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The utilisation of the Flipgrid application through mobile devices to enhance motivation and oral expression skills in secondary school students learning English as a foreign language

Uso de la aplicación Flipgrid a través de dispositivos móviles para mejorar la motivación y las habilidades de expresión oral en inglés del alumnado de la ESO

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ABSTRACT
This exploratory study examines the impact of Flipgrid and the generative AI tool, Copilot, on the development of oral expression and motivation among Year 7 students in English language learning. The aim is to ascertain how these technological tools can enhance fluency, pronunciation, and confidence when students communicate in a second language. A sequential explanatory mixed-methods design was employed, combining both quantitative and qualitative analysis. Pre-tests and post-tests were administered to two groups: one with technology-mediated learning and the other without. Fluency, vocabulary, grammar, pronunciation, and levels of anxiety and motivation were assessed. The data reveals that the group using Flipgrid and Copilot showed significant improvements in fluency, vocabulary, and grammar, along with increased motivation and reduced anxiety. However, no notable advances in pronunciation were observed. The flexible access to materials and immediate feedback fostered autonomy and collaborative learning. The study affirms the value of m-learning and digital tools in English language instruction, highlighting the importance of active methodologies and well-planned pedagogy to maximise benefits.

RESUMEN
Este estudio exploratorio analiza el impacto de Flipgrid y la IA generativa Copilot en el desarrollo de la expresión oral y la motivación en estudiantes de 1º de ESO en el aprendizaje del inglés. Se busca determinar cómo estas herramientas tecnológicas pueden mejorar la fluidez, pronunciación y confianza de los alumnos al comunicarse en una segunda lengua. Se empleó un diseño mixto secuencial explicativo, combinando análisis cuantitativo y cualitativo. Se aplicaron pretest y postest a dos grupos: uno con aprendizaje mediado por tecnología y otro sin ella. Se evaluaron fluidez, vocabulario, gramática, pronunciación y niveles de ansiedad y motivación. Los datos muestran que el grupo que utilizó Flipgrid y Copilot experimentó mejoras significativas en fluidez, vocabulario y gramática, además de una mayor motivación y menor ansiedad. Sin embargo, no se observaron avances relevantes en pronunciación. El acceso flexible a materiales y la retroalimentación inmediata favorecieron la autonomía y el aprendizaje colaborativo. El estudio confirma el valor del m-learning y las herramientas digitales en la enseñanza del inglés. Se destaca la importancia de metodologías activas y planificación didáctica adecuada para maximizar beneficios.

KEYWORDS · PALABRAS CLAVES
Oral expression skills; EFL (English as a Foreign Language); Digital education; Communicative competence; Mobile learning; Artificial IntelligenceHabilidades de expresión oral; EFL (inglés como lengua extranjera); Educación digital; Aprendizaje móvil; Inteligencia artificial

1. Introduction

Proficiency in at least one language other than one's mother tongue is now recognised as an essential component of a person's well-rounded education (Agenda 2030 UNESCO, 2016; Baker & Fang, 2021) and is considered as one of the key competences for lifelong learning in the European reference framework (Council of the European Union, 2018).

Communicative competence in any language is developed through four fundamental skills: listening, reading, writing and speaking, and among these, oral expression is considered a key indicator of language proficiency (Hinkel, 2005). However, this skill is not only a communicative act, but also a significant challenge in the process of learning a second language.

In the specific context of this study, the focus is on the acquisition of English as a second language (L2) during compulsory secondary education [Educación Secundaria Obligatoria (ESO)] given its relevance as a lingua franca (Crystal, 2003; Jenkins & Leung, 2017) in academic, scientific, business and technological spheres. During this stage, which spans from 11 to 16 years of age, particular challenges present themselves due to the fluctuations in confidence, motivation and anxiety levels characteristic of adolescent psycho-affective development.

It can therefore be argued that the central issue in teaching English as L2 in ESO is how teachers should address the specific difficulties faced by adolescents in developing their oral competence in this language.

The scientific literature indicates that the development of oral expression in L2 English during ESO is a significant challenge in its teaching, because of both the complexity of this skill and the difficulties faced by teachers.

This ability goes beyond vocabulary and grammar mastery, as it also requires pragmatic competences, suprasegmental skills and the ability to communicate effectively in different contexts, including pronunciation, rhythm and intonation (Agenda 2030 UNESCO, 2016). One of the main obstacles to its acquisition is a lack of practice in authentic settings due to the fact that, despite the classroom being a fundamental space for learning, opportunities to develop oral expression in a spontaneous and meaningful way remain limited.

Furthermore, second language acquisition, especially in speaking, is influenced by psycho-affective factors such as motivation, anxiety, fear of making mistakes and lack of confidence, which have an adverse effect on learners' active participation (Hanifa, 2018; Hinkel, 2005). These factors may decrease motivation and generate negative attitudes towards oral communication in English, making it difficult to acquire in the long term (Dörnyei & Kormos, 2000).

From a pedagogical perspective, teachers face a number of challenges in regard to the promotion of English speaking. The high ratio of students in the classroom, with a minimum of 25 per group, hinders the implementation of personalised and learner-centred oral activities (Arredondo Ruiz, 2017). As a result, historically, reading and writing have been prioritised over speaking, limiting students' exposure to real communicative situations in English (Okada et al., 2018; Tsou, 2005). This lack of interaction in authentic contexts contributes to anxiety and lack of confidence, reducing learners' motivation to practise English oral expression (Hanifa, 2018).

To overcome these obstacles, there has been a shift in recent years towards more communicative approaches and innovative pedagogical strategies, such as Extramural

English. This methodology focuses on encouraging students to interact in the language outside the classroom, integrating digital resources that encourage oral practice (Fernández Sesma et al., 2023; Sylvén & Sundqvist, 2012). These tools create meaningful, safe and motivating learning environments that promote English interaction in digital environments (Hanifa, 2018; Lyrigkou, 2019).

L2 oral practice can be strengthened through two types of digital aids: applications designed specifically for language learning and those that favour social learning, facilitating online communication and collaboration.

This second group includes the mobile version of the Flipgrid application, which offers a collaborative and dynamic learning environment that could be an effective alternative for improving oral competence in terms of fluency, vocabulary, grammar and pronunciation in English (Gill-Simmen, 2021; Lowenthal & Moore, 2020).

This approach allows for the integration of social and academic aspects (Gill-Simmen, 2021; Payne, 2019) and enriches the learning process inside and outside the classroom, encouraging creativity and promoting a change of role in students, in line with active teaching strategies. It should be underlined that Flipgrid is particularly useful for language learning, as it reinforces not only oral competence but also reading and writing skills. Our proposed use of Flipgrid responds to the principles of e-learning 2.0 (Barroso Osuna & Cabero Almenara, 2013; Cabero Almenara, 2006; Cebreiro López et al., 2019) and connectivism (Siemens, 2005).

Flipgrid facilitates synchronous and asynchronous communication, fostering student motivation and engagement with their learning, at the same time as connecting social and academic elements (Gill-Simmen, 2021; Juan-Lázaro & Area-Moreira, 2021). Its use allows students to share videos, receive feedback and participate in a learning community that combines elements of social and academic interaction, reducing anxiety and promoting autonomy in learning to speak (Petersen et al., 2020). It also provides teachers with a space for formative assessment, interaction with learners and the integration of formal and informal learning (Godwin-Jones, 2011).

In this context, the incorporation of generative artificial intelligence tools in the classroom for creating images and visually representing vocabulary and concepts offers an innovative and motivating approach for 1st-year ESO students, always being aware of its possible biases and ethical implications in data collection and protection.

This technology, generative artificial intelligence combined with Flipgrid, allows students to develop their creativity, personalise their learning, and can improve understanding of English through visual experiences and the development of essential digital skills for the future (Chust-Pérez & Esteve-Faubel, 2022; Godwin-Jones, 2011; Zhang & Zou, 2022).

However, the effective implementation of these methodologies requires teachers not only to master linguistic knowledge but also to have a solid didactic-pedagogical basis (Masuram & Sripada, 2020), therefore allowing them to design conversational tasks that integrate all the technical-pedagogical facets for providing students with more meaningful speaking practice in digital contexts, and themselves with learning assessment and personalisation tools.

The working hypothesis is that the integration of the Flipgrid application in educational practice, in combination with generative artificial intelligence tools, specifically *Copilot*, has

a positive impact on English L2 oral expression and motivation towards it in 1st-year ESO students, and the following objectives are proposed to respond to this hypothesis:

a) To determine the initial level of oral competence in English of students beginning the 1st year of ESO.

b) To analyse the evolution in essential elements of oral expression following the implementation of the Flipgrid and Copilot application in the educational intervention.

c) To evaluate the impact on motivation and anxiety levels of the use of the Flipgrid and Copilot application through mobile devices in the oral practice of the English language.

2. Methodology

This study is of an exploratory mixed design type, implementing a sequential explanatory strategy with a quantitative-qualitative sequence, starting with a pre and post-test stage of statistical data collection and analysis followed by a qualitative stage where the experiences and perceptions of the subjects involved will be explored via the focus group technique.

The purpose of this methodology is to generate valid and reliable information that serves as a basis for informed decision-making, in accordance with contemporary methodological principles in educational research (Bisquerra Alzina, 2004). In this case, there is an analysis of the use and contributions of mobile devices and the collaborative and communicative Flipgrid and generative AI Copilot applications in L2 learning.

For this purpose, a pilot study was carried out in a Secondary School in the autonomous region of Valencia, where a technology-mediated teaching activity was implemented to promote the learning of oral English.

The study used a non-probabilistic purposive sampling method, selecting two groups of students with homogeneous characteristics relevant to the research. This approach allowed us to compare the two groups and explore their experiences within the learning process at the same time.

2.1 Participants

The study was carried out in a secondary school in an urban area of Alicante (50,000 inhabitants, medium socio-economic level), and was implemented in two 1st-year ESO groups during the first term, with the collaboration of the teachers.

Each group comprised 20 students with similar psycho-pedagogical characteristics, in a lower ratio than in upper years to facilitate ESO adaptation. The distribution was balanced: experimental group (GA) 12 boys, 60%; 8 girls, 40% and control group (GB) 11 girls, 55%; 9 boys, 45%.

In GA, since all the pupils had smartphones, oral expression was worked on Flipgrid and Copilot with mobile devices. In GB, the same activities were carried out without technology.

2.2 Instruments

Four data collection techniques were implemented: (a) diagnostic test, (b) play-didactic strategy, (c) confirmatory test and (d) focus groups.

The diagnostic test used the A1 Movers Cambridge English Assessment test format. The play-didactic strategy included three Cambridge English pictures ('At the doctor's', 'From the countryside to the jungle' and 'The weather'), each worked on in two sessions as described in *Table 1* in order to practice oral production, using Flipgrid and Copilot with GA and paper with GB. A confirmatory test with the same criteria was then applied to assess progress in both groups.

Following this test, four focus groups of 10 students (two per group, balancing gender) were formed to explore perceptions and emotions about learning. The narratives were analysed in three phases: (1) keyword identification, (2) categorisation and (3) grouping into meta-categories.

The analysis, conducted with Atlas.Ti23, showed an initial agreement of 90% between researchers, reaching 97% after two meetings. Each student was assigned an acronym according to his or her group (*A1, A2, B1, B2*) and gender (*Boy - B, Girl - G*).

2.3 Pilot study

Following the diagnostic tests, specific activities were designed for working on oral expression: GA used Flipgrid and Copilot via mobile devices, while GB did not use technological resources.

The GA students accessed the class on Flipgrid via a private code, ensuring that only the teacher and peers saw the videos after validation and feedback.

Teachers organised five heterogeneous groups of four students, balancing gender, skills and knowledge. The three educational interventions were developed in these groups throughout the first trimester, with two sessions per week dedicated to their implementation (Table 1). The learning activity was the same in both groups, differing only in the format of the materials and the collaborative environment.

In GA, students used digital materials distributed online (dictionary, digital images and explanatory video) and combined face-to-face interaction with Flipgrid, accessed from their mobile devices. For the production of the videos they relied on some functionalities of the generative AI tool Copilot (help with image creation).

In GB the materials were printed (paper dictionary, physical images and teacher's explanation), with all interaction taking place face-to-face.

Table 1

Study approach (GA-Experimental class group. GB- Control class group)

Stage	Objective	Resource
Diagnosis	Obtain information on initial level of fluency and accuracy in students' oral expression in English.	Standardised diagnostic test to be implemented at beginning of school year.
Implementations	Oral language practice through group activities concluding with recording of video through Flipgrid in GA and oral presentation in GB	Session 1: Teachers provide one of the three Cambridge English Assessment images mentioned above as starting point for oral practice: vocabulary, grammatical structures, pronunciation and oral interaction. GA accesses the image and instruction via Flipgrid on mobile, while GB receives the image on paper with face-to-face instruction. The lexis and language structures are worked on collaboratively. GA uses the online Oxford dictionary and GB uses the printed classroom dictionary. Each group then describes and interprets the image, structuring an agreed story. Session 2: GA record their story on video and share it on Flipgrid; GB present it orally in class. Afterwards, each group creates a short story with four images, GA using AI (Copilot), and GB using paper, recreating a communicative situation. GA records and shares the video on Flipgrid, while GB gives an oral presentation in class.
Evaluation / Verification	Analyse student progress in English language speaking via oral communication improvement and willingness to participate.	End of term test carried out by teachers following the same parameters as Cambridge English to evaluate student progress.

3. Analysis and results

The analysis of the equivalence of the groups in the pretest, the results of which are shown in Table 2, reveal that the students in both groups had a similar level at the beginning of the study. As the table shows, no statistically significant differences were found (p>.05) between the groups in any of the variables evaluated in the pretest.

Table 2

Difference of means and statistical significance in pretest

	Levene's test		Experimental G.		Control G.		Statistical Significance		
Dimensions	**F**	**p**	**M**	**SD**	**M**	**SD**	**t**	**df**	**p**
PreA	.00	.97	6.20	1.64	5.45	1.64	1,447	38	.156
PreB	.11	.74	5.65	1.98	4.85	1.81	1,332	38	.191
PreC	1.63	.21	4.15	2.30	3.45	1.79	1,074	38	.290
PreD	1.31	.26	3.55	2.14	2.95	1.76	.968	38	.339
PreTotal	.00	.97	6.20	1.64	5.45	1.64	1,447	38	.221

The posttest results for the Experimental and Control groups for each of the dimensions and the total scores were those shown in Table 2.

Table 3

Means and standard deviation in posttest

	Experimental Group		Control Group	
Dimensions	**M**	**SD**	**M**	**SD**
PostA	7.60	1.39	6.40	1.54
PostB	6.60	1.88	5.50	1.82
PostC	5.15	2.37	3.65	2.03
PostD	4.05	2.14	3.05	1.85
PostTotal	23.40	7.15	18.60	6.95

A repeated measurements analysis of variance (ANOVA) was then performed to evaluate the effect of the 'Intra' factor and its interaction with the 'Between' factor on the A, B, C, D and Total variables, the results of which are shown in Table 3.

The analyses revealed a significant main effect of the 'Intra' factor on variables A, B, C, and Total ($p<.001$; Table 4), indicating that scores in these variables increased, as can be seen when comparing pre- and post-test scores (Tables 2 and 3) for each variable. However, no significant effect of the 'Intra' factor was found for variable D ($p=.154$). After the programme was applied, changes were significantly greater in the experimental group across all variables ($p<.05$ in all cases) (Tables 2 and 3). Regarding effect sizes, they were large for the 'Intra' variable in A, B, and Total, moderate for C, and small for D. The effect size for the interaction between both factors ranged from small to moderate in all variables where the interaction was significant.

Table 4

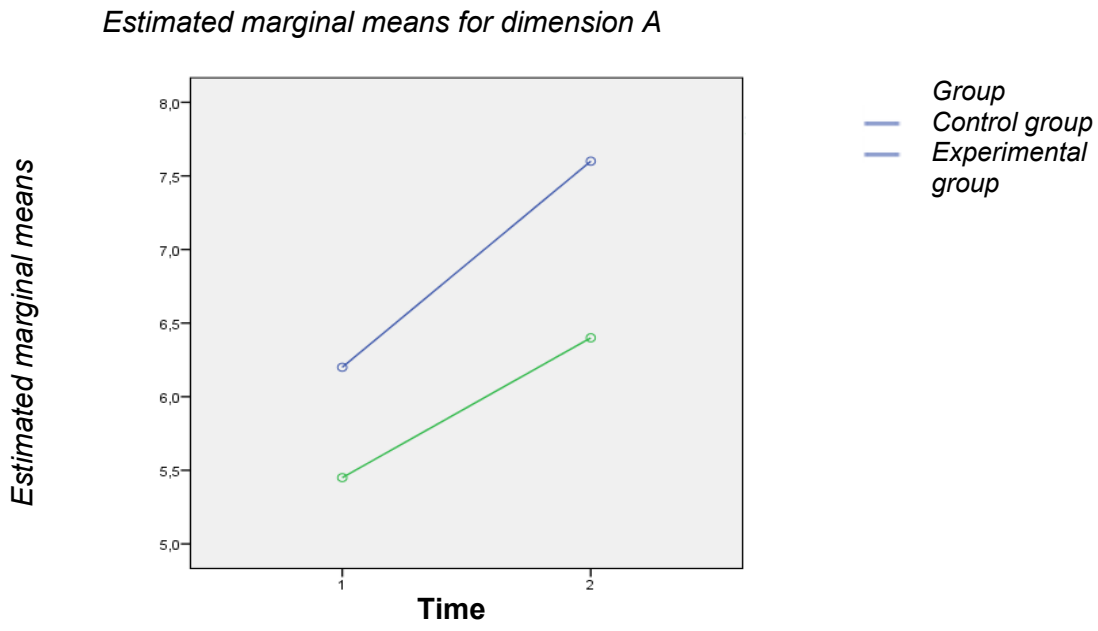
Summary of ANOVA of repeated measurements for variables studied

Dimensions		Type III Sum of Squares	df	Mean Square	F	p-value	Partial Eta Squared
A	Intra	27.61	1	27.61	178.60	.000	.82
	Intra*Entre	1.01	1	1.01	6.55	.015	.15
	Error(Intra)	5.88	38	.15	---	---	---
B	Intra	12.80	1	12.80	129.71	0,000	.77
	Intra*Entre	.45	1	.45	4.56	0,039	.11
	Error(Intra)	3.75	38	.10	---	---	---
C	Intra	7.20	1	7.20	36.00	0,000	0.49
	Intra*Entre	3.20	1	3.20	16.00	0,000	0.30
	Error(Intra)	7.60	38	0.20	---	---	---
D	Intra	1.80	1	1.80	2.12	0,154	0.05
	Intra*Entre	0.80	1	0.80	8.94	0,005	0.19
	Error(Intra)	3.40	38	0.09	---	---	---
Total	Intra	165.31	1	165.31	345.63	0,000	0.90
	Intra*Entre	19.01	1	19.01	39.75	0,000	0.51
	Error(Intra)	18.18	38	0.48	---	---	---

Graphically, all of the above can be clearly observed in the following figures.

Figure 1

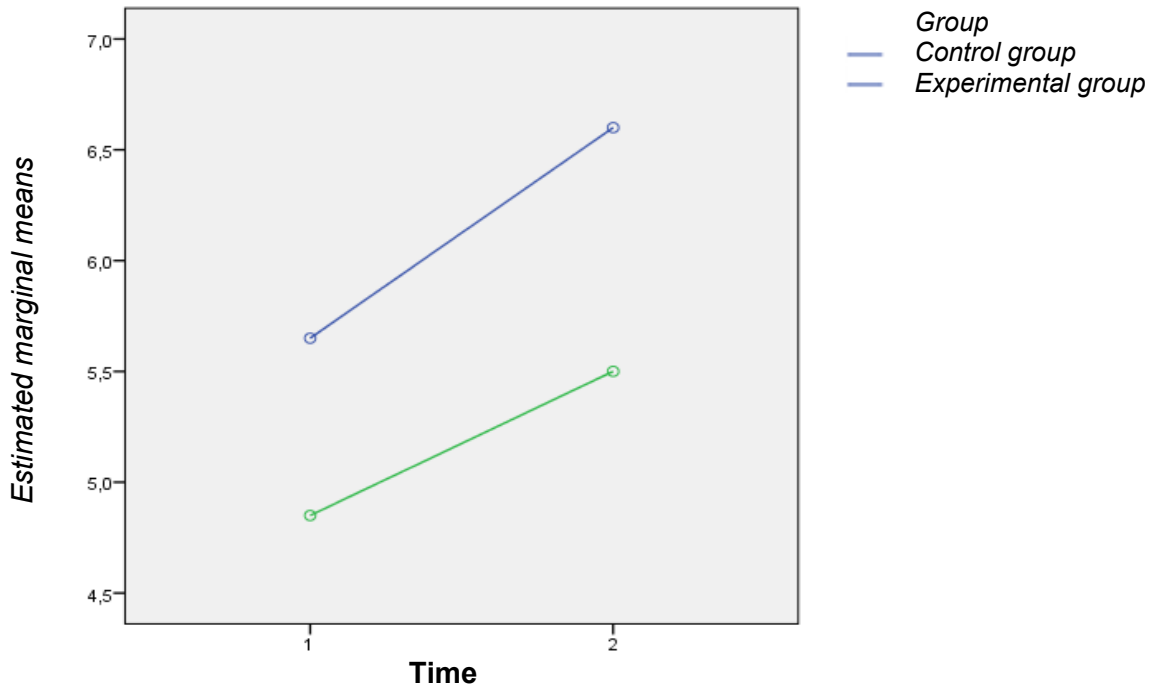
Group Control group Experimental group Time



Source: own elaboration

Figure 2

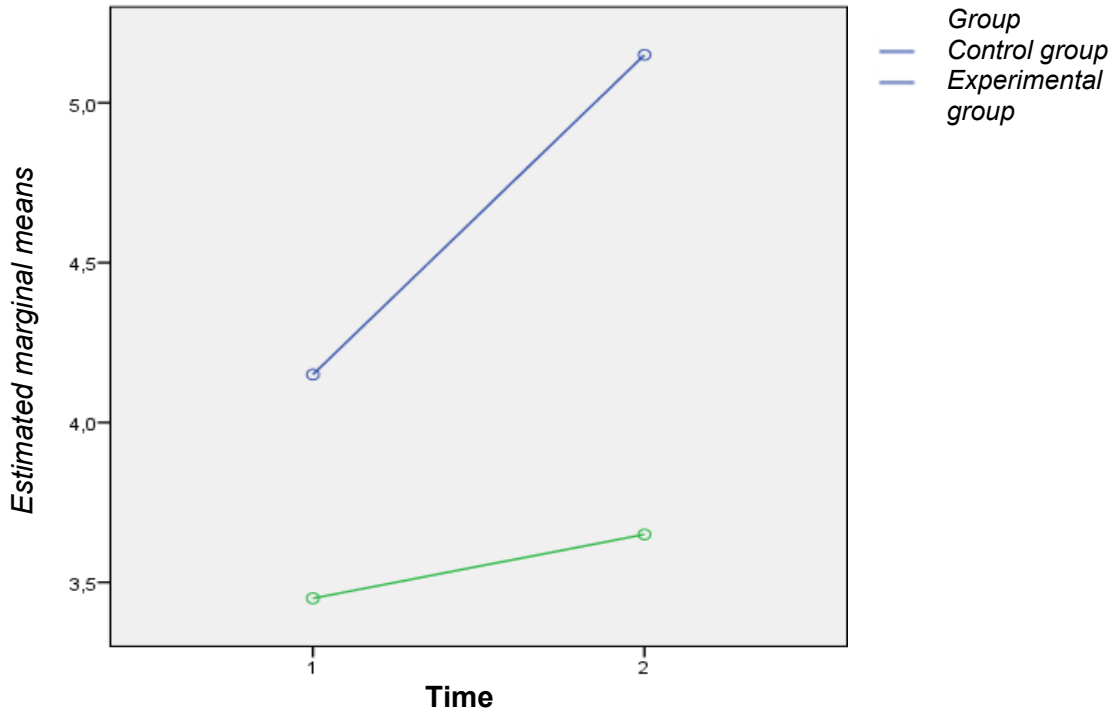
Estimated marginal means for dimension B



Source: own elaboration

Figure 3

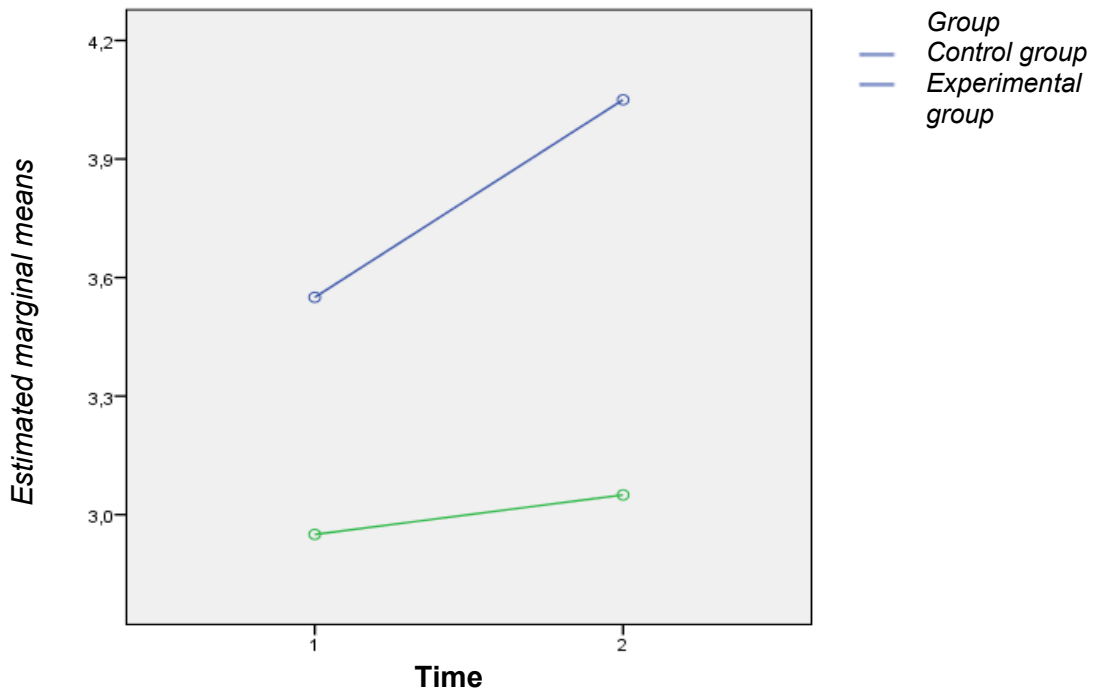
Estimated marginal means for dimension C



Source: own elaboration

Figure 4

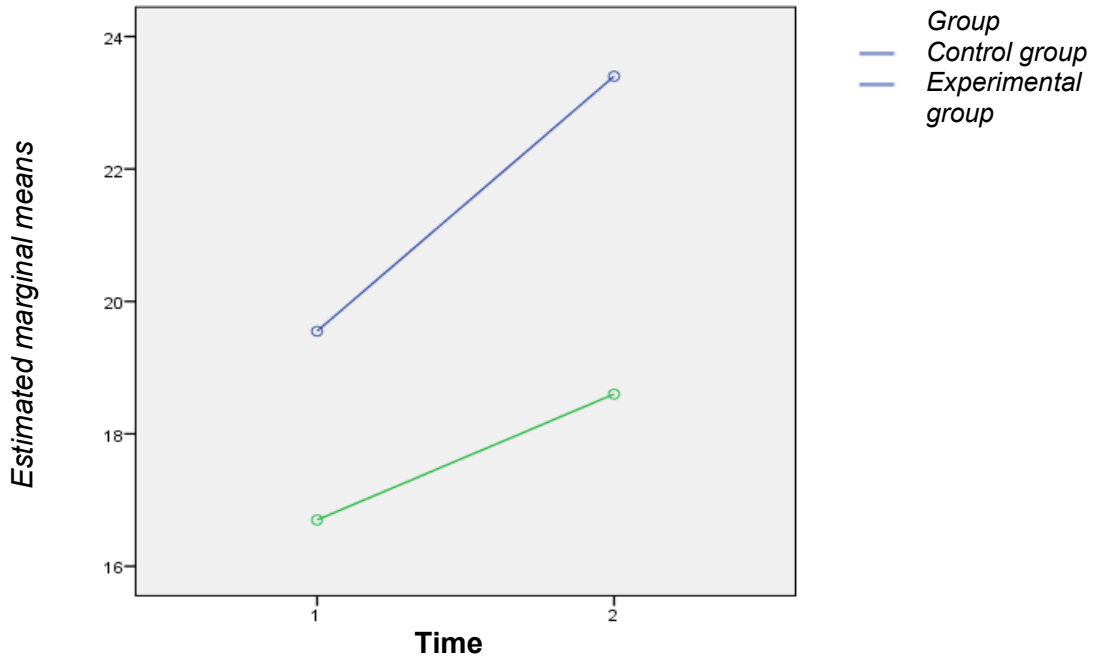
Estimated marginal means for dimension D



Source: own elaboration

Figure 5

Estimated marginal means for Total dimension



Source: own elaboration

The difference between the two groups in these three aspects is reflected in their progress rates. GA shows significant improvement in motivation and reduced anxiety, which positively influences their willingness to communicate. In contrast, GB shows minimal progress in reducing foreign language anxiety and motivation, resulting in a low willingness to communicate.

These results confirm the initial hypothesis about the positive impact of virtual collaborative tools and environments on oral expression and motivation to communicate in English.

Regarding performance levels, the degree of acquisition in each area of oral competence was measured at three levels: advanced, intermediate, and basic (Table 5). Additionally, teachers provided each student with detailed feedback, highlighting both improved aspects and those requiring further development.

Table 5

Results of the practical sessions

		Practice 1				**Practice 2**				**Practice 3**			
		GA n=20		**GB n=20**		**GA n=20**		**GB n=20**		**GA n=20**		**GB n=20**	
		n	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Fluency	Advanced	3	15	2	10	3	15	6	30	7	35	8	40
	Intermediate	10	50	10	50	10	50	10	50	10	50	11	55
	Basic	7	35	8	40	7	35	4	20	3	15	1	5
Vocabulary	Advanced	4	20	5	50	10	50	9	45	16	80	15	75
	Intermediate	13	65	14	70	11	55	10	50	3	15	4	20
	Basic	2	10	1	5	1	5	1	5	1	5	1	5
Grammar	Advanced	3	15	4	20	6	30	7	35	12	60	12	60
	Intermediate	12	60	13	65	11	55	11	55	8	40	9	45
	Basic	5	25	4	20	3	15	2	10	1	5	1	5
Pronunciation	Advanced	3	15	4	20	4	20	6	30	9	45	8	40
	Intermediate	10	50	10	50	11	55	14	70	10	50	10	50
	Basic	6	30	7	35	5	25	2	10	1	5	2	10

The results of the three educational interventions (practices) conducted during the first term reflect faster progress in GA compared to GB. In GA, the use of Flipgrid extends the physical classroom and facilitates collaboration and interaction with the teacher in a flexible virtual environment. Additionally, it incorporates a playful, gamified and creative dimension that fosters greater student engagement, promoting active roles such as creator, evaluator (providing feedback), and researcher, thus enhancing their learning and participation.

Progress was evaluated by comparing the final assessment results in both groups, analysing student productions (videos on Flipgrid and in-class performances), as well as observing and assessing their oral interventions in different contexts: in a cooperative group, in the general class group, and in interaction with the teacher.

The difference in progress between the two groups is evident from the first educational intervention. Although faster progress is observed in GA across all evaluated aspects of oral skills, the greatest difference lies in fluency and pronunciation. The use of Flipgrid in GA facilitates faster and greater progress to the advanced level in these aspects compared to GB.

In Practice 3, over 50% of students using Flipgrid achieved an intermediate or advanced level in all four evaluated areas of oral expression. However, although GB also shows progress, the number of students reaching an advanced level is lower than in GA. This difference is particularly significant in the final test (Table 3), where significant progress is observed in all four evaluated areas.

The results also reflect increased motivation and reduced anxiety in GA thanks to the use of Flipgrid via mobile devices (Table 6). The application allows for detailed monitoring of student work, including time and frequency of connections, with an increase in oral practice outside the classroom being observed. As of the first practical, 50% of GA students connected regularly and for extended periods to create and view their peers' videos.

Table 6

Improvement in motivation and anxiety in Group A

		n=20	%
Practice 1	Frequent and extensive connections to Flipgrid outside the classroom.	10	50
	Final video interventions exceeding one minute.	6	30
	Peer feedback videos exceeding one minute.	6	30
Practice 2	Frequent and extensive connections to Flipgrid outside the classroom.	14	70
	Final video interventions exceeding one minute.	12	60
	Peer feedback videos exceeding one minute.	10	50
Practice 3	Frequent and extensive connections to Flipgrid outside the classroom.	20	100
	Final video interventions exceeding one minute.	17	85
	Peer feedback videos exceeding one minute.	18	90

The progress between Practice 1 and Practice 3 shows considerable evolution, suggesting that mobile use has increased motivation and reduced anxiety about making mistakes. 100% of students connected to Flipgrid outside the classroom to continue speaking practice, and peer feedback videos exceeding one minute reflect the cohesion achieved in the class group.

Regarding focus groups, the results show no intragroup differences, with three main metacodes emerging: language learning anxiety, motivation, and willingness to communicate (Table 7). The difference between the two groups lies in their progress rates, with GA showing more notable advances in motivation and reduced anxiety thanks to the use of Flipgrid in and outside class, which improves their willingness to communicate.

Conversely, GB shows minimal progress in anxiety and motivation due to the lack of digital tools, resulting in a low willingness to communicate.

Table 7

Metacodes, codes, and exemplary quotes

Metacode		Code	Exemplary quotes	N=20	%	
GA	Anxiety	Reducing nerves before speaking.	"Flipgrid's easy; it's like TikTok."(GFA1B)	18	90	
			"I like making videos with Flipgrid and laughing making them."(GFA2G)	17	85	
		Reducing fear of understanding oral messages	"I like doing activities like this with my group."(GFB2B)	15	75	
			"I can understand more words from my classmates and the teacher."(GFA1G)	17	85	
	Motivation	Enthusiasm in the classroom	"It's cool using mobiles to make videos and images."(GFA1B)	20	100	
			"We all brought costumes and things for the videos."(GFB2G)	18	90	
		Interest outside the classroom	"We repeated what we had to say at home because we wanted Likes."(GFA1G)	17	85	
			"I loved using videos to comment on others' work in class and at home"(GFA1B)	20	100	
	Willingness to communicate	Work group	"It was fun listening to my group mates speaking English." (GFA1B)	16	80	
			"We liked learning new words and using them to describe images."(GFA1G)	16	80	
		General class group	"It's really easy to watch and reply with another video." (GFA2B)	20	100	
			"I had a great time recording videos at home. I laughed a lot."(GFA1G)	18	90	
GB	Anxiety	Reducing nerves before speaking.	"I spoke in English with my group mates without feeling nervous." (GFB2G)	9	45	
			"We laughed a lot when we couldn't say a new word properly."(GFB1B)	10	50	
		Reducing fear of understanding oral messages	"I can understand the teacher's instructions better."(GFB1G)	10	50	
			"I can easily understand what my classmates are saying."(GFB2G)	8	40	
	Motivation	Enthusiasm in the classroom	"I really wanted to act."(GFB1B)	8	40	
			"I really enjoyed preparing the decoration for us to be the best."(GFB2G)	7	35	
		Interest outside the classroom	"We met at my house to do the story."(GFB1B)	9	45	
			"We all looked for stuff in magazines, stickers and images for the work."(GFB2G)	8	40	
	Willingness	Work group	"I spoke loads of English in these classes. It was cool"(GFB2G)	5	25	

Code	Exemplary quotes	N=20	%
	"We put the learnt words in the work".(GFB1B)	6	30
General class group	"We laughed a lot when we didn't say something correctly doing the story".(GFB1G)	6	30
	"I've never spoken so much English in my life."(GFB2B)	7	35

4. Discussion

This exploratory study, with a sequential explanatory mixed design, investigated the impact of integrating the collaborative virtual environment Flipgrid and the generative AI tool Copilot for image creation on the development of oral expression and motivation towards this skill in 1st-year ESO (compulsory secondary education) students. The results confirm that the educational intervention supported by Flipgrid, complemented with AI, had a positive impact on oral expression and motivation towards learning English as a second language. The quantitative and qualitative data show progress in the oral production of the student group whose learning was mediated by technology, as well as higher motivation and lower anxiety in oral participation, compared to the group whose learning was not mediated by technology.

Regarding the first objective, the pre-test applied to both groups revealed significant homogeneity in oral competence levels at the start of the intervention in fluency, vocabulary, grammar, and pronunciation, allowing the subsequent differences to be attributed to the effect of the Flipgrid and Copilot tools rather than pre-existing differences. The initial results align with Cohen's (2012) study, which identified difficulties in fluency and pronunciation associated with the articulation of phonemes and prosodic, paralinguistic and extralinguistic elements. Despite these difficulties, students demonstrated basic mastery of vocabulary and grammar, enabling them to construct messages.

The analysis of the posttest, the second objective, showed that the group whose learning was technology-mediated experienced significant improvement in fluency, vocabulary, and grammar, with this improvement being greater than that of the non-technology-mediated group. This suggests that Flipgrid provided a friendly and secure collaborative virtual space to practice oral expression (Hanifa, 2018; Lyrigkou, 2019), fostering experimentation with the language and repetitive, deliberate and contextualised practice, essential for developing L2 oral competence (Gill-Simmen, 2021; Lowenthal & Moore, 2020). During the first term, the technology-mediated group progressed rapidly in fluency and pronunciation, with the majority reaching an intermediate or advanced level in all four dimensions of oral expression, while progress for the non-technology-mediated group was less pronounced. Flipgrid facilitated more effective and efficient oral practice. However, the post-test showed no significant improvement in pronunciation, suggesting the need for other specific ICT-mediated pedagogical strategies for this skill.

The analysis of the third objective revealed that both groups shared metacodes related to anxiety and willingness to communicate. Despite this, the technology-mediated group showed greater predisposition towards oral interaction, lower anxiety, and higher motivation for learning, both inside and outside the classroom. These results align with research

highlighting the importance of psycho-affective factors in second language learning (Hinkel, 2005).

The creation of dynamic, collaborative, and technology-enriched learning environments promoted continuous and flexible learning, reducing anxiety and increasing motivation and communicative skills (Gill-Simmen, 2021; Payne, 2019). Students valued the use of mobile devices and tools like Flipgrid, while the generative AI tool, via the provision of ideas and immediate feedback, enhanced their autonomy and turned them into active agents of their learning, improving their motivation. In contrast, the group whose learning was not mediated by technology showed lower motivation and less reduction in anxiety.

The introduction of playful elements in interactions with mobile devices and the use of Flipgrid and Copilot generated motivation, fostered interest, and reduced anxiety (Dashtestani, 2016; Fombona Cadavieco & Rodil Pérez, 2018). By perceiving it as a game, students found the activity intrinsically motivating (Chust-Pérez & Esteve-Faubel, 2022).

The results confirm that m-learning is a valuable resource in education (El-Hussein & Cronje, 2010; Fallahkhair et al., 2007), encouraging autonomy and bridging the classroom with adolescent reality. Additionally, it transforms attitudes towards learning by offering flexible access to materials and interactive feedback (Milrad & Jackson, 2008; Stockwell, 2010). When used with appropriate methodology and under teacher supervision, mobile devices can be important tools for innovating teaching and expanding learning scenarios by connecting with reality.

This study also showed an increase in time spent on videos outside the classroom and in app usage, which favours oral practice (Hwang et al., 2016). Moreover, audiovisual feedback enhances comprehension, cooperation, and critical thinking. In this regard, Flipgrid facilitates collaborative learning, reduces errors and strengthens motivation, provided it is integrated with proper didactic planning. Thus, the use of mobile devices, along with tools like Flipgrid and Copilot, has not only reinforced English learning but also stimulated student creativity and teamwork.

5. Conclusions

The study confirms that the use of mobile devices (m-learning) and collaborative, communicative, and generative AI applications, within a well-structured teaching proposal, improves oral expression and motivation in 1st-year ESO students learning English as a second language. This approach fosters autonomy, connects the classroom with adolescent reality, and extends oral practice outside the classroom thanks to flexible access to materials and constant feedback.

Applications and audiovisual feedback not only strengthen comprehension and critical thinking but also, through collaborative tools like Flipgrid, promote group learning, reduce errors, and reinforce motivation. To maximise these benefits, it is essential for teachers to implement active methodologies and integrate technology in a structured and meaningful way.

However, the study has limitations related to the sample, which may hinder the generalisation of the conclusions obtained to very different educational contexts. A longitudinal follow-up of participants is not possible, either, as the organisational dynamics of secondary schools involve regrouping students when they move up to the 2nd year of

ESO, preventing the evaluation of the persistence or evolution of the intervention's effects in the medium or long term.

Although the study demonstrates improvements in oral expression, it is important to note the absence of significant progress in student pronunciation. This does not invalidate the intervention but serves as an indicator of the need to research and develop more specific and effective pedagogical approaches for teaching English phonetics and phonology.

To this end, it is necessary to design and validate focused didactic strategies, including those supported by ICT to offer adaptive practice or individualised feedback. Exploring the generalisation of these results and their long-term impact is crucial, taking advantage of the potential of m-learning to stimulate creativity, flexibility, and teamwork.

Finally, to improve pronunciation, the systematic use of minimal pairs should be considered, facilitating auditory discrimination and the production of sounds particularly challenging for Spanish speakers, such as the distinction between /ɪ/ and /iː/. Furthermore, structured exercises in active listening and guided repetition such as songs, short poems and rhymes should be implemented to help students internalise the intonation patterns and rhythm characteristic of the English language. Constructive feedback should also be ensured to address phonemes absent in Spanish such as /θ/, /ð/ and the aspirated /h/, through explicit and playful introduction via phonetic games or motivating activities.

Author contributions
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The author declares that they have no conflict of interest

References

Agenda 2030 UNESCO. (2016). *Incheon declaration and Framework for action for the implementation of Sustainable Development Goal 4. Towards inclusive and equitable quality education and lifelong learning opportunities for all. Education 2030*. UNESCO. Retrieved 25 February 2023 from https://goo.su/XAY1eD

Arredondo Ruiz, C. (2017). Análisis de las concepciones del profesorado de Educación Secundaria Obligatoria y Bachillerato sobre la Didáctica de la Lengua oral: estudio de caso. *Revista de Educación de la Universidad de Granada*, *24*, 81-97.

Baker, W., & Fang, F. (2021). 'So maybe I'm a global citizen': developing intercultural citizenship in English medium education. *Language, Culture and Curriculum*, *34*(1), 1-17. https://doi.org/10.1080/07908318.2020.1748045

Barroso Osuna, J. M., & Cabero Almenara, J. (2013). Replanteando el e-learning: hacia el e-learning 2.0. *Campus Virtuales*, *2*(2), 76-87.

Bisquerra Alzina, R. (Ed.). (2004). *Metodología de la investigación educativa*. Muralla.

Cabero Almenara, J. (2006). Bases pedagógicas del e-learning. *RUSC, Universities & Knowledge Society*, *3*(1). https://goo.su/ufEpY

Cebreiro López. B.. Fernández Morante. M. d. C.. & Casal Otero. L. (2019). Tecnologías emergentes y metodologías didácticas: dos ejes básicos para el éxito educativo. In M. A. Santos Rego. A. Valle Arias. & M. d. M. Lorenzo Moledo (Eds.). *Éxito educativo: claves de construcción y desarrollo* (pp. 173-196). Tirant Humanidades.

Chust-Pérez. V. & Esteve-Faubel. R. P. (2022). Las canciones como apoyo didáctico para la enseñanza del inglés en la ESO. In C. Gonzálvez Macià. R. Sanmartín López. & M. Vicent Juan (Eds.). *Nuevos retos educativos e investigación interdisciplinaria* (pp. 77-93). Aula Magna/McGraw-Hill Interamericana de España.

Cohen, A. D. (2012). Comprehensible Pragmatics: Where Input and Output Come Together. In M. Pawlak (Ed.), *New perspectives on individual differences in language learning and teaching* (pp. 249-261). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-20850-8_16

Consejo de la Unión Europea. (2018). *Recomendación del Consejo, de 22 de mayo de 2018, relativa a las competencias clave para el aprendizaje permanente (Texto pertinente a efectos del EEE.)*. Bruselas: Unión Europea Retrieved from https://goo.su/6YpUZMD

Crystal, D. (2003). *English as a global language*. Cambridge University Press.

Dashtestani, R. (2016). Moving bravely towards mobile learning: Iranian students' use of mobile devices for learning English as a foreign language. *Computer Assisted Language Learning*, *29*(4), 815-832. https://doi.org/10.1080/09588221.2015.1069360

Dörnyei, Z., & Kormos, J. (2000). The role of individual and social variables in oral task performance. *Language Teaching Research*, *4*(3), 275-300. https://doi.org/10.1177/136216880000400305

El-Hussein, M. O. M., & Cronje, J. C. (2010). Defining Mobile Learning in the Higher Education Landscape. *Educational Technology & Society*, *13*(3), 12-21. http://www.jstor.org/stable/jeductechsoci.13.3.12

Fallahkhair, S., Pemberton, L., & Griffiths, R. (2007). Development of a cross-platform ubiquitous language learning service via mobile phone and interactive television. *Journal of computer assisted Learning*, *23*(4), 312-325. https://doi.org/10.1111/j.1365-2729.2007.00236.x

Fernández Sesma, M. G., Alvarez Flores, E. P., & Reyes Arias, K. (2023). Enseñanza del idioma inglés en educación primaria: Fortalecimiento de vocabulario y pronunciación a través de podcast. *Pixel-Bit. Revista de Medios y Educación*, *68*, 245-272. https://doi.org/10.12795/pixelbit.100107

Fombona Cadavieco, J., & Rodil Pérez, F. J. (2018). Niveles de uso y aceptación de los dispositivos móviles en el aula. *Pixel-Bit: Revista de medios y educación,* 52, 21-35. https://doi.org/10.12795/pixelbit.2018.i52.02

Gill-Simmen, L. (2021). Using Padlet in instructional design to promote cognitive engagement: a case study of undergraduate marketing students. *Journal of Learning Development in Higher Education,* (20). https://doi.org/10.47408/jldhe.vi20.575

Godwin-Jones, R. (2011). Emerging technologies: Mobile apps for language learning. *Language Learning & Technology*, *15*(2), 2-11. https://doi.org/10125/44244

Hanifa, R. (2018). Factors generating anxiety when learning EFL speaking skills. *Studies in English Language and Education*, *5*(2), 230-239. https://doi.org/10.24815/siele.v5i2.10932

Hinkel, E. (Ed.). (2005). *Handbook of research in second language teaching and learning* (Vol. III). Routledge. https://doi.org/10.4324/9781315716893

Hwang, W.-Y., Shih, T. K., Ma, Z.-H., Shadiev, R., & Chen, S.-Y. (2016). Evaluating listening and speaking skills in a mobile game-based learning environment with situational contexts. *Computer Assisted Language Learning*, *29*(4), 639-657. https://doi.org/10.1080/09588221.2015.1016438

Jenkins, J., & Leung, C. (2017). Assessing English as a Lingua Franca. In E. Shohamy, I. G. Or, & S. May (Eds.), *Language Testing and Assessment* (pp. 103-117). Springer International Publishing. https://doi.org/10.1007/978-3-319-02261-1_7

Juan-Lázaro, O., & Area-Moreira, M. (2021). Gamificación superficial en e-learning: evidencias sobre motivación y autorregulación. *Pixel-Bit. Revista de Medios y Educación*, *62*, 146-181. https://doi.org/10.12795/pixelbit.82427

Lowenthal, P. R., & Moore, R. L. (2020). Exploring student perceptions of Flipgrid in online courses. *Online Learning Journal*, *24*(4), 28-41. https://doi.org/10.24059/olj.v24i4.2335

Lyrigkou, C. (2019). Not to be overlooked: agency in informal language contact. *Innovation in Language Learning and Teaching*, *13*(3), 237-252. https://doi.org/10.1080/17501229.2018.1433182

Masuram, J., & Sripada, P. N. (2020). Developing Speaking Skills Through Task-Based Materials. *Procedia Computer Science*, *172*, 60-65. https://doi.org/10.1016/j.procs.2020.05.009

Milrad, M., & Jackson, M. H. (2008). Designing and implementing educational mobile services in university classrooms using smart phones and cellular networks. *International Journal of Engineering Education*, *24*(1), 84-91.

Okada, Y., Sawaumi, T., & Ito, T. (2018). How do speech model proficiency and viewing order affect Japanese EFL learners' speaking performances. *Computer Assisted Language Learning Electronic Journal*, *19*(2), 61-81. http://callej.org/journal/19-2.html

Payne, L. (2019). Student engagement: three models for its investigation. *Journal of Further and Higher Education*, *43*(5), 641-657. https://doi.org/10.1080/0309877X.2017.1391186

Petersen, J. B., Townsend, S. D., & Onak, N. (2020). Utilizing Flipgrid Application on Student Smartphones in a Small-Scale ESL Study. *English Language Teaching*, *13*(5), 164-176. https://doi.org/ 10.5539/elt.v13n5p164

Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning*, *2*(1), 3-10. Retrieved January 10, 2024, from https://goo.su/aQMMDd

Stockwell, G. (2010). Using mobile phones for vocabulary activities: Examining the effect of platform. *Language Learning & Technologvy*, *14*(2), 95-110.

Sylvén, L. K., & Sundqvist, P. (2012). Gaming as extramural English L2 learning and L2 proficiency among young learners. *ReCALL*, *24*(3), 302-321. https://doi.org/10.1017/S095834401200016X

Tsou, W. (2005). Improving speaking skills through instruction in oral classroom participation. *Foreign Language Annals*, *38*(1), 46-55. https://doi.org/10.1111/j.1944-9720.2005.tb02452.x

Zhang, R., & Zou, D. (2022). Types, purposes, and effectiveness of state-of-the-art technologies for second and foreign language learning. *Computer Assisted Language Learning*, *35*(4), 696-742. https://doi.org/10.1080/09588221.2020.1744666

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