El uso de recursos tecnológicos para fomentar la producción oral en los estudiantes: precepción de docentes

The use of technological resources to foster students' oral production: teachers' preception

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Resumen

La presente investigación se centra en las percepciones de los profesores universitarios de inglés sobre la eficacia del uso de recursos tecnológicos en sus clases virtuales para fomentar la producción oral de los estudiantes. El objetivo es determinar si los profesores creen que dichas herramientas mejoran la capacidad de expresión oral de sus alumnos en las clases en línea. Se empleó una metodología cuantitativa con un diseño descriptivo transversal, utilizando un cuestionario estructurado de preguntas cerradas administrado a 27 docentes del Instituto de Idiomas de la Universidad de las Fuerzas Armadas - ESPE. Los resultados indican que los recursos predominantes utilizados para mejorar la producción oral son los juegos de aprendizaje de idiomas y las redes sociales, debido a su naturaleza interactiva y su capacidad para mantener la motivación de los estudiantes. Además, las aplicaciones creadas para mejorar las habilidades auditivas y los canales educativos de YouTube son ampliamente utilizados. Por este motivo, los educadores suelen considerar que las herramientas tecnológicas son fundamentales y eficaces para mejorar la productividad oral. Sin embargo, no consideran que estas herramientas fomenten de forma significativa un entorno de aprendizaje colaborativo o inclusivo en las clases en linea. El valor de este estudio radica en identificar los puntos en los que los recursos tecnológicos pueden ser más eficaces para proporcionar las aportaciones necesarias para seguir desarrollando el uso de la tecnología en las clases de inglés en línea.

Palabras clave: Percepciones de los profesores, recursos tecnológicos, producción oral, clases en línea.

Abstract

This current research focuses on university English teachers' perceptions about the effectiveness of using technological resources in their virtual classes to foster students' oral production. The aim is to determine whether instructors believe such tools enhance their students' speaking ability in online classes. A quantitative methodology featuring a cross-sectional descriptive design was employed, utilizing a structured close-ended questionnaire administered to 27 teachers from the Institute of Languages at the University of the Armed Forces - ESPE. The findings indicate that the predominant resources utilized to enhance oral production comprise language learning games and social networks, attributed to their interactive nature and capacity to sustain student motivation. In addition, applications created to improve listening skills and educational YouTube channels are widely used, for this reason, educators generally regard technological tools as fundamental and effective in developing oral productivity. Nevertheless, they do not feel that these tools significantly encourage a collaborative or inclusive learning environment in online classes. The value of this study lies in identifying points where technological resources can become more effective in providing the necessary input to further develop the use of technology in English online classes.

Keywords: Teacher perceptions, technological resources, oral production, online classes.

INTRODUCCIÓN

Oral production (speaking) is one of the most important skills used as the primary means of language production in communication. Moreover, speaking is the art of effectively expressing ideas, thoughts, and emotions with words. It is the clear enunciation of words and phrases; it contains proper rhythm and intonation and embeds the message in the context and audience to which it is targeted. Speaking embodies listening skills in an effective and timely response. Regarding education, Guebba (2021) states that speaking is a vital part of the teaching and learning field.

Bonilla-Guachamín et al., (2020) claim that technological resources play a crucial role in facilitating knowledge acquisition and offering a wide array of learning opportunities for students. They enable students to engage themselves in interactive and interesting ways to understand complex ideas, provide options for different learning styles, and open doors to unlimited information. Integration of technology in schools helps students to be more participatory toward learning in a more personalized way. Furthermore, technological means are effective didactic tools that favor meaningful learning. For this integration into teaching methodologies to be truly effective, however, educators do need training (Duailibi et al., 2020).

In the rapidly evolving educational environment, technology has become a real option to engage learners in the teaching and learning field (Ghory & Ghafory, 2021). Universities worldwide increasingly engage with an online or blended environment; therefore, educators around the world face challenges in implementing technological resources within their pedagogical practices (Cain, 2015). University English teachers are among such educators, with a prominent role in fostering improvement in language skills, including oral proficiency in their students. This study regards teachers' view of technological resources employed in their classrooms as effective in promoting students' oral production; however, the alternative hypothesis suggests that educators may not view these resources as effective.

The transition to online education has made clear the need for a deep understanding of how technology tools impact language acquisition outcomes (Srivastava, 2020). Studies led by Cardoso et al., (2022) have shown that technology can enhance learners' speaking abilities when it is appropriately integrated into language teaching. However, this perspective of university instructors of English about the efficiency of such tools in oral development remains an underexplored area (Rio, 2020). This study, therefore, attempts to investigate the perceptions of university English teachers on the effectiveness of technological

tools in their virtual classrooms in improving their students' oral output, which is considered to be a gap in the current research literature.

According to Günüç (2017) in language teaching and learning, technology integration has played a significant role in teaching methodology, helping engage students more. As educators try to work their way through this modern digital era, tech integration for online language classes has widely become the focus of attention to improve language skills. Technology integration in language education not only brings a range of learning opportunities but also significantly supports the development of students' linguistic competencies (Iqbal et al., 2021). For that reason, Liesa et al., (2020) emphasized the urgent need to train educators on the effective use of technological tools.

MATERIALS AND METHODS

The design:

The research design for this study is quantitative and is based on a descriptive cross-sectional design. According to Creswell (2012), a descriptive cross-sectional design is especially effective in the education sector to measure, for instance, teachers' perceptions at any one particular time without having to conduct follow-ups over long periods. The quantitative approach was selected as the favored methodological design for this research due to its capacity to utilize structured questionnaires for collecting numerical data from educators concerning their perceptions, thereby facilitating statistical analysis prior to deriving conclusions from measurable outcomes (Tarusha & Bushi, 2024).

The participants:

The sample for this study was 27 English teachers from the Language Institute of the University of the Armed Forces - ESPE, who taught in online mode during the semester from November 2023 to April 2024. The teachers participated based on a voluntary sampling strategy, which is commonly used with eligible participants in quantitative studies (Murairwa, 2015).

Regarding inclusion and exclusion criteria, in educational research, inclusion and exclusion criteria play a significant role. The criterion is used to include or exclude relevance in the study. Such criteria provide a frame within which the study can be conducted, bringing consistency to the review process (Arias et al., 2016).

On the one hand, the selection was based on the inclusion criteria of active teaching of English at the university level, a fact that justifies the purpose of the research to study perceptions concerning technology use in the language

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classroom. To be more concrete, within the total of 27 respondents who participated in this study, 16 women and 8 men aged between 25 and 65 years took part in it.

Although there are many challenges, technology use is one of the motivating factors that provides students with varied learning resources and reinforces language skill development (Nahartini et al., 2018). Fortunately, the respondents' technological literacy levels varied from intermediate to advanced; therefore, they had appropriate skills to make use of the technological resources during their online English classes.

On the other hand, two exclusion criteria were put into consideration when choosing the subjects for this analysis. The exclusion criteria included those who at the time were either not teaching English at the university level or had never taught with technological resources online. This was done to ensure that only those teachers who had a profound knowledge of the use of technology in boosting oral communication abilities among learners would be included in this study.

The instrument:
The research instrument is a closed-ended questionnaire comprising 11 questions drawn from specific data points regarding teachers' perceptions of the effectiveness of technological resources in online classes for enhancing oral production. According to Garcia-Marques and Bártolo-Ribeiro (2020), this type of questionnaire will make it possible to have an analysis from a quantitative approach allowing to reach the goal of the study.

The instrument had to pass through the validation of two experts in the field of education, specifically English language teaching, and one expert in educational technology. Roy and Kant (2024) state that expert validation is necessary in order to establish the content validity of the questionnaire since experts can evaluate the relevance and appropriateness of the items. Consequently, the content validity of the questionnaire was enhanced by guaranteeing clarity and relevance to the research objectives, along with other contributing factors (Yun et al., 2023).

Data collection methods included an online administration of the pre-validated instrument to the participants. This therefore allowed consistency and ease in collecting data. There is evidence that in educational research studies, response rates and accuracy have increased with the use of electronic questionnaires (Patel et al., 2020). After data collection, the answers were analyzed through Excel, which is a useful tool to conduct statistics analysis and obtain quantitative data (Reiter & Matthaeus, 2000).

RESULTS Y DISCUSSION

Descriptive statistical methods were used to analyze data obtained from the closed-ended questionnaire. To explain the results of the questionnaire, measures of central tendency- arithmetic mean, and measures of dispersion-standard deviation were calculated accordingly (Zulfiqar et al., 2019). The data was first organized in frequency tables, which allows for better visualization to derive useful interpretations from it. interpretation (Spriggs et al., 2018).

The interpretation of the results was supported by the analysis of computed descriptive measures that indicated the existence of positive attitudes concerning the use of technological resources. (Roig-Vila et al., 2015). The range was measured to establish the level of dispersion or standard deviation. The variation in responses from different subjects determined the level of consensus or dispersion of perception at a group level (Twycross & Shields, 2004).

The results are presented in the following tables:

Technological Resources	Frequency of mention	Relative frequency	Percentage
Language Learning Apps or webpages to practice speaking	15	0,104895105	10%
Language Learning Apps or webpages to practice pronunciation	15	0,104895105	10%
Language Learning Apps or webpages to practice reading	10	0,06993007	7%
Language Learning Apps or webpages to practice listening	16	0,111888112	11%
Language Learning Games	17	0,118881119	12%
Podcasts and Audio Lessons	14	0,097902098	10%
Apps or online Language Assessments	14	0,097902098	10%
Language Learning Blogs and Websites	9	0,062937063	6%
Social media for language learning	17	0,118881119	12%
Educational YouTube Channels	16	0,111888112	11%
Other	0	0	0%

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I don't use any technological resource	0	0	0%
Total	**143**		**100%**

Table 1. P*rimary technological resources teachers use to foster the students' oral production.*

In table one, it is observed that the most used resources by teachers to improve students' oral production are language learning games and social media for language learning. They obtained 17 mentions and a percentage of 12% each. This suggests that games and social media are very popular among teachers, probably due to their interactivity and capacity to maintain interest and motivation in students.

Popularity and trend: Interactive and multimedia technology resources, such as games and social networks are the most frequently mentioned, indicating teachers' preference for dynamic and immersive learning tools.

Diversity of resources used: Although there is a distinct bias towards the usage of some resource types, teachers also use various other resources for supporting different aspects of learning, such as speaking, pronunciation, reading, and listening.

Learning preferences: The notable frequency with which resources about listening practice and games are referenced indicates that educators prioritize immersion and interactive elements within their instructional methodologies (Cruz & Torres, 2022).

Taken together, the second-best options for improving the students' oral production are Language Learning Applications and websites for listening practice and Educational YouTube Channels; both options received 16 mentions, or 11% each.

On the other hand, language learning blogs and websites are the least popular resources educators use, represented by 6%, which is the smallest proportion out of the choices given. Last, but not least, it is relevant to point out that the other types of resources that teachers use during their teaching practices weren't indicated.

	Teachers' perception	Mean	SD
1	It is necessary to integrate technological resources to foster the students' oral production	4,00	0,76
2	The technological resources I employ effectively enhance students' oral production in comparison to traditional teaching methods.	4,11	0,79
3	It's easy to integrate technological resources to foster the students' oral production.	3,44	0,65
4	I seek out new technological tools and resources to foster the students' oral production in my online classes.	4,19	0,81
5	The technological resources I use help create a cooperative and collaborative learning environment to foster the students' oral production in my online classes.	2,04	0,75
6	The technological resources I use help create a more inclusive learning environment for all my students to foster their oral production in my online classes.	1,96	0,77
7	The technological resources are effective in adapting to different learning styles to foster the students' oral production.	3,96	0,75
8	The technological resources used have facilitated the evaluation and monitoring of the students' oral production	4,04	0,77
9	I have noticed improvement in my students' oral production since the implementation of technological resources.	4,07	0,78

Table 2. *Teachers' perception of the effectiveness of technological resources they implement to foster the students' oral production.*

Table two shows the 9 statements about the teachers' perception of the effectiveness of technological resources they implement to foster the students' oral production along with their corresponding mean and standard deviation.

The mean of the responses for statement one is (4). It's significantly higher than 3 and the standard deviation (0,76), indicating that teachers agree that they consider it necessary to integrate technological resources to encourage students' oral production.

The mean of the responses to statement two is (4.11) which is significantly higher than 3 as well as the standard deviation (0,79) indicates that teachers agree that the technological resources they use effectively improve students' oral production compared to traditional teaching methods.

The mean of the responses to statement three is (3.44). It's slightly higher than 3. The standard deviation is (0,65), indicating that teachers do not find it easy or difficult to integrate technological resources to encourage students' oral production.

Statement four has a mean of (4.19) in its responses which is significantly higher than 3. The standard deviation is (0,81), indicating that teachers frequently seek new technological tools and resources to encourage students' oral production in online classes.

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The mean of the responses to statement five is (2.04) is significantly less than 3 and the standard deviation is (0,75), indicating that teachers disagree that the technological resources they use help create a more cooperative and collaborative learning environment for all students to foster their oral production in online classes.

The mean of the responses to statement six is (1.96). It is significantly less than 3 and the standard deviation is (0,77), indicating that teachers disagree that the technological resources they use help create a more inclusive learning environment to foster the students' oral production.

The mean of the responses in number seven is (3.96). It is significantly higher than 3 and the standard deviation is (0,75), indicating that teachers consider to be quite effective the use of technological resources to adapt to different learning styles to encourage students' oral production.

The mean of the responses in statement eight is (4.04). It is significantly greater than 3 and the mean is 4,07, indicating that the technological resources used moderately facilitate the assessment and monitoring of the students' oral production.

The mean of the responses in number nine (4.07) is significantly higher than 3 and the mean is 0,78, indicating that students' oral production has improved moderately since implementing technological resources in online classes.

Challenges	Frequency of mention	Relative frequency	Percentage
Technical difficulties	4	0,148148148	15%
Student distraction and lack of attention	4	0,148148148	15%
Limited student participation and interaction	9	0,333333333	33%
Student competency problems	6	0,222222222	22%
Students don't have technological access and availability	3	0,111111111	11%
Teacher competency problems	1	0,037037037	4%
Total	**27**		**100%**

Table 3. What *challenges have you found when implementing technological resources?*

In table three, it is observed that one of the most mentioned challenges is Limited student participation and interaction. This challenge has obtained a percentage of 30% and the highest frequency of mentions. This suggests that one of the major concerns is to get students actively involved in the learning process using technological resources.

Participation and interaction: Limited student participation and interaction is the most significant challenge, which could be related to the network used, for example: students don't have a steady connection.

Environmental issues as family members interrupting during class. Psychological issues, for instance, absence of enthusiasm, difficulty in organizing their time, and feeling of being isolated. And, financial issues like students who don't have financial resources to afford a good internet service provider (Qutishat et al., 2022).

Student competency: Student competency issues are also a notable concern, suggesting the need for additional support or training to enable students to effectively use technology tools.

Teacher competence: Teacher competence issues were rarely mentioned, suggesting that teachers generally have the necessary skills to use technologies in language teaching which is fundamental at the moment of planning interactive lessons to keep learners engaged and encourage learning a new language (Tünde, 2021).

Hypothesis testing.
The abbreviation of "hypothesis test statistic" is t-statistic (Al-Kassab, 2022): It was used for all of the 9 statements in Table 2. We used the t-statistic formula for a sample: $u_o = 3$

$$t = \frac{\bar{x} - \mu_0}{s/\sqrt{n}}$$

Statement one:
t= 6,841052551
The critical value of t for α=0.05 and n-1=26
From t student distribution table
critical t= 2.056
Since the t-statistic value (6.841052551) is much larger than the critical t-value (2.056) and the p-value is extremely small (much smaller than 0.05), we reject the null hypothesis.

Statement two:
t= 7,320367905
The critical value of t for α=0.05 and n-1=26
From t student distribution table

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critical t= 2,056
Since the t-statistic value (7.320367905) is much larger than the critical t-value (2.056) and the p-value is extremely small (much smaller than 0.05), we reject the null hypothesis.

Statement three:
t= 3,552495562
The critical value of t for α=0.05 and n-1=26
From t student distribution table
critical t= 2,056
Since the t-statistic value (3,552495562) is larger than the critical t-value (2.056) and the p-value is small (smaller than 0.05), we reject the null hypothesis.

Statement four:
t= 7,610840905
The critical value of t for α=0.05 and n-1=26
From t student distribution table
critical t= 2,056
Since the t-statistic value (7,610840905) is much larger than the critical t-value (2.056) and the p-value is extremely small (much smaller than 0.05), we reject the null hypothesis.

Statement five:
t= -6,668984289
The critical value of t for α=0.05 and n-1=26
From t student distribution table
critical t= 2,056
Since the t-statistic value (-6,668984289) is much smaller than the critical t-value (2.056), we accept the null hypothesis.

Statement six:
t= -7,0068655
The critical value of t for α=0.05 and n-1=26
From t student distribution table
critical t= 2,056
Since the t-statistic value (-7,0068655) is much smaller than the critical t-value (2.056), we accept the null hypothesis.

Statement seven:
t= 6,668984289
The critical value of t for α=0.05 and n-1=26
From t student distribution table
critical t= 2,056
Since the t-statistic value (6,668984289) is much larger than the critical t-value (2.056) and the p-value is extremely small (much smaller than 0.05), we reject the null hypothesis.

Statement eight:
t= 7,0068655

The critical value of t for α=0.05 and n-1=26
From t student distribution table
critical t= 2,056
Since the t-statistic value (7,0068655) is much larger than the critical t-value (2.056) and the p-value is extremely small (much smaller than 0.05), we reject the null hypothesis.

Statement nine:
t= 7,166581864
The critical value of t for α=0.05 and n-1=26
From t student distribution table
critical t= 2,056
Since the t-statistic value (7,166581864) is much larger than the critical t-value (2.056) and the p-value is extremely small (much smaller than 0.05), we reject the null hypothesis.

DISCUSSION:
From this research, the consensus of English language teachers at ESPE is that they find it essential and useful to incorporate technologies into their teaching practice.

Other studies have supported this finding too; for example, Cruz and Torres (2022) found out that game-based interactive tools such as language learning games enhance students' participation and oral production. Likewise, according to Al-Kassab (2022), technology can help in developing better communication skills among students as reflected by teachers' views obtained through this study.

On the other hand, some studies contrast the findings of this study. For example, Tünde (2021) observed that teachers often struggle with technical aspects of technology integration in language learning, and teachers expressed moderate confidence in including these resources. This inconsistency between perceived effectiveness and actual implementation calls for more focused professional development.

Despite the valuable insights gained, this study has limitations. The first limitation is that the sample size may not be a representation of all university English teachers which could affect the finding's generalizability. Self-reported data may also introduce bias as teachers can overestimate their competence while using technological resources (Aesaert et al., 2017). Finally, although it would have given some depth into best practices, the study did not explore what types of technological resources are most effective and this could be worth considering for a further study.

Lastly, limited student participation and technical difficulties were among the challenges identified without

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going further into understanding why these problems occurred in a such context.

CONCLUSIONS

The results obtained through this research show that the technological resources used in online education have a positive impact on the oral production of learners of the English language. Results also show that most of the teachers interviewed are aware of such resources and consider them useful tools to enhance language learning and practice due to the speed at which access to various content is possible, and also because activities can be personalized. The educator's disposition toward interactive tools, such as educational games and social networking platforms, reflects the importance of student motivation and involvement in building their communication competency.

However, one of the most serious problems detected by the study is the challenge of creating collaboratively and inclusively virtual environments, despite the facilitation by technologically advanced tools. The results show that while instructors have tried to use multimedia resources that may allow for activity and participation, the interaction among the students remains limited. It therefore calls for further research into pedagogical matters that improve group cohesiveness and allow for more collaboration online.

Finally, the inability of some students to participate in online courses has been cited as the main limitation to the fullest implementation of technological tools and devices.

Despite the wide variety of options available, it has been widely noted by teachers that student interest and participation remain unsatisfactory, which limits the fullest exploitation of the technologies that have been implemented. This finding points to the need to embed technology into the virtual learning environment, develop student motivation, and acquire an appropriate atmosphere that promotes active learning.

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