

E-Learning Solutions and Oral Second Language Production: A Study on Digital Storytelling and Podcast-Based Tasks Among Teachers at a Colombian Public University

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Oral competence remains one of the most persistent challenges faced by pre-service English teachers in Colombian higher education, and digital, technology mediated solutions have increasingly been proposed as a complement to traditional classroom practice. This study examines how an e-learning intervention built around digital storytelling and student produced podcasts is perceived to influence the oral English production of undergraduate students enrolled in a foreign language teacher education program at Universidad Popular del Cesar, Colombia. A descriptive, cross-sectional survey with closed five-point Likert items and open-ended questions was administered to 26 students after they completed a sequence of narrative-based, podcast-oriented activities. Results indicate that most participants perceived gains in vocabulary (88.5% agreement), reading to speaking comprehension (84.6%), and idea organization (76.9%), while perceived support for podcast preparation itself was comparatively lower (65.4%). Qualitative responses converge on fluency and pronunciation as the two most anticipated areas of improvement, alongside recurring references to reduced speaking anxiety and greater learner autonomy. The findings are discussed in relation to prior digital storytelling and podcasting research and are used to outline pedagogical implications for e-learning design in teacher-education programs.

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1. Introduction

Speaking is widely regarded as the most anxiety-inducing and, for many learners, the least developed of the four language skills, particularly in contexts where exposure to English outside the classroom is limited (Horwitz et al., 1986). This tension is especially salient in language-teacher-education programs, where prospective teachers are expected not only to reach an adequate level of oral proficiency but also to eventually model that proficiency for their own future students. In response, higher-education institutions across Latin America have progressively incorporated e-learning solutions understood here as technology-mediated resources and activities that support learning beyond the constraints of face-to-face instruction as a way of expanding practice opportunities for oral skills (Garrison & Kanuka, 2004).

Two such solutions, digital storytelling and student-produced podcasts, have attracted particular attention because they combine narrative construction, technological mediation, and repeated self-recorded oral rehearsal. Digital storytelling requires learners to plan, script, and narrate short multimedia stories, while podcast production asks them to research a topic, structure their discourse, and deliver it in a recorded, editable format that can be revised before it is shared. Both activities are frequently framed as low-cost, learner-centered e-learning strategies capable of increasing autonomy, motivation, and oral fluency (Arroba & Acosta, 2021; Farangi et al., 2015).

This article reports on a study conducted with undergraduate students of the foreign language teacher education program at Universidad Popular del Cesar (UPC), Colombia, who took part in a series of digital narrative and podcast-production tasks as part of their English courses. The purpose of the study was to determine how these students perceive the influence of this e-learning approach on their oral English

production, understood in terms of fluency, pronunciation, vocabulary, organization of ideas, and confidence. The study is guided by the following research question: How do pre-service language teachers perceive the contribution of digital-storytelling and podcast based on e-learning tasks to their oral production in English?

2. Theoretical Framework

E-learning is broadly defined as instruction delivered or supported through digital technologies that allow learners to access content, practice skills, and receive feedback independently of a single physical classroom session (Garrison & Kanuka, 2004). Within language education, e-learning solutions range from fully online courses to blended activities that combine face to face instruction with digital tasks completed autonomously, the latter being the model most consistent with the intervention examined in this study.

Digital storytelling, one of the e-learning strategies considered here, has been associated in previous research with measurable gains in EFL speaking performance. Murad et al. (2023) found that a digital storytelling program improved both the speaking skills and the motivation of junior-high EFL learners in Israel, while Arroba and Acosta (2021) reported that authentic digital storytelling significantly improved university level students' organization, delivery, and command of language in oral tasks, provided teachers were willing to depart from conventional lecture-based practice. These studies converge on the idea that narrative construction gives learners a structured, low-stakes rehearsal space before they must speak in real time.

Podcast production has been studied along similar lines. Farangi et al. (2015) found that Iranian upper-intermediate learners who produced their own podcasts outperformed a control group on post treatment speaking measures, and Koçak and Alagözlü (2021) reported a statistically significant improvement in

Turkish university students' speaking scores after a learner-podcast project, alongside generally positive learner attitudes toward the activity. More recently, Morales Vera et al. (2025) highlighted those same benefits fluency, pronunciation, and coherence among lower-proficiency secondary students in Ecuador, underscoring that podcasting can be adapted across proficiency levels. A recurring explanation for these gains is that recording, listening back, and re-recording allows learners to notice and correct their own errors without the immediate social pressure of a live audience, which in turn is linked to reduced foreign language speaking anxiety (Horwitz et al., 1986) and greater perceived self-confidence.

Taken together, this literature suggests that digital-storytelling and podcast-based e-learning tasks act on oral production through at least three channels: a cognitive channel (better organization and comprehension of content prior to speaking), a linguistic channel (vocabulary and pronunciation practice through repetition), and an affective channel (lowered anxiety and greater confidence through self-paced, revisable rehearsal). These three channels frame the analysis of the present study.

3. Methodology

3.1 Design

This study followed a descriptive, cross sectional design with a predominantly quantitative approach complemented by qualitative, open-ended data, consistent with prior survey based research on digital storytelling and podcasting in EFL contexts (Arroba & Acosta, 2021). The design does not include a pre-/post-test comparison and is therefore interpreted as a perception study rather than an effectiveness (experimental) study.

3.2 Participants

A convenience sample of 26 undergraduate students enrolled in the foreign language teacher education program (Licenciatura en español e inglés) at Universidad Popular del Cesar took part in the study. At the time of data collection, 53.8% (n = 14) of the participants were enrolled in a pre-

intermediate English course and 46.2% (n = 12) in an intermediate course. Slightly more than half (53.8%, n = 14) had previously taken part in academic activities involving podcast production, whereas 61.5% (n = 16) reported never having used digital tools specifically to produce oral content in English prior to this experience.

3.3 Instrument and Procedure

Data were collected through an online questionnaire (Google Forms) administered after participants completed a sequence of digital narrative and podcast production tasks within their English courses. The instrument comprised three sections: (a) informed consent and demographic/background information; (b) seven closed items on a five-point Likert scale (totally disagree, disagree, neither agree nor disagree, agree, totally agree) addressing perceived effects of the intervention on idea organization, comprehension, vocabulary, contextualization, motivation, confidence, and podcast preparation; and (c) six open-ended questions exploring expected improvements, perceived difficulties, learning contributions, and preference between podcasting and traditional oral presentations. Participation was voluntary, and respondents electronically authorized the use of their data exclusively for academic and research purposes before proceeding with the survey.

3.4 Data Analysis

Closed-item responses were tabulated as frequencies and percentages using Python, and the two most favorable categories (agree/totally agree) were combined into a single "agreement" indicator for each item, following common practice in Likert scale reporting in this line of research. Open-ended responses were analyzed through inductive content analysis: two researchers independently read the responses to each question, generated a preliminary list of recurring terms and ideas, and grouped them into descriptive categories (e.g., fluency, pronunciation, vocabulary, confidence, technical/recording difficulties), which were then quantified by frequency of mention across the 26 respondents.

4. Results

Table 1 summarizes the distribution of responses to the seven Likert items. Overall agreement across items ranged from 65.4% to 88.5%, with the highest levels of agreement corresponding to

vocabulary expansion (88.5%) and comprehension of content prior to oral output (84.6%), and the lowest to the item addressing facilitation of podcast preparation specifically (65.4%), which also drew the largest neutral response (30.8%).

Table 1 *Perceived Effects of Digital Narrative and Podcast Based Tasks on Oral English Production (n = 26)*

Survey item (perceived effect of digital narrative / podcasting tasks)	Disagree (%)	Neutral (%)	Agree (%)	M rank*
Organizing ideas before speaking (Item 4)	7.7	15.4	76.9	4
Comprehending content prior to oral output (Item 5)	3.8	11.5	84.6	1
Expanding vocabulary for oral expression (Item 6)	3.8	7.7	88.5	1
Linking content to real communicative situations (Item 7)	3.8	23.1	73.1	6
Motivation to engage in oral production (Item 8)	3.8	19.2	76.9	4
Confidence / security when speaking (Item 9)	3.8	19.2	76.9	4
Facilitating podcast preparation (Item 10)	3.8	30.8	65.4	7

*Rank among the seven items, from highest (1) to lowest (7) percentage of agreement.

In the open-ended questions, fluency and pronunciation emerged as the two most frequently anticipated areas of improvement, mentioned by 50.0% (n = 13) and 46.2% (n = 12) of respondents respectively, followed by vocabulary and confidence, each mentioned by 15.4% (n = 4) of participants. Reported difficulties centered on pronunciation-related concerns (26.9%, n = 7) and practical recording issues, such as unsuitable recording environments or audio equipment (11.5%, n = 3); direct references to fear or embarrassment when listening to one's own recorded voice were comparatively rare (3.8%, n = 1) but recurred as an undertone across several longer responses. When asked which strategy they would prefer for a future oral-production activity, 42.3% (n = 11) of participants favored podcasting, 30.8% (n = 8) favored a traditional oral presentation, and the remaining 26.9% (n = 7) either named both

formats or proposed alternative strategies such as debates, round tables, or free conversation.

Several responses illustrate the reasoning behind these preferences. Participants who favored podcasting frequently pointed to the possibility of rehearsing and re-recording before sharing their work, and to the absence of a live audience, as reasons for feeling calmer and more willing to speak. Conversely, participants who preferred a traditional presentation more often referred to a general sense of familiarity with that format rather than to any specific pedagogical advantage.

5. Discussion

The pattern of results is broadly consistent with previous digital-storytelling and podcasting research, while also revealing some context-specific nuances. As in Murad et al. (2023) and Arroba and Acosta (2021), participants in this

study strongly endorsed the contribution of narrative-based tasks to vocabulary development and content comprehension, the two highest-rated items in the survey. This supports the cognitive and linguistic channels described in the theoretical framework: constructing and rehearsing a narrative appears to give students the conceptual and lexical scaffolding they need before attempting spontaneous oral production.

The comparatively lower agreement on the item addressing podcast-preparation support (65.4%) suggests that, for this sample, the transfer from working with digital narratives to feeling adequately prepared for the more demanding, publicly shareable format of a podcast is not automatic. This nuance qualifies the more uniformly positive findings reported by Farangi et al. (2015) and Koçak and Alagözlü (2021), whose participants had already produced multiple podcasts within a structured project; the present participants, in contrast, were more evenly split between those with and without prior podcasting experience (53.8% and 46.2%, respectively), which may partly account for the wider spread of neutral responses on that item.

The qualitative findings reinforce the affective channel highlighted in the literature. Although few participants explicitly named anxiety, expressions such as feeling "nervous," "stressed," or self-conscious about "hearing my own voice" recurred across responses to the difficulty and experience questions, echoing the anxiety-reduction effects documented by Horwitz et al. (1986) in relation to speaking tasks more generally. Notably, the preference for podcasting over traditional presentations (42.3% versus 30.8%) was most often justified by the possibility of re-recording and self-correcting at one's own pace, a form of learner autonomy consistent with the benefits reported by Farangi et al. (2015) for self-produced audio content.

At the same time, nearly a third of participants preferred a traditional oral presentation or another format altogether, most commonly citing greater ease or familiarity rather than a specific limitation of podcasting. This diversity of preference suggests that, while digital-storytelling

and podcast-based e-learning tasks can meaningfully support oral production for a majority of learners in this teacher-education program, they should be implemented alongside, rather than as a wholesale replacement for, more traditional oral genres, so that students are not restricted to a single mode of public speaking practice.

6. Conclusion

This study examined how pre-service language teachers at Universidad Popular del Cesar perceive the influence of an e-learning approach combining digital storytelling and podcast production on their oral English production. The findings indicate that most participants associate these tasks with gains in vocabulary, comprehension, and idea organization, and, to a somewhat lesser extent, with increased motivation, confidence, and readiness to produce a podcast. Fluency and pronunciation were the two dimensions most frequently identified as expected areas of improvement, while difficulties clustered around pronunciation and the practical demands of recording. A plurality of students expressed a preference for podcasting over traditional oral presentations, largely on the grounds that it allows self-paced rehearsal and reduces the pressure associated with a live audience.

These results support the pedagogical value of incorporating digital-storytelling and podcast based on e-learning solutions into oral-skills components of language teacher education curricula, while also suggesting that such tasks are best combined with, rather than substituted for, other forms of oral practice. As a descriptive, single institution study based on a convenience sample of 26 students and on self-reported perceptions rather than direct proficiency measures, this research does not permit causal claims about actual gains in oral production; the absence of a pre-/post-test design and the relatively small sample size limit the generalizability of the findings. Future research should incorporate pre- and post-intervention oral assessments, larger and more diverse samples across different language-teacher education

programs, and longitudinal designs capable of tracking whether the perceived gains reported here translate into sustained improvements in

fluency, pronunciation, and speaking confidence over time.

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