

Use of Podcast Intervention in Enriching the Learning of Senior High School Students in Filipino Subject

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Abstract

Many technically related tools have greatly contributed to the learning of students. One of them is the use of podcast. The purpose of this study is to determine the impact of using podcasts in grade eleven students' learning in Filipino I: *Komunikasyon at Pananaliksik sa Wika at Kulturang Pilipino* (Communication and Research in Filipino Language and Culture). Using a quasi-experimental research design, two sections from the eleventh grade of President Corazon C. Aquino High School were divided into experimental and controlled groups. Before the intervention began, the two groups of students underwent the pretest exam. The students then underwent a post-test exam. The findings provided this study with different insights: (1) the students who underwent the intervention podcast had obtained significantly higher total scores; (2) there were significant differences in the scores of students who underwent the podcast intervention compared to those who used traditional learning methods; (3) a higher number of students in the experimental group reached the criterion reference of 50%; (4) and the effect size of the students from the experimental group is large compared to the students from the controlled group, which entails that the gap between the scores of the students in the experimental group is relatively larger.

Keywords: Constructivism, Google Websites, Podcast, Quasi-Experimental Method,

1. Introduction

When the pandemic entered the country in the first quarter of 2020, the education sector was one of the most affected in the country. At the time this study was written, there have been 570,005,017 confirmed cases of the COVID-19 virus and 6,384,128 deaths worldwide (W.H.O., 2022). As a result, schools were closed, and various teaching methods were introduced without having to box the teaching-learning process into the four corners of the classroom.

This public emergency has put the students, teachers, administrators, and other educational allies in distress (Tria, 2022). On the aspect of teaching methods and delivery of instruction, Tuquero (2020) emphasized how trainings related to online instruction, blended learning, and distance learning are recommended to adapt to the new format of instructional teaching (Tria, 2022). Despite the efforts of the Department of Education and the government in responding to these problems, it can still be said that it is a big challenge to meet all the needs of students to make learning continue in the middle of the pandemic.

One of the problems facing the education sector up until now is the poor internet connection throughout the archipelago. In a study conducted by the World Bank (2020), Ndiame Diop, Director of the World Bank for Brunei, Malaysia, the Philippines, and Thailand, narrated that Internet Connectivity, the foundation of a digital economy, is limited to rural areas, while the service where it is available is usually expensive and has poor connection quality.

Additionally, the students also face the problem of catching up with "flexible learning" and a combination of online and offline learning programs. Some of the parents among the 27 million Filipinos who lost their jobs due to the economic collapse caused by the COVID-19 pandemic are hesitating on unplanned expenses (Santos, 2020).

In the analysis conducted in the study of Ratat and Cahapay (2020), one of the most frequent responses of students is the lack of learning resources. Most students only use cell phones and others face struggles when it comes to the storage capacity of the gadget that they have.

In the researcher's personal experience since the onset of the pandemic, many students have not immediately caught up with the school's changing teaching methods due to the lack of gadgets that can support the high need when it comes to the internet connection of online classes through Google Classroom. Moreover, although the government provided support in the form of giving away Android Tablets, only 36 out of 439 students in the eleventh grade were supported by this initiative. Following the challenges presented, it can be asserted that the problem of the students centered on (1) Internet Connectivity and (2) Availability and Functionality of Gadget / Learning Resources.

Hence, this research presents the use of Podcast Learning (PL) as one of the ways to help students learn more without much need for high consumption of data, strong internet connection or even extravagant online gadgets, materials, or application.

Use of Podcast in Learning

Podcast is created as a digital audio file (or video) that is uploaded to an online platform to distribute to others (Philips, 2017). It also promotes flexible study due to its ability to be downloaded. It can also be set only to students who are registered in the course. Using a podcast studio does not have to be expensive either (Nwachokor et. al., 2019). In addition, Rahmia et. al. (2021) presented that podcast can be socially transforming force with the theme of changing the idea in people's minds to be more open and have progressive ideas. Hence, podcast media is regarded as very easy, effective, informative, and cheap to use (Rahmia et al., 2021).

Therefore, in this action research, Podcast Learning intervention is applied as a method to improve the learning of students in Filipino I: *Komunikasyon at Pananaliksik sa Wika at Kulturang Pilipino* (Communication and Research in Filipino Language and Culture).

The study aims to improve the learning of students using Podcast Learning. A multimodal instructional format that does not require high data, a strong internet connection, or expensive gadgets.

This study is anchored in Constructivism Theory. Constructivism is a theory that states how students construct knowledge instead of passively receiving information. It is also said that while people gain experience in the world and use these experiences as reflections, they develop their own representation and merge their newly learned information with the information they already have (schema) (Constructivism, n.d.). In addition, this theory is a group of concepts related to the learning of an individual that traces back to scholars Dewey, Piaget, and Vygotsky. However, Perkins (1999, in Ng'ambi and Lombe, 2012) argued that since constructivism is a combination of different views equipped with active, social, and artistic aspects of learning, different types are also of knowledge can be gained from a constructive perspective, therefore, there is no single constructive approach.

On the other hand, Kanuka and Anderson (1999) presented that there are four themes that are consistent among different positions on constructivism which they summarized as follows: (1) existing knowledge is the foundation for the formation of new knowledge; (2) learning is an active process instead of a passive process; (3) language is an important component in the learning process; (4) and that the learning area must be learner-centric.

Kanuka and Anderson's analysis of the common conceptual consistency of constructivism strongly reinforces the importance of using podcast learning (PL) to further student learning. The use of podcasts can assist (1) supplement learners' knowledge to develop their own learning; (2) draw students' attention to active learning; (3) improve the use of language in communication and build their own podcast, (4) use the podcast at the place and time which are most convenient in their learning.

Consequently, ear-reading and audiobooks, which are almost equivalent to the essence of podcasts, have been used to support the learning of students, especially those with dyslexia and reading disabilities (Coustillac, 2020). Nevertheless, its use in various sectors grew significantly when the word podcast was invented in 2004 when iPod and Broadcast were combined (Merriam-Webster, 2022).

In the study conducted by Globe Telecom in 2021, the Philippines came out sixth among the countries with the fastest growth of podcast listeners. In the Philippines alone, there are almost 31M listeners, most of whom are aged 23-24 years old. Major listening factors are due to the pandemic, increased screen fatigue, and consumers' shift to on-demand audio entertainment.

Currently, the use of podcasts is very helpful in the recognition and analysis of words (word recognition and word decoding). It allows students to hone their listening skills both in formal and informal complex text. Furthermore, equivalent copies (transcripts) enable students to confirm their achievement (Godsey, 2018). Moreover, according to a study by Salmon and Nie (2008, in Yeh, 2017), the use of podcasts in education is a big consideration because it allows flexibility. Hew (2009, in Yeh, 2017) stated that as a result of podcast flexibility, learning activities are no longer constrained by time and location. Furthermore, due to podcast's ability to be listened to repeatedly, its use has been found to enhance learning (Salmon and Nie, 2008, in Yeh, 2017).

After two years of the pandemic where *HyFlex Learning* was the mode of teaching in school, the researcher found that none of the school's teachers used podcasts or even audio learning modality. One of the reasons for this is the trend of video lessons. Unfortunately, this also slightly obstructs the active learning of students. Not all students have the capability to watch video lessons or create videos due to the amount of data required to upload or download it. On the other hand, podcasting does not require elaborate gadgets and high data or strong internet connectivity.

Students will be able to listen to a variety of teacher-generated podcasts such as lessons, discussions, conversations, quizzes that students can review to become more proficient in learning. The podcasts prepared and developed by the students will be placed on the Google Website that the students can open whenever they want to use it. Podcast files are also easy to upload as each podcast file only requires 6mb (3-minute audio file) to 10MB (10-minute audio file).

In this part of the research, steps are presented to achieve greater learning for students using Podcast Learning. First- the teaching materials such as lesson-plans, pre-test, and post-test (pretest-post-test) are prepared so that they can be evaluated by experts and consequently be considered valid and reliable. Second, audio files and Google Site were prepared for students to use for the podcast. The teacher then took a day to teach students the proper use of the Google Site, Podcast, and how to download the file from the website. Finally, all the information gathered in the study will be analyzed through appropriate statistical treatment to assess the effectiveness of using the podcast towards greater student learning.

All of these are necessary to ensure a smooth flow of knowledge and use of the podcast by students.

The study aims to determine the effectiveness of using Podcast Learning on learners' greater learning. Thus, the following specific question is presented:

1. What is the total score of the students in the pre-test and post-test?
2. How many percent of students reached the criterion reference of 50%?
3. How significant is the difference between the learning level of control group and experimental group in the pre-test and post-test?
4. How much effect size does the intervention Podcast have on the greater learning in Filipino I of the grade eleven students?

2. Method

Using the Convenience Sampling Method, the researcher selected the students who will be participants in this study. Sections of Mapagmahal and Marangal from the eleventh group are the only students of the researcher in grade eleven that is why convenience sampling was used in the research. According to MCombes (2022), convenience sampling is the placement of individuals that are easiest for researchers to use. Quasi-experimental design was used in the research. The sections were divided into two groups: the Grade 11-Marangal section as the experimental group that used the podcast intervention, whereas the section of 11-Mapagmahal section as the group that only used traditional teaching methods.

The researcher chose the grade 11 students of Section Marangal as the experimental group because the number of students in the Mapagmahal section continues to increase during the course of the study, causing many of the students to fall behind in the preliminary exam and learning activities.

After identifying the respondents of the study, the researcher utilized lesson plans, tests, websites, and podcasts to assess the effectiveness of the intervention podcast in the greater learning of the students. The data collected were analyzed using statistical treatment.

2.1. Data Gathering Methods

Data collection was conducted at PCCAHS-SHS. Before the collection of data, the researcher wrote a consent letter containing the approval of students and their parents to participate in the study. This consent request is anchored in the guidelines and laws under the Data Privacy Act of 2012.

The test was given before and after the podcast intervention took place. The data gathered from these tests were analyzed using statistical treatment to assess the effectiveness of using podcast as an intervention to further develop the knowledge of eleventh grade students.

2.2. Data Analysis

The researcher applied the mean and standard deviation to assess the distribution of data related to the pre-test and final test. T-test was used to assess the significant difference in the post-test exam of the controlled group and the experimental group. Finally, Glass' Delta (Δ) was used to determine the Effect Size of the podcast intervention on student learning.

3. Findings and Discussion

Table

1: Students' Total Score in Pre-test and Post-test

Group	Total Score in Pre-test Exam	Total Score in Post-test Exam
Controlled Group	13.725	13.863
Experimental Group	14.442	18.907

In reference to Table 1, it is revealed that the controlled group has a total score of 13.725 for the pre-test and 13.863 total score for the post-test. On the other hand, it shows that the experimental group has 14.442 total marks for the pre-test and 18.907 total marks for the post-test. This shows that the total score of the students who underwent the Podcast intervention increased more compared to the students who underwent the traditional teaching method. Proof that the intervention has a great help in the students' learning.

Table 2: Percentage of Students who reached the 50% Criterion Reference

Group	Percentage
Controlled Group	41.18%
Experimental Group	93.02%

Table 2 presents the percentage obtained by the two groups based on the post-test. 41.18% of students from the control group reached the criterion reference of 50%. On the other hand, 93.02% from the students of the experimental group reached the criterion reference of 50%.

It can be concluded from the results of the study that more of the students who underwent the podcast intervention scored higher than the criterion reference of 50%.

Table 3: Significant differences in the learning level of the control group and the experimental group in the pre-test and post-test

Variable	Mean Scores		Std. Dev.		Gain	T-Ratio	2-Tailed	Remarks
	Post-Test	Pre-Test	Post-Test	Pre-Test				
Experimental	18.91	14.44	2.90	3.65	4.47	-7.592	0.000	S
Controlled	13.86	13.73	4.129	4.13	0.13	-0.217	0.829	NS

$N_c = N_e$, * $P < .05$

The purpose of this study is to determine the effect of using podcast intervention on the learning of eleventh grade students in Filipino I. T-test was used in the study to determine the significant difference in the learning level of the Controlled group and the experimental group in the pre-test and post-test.

It is shown from Table 3 that the mean score of the experimental group was higher when in relation to the post-test with a score of 18.91. On the other hand, the control group had a mean score of 13.86 in the post-test.

It also shows that the t-test was applied to determine the significant difference of the mean score of the two groups from the post-test.

From Table 3, it shows the difference in the score in the initial test and the final test of the experimental group that used the Podcast intervention and the control group that used the traditional learning method. It is revealed that the mean score of the experimental group that used the Podcast intervention had a more significant increase compared to the control group that used traditional learning, the t-value achieved was $t = -7.592$, $P < .05$.

On the other hand, table 3 shows that the t-value score of the controlled group is $t\text{-value} = -02.17$, $p > .051$ which means that there is no significant difference in the student's learning using the traditional learning method.

Table 4: Effect size of the Podcast Intervention on the Greater Learning in Filipino I of Eleventh Grade Students

Experimental Group	Value	Remarks
Effect size of the Podcast Intervention on the Greater Learning in Filipino I of Eleventh Grade Students	1.35	Large

Table 4 further substantiates the effectiveness of the podcast intervention. According to the results of the analysis using the statistical formula Glases Delta, it appears that the value of the effect size is 1.35 with a remark of Large. This further proves that the learning gap between students in the experimental group is large compared to that of the students in the controlled group.

In a nutshell, it was found that the use of Podcasts significantly assisted in the learning of eleventh grade students in Filipino I. This is proven by the total score of the students in the experimental group from the preliminary test of 14.442 which rose to 18.907. In addition, 93.02% of the students of the experimental group reached the criterion reference of a 50%. Furthermore, it was found that there was a significant difference in the students' post-test based on the mean scores of the two groups. This is supported by data from large effect size values.

The gathered information is also confirmed by another research related to the use of podcast. In the study conducted by Goldman (2018), he stated that using podcast does not only enable teachers to develop new assignments and classroom work, but it also prepares students for digital tools; also, developing more prepared teachers.

Therefore, Kelly et. al. (2022) narrated that future research needs to pay attention to the optimal podcast structure for learning, higher levels of learning outcomes using podcasts, and podcast implementation in the formal curriculum.

4. Conclusion and Recommendations

The purpose of this study is to determine the effectiveness of podcast intervention in the greater learning of students in the eleventh grade in Filipino I: *Komunikasyon at Pananaliksik sa Wika at Kulturang Pilipino* (Communication and Research in Filipino Language and Culture). Based on the results of the study, it was proven that the experimental group that underwent the podcast intervention had a significant difference in the score achieved by the controlled group that underwent the traditional

learning method. From the data gathered, the use of podcasts is proven to be effective in the development of learning.

In the light of the obtained results, the researcher recommends the following: (1) use podcast learning in other grade levels apart from Grade 11 in teaching the Filipino subject; (2) use podcast learning in teaching other subjects apart from Filipino; (3) use superior technology techniques in the development of the podcast website; (4) and recommend the support of the school or the local government in the use of podcast of the students by distributing technological tools in the use of the podcast.

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