

Effectiveness of an Online Intervention Program in Enhancing the TOEIC Scores of Students

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Abstract— *The Test of English for International Communication (TOEIC) is a language proficiency test designed to measure English language listening and reading skills and is now a widely preferred certification in gauging English language proficiency. This study investigated whether the facilitation of online intervention programs, composed of practice tests, can help in maximizing the TOEIC scores of first-year and second-year students. The study made use of an experimental research approach and utilized independent samples t-test as statistical analysis in discerning the effect of online intervention programs on TOEIC scores. Results confirm that designing an online intervention program positively impacts students' TOEIC scores and students who undergo the said program garner higher TOEIC scores compared to students who do not. Aligned with the results, it is concluded that online intervention programs can support students' TOEIC-taking capabilities and maximize their achievement in the said test.*

Keywords— *CEFR, English language competency, language proficiency, TOEIC.*

I. INTRODUCTION

The Common European Framework of Reference for Languages (CEFR) is one of the most trusted gauges of language proficiency, being an international standard for describing the ability of language learners. In the Philippines, one the most accessible and affordable CEFR language proficiency tests is the Test of English for International Communication (TOEIC). Fortun (2019) wrote that TOEIC certificates are now being required by schools and employers across the country. Taking the examination costs around Php1000.00 to Php5000.00 depending on the coverage. This is a lot cheaper compared to other certifications such as the Test of English as a Foreign Language (TOEFL) and the International English Language Testing System (IELTS). Further, TOEIC certification, being a CEFR equivalent, is a great way to market oneself to prospective schools and employers. In the Philippines, there are tertiary level institutions that use pretest and post-test TOEIC listening and reading scores to identify the students' English language proficiency before the start of their schooling and before they graduate. This is to measure the progress of the students. Some universities, such as from the study of An (2021), are utilizing intervention programs for students to have a better results in their listening and reading scores. Reasons include addressing the decline in the students' competencies in English and helping the students in their pre-employment requirements.

Similar to An's (2021) paper, the objective of this study is to know whether intervention programs help in the improvement of students TOEIC scores. National University Bulacan Inc. or NU Baliwag is one of the campuses of the National University Philippines. It is located in Baliwag City, Bulacan and it offers board and non-board courses. Since the changes in the secondary and tertiary education curriculum were implemented through the Republic Act no. 10533 (R.A.10533), the number of language classes in the curriculum declined. From the Commission on Higher Education's memorandum about the General Education subjects required to be taken by the students, only one English language subject, Purposive Communication, is required to complete their academic stipulations (Commission on Higher Education Memorandum Order no. 20, s. 13). This resulted to students' lack of opportunity in practicing their language skills particularly their receptive macro-skills. With that being said, intervention programs are known to have positive effects when it comes to student assessments. For instance, TOEIC takers in other countries are already using different platforms for drills, worksheets, and activities that will allow the students to practice their listening and reading skills. In the paper of Saputra (2022), a school in Indonesia were introduced to a TOEIC intervention called "Sekolah TOEIC". A cooperative learning program intended to improve the scores of the students. Meanwhile, Karlin and Karlin (2021) conducted a research about the use of intensive and extensive listening materials to intervene with the scores of students' TOEIC scores, proving that extensive listening materials help improve the listening comprehension of students. The good thing about most test takers is that they are well aware of the importance of not only taking the exam, but also the benefits they will have when they get higher scores. Higher language proficiency leads to a lot of opportunities, both local and international. This correlates with Hsieh's (2023) report stating that two thirds of the participants they asked about the usefulness of TOEIC scores result viewed said results as either "very useful" or "somewhat useful".

Currently, National University Philippines including NU Baliwag is partnered with a testing company that administers TOEIC Listening and Reading Tests. The testing company also offers an online platform that allows the students to practice for the exam. Students may opt to start with easier level materials then work their way through the higher-level ones. The online platform offers a lot of features such as

allowing the students to track their own progress through weekly reports and letting the students review and practice remotely through the availability of materials both online and offline. Ultimately, the purpose of the study is to compare the scores of students who used the online platform for practice before the actual TOEIC taking to the students who did not. This is to measure the effectiveness of the platform as an intervention in increasing the listening and reading scores of the students of NU Baliwag. The proceeding components will discuss more about how the paper progressed. The methodology will provide information about the paper’s research design, participants, data gathering procedures, data analysis, and ethical considerations. Moreover, the results will deliberate about the comparison between the two groups of TOEIC takers. Lastly, the discussion will summarize the key findings, give interpretations, and acknowledge the limitations of the paper.

II. METHODS

A. Research Design

The researchers employed the quantitative approach particularly an experimental one through a post-test only control group design to compare the scores of students who did and did not utilize the online platform for practicing for TOEIC listening and reading tests. NU Baliwag is a relatively new university that started its operation in 2020, that is why the only available data is the pre-test TOEIC scores of the students.

B. Participants

The TOEIC Listening and Reading scores of two groups of students were compared. The first group of students came from both board and non-board programs who took the exam last May of the year 2022. These were the students who were not able to utilize the online intervention platform to review and practice for their TOEIC taking. The other group of students came from the combination of board and non-board programs as well. They took the exam last April of the year 2023. They were enrolled in an English as a Secondary Language (ESL) subject during the data gathering period. Said subject required them to practice for the said examination. The scores of 50 students from each group were compared to know whether the online intervention program affected the scores or the listening and reading proficiency of the students. Cluster sampling was used. 50% of the participants came from board programs while the other 50% came from non-board programs.

C. Data Gathering Procedures

Through a memorandum of agreement signed by NU Baliwag and its partnered testing company, and through the formal consent provided by the students, the researchers were able to get the TOEIC scores, both listening and reading, of the students. The scores were analyzed in order to come up with a proper comparison.

D. Data Analysis

For the treatment of the gathered data, the researchers used independent samples t-test to compare the two groups of

students. With that being said, on the first hand, the Null Hypothesis claims that there is no significant difference between the TOEIC Listening and Reading Scores of the students and the use of an online intervention platform. On the other hand, the Alternative Hypothesis claims that there is a significant difference between the mentioned variables.

E. Ethical Considerations

The proponent complied with the Data Privacy Act while upholding the dignity of the participants, whose names, examinee numbers, and other data they provided were recorded but were kept private in all other respects except from the college or department and program to which they belonged. The researchers made sure that the research data was adequately confidential and acknowledged any other authors' works that were used in the study in accordance with the American Psychological Association style that the university mandates.

III. RESULTS

TABLE I. Descriptive Comparison

	With Intervention (N=50)			With Intervention (N=50)			Variance		
	Listening	Reading	Total	Listening	Reading	Total	Listening	Reading	Total
Mean	445	373	818	328	262	590	117	111	228
SD	46.1	75.1	114.4	60.7	71.4	120.5	-14.6	3.7	-6.1
Lowest Score	265	170	435	205	110	320	60	60	115
Highest t Score	495	475	970	445	400	795	50	75	175

Table 1 shows the descriptive comparison of the TOEIC scores of 100. 50 students underwent the intervention program and another 50 who did not undergo said intervention. Highlighting the variance, it clearly shows that there is an increase of 117 points on the mean score of students in Listening from 328 points (without intervention) to 445 points (with intervention). Similarly, 111 points of increase on the mean score of the students in Reading from 262 (without intervention) to 373 points (with intervention), and 228 points increase in the total mean score from 590 point (without intervention) to 818 (with intervention). In terms of standard deviation, a decrease of 6.1 in Total points indicating that the score of the students gets closer to the mean by 6.1 points. Regarding with the lowest score, there is an increase of 60 points both in Listening and Reading scores; from 205 points (without intervention) to 265 points (with intervention) for Listening; from 110 points (without intervention) to 170 (with intervention) for Reading, and 115 points in their total score from 320 points (without intervention) to 435 points (with intervention). Lastly, comparing the Highest Score it shows that an increase of 50 points in Listening from 445 points of student without intervention program to 495 points of students with intervention program, 75 points in Reading from 400 points (without intervention) to 475 points (with intervention), and 175 in Total from 795 points (without intervention) to 970 points (without intervention).

TABLE II. Independent Samples T-Test Result for Listening Score

		Statistic	df	p
TOEIC SCORES	Welch's t	10.8	91.4	< .001

Note. $H_a \mu$ With Intervention $\neq \mu$ Without Intervention

Upon testing the significance of the effectiveness of an online intervention program in enhancing the TOEIC scores of students in listening, the data shows normality; however, failed to show homogeneity meaning the variance is not equal. The researcher used Welch's t test in computing the statistics, the degree of freedom, and probability value (p-value). With the computed t statistics of 10.8, and with degree of freedom of 91.4. At 95% confidence, two-tailed hypothesis, the critical value is equal to < 0.001. The conclusion is that, at the 95% confidence interval, there is statistically significant difference in means between the TOEIC Listening of the students and the use of an online intervention platform ($t=10.8, df=91.4, p<.05$). Thus, the researchers will reject the null hypothesis and accept the alternative hypothesis: there is a significant difference between the TOEIC Listening scores of the students and the use of an online intervention platform.

TABLE III. Independent Samples T-Test for Reading Score

		Statistic	df	p
TOEIC SCORES	Welch's t	7.62	98.0	< .001

Note. $H_a \mu$ With Intervention $\neq \mu$ Without Intervention

Upon testing the significance of the effectiveness of an online intervention program in enhancing the TOEIC scores of students in reading, the data shows normality and homogeneity. It means that the variance is equal. The researcher used Student's t test in computing the statistics, degree of freedom, and probability value (p-value). With computed t statistics of 7.62, with degree of freedom of 98.0. At 95% confidence, two-tailed hypothesis, the critical value is equal to < 0.001. The conclusion is that, at the 95% confidence interval, there is statistically significant difference between the means of the TOEIC Reading scores of the students and the use of an online intervention platform ($t=7.62, df=98.0, p<.05$). Thus, the researchers will reject the null hypothesis and accept the alternative hypothesis that there is a significant difference between the TOEIC Reading Scores of the students and the use of an online intervention platform

TABLE IV. Independent Samples T-Test Result for the Total Scores

		Statistic	df	p
TOEIC SCORES	Welch's t	9.70	98.0	< .001

Note. $H_a \mu$ With Intervention $\neq \mu$ Without Intervention

Upon testing the significance of the effectiveness of an online intervention program in enhancing the TOEIC scores of students in Listening and Reading, the data shows normality and homogeneity. It means that the variance is equal. The researcher used Student's t test in computing the statistics, degree of freedom, and probability value (p-value). With computed t statistics of 9.70, with degree of freedom of 98.0. At 95% confidence, two-tailed hypothesis, the critical value is equal to < 0.001. The conclusion is that, at the 95% confidence interval, there is a statistically significant

difference between the means of the TOEIC Listening and Reading scores of the students and the use of an online intervention platform ($t=9.70, df=98.0, p<.05$). Thus, the researchers will reject the null hypothesis and accept the alternative hypothesis that there is significant difference between the TOEIC Listening and Reading Scores of the students and the use of an online intervention platform.

IV. DISCUSSION

Aligned with the objective of the current study to distinguish whether online intervention programs benefit students' TOEIC scores, results suggest that usage of the online platform for practice prior to the actual TOEIC taking of students helps in maximizing their scores. This further implies that creating an intervention based on the said online platform, which utilizes remote access to review and practice materials, is an effective approach in assisting the students gain higher competencies both in English language listening and English language reading, which in turn, can promote higher language proficiency beneficial for the students' academic progress. This finding coincides with the studies of An (2021), Karlin and Karlin (2021), and Saputra (2022) that examined the utilization of online practice platforms and its impact on the students' TOEIC scores which indicates that the former has a significant positive effect on the latter.

Furthermore, as supported by the findings of Hsieh (2023) wherein students find their TOEIC scores either "very useful" or "somewhat useful," results of the current study also suggest that introducing online language interventions integrated within English-related courses at the tertiary level can lead to higher employment opportunities for the students, both local and international, upon graduation as the result of having higher TOEIC scores. This is reflected as an answer to the need for an English-proficient labor force within the market.

V. CONCLUSION

The study concludes that utilization of an online platform as an intervention program in support of the TOEIC taking of the students indicates improved scores. This is reflected in the students' TOEIC scores, both in listening and reading, which indicate significantly better scores as compared to students who did not undergo an online intervention program before the said test.

The study has its limitations, and it is recommended for future studies to also look at whether an online intervention program prior to TOEIC testing can benefit not only the students but also faculty members and other school personnel who have plans on taking the said test. Further recommendation also includes widening the year-level bracket of the participants since the current study focused mostly on first-year and second-year students. Lastly, it is also recommended for future studies explore ideas and provide implications for designing a more flexible online intervention program that can fit the varying schedules of test takers.

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