



(REVIEW ARTICLE)



## Podcasts as supplementary tools in enhancing teaching-learning in the 21<sup>st</sup> century literature from the Philippines and the world

Carlo Homboy Joquino \*, Sunshine Mole Esguerra, Alessandra Imbutin Helera, Nicole Sheen Malibiran Saguinsin, Joanna Joyce Condino Sombillo, and Rosemarie Dayapera Sabado.

*Faculty of the College of Education, Laguna University, Philippine.*

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### Abstract

This research aimed to determine the mastery level of learners in 21st Century Literature from the Philippines and the World before and after the implementation of podcasts. The study titled "Podcasts as Supplementary Tools in Enhancing Teaching-Learning in 21st Century Literature from the Philippines and the World" is considered a quasi-experimental research design. This design utilizes methods and procedures to collect data in a study structured similarly to an experiment. Specifically, the study employed the one-group pretest-posttest design.

This study employed a probability sampling technique. The respondents of the study were Grade 11 students in the academic track of Science, Technology, Engineering, and Mathematics (STEM). They encountered 21st Century Literature from the Philippines and the World as a subject matter available in the university, which is the only literature-related subject that STEM students are taking.

The researchers used a pretest and posttest to collect the quantitative data needed for the study. After collecting data from the respondents, the researchers analyzed the quantitative data using statistical methods.

The study revealed that the majority of students studying 21st Century Literature from the Philippines and the World improved their mastery level after using podcasts as supplementary tools in addition to the reading materials provided by their adviser. The students showed engagement and mastery in answering the tests based on the results presented, as there was an increased or significant difference between the pretest and posttest results. It was further found that the podcasts are effective. However, as cited in the scope and limitations of the study, it only investigates the development and evaluation of podcasts as an educational tool, as well as their potential to supplement traditional classroom teaching. Podcasts were not meant to replace lectures but to complement them.

Furthermore, the null hypothesis was rejected. Therefore, a significant difference exists between the mastery level of students before and after the implementation of podcasts as supplementary tools. Lastly, this implies that for any instructional materials or teaching approaches to be implemented inside the classroom, their relevance and meaningful connections should be considered to engage the students more and thus promote lifelong learning.

**Keywords:** Podcast; Supplementary tool; Teaching-learning; Literature

\* Corresponding author: JOQUINO CARLO H

## 1. Introduction

Technology plays a pivotal role in education and has transformed the way students learn and teachers impart knowledge. In the Philippines, the education system faced several challenges. Although technology was starting to play a role in addressing some of these issues, further advancements were required to make a significant impact. Based on the collective results of the needs analysis conducted by third-year English majors during the course "English for Specific Purposes," the main problems that the students encountered in Senior High School were a lack of engagement in discussion, lack of retention, unavailability of printed teaching materials, and lack of vocabulary skills. The subjects of the needs analysis are Oral Communication, English for Academic Purposes, and some of them are Literature. Therefore, the researchers came up with this study to determine if podcasts as supplementary tools are effective for the Grade 11 STEM students at Laguna University - Senior High School as it offers ideas for constructing programs and syllabi that align with the needs of 21st-century learners. It also calls for changes to enhance student engagement. This study investigated the development and evaluation of podcasts as educational tools, as well as their potential to supplement traditional classroom teaching.

According to Naidionova and Ponomarenko (2018), podcasts offer language instructors and students a wide range of supplementary opportunities both inside and outside the classroom. Many examples of how podcasts can significantly aid in the development of learners' foundational language abilities, particularly speaking and listening skills, have previously been documented by studies on podcasting pedagogy. The study included 38 respondents who had access to podcasts as supplementary tools. The study was limited to a specific subject area, which is 21st Century Literature from the Philippines and the World, and the research was conducted within a specific geographical location, which is Laguna University. This study is confined to the aforementioned respondents, and the effectiveness of podcasts was assessed through pretests and posttests.

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## 2. Methodology

### 2.1. Research Design

A one-group pretest-posttest design is a quasi-experimental study design in which the same dependent variable is examined in one group of participants both before (pretest) and after (posttest) the administration of a treatment or intervention. By employing the one-group pretest-posttest design, the study aims to measure scores before and after an intervention, enabling a comparison of the differences between pretest and posttest scores.

### 2.2. Research Locale

Laguna University – Senior High School is situated at the Laguna Sports Complex, Bubukal, Santa Cruz, Laguna. This location was chosen for its suitability in conducting the study, which will focus on the pretest and posttest scores obtained through the use of podcasts as supplementary tools among the entire sample of enrolled students. The research group gathered a total of 38 respondents from the Grade 11 STEM students of Laguna University.

### 2.3. Population and Sampling Design

To be more precise, the researchers employed the "fishbowl" method within the context of random sampling. The various sections of Grade 11 students enrolled in the 21st Century Literature from the Philippines and the World course were listed. Each section was assigned a unique number, and these numbers were recorded on individual pieces of paper. The papers were then rolled up and mixed in a bowl. One paper was drawn at random from the bowl. The selected section was STEM 11, which comprised 38 students.

### 2.4. Research Instruments

The first instrument consists of validated podcasts comprising three episodes. These podcasts were utilized to gauge the effectiveness of podcasts as supplementary tools among the selected target respondents. The second instrument involves an evaluation tool that an expert used to assess the developed podcasts. This tool was adapted from the "Guidelines and Processes for LMDRS Assessment and Evaluation V1.0" by DepEd. The expert validators evaluated the podcasts based on Instructional Quality, Content Quality, and Technicality Quality. Finally, respondents were provided with 10-point pretests and posttests to check the effectiveness of the podcasts before and after their use. There are three sets of 10-point assessments for pretests and posttests aligned with each episode. The questions in these assessments determined the effectiveness and mastery level of the developed and evaluated podcasts as supplementary tools for enhancing student engagement.

## 2.5. Data Gathering Procedure

Initially, the researchers selected Grade 11 STEM students from Laguna University-Senior High School Department as the study's respondents. Subsequently, the researchers sought permission from the class adviser of the 21st Century Literature from the Philippines and the World class to ascertain the students' willingness to participate in the study. The first phase involved drafting scripts and tests, during which the researchers identified the most crucial learning competencies to enhance the learning process. The subsequent step encompassed an evaluation process, in which experts in the teaching field employed the LRMDs tool to evaluate the materials. These experts provided feedback and suggestions for enhancing the podcasts, followed by the revision of both the podcasts and the tests. Upon implementing the received recommendations, the researchers conducted a pretest to assess the students' prior knowledge and preparedness for the forthcoming implementation of podcasts as learning supplements. Subsequently, the podcasts were introduced into the learning process, followed by a posttest to measure the impact of the podcast supplementation. Finally, after gathering the required quantitative data, the researchers employed statistical analysis methods to analyze the data collected in the study.

## 2.6. Statistical Treatment of Data

The following formulas were the statistical data used to determine, tally, analyze, and interpret the gathered data were the weighted mean, where:  $\Sigma$ = symbol of summation, W= weights, F= frequency, and N= sample. Following the interpretation of 90-100 as Outstanding, 85 -85 Very Satisfactory (VS), 80-84 Satisfactory, 75-79 Fairly Satisfactory, and Below 75 means it Did Not Meet Expectations. Finally, the researchers, used the Paired Sample T-Test.

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## 3. Results and discussion

The pretest and posttest were administered to assess the mastery level of students before and after the podcast implementation.

The data reveals that prior to the implementation of podcasts in Episode 1, the mean score obtained was 68, which did not meet the expected level. This suggests that the performance in Episode 1 was below the desired standard. Similarly, in Episode 2, the mean score obtained was 60, also falling short of expectations. This indicates that the performance in Episode 2 was also below the desired level. However, in Episode 3, the mean score improved to 77, reflecting a relatively satisfactory performance. This suggests an improvement compared to the previous episodes.

Considering the overall mean score across all episodes without the use of podcasts, which is 68, it can be concluded that the overall performance did not meet expectations. This implies that there is room for improvement in the overall performance based on the analyzed data.

In summary, the pretest results indicate that while a significant number of students achieved a high level of mastery or proficiency, there were also students who did not attain a passing score or fell into the low-level category. These findings underscore the potential impact of utilizing podcasts as supplementary tools to enhance teaching-learning outcomes.

After the podcast implementation, the mean scores for each episode, as well as the overall mean score, indicate exceptional performance. Notably, the mean score of 97 for Episode 1 signifies outstanding performance, and the mean score of 98 for Episode 2 indicates even higher excellence than in Episode 1. Furthermore, the mean score of 94 for Episode 3 demonstrates consistently high performance. The overall mean score of 96 suggests that, on average, students' performance across all episodes was outstanding.

In conclusion, analyzing the post-implementation data makes it evident that using podcasts as supplementary tools consistently yielded positive outcomes, enhancing the students' mastery level.

significant" distinction between the pretest, conducted prior to the podcast implementation, and the posttest, administered after the utilization of podcasts in each episode. This disparity demonstrates the efficacy of the supplementary tools in enhancing the students' mastery level.

In addition, the outcomes of the paired-t test revealed a substantial and notable difference between the period before podcast implementation ( $M = 6.8, SD = 0.9$ ) and after ( $M = 9.6, SD = 0.4$ ), where the  $t(37) = 18.1, p < .001$ . Thus, according to the t-value, students' mastery level witnessed improvement when podcasts were employed as supplementary tools, rather than merely presenting them with alternative materials.

The students' mean value prior to intervention does not equate to their average. In simpler terms, the sample discrepancy between post- and pretest means is considerably substantial to achieve statistical significance, as indicated in the table above.

Furthermore, the p-value is equal to 0 ( $P(x \leq 18.1346) = 1$ ). This signifies a minimal likelihood of type I error (incorrectly rejecting a true  $H_0$ ): 0 (0%). A lower p-value lends stronger support to  $H_1$ . In essence, it affirms a substantial impact in the application of podcasts as supplementary tools before and after their integration into students' learning.

The test statistic  $T$  is 18.1346, lying outside the 95% acceptance region:  $[-2.0262, 2.0262]$ . The 95% confidence interval of the post-test minus pretest is:  $[2.4935, 3.1207]$ . The observed effect size stands at 2.94, denoting a large magnitude in the deviation between the average of differences and the anticipated average of differences.

In conclusion, the results indicate that podcasts, as a technological innovation, prove to be efficacious when employed as supplementary tools to enhance student learning, particularly in terms of elevating their mastery skills/level. This deduction is supported by the provided statistical data.

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#### 4. Research implications

Upon analyzing the collected data, this study revealed that most of the students studying 21st Century Literature from the Philippines and the World exhibited an enhanced mastery level after utilizing podcasts as supplementary tools, in addition to the reading materials provided by their advisor. The students demonstrated engagement and mastery in answering the tests, as evidenced by the noticeable increase or significant difference between the pretest and posttest results.

Furthermore, the study determined that the podcasts were effective. However, as highlighted in the scope and limitations of the study, its focus was exclusively on investigating the development and evaluation of podcasts as an educational tool, as well as their potential to supplement traditional classroom teaching methods. It is important to clarify that the intention behind introducing podcasts was to complement lectures, rather than replace them.

The statistical data results led to the rejection of the null hypothesis, implying a significant difference between the mastery levels of students before and after the implementation of podcasts as supplementary tools.

During the conduct of the pretest before the implementation of the podcasts, the results suggest that although a considerable number of students achieved a high level of mastery or proficiency, there were still students who did not reach a passing score or fell under the low level. These findings emphasize the potential impact of using podcasts as supplementary tools to enhance student learning outcomes.

After the implementation of podcasts, the statistical interpretation of the data suggests that the use of podcasts as supplementary tools had a significant impact on the students' proficiency levels. It was deemed evident that the use of podcasts as supplementary tools consistently resulted in positive outcomes, increasing the mastery level of the students. The results provide information on the posttest mastery level of the students, showing that the mean average for the proficiency level was very high.

The decision on the dimension in terms of the difference in the mastery level of students before and after the implementation of podcasts is rejected, and the hypothesis is marked as significant.

The null hypothesis was rejected. Therefore, there is a significant difference between the pretest and posttest under the podcast episodes, which revealed that the supplementary tools were effective in enhancing the mastery level of students.

The researchers recommended that the Department of Education should provide an inclusive learning platform that will supplement the students' learning, such as podcasts, and ensure continuous and sustainable monitoring of instructional quality, technical quality, and content quality. On the other note, Laguna University-Senior High School Department should encourage teachers to design tools that offer the best and excellent quality of education, thereby innovating students' performance and development. The faculty should also consider using podcasts to supplement lessons after finishing a topic. Additionally, as this platform is accessible to students for their convenience, it can enhance their learning experience.

## 5. Conclusion

The statistical interpretation of the data suggests that the use of podcasts as supplementary tools had a significant impact on the students' proficiency levels. It was deemed evident that the use of podcasts as supplementary tools consistently resulted in positive outcomes, increasing the mastery level of the students. It lies in its potential to leverage podcasts as tools for enhancing the teaching and learning of literature, thereby promoting accessibility, cultural understanding, empowerment, critical thinking, and community engagement—all of which are essential elements of social action and positive societal change.

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## Compliance with ethical standards

### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

### *Statement of informed consent*

Informed consent was obtained from all individual participants included in the study.

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