The Effectiveness of BBC Learning English Podcast for EFL Students' Speaking Proficiency: Internet of Things in Digital Pedagogy

by Herda

The Effectiveness of BBC Learning English Podcast for EFL Students' Speaking Proficiency: Internet of Things in Digital Pedagogy

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Abstract

The rapid growth of the Internet of Things (IoT) in education has affected how teachers design teaching scenarios. In speaking classrooms, EFL students face multifaceted dilemmas such as speaking anxiety, lack of vocabulary, and fluency in transferring from L1 to L1. Therefore, digital pedagogy in 21st-century learning demands lifelong learning for students to become active and critical speakers in global communication. This quantitative used a quasi-experimental design involving experiment and control groups to investigate the effect of using BBC Learning English Podcast (BBC LEP) on students' speaking performance. 40 EFL students in a private university in Indonesia were involved in this study. The treatment for the experiment group used BBC LEP to teach speaking, which focused on students' authentic performance in reviewing the news from English podcasts. The data were collected through Pretest and Posttest scores to investigate the significance of the treatment on students' performance. The researchers did normality, homogeneity, and a paired-sample test using SPSS version 25 to analyze the data. The results of the pretest and posttest indicated that teaching speaking using BBC LEP had a significant effect on improving students' speaking skills. Additionally, the study has positive pedagogical impacts for EFL teachers and further researchers who want to conduct teaching speaking by referring to the appropriate treatments linked to the use of English podcasts as the material and media.

Abstrak

Efektivitas Podcast Belajar Bahasa Inggris BBC untuk Kemahiran Berbicara Siswa EFL: Internet of Things dalam Pedagogi Digital

Pesatnya pertumbuhan *Internet of Things* (IoT) dalam pendidikan telah memengaruhi cara guru merancang skenario pengajaran. Di kelas berbicara, siswa EFL menghadapi berbagai dilema seperti kecemasan berbicara, kurangnya kosa kata, dan kelancaran dalam mentransfer dari L1 ke L1. Pedagogi digital di abad 21 menuntut pembelajaran sepanjang hayat agar peserta didik menjadi pembicara yang aktif dan kritis dalam komunikasi global. Penelitian ini menggunakan desain eksperimen semu yang melibatkan kelompok eksperimen dan kontrol untuk mengetahui pengaruh penggunaan BBC Learning English Podcast (BBC LEP) terhadap kemampuan berbicara siswa. 40 mahasiswa EFL di universitas swasta di Indonesia dilibatkan dalam penelitian ini. Perlakuan untuk kelompok eksperimen menggunakan BBC LEP untuk mengajar berbicara, yang berfokus pada penampilan otentik siswa dalam mengulas berita dari podcast berbahasa Inggris. Data dikumpulkan melalui skor Pretest dan Posttest untuk menyelidiki signifikansi perlakuan terhadap kinerja siswa. Peneliti melakukan uji normalitas, homogenitas, dan uji sampel berpasangan menggunakan SPSS versi 25 untuk menganalisis data. Hasil pengujian menunjukkan bahwa pengajaran menggunakan BBC LEP berpengaruh signifikan terhadap peningkatan keterampilan berbicara siswa. Selain itu, penelitian ini memiliki dampak pedagogis yang positif bagi guru EFL dan peneliti selanjutnya yang ingin melakukan pengajaran berbicara dengan mengacu pada perlakuan yang tepat terkait dengan penggunaan podcast bahasa Inggris sebagai materi dan media.

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1   Introduction

English is currently the most influential language in the world, becoming the dominant language for communication between countries. As the demands of communication in this 21st-century learning, speaking skills are taught to students to enhance their proficiency as language learners. However, students need help in this context, such as a lack of vocabulary, grammar, and confidence (Wahyuningsih & Afandi, 2020). Additionally, most EFL students are reluctant to speak since they cannot produce oral skills effectively (Ali et al., 2020; Ilyas et al., 2021) reviewed from psychological perspectives and linguistics scopes. Consequently, students should be motivated to join a speaking classroom in an engaging situation where they are highly motivated and can perform authentic spoken language based on teachers' instruction.

In line with that condition, educators and practitioners must consider what the students need to do. In this case, pedagogy is essential in determining the teachers' actions in dealing with the teaching scenarios. The digital age has transformed how people communicate and learn, and education is one of the most affected. As part of the young generation, students are familiar with using digital tools as a form of technology-enhanced language learning. According to Sosas (2021), using technology in teaching speaking brings positive results for the learner because it allows students to enhance their confidence. It has become a way for students to solve speaking difficulties as the technology enables them to practice before speaking. Therefore, integrating technology in this digital age is the same as teachers practice great transformation into digital pedagogy.

This study emphasizes the integration of the Internet of Things (IoT) phenomenon that is becoming increasingly important in empowering every aspect of life (Abichandani et al., 2022; Chen, 2021; Lin et al., 2021). It is becoming one of the powers in this revolution, assisting people to collect information faster and more efficiently than before. Furthermore, it is best in digital education, providing automatic and on-demand access to educational content that is adaptable to each learning style and interest. Internet is everywhere, and students can access it whenever they want if there is an internet connection. Stakeholders in educational institutions like universities facilitate teachers and students with internet connections to support learning systems and activities. Thus, teachers as facilitators in the language classroom, especially in the speaking context, should take this chance wisely.

As articulated earlier, students' speaking difficulties can be lessened by giving them a chance to develop and be motivated. IoT can be used in this digital pedagogy, so the BBC Learning English Podcast (BBC LEP) was chosen as the appropriate and relevant learning material and media for students' speaking. As a well-known website with up-to-date English courses, the English podcasts have native speakers speaking for an issue. Students can learn better by practicing pronouncing various themes in the BBC LEP. Meanwhile, the detailed information and downloadable PDF transcriptions are also fruitful for students to better understand the information in the podcasts. This quasi-experimental study involving 40 EFL students aimed to answer the research question, "*Is there any significant difference between students' pretest and posttest mean scores in the experiment group after being given BBC LEP for speaking proficiency?*"

2   Methods

In this study, the researchers used a quantitative study that implemented a quasi-experimental design to investigate the hypothesized causal effects of a treatment or program (Fraenkel et al., 2023; Gay et al., 2012). In this case, BBC Learning English Podcast (BBC LEP) became the treatment on the students' speaking skills. The independent variable was the Speaking Project using *BBC LEP*, and the speaking performance was the dependent variable. The researchers involved 40 students, 34 females and six males, majoring in the English Education Department in Yogyakarta, Indonesia. They

randomly divided the students into two groups, namely experimental (N=20) and control (N=20). The experimental group was the group that received treatment using BBC LEP, while the control group was treated using traditional learning mode as usual. Table 1 presents the students' demographic data.

Table 1. The Frequency of Students' Demographic Data

		Frequency	Per cent	Valid Percent	Cumulative Percent
			Sex		
Valid	Male	6	15.0	15.0	15.0
	Female	34	85.0	85.0	100.0
	Total	40	100.0	100.0	
			Age		
	>20 years old	29	72.5	72.5	72.5
	<20 years old	11	27.5	27.5	100.0
	Total	40	100.0	100.0	

This study was conducted for four weeks in May 2023. The pretest administered for the experimental group was the same as the control group that did not receive any treatment. The pretest activity for both control and experimental was for the students to retell four minutes of material related to their lives. One of the researchers acted as a teacher and divided some speaking themes. The students were allowed to learn the material further in the first week before practicing speaking. In other words, they were given ample time to prepare for their performance. There was a pretest in the second week; two groups of students were tested to retell the story in the same week but on different days.

In the third week, the teacher gave learning treatment to the experimental group. She introduced BBC LEP to students. All features, including downloadable audio and transcription, were introduced then. Furthermore, the students also gained new information about the vocabulary used in the podcast to find the meaning and use it appropriately. The teacher showed a podcast entitled "Late Nights: Bad for Health?" that can be accessed at *https://www.bbc.co.uk/learningenglish/english/course/newsreview-2022/unit-1/session-37*. The students watched it thoughtfully and noted what they thought was important. They could also download the audio and PDF transcriptions on the website to gain a better understanding. On the contrary, the control group was asked to watch a video from Youtube entitled "How Long It Takes to Change Your Life?" accessed at https://www.youtube.com/watch?v=g85WsxE1gAU.

For the control group activity, the teacher downloaded the video from YouTube before the learning activities. This way, students got the exact instructions as the experimental group but in different media. In the fourth week, the teacher administered a posttest by instructing students to perform speaking in four minutes. The focus was on reviewing the information received from the podcast videos they watched the previous week. The experiment group performed a speech entitled "Late Nights: Bad for Health?" while the control group performed "How Long It Takes to Change Your Life?"

The data were collected from pretest and posttest scores from speaking performances. Widoyoko (2012) argued that tests became quantitative instruments used to gather data about learning results to measure individuals' abilities through instruction or questions that measure students' learning outcomes (Gay et al., 2012). In line with that, the researchers chose material or theme that was categorized as authentic, which measured students' real-life performances as the real-world task (Herda et al., 2022). The quantitative data were then analyzed through SPSS version 25. The researchers did a normality test to assess the assumption that the data was drawn from a normally

distributed population. If it was fulfilled, she continued to do homogeneity tests to investigate whether two populations have the same distribution. The variable could be considered normal and homogeneous only if the Sig. Value was more significant than 0.05 (Asrial et al., 2022).

Next, the paired sample test could be held if the data were proven normal and homogenous. If the Sig. The 2-tailed value in the paired sample test output was less than 0.05 ($p < 0.05$), so the null hypothesis (H0) was rejected. Therefore, a paired sample test, or a paired-sample t-test, was used to compare the group's mean scores and determine whether a significant difference existed between the mean scores (Fraenkel et al., 2022; Gay et al., 2012) and to reveal the treatment effectiveness before and after treatment (Ross & Willson, 2017).

3 Results and Discussion

3.1 Results

This section provides the findings of the quantitative study using pretest and posttest as the instruments.

3.1.1 The Effect of BBC LEP on Students' Speaking

In this study, the effectiveness of BBC LEP on students' speaking was linked to the research question. Thus, to reveal the effect of the treatment, the researchers set a null hypothesis or 'H0: There is no significant difference between the mean scores of the pretest and posttest in the speaking test using *BBC LEP*.

Table 2. Descriptive Statistics of Pretest and Posttest Scores

		Pretest Experiment	Posttest Experiment	Pretest Control	Posttest Control
N	Valid	20	20	20	20
	Missing	0	0	0	0
Mean		55.00	84.25	50.00	65.25
Std. Deviation		6.689	4.064	5.620	4.435
Minimum		40	75	40	60
Maximum		70	90	60	75

Table 2 shows the descriptive statistics of the pretest and posttest scores of the experimental and control groups. Based on the findings above, the posttest scores for both groups were more significant than the experiment. However, the result of posttest scores achieved by the experiment groups (84.25) was higher than the control group (65.25) that did not receive any treatment.

As articulated in the previous section, the researchers did the normality and homogeneity tests to reveal the distribution of normality and homogeneity of the data from the pretest and posttest scores. Tables 3 and 4 show the findings of normality and variance homogeneity tests.

Table 3. Normality Test

			Shapiro-Wilk		
	Group	Statistic	Statistic	df	Sig.
Scores	Pretest of Experiment Group	.177	.926	20	.131
	Posttest of Experiment Group	.273	.864	20	.059
	Pretest of Control Group	.300	.856	20	.079
	Posttest of Control Group	.222	.865	20	.010

Based on Table 3, the Sig values for the four groups were more than 0.05 (p-value > 0.05), so the researchers interpreted that the data were normally distributed for both experimental and control groups.

Table 4. Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Scores	Based on Mean	1.173	3	76	.326
	Based on Median	1.367	3	76	.259
	Based on Median and with adjusted df	1.367	3	67.586	.260
	Based on trimmed mean	1.239	3	76	.302

Table 4 shows that all p-values of 0.326 were more significant than 0.05, indicating the data from Lavene statistics were homogenous. After the requirements were fulfilled, the researchers held the paired-sample test to investigate the effectiveness of BBC LEP as a learning treatment for speaking classes. The paired sample test was administered using the scores in the experiment group.

Table 5. Paired Sample Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	Pretest Experiment - Posttest Experiment	-29.250	7.122	1.593	-32.583	-25.917	-18.367	19	.000

Based on Table 5, the paired-sample t-test indicated that the Sig. 2-tailed is 0.00 and less than 0.05, so the null hypothesis (H0) was rejected. It implied a significant difference between the mean scores of the pretest and the posttest in speaking performance obtained by the experimental group using BBC LEP as the treatment. In other words, the treatment effectively improved students' speaking performance.

3.2 Discussion

The study's finding shows that the students in the experiment group reached good achievement based on the paired sample test. It indicates that the treatment given by the teacher was effective for EFL-speaking classrooms. Improvement was seen in the students' mean scores between the pretest and posttest. In line with this, the strengths of BBC LEP are discussed in this section. As one of the web-based learning courses, it provides some features that can support the learning process. The researchers used the English podcast as the media comprising English materials relevant to L2 speaking. In this modern era, students must communicate efficiently and effectively as the lifelong learning generation since their speaking products are in the English context (Imran & Sulviana, 2022; Peng, 2019).

However, students feel frozen when producing English utterances for various reasons. They were challenged to construct word by word in a more complex structure. Most students are good enough at writing, yet they are anxious when speaking in front of the teacher or class (Herliysa & Wiratno, 2022). This speaking anxiety affects students' motivation to learn confidently. Hapsari and Wu (2022) argued that there is a barrier to EFL learning, especially in speaking, where speaking anxiety and classroom enjoyment affect students' achievement or proficiency. However, EFL speaking nuances can be dynamic and authentic when students realize they can develop their competence when they are passionate about putting seriousness into something meaningful.

Dealing with the treatment in this study, the researchers used BBC LEP to teach the experiment group. The authentic material, including the real-life podcast title, was chosen as their model. Using authentic material through BBC LEP aimed to familiarize them with the problems and conditions linked to their life context, where their authentic performance was measured (Herda et al., 2022). A previous study, a pre-experimental study by Imran and Sulviana (2022), investigated the effectiveness of BBC learning courses in teaching speaking because teachers wanted to eliminate monotonous speaking activities. Their study showed a significant difference between students' scores after being prepared using BBC.

The digital era brings teaching-learning scenarios into digital platforms that can support mastering English material. EFL teachers act as facilitators who should have linguistics pedagogy competence that directly affects students in absorbing learning material in the classroom (Ellis & Gruenbaum, 2023; Margana, 2011; Nizomova, 2023; Yadav & Yadav, 2023). However, in this modern society, standard pedagogy has turned into digital pedagogy, where teachers should be competent to use technology to enhance their teaching performances. In other words, teachers must be up-to-date in technology-enhanced language teaching. This study focused on BBC LEP, where the Internet of Things (IoT) could assist students and teachers in strengthening the management of speaking classrooms and improving the students' learning efficiency (Chen, 2021; Lin et al., 2021). The podcast must be accessed online using the internet and becomes one of the IoT-based learning materials where students' engagement and motivation are cultivated.

In the posttest stage, students performed speaking by reviewing what they had watched in the podcast performed by the native speakers. They were directed to understand the material in the podcast, as the communicative approach emphasizes the activities of students' communication ability (Diana & Sutandi, 2022) through interactive teaching material and media. Besides that, how they pronounce each vocabulary is also great and satisfying after introducing BBC LEP. Pronunciation is crucial to teaching because EFL students need to speak accurately and clearly (Bashori et al., 2022; Kobilova, 2022). Additionally, Uchihara and Saito (2019) revealed that fluency and accuracy in second-language speaking were significantly correlated with their productive vocabulary knowledge. Furthermore, Hardiyanti and Herda (2022) stated that vocabulary mastery could explore students' comprehension of learning material. Thus, the accuracy and fluency of EFL students speaking depend on their pronunciation and vocabulary mastery.

Digital pedagogy and speaking classes are interrelated like a coin with two sides. Teachers can avoid monotonous activities by only instructing students to practice dialogue or storytelling. Still, they give models first to simplify the way students can perform speaking appropriately. The researchers implied that the use of BBC LEP in teaching speaking was beneficial for students speaking competence, and they looked confident in performing speaking. BBC LEP provides relevant features that students can easily access wherever they are. The information, such as unfamiliar vocabulary and the downloadable pdf transcription, motivated them to always focus on speaking practice and finally reach progress in the EFL speaking context.

4 Conclusion

This quasi-experimental design emphasizes giving treatment through BBC LEP to EFL students in the speaking classroom. The paired sample test shows a significant difference between students' pretest and posttest scores in the experiment group. In other words, the finding indicated that BBC LEP effectively taught speaking in an L2 context. Educators and students should broadly and wisely use IoT in this digital pedagogy to reach the demands of the lifelong learning age. Furthermore, the learning material and media for speaking should be interesting, creative, and authentic so that students' dilemmas, such as speaking anxiety, lack of vocabulary, and fluency, can be lessened

maximally. However, the researchers recommend that other researchers interested in a similar topic conduct broadened research perspectives through other research designs, such as correlational study and classroom action research, to get more comprehensive information and better results that can affect the pedagogical scope, especially in teaching reading skills.

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