the attainment of the post-test score. There will be other 52.3 % other factors that interpose in their final results, such as the students' learning habit, mastery of the testing materials, etcetera. The table also reveals that the probability value $\rho = 0.000$. Since the $\rho = 0.000$ which is lower than $\alpha = 0.05$, then the null hypothesis is rejected. The conclusion is that this linear regression model can be used to predict the TOEFL score gained at the end of the study which is based on the TOEFL score gained at the beginning of the study. In other words, the pre TOEFL scores can be used to predict the TOEFL scores which will be attained by the students before they graduate.

Yet, how many points can a student probably gain after studying for four years in the university. The following table 3 shows the coefficient of regression that can predict the amount of additional points.

Table 3. Coefficient of Regression

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	218.063	33.999		6.414	.000
	TOEFLbinus	.615	.069	.690	8.953	.000

The constant score is 218.063 and the coefficient of regression is 0.615. The formula to calculate the final score is Y= B constant + (coefficient x pre-test score). So, if one student got a score of 300 in his pre-test, he will likely get 218.063 + (0.615 x 300) = 402 in his post-TOEFL score.

The above findings indicate that the students' English proficiency scores at the beginning of the program will be likely to rise at the end of the academic program. In other words, the pre TOEFL score has a moderate predictive power toward the final TOEFL score. Students who got high scores in the pre TOEFL test will get higher scores in the final TOEFL test. Thus, the results indicate the possibility of an increase in English language proficiency. Language proficiency here may be defined as a competence or communicative performance (Shohamy, 1996).

2. *The Predictive value of pre TOEFL test toward the GPA*

A regression analysis was also conducted to identify whether the students' scores of the entry TOEFL can predict their academic achievement as measured by their GPA.

Table 4. Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.525[a]	.276	.268	.37357

a. Predictors: (Constant), TOEFL binus

Table 4 shows that the correlation between pre TOEFL score and GPA is r = 0.525. This means that there is a moderate positive relationship between pre TOEFL score and GPA. This correlation coefficient indicates that if the students obtained high score in the pre TOEFL test, they will be likely to get high GPA score. However, the contribution of pre TOEFL score to the GPA is only $r^2 = 0.276$. That means, the pre TOEFL score will only contribute as many as 27.6% to the attainment of the GPA score. The other 72.4 % might be gained from the students' results of study during their college years.

Table 5. Coefficient of Regression

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.376	.314		4.387	.000
	TOEFL binus	.004	.001	.525	5.788	.000

a. Dependent Variable: GPA

Even though there is only a 27.6 % contribution of the TOEFL score toward the GPA, table 5 shows that the probability value is the probability value $\rho = 0.000$, which means that the null hypothesis is rejected. The result indicates that this linear regression model can be used to predict the GPA score gained by the students at the end of the study. The constant score obtained is 1.376 and the coefficient of regression is 0.004. Following the regression formula of Y= B constant + (coefficient x pre-test score), the probability of the

students' final GPA can be calculated from their pre TOEFL score. So, if a student got 400 in his pre TOEFL score, he will probably get a GPA score of: 1.376 + (0.004x400) = 2.976.

The findings of this study confirm Van Nelson, Nelson and Malone's (2004) findings that TOEFL scores had a predictive effect on the academic performance expressed in grade point average (GPA). However, the predictive power of the TOEFL to GPA is only .276, which indicates a low predictive power. This number is similar to (Kokhan & Lin, 2014)' study that only found .169 to .200 predictive power of TOEFL iBT scores for academic performance. Thus, TOEFL score alone cannot be used as a reliable predictor of the students' academic performance.

3. Correlation between TOEFL score and GPA

A correlation analysis was conducted to identify if there is a relationship between the English language proficiency and their overall academic performance.

Table 6. Descriptive Statistics

	Mean	Std. Deviation	N	Pearson correlation	Significance
TOEFL post	520.07	55.680	90	.611[**]	0.000
GPA	3.1762	.43648	90		

Table 6 reveals the mean score of post-TOEFL which is 520.07 and the mean GPA of the 90 students is 3.18. The table also shows that the correlation between TOEFL scores and students' GPA is 0.611. This is a positive strong correlation which indicates that the higher a student's GPA the higher his TOEFL score will be. The probability value is also $\rho = 0.000$, which means that the correlation is quite significant.

The findings of this study confirm that the students' English proficiency (as measured by TOEFL) relates positively to their academic achievement (GPA). This result is in line with Ghenghesh's (2015) study which provided evidence to show that as the student's English language proficiency increases so does their academic success. Other researchers also found that English language proficiency and academic performance are directly related (Aina, et al., 2013 ; Kumar, 2014; AlHaddad, et al., 2004). Similarly, Sahragard, Baharloo, & Ali (2011) demonstrated that the students who scored higher on the language proficiency test had better GPA scores. Moreover, Cho & Bridgeman (2012) also found moderate yet meaningful correlations between TOEFL scores and GPA.

CONCLUSION

In summary, the present study found three important things. First, the pre-TOEFL scores can be used to predict the attainment of the final TOEFL scores. Since TOEFL scores reflect the English proficiency of the test takers, the first finding implied that the level of English proficiency attained at the entry test will determine the achievement of certain level of English proficiency at the end of the academic program. Thus, in this case, we agree with (Enright, Chappelle, & Jamieson, 2007) that TOEFL score is useful for aiding in admission and placement decision and for guiding English language instruction. However, the second finding revealed that there is a low predictive power of TOEFL scores toward the GPA. Since GPA denotes the overall students' academic achievement, the finding implied that TOEFL scores cannot be used as a sole predictor of academic performance. Finally, the last finding revealed that TOEFL scores indeed have a positive correlation with GPA. This means that the students' English proficiency in one way or another relates to their academic performance.

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