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Second Language Acquisition and Cross-Cultural Awareness Using Flipgrid in Higher Education

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Abstract
The use of Flipgrid as a platform that can contribute to Second Language Acquisition (SLA) has been understudied. The bibliographic and descriptive research presented in this article seeks to review past investigations on Flipgrid to date. The article also describes and evaluates the implementation of this tool through a pedagogical project to record and share videos, as well as to provide peer feedback. A total of 47 undergraduate learners of Spanish and English as a foreign language in the United States and Spain participated in this project, which focused on the topic of applying for a job. Following a mixed-methods approach, a bibliometric analysis across Scopus and Web of Science databases was conducted and performance indicators of four project tasks uploaded to Flipgrid were examined. Finally, evaluation questionnaires completed by 46 participants were analyzed by means of descriptive and inferential statistics. Qualitative data was processed through content analysis and categorization. The results confirm that language learners' engagement and peer feedback were effectively fostered, and that the advantages of using Flipgrid to promote SLA clearly outweigh the disadvantages.

INTRODUCTION

Student engagement plays a fundamental role in boosting learning success in higher education, and the use of educational technology contributes towards fostering active student involvement, collaboration, feedback, and diversity (Craig, 2020). Emerging technologies can determine learners' access to knowledge and the development of communication skills and creativity (Dousay & Weible, 2019). New approaches and re-adjustments are being adopted accordingly, but these require a deep understanding of their pros and cons (Davis et al., 2019). Applied research represents a golden opportunity to analyze educational practices and their associated outcomes, challenges and opportunities (Dousay & Weible, 2019). In particular, a research gap currently exists in relation to the impact of student-generated videos on their own learning, since most studies focus on instructor-created videos in flipped classrooms (Craig, 2020). In this vein, it is timely to explore the role of Flipgrid, a Microsoft-owned web and application created in 2014 and rebranded as Flip in 2022 that is used by millions of students and instructors worldwide to capture and share video content.

Due to its novelty, Flipgrid has received little scholarly attention (Lowenthal & Moore, 2020), so further research on its function in educational contexts is needed (Craig, 2020; Holbeck & Hartman, 2018; Keiper et al., 2021; Shin & Yunus, 2021; Stoszkowski et al., 2020), particularly in the field of Computer Assisted Language Learning (CALL). Moreover, very few studies in this subject area have explored Flipgrid in higher education environments from a multiple perspective that combines bibliographic and descriptive analyses through bibliometrics, content analysis, and descriptive and inferential statistics. The investigation reported in this article addresses this gap and is part of a research line that examines the use of blogs and Flipgrid in pedagogical interventions promoting peer assessment to facilitate the acquisition of undergraduate students' English as a Foreign Language (EFL) (Iglesias, 2014, 2019, 2021).

The global aim of this study was to gain an insight into the use of Flipgrid to foster Second Language Acquisition (SLA) by means of the Oxfordcett project, a set of activities mainly related to the topic of applying for a job. The majority of the participants studied Spanish as a foreign language at an American university, while the rest were EFL students at a Spanish university. All of them used Flipgrid to record and upload videos in the languages they were acquiring to carry out four different tasks. After accomplishing each task, students had to share follow-up videos providing peer feedback in their own first languages.

The general goal of this research encompassed three specific objectives. The first one was to explore scholarly production on the utilization of Flipgrid in educational contexts; the second was to describe the implementation of Flipgrid as a means for SLA in the Oxfordcett project; and the third was to analyze language learners' evaluation of the project in which they had participated. The next sections unfold the methodological process and the findings stemming from these initial objectives.

LITERATURE REVIEW

The theoretical underpinning for this study is rooted in social constructivism, according to which the acquisition of knowledge is socially constructed throughout an active process by means of meaningful, collaborative tasks (Fox, 2001). Such tasks focused on SLA in our pedagogical approach and are consistent with Byram's model of intercultural communicative competence, enabling effective intercultural communication and facilitating learners' discovery and understanding of other cultural groups and identities. In this model, linguistic competence, sociolinguistic competence, and discourse competence are related with intercultural competence, which encompasses critical cultural awareness, curiosity/openness attitudes, discovery/interaction skills, interpreting/relating skills, and knowledge (Byram, 2009).

Byram's model aligns with the construct of communicative competence described in the Common European Framework of Reference for Languages (Council of Europe, 2001), where intercultural awareness is regarded as gaining an insight of social and regional similarities and differences between learners' original contexts and target communities. One of the components of communicative competence is linguistic competence, defined as "knowledge of, and ability to use, the formal resources from which well-formed, meaningful messages may be assembled

and formulated" (Council of Europe, 2001, p. 109). Discourse competence is part of pragmatic competence and makes it possible to articulate coherent sentence sequences, while sociolinguistic competence is concerned with the social aspects of language use (Council of Europe, 2001). This was the framework underlying the use of Flipgrid reported in this article, a tool which will be examined henceforth.

A close look at scholarly production on Flipgrid reveals that different research approaches and methods have been followed. Although most authors have had an exploratory focus, several descriptive contributions have aimed to explain what Flipgrid consists of (Craig, 2020; Davis et al., 2019; Dettinger, 2018; Green & Green, 2018; Holbeck & Hartman, 2018). Quantitative research has mainly relied on administering questionnaires, while qualitative techniques have encompassed interviews (Mai et al., 2020; Nguyen et al., 2020a; Shin & Yunus, 2021; Yenmez & Gökçe, 2021), diaries (Yenmez & Gökçe, 2021), classroom observation (Dousay & Weible, 2019; Nguyen et al., 2020a), participant observation (Stoszkowski & Collins, 2021), students' videos (Chaka & Nkhobo, 2019; Dousay & Weible, 2019; Nguyen et al., 2020b; Stoszkowski & Collins, 2021), and focus groups (Stoszkowski & Collins, 2021). A few mixed-methods investigations have also been conducted. Recently, some articles reporting its use during the COVID-19 pandemic have been published (Bauler, 2021; Edwards & Lane, 2021; Huertas-Abril, 2021; Iglesias, 2021; Keiper et al., 2021; Michalak & Rysavy, 2020; Palacios-Hidalgo, 2020).

Accounts of Flipgrid experiences have been reported in educational settings worldwide, not only online, but also onsite and in hybrid environments. It has been used in primary and secondary schools, and in a wide range of academic disciplines within higher education. Even though Flipgrid can be employed beyond pedagogical purposes, for example in remote staff management (Michalak & Rysavy, 2020), it is fundamentally an educational tool which has been used in project management (Iglesias, 2021; Striker et al., 2020), in STEM projects related to science, technology, engineering, and mathematics (Yenmez & Gökçe, 2021), in job interview simulations (Lam & Habil, 2020), in elevator pitches or personal introductions (Dettinger, 2018; Edwards & Lane, 2021; Striker et al., 2020), in journals and reports (Green & Green, 2018; Nguyen et al., 2020a; Oliver et al., 2021; Sebach, 2020; Stoszkowski et al., 2020), in instructional videos and guides (Green & Green, 2018), in pronunciation tasks (Dettinger, 2018), in discussions (Dettinger, 2018; Falco et al., 2020; Green & Green, 2018; Grieger & Leontyev, 2020; Holbeck & Hartman, 2018; Lowenthal & Moore, 2020; Mai et al., 2020; Palacios-Hidalgo, 2020), and to practice oral presentations (Nadjwa Miskam et al., 2019). Flipgrid netiquette, i.e. socially constructed usage rules, has been examined (Bauler, 2021), as well as the specific application of Flipgrid by means of mobile devices (Dettinger, 2018; Green & Green, 2018; Hashim et al., 2019; Holbeck & Hartman, 2018; Keiper et al., 2021; Lam & Habil, 2020).

Educators have often tried to promote learners' active engagement through Flipgrid (Chaka & Nkhobo, 2019; Craig, 2020; Nguyen et al., 2020a; Serembus & Murphy, 2020; Striker et al., 2020; Stoszkowski et al., 2020). In addition, it has fostered formative assessment and the provision of feedback from instructors and peers. Flipgrid has also enabled students' self-reflection and comments on teacher practice. The main advantages associated with Flipgrid are shown in Table 1.

Table 1

Advantages of using Flipgrid

Advantages	Authors
1. Free of cost	Craig, 2020; Dettinger, 2018; Huertas-Abril, 2021; Stoszkowski et al., 2020
2. Practical and easy to use	
- Different formats available	Dettinger, 2018; Edwards & Lane, 2021; Holbeck & Hartman, 2018; Lowenthal & Moore, 2020; Sebach, 2020; Stoszkowski & Collins, 2021
- Audio transcript provided	Green & Green, 2018
3. Time optimization	
- Less time consuming than written diaries	Sebach, 2020
- Class time can be saved as tasks can be done autonomously	Dettinger, 2018; Striker et al., 2020
4. Can be combined with:	
- Other digital applications	Chaka & Nkhobo, 2019; Colton, 2020; Iglesias, 2021; Johnson et al., 2019; Striker et al., 2020
- Written tasks	Holbeck & Hartman, 2018; Oliver et al., 2021
5. Allows for interdisciplinarity	Yenmez & Gökçe, 2021
6. Instructors can join a global educator network	Craig, 2020; Dettinger, 2018
7. Can be an assessment tool	
- Formative assessment	Craig, 2020; Iglesias, 2021; Nguyen et al., 2020a, b; Sebach, 2020; Yenmez & Gökçe, 2021
- Self-assessment	Palacios-Hidalgo, 2020; Mai et al., 2020; Nguyen et al., 2020b
- Peer assessment	Dettinger, 2018; Falco et al., 2020; Johnson et al., 2019; Nadjwa Miskam et al., 2019; Stoszkowski & Collins, 2021
- Teacher assessment	Falco et al., 2020; Iglesias, 2021; Johnson et al., 2019; Sebach, 2020
- Feedback on teacher practice	Batchelor & Cassidy, 2019
8. Boosts learners' positive attitudes	
- Satisfaction	Falco et al., 2020; Grieger & Leontyev, 2020; Hashim et al., 2019; Iglesias, 2021; Lam & Habil, 2020; Lowenthal & Moore, 2020; Shin & Yunus, 2021
- Motivation	Edwards & Lane, 2021; Huertas-Abril, 2021; Lam & Habil, 2020; Saçak & Kavun, 2020; Sebach, 2020; Serembus & Murphy, 2020; Stoszkowski & Collins, 2021; Stoszkowski et al., 2020
9. Enhances virtual interaction and inter-personal connectivity	Green & Green, 2018; Holbeck & Hartman, 2018; Lowenthal & Moore, 2020; Serembus & Murphy, 2020; Stoszkowski & Collins, 2021
10. Facilitates information exchange	
- Efficient verbal and non-verbal communication	Dettinger, 2018; Edwards & Lane, 2021; Falco et al., 2020; Mai et al., 2020
- Participation not restricted by academic schedules or time zones	Stoszkowski & Collins, 2021
11. Fosters skill development	
- Teamwork and collaborative work	Dettinger, 2018; Saçak & Kavun, 2020; Serembus & Murphy, 2020; Stoszkowski & Collins, 2021; Stoszkowski et al., 2020; Striker et al., 2020; Yenmez & Gökçe, 2021
- Critical thinking and problem-solving	Green & Green, 2018; Hashim et al., 2019; Miller, McIntyre & Lindt, 2020; Stoszkowski & Collins, 2021
- Creativity	Bauler, 2021; Falco et al., 2020
- Cross-cultural competences	Mai et al., 2020
- Communicative competence	Chaka & Nkhobo, 2019; Colton, 2020; Dettinger, 2018; Edwards & Lane, 2021; Falco et al., 2020; Hashim et al., 2019;

Advantages	Authors
	Huertas-Abril, 2021; Iglesias, 2021; Lam & Habil, 2020; Mai et al., 2020; Newman et al., 2022; Palacios-Hidalgo, 2020; Shin & Yunus, 2021; Stoszkowski & Collins, 2021; Striker et al., 2020

Language learners from different disciplines have developed their communicative competence by means of Flipgrid (Edwards & Lane, 2021; Mai et al., 2020; Striker et al., 2020). As regards learners' first language, it has been found that both their self-confidence (Falco et al., 2020) and literacy (Colton, 2020) have increased. Students have worked on their communication strategies, namely paraphrasing and clarifying (Newman et al., 2022; Stoszkowski & Collins, 2021), as well as other paralinguistic features like voice volume, tone, and inflexion (Stoszkowski & Collins, 2021). With respect to second language acquisition, most studies have focused on EFL (Chaka & Nkhobo, 2019; Edwards & Lane, 2021; Hashim et al., 2019; Huertas-Abril, 2021; Iglesias, 2021; Lam & Habil, 2020; Mai et al., 2020; Palacios-Hidalgo, 2020; Shin & Yunus, 2021). Flipgrid seems to be conducive to improvement in different areas, for example in relation to pronunciation (Dettinger, 2018) and listening skills (Mai et al., 2020), since exposure to different accents is enhanced. As time devoted to authentic input and output is maximized, particularly in large groups, oral progress is also noticeable (Dettinger, 2018; Huertas-Abril, 2021; Shin & Yunus, 2021). Communication strategies like paraphrasing, speech simplification, and body language are put into practice (Mai et al., 2020) and speaking anxiety is reduced, to the benefit of self-confidence (Dettinger, 2018; Hashim et al., 2019).

The benefits of using Flipgrid are numerous and well-supported. Nonetheless, some authors have also reported some drawbacks, albeit to a lesser extent. Table 2 offers a summary.

Table 2

Problems with Flipgrid

Problems	Authors
1. Technical complications	Edwards & Lane, 2021; Iglesias, 2021
2. Unfamiliarity with platform	Chaka & Nkhobo, 2019
3. Using the application may not be easy	Edwards & Lane, 2021
4. Limitations of asynchronous interaction vs real-time conversations	Dettinger, 2018; Edwards & Lane, 2021
5. Recording and/or showing videos may be embarrassing for students	Edwards & Lane, 2021; Hashim et al., 2019; Stoszkowski & Collins, 2021
6. Students' concern for their image can detract from the educational purpose	Craig, 2020
7. Stickers and emojis can: - Be distracting and a waste of time - Seem too childish	 Craig, 2020 Lowenthal & Moore, 2020

The advantages and disadvantages indicated by Edwards and Lane (2021), Hashim et al. (2019), Iglesias (2021), and Mai et al. (2020) are particularly significant since they constitute the main antecedents for the investigation presented in this article. Edwards and Lane (2021) carried out an action-research project to study how 189 Japanese undergraduate students had interacted with their peers in EFL by means of Flipgrid during the COVID-19 pandemic. Descriptive statistics and content analysis of data collected through a Google forms survey led them to conclude that despite the inconveniences pointed out in Table 2, Flipgrid is an effective communication channel.

Hashim et al. (2019) conducted a qualitative study among 22 Malaysian university students who used Flipgrid in an onsite EFL course to improve their oral skills. They concluded that even though 22% of the respondents felt anxious when video recording short presentations, this activity had contributed to enhancing their self-confidence and critical thinking. In spite of a few technical setbacks, Iglesias (2021) also obtained satisfactory conclusions in her mixed-methods research of the role of Flipgrid coupled with Blogger to develop 17 Spanish undergraduate students' communicative competence in EFL. In a virtual environment dominated by the COVID-19 pandemic, the participants undertook a collaborative project and were required to video record their oral reports of each stage. They received formative feedback and the results were positive. Finally, Mai et al. (2020) examined how intercultural competence had developed during an online exchange among 79 Chilean, Azerbaijani, and Vietnamese higher education students who used Flipgrid to communicate in EFL as a lingua franca. The evidence they obtained from their mixed-methods study suggested that the outcomes had been considerable, as they had employed several communication strategies, their listening skills had improved, and their cross-cultural awareness had increased.

In the vein of these investigations follows a report on our study of the affordances of a pedagogical intervention that combined the above-mentioned elements, i.e. virtual intercultural interaction, oral skill development in a foreign language, and cross-cultural sensitivity.

RESEARCH METHODS

The participants in this study were 17 undergraduate tourism and hospitality students enrolled in an intermediate English course at CETT Barcelona School of Tourism, Hospitality and Gastronomy (affiliated with the University of Barcelona, Spain) and 30 undergraduate students in a beginning Spanish course at Oxford College of Emory University (United States). There were a total of 21 male students, with 15 from Oxford College of Emory University (EU) and 6 from CETT at the University of Barcelona (UB). Additionally, there were 26 female students, with 15 from EU and 11 from UB. The age range of the students was between 18 and 22 years old, and they were all enrolled in the researchers' courses in Spring 2020, so they constituted a convenience sample. Our study was based on the student responses of the final evaluation survey completed by all 17 UB participants and 29 EU participants, resulting in a response rate of 98%. The results were calculated with a margin of error of 99% and an overall confidence level of 3%.

A mixed-methods approach was followed in this bibliographic and descriptive research. Data collected through different techniques and tools was processed in line with previous studies (Iglesias Xamaní, 2013; Iglesias, 2019, 2021).

The first step was a bibliographic exploration of scientific production related to Flipgrid up to August 2021 across two databases, namely Scopus and Web of Science (WoS). A TITLE-ABS-KEY search for {Flipgrid} in Scopus returned a list of 34 documents where this term appeared in the title, keywords, or abstract. On the other hand, a topic search of TS=Flipgrid in the core collection of WoS yielded 17 references, 15 of which were also included in Scopus. After discarding off-topic content and repeated manuscripts, the refined results consisted of a single

list of 36 valid documents. A bibliographic database was created including the following information for each entry: full reference including DOI, authors' affiliations and correspondence addresses, document type, country and language of publication, publisher, ISSN or ISBN, open access, subject area, database, and number of citations, as well as abstract and author or index keywords. Scopus and WoS bibliometric analytics were combined, and after analyzing the content, the main topics were categorized. Furthermore, a term co-occurrence map was generated. The map was built on Scopus text data extracted from the titles and abstracts using VOSviewer, a software tool for producing bibliometric networks (Van Eck & Waltman, 2010). After opting for a threshold of 5 minimum term occurrences, 44 valid terms out of 990 met this requirement, and a relevance score was calculated for each one. The 26 most relevant items were automatically selected, which constituted 60% of the valid terms.

Secondly, the four Oxfordcett project tasks that had been uploaded on Flipgrid were examined to identify descriptive performance indicators for every activity and group of students. Each task encompassed a join code, metrics provided by Flipgrid's administrators, a short text with instructions, students' videos, and feedback videos recorded by their peers. These tasks were undertaken by students organized into 10 different groups, each comprising 3 EU students and 1-2 UB students. The first three task topics included a general introduction and specific assignments centered around the topic of employment, which aligned with the curriculum of both institutions. The final task, a discussion on Saint Valentine's Day, aimed to be a break from the other academic topics as it connected with the celebration taking place in both countries on February 14. With the exception of the third task, where students shared a written collective résumé and cover letter and exchanged audiovisual feedback, all the other tasks focused exclusively on oral communication. The tasks generally involved recording a 1-2 minute-long video in the target language, viewing all group members' contributions, and offering audiovisual feedback in their own native language to their counterpart partners. The reason for providing feedback in their first language was to allow all students to produce and receive input in their target language.

Thirdly, responses to the final evaluation questionnaire submitted by students were analyzed to determine their opinions on their learning experiences. The final questionnaire was made up of three sections. In section A, respondents were required to rank their conformity with ten statements in relation to the Oxfordcett project on a 5-point Likert scale:

A1. I can talk about my country from an academic, a professional and a cultural perspective.
A2. I can introduce myself and produce a video recorded elevator pitch.
A3. I can write a résumé.
A4. I can write a cover letter.
A5. I can comment on other students' communicative strengths and weaknesses.
A6. I am more aware of my own communicative strengths and weaknesses.
A7. I have profited from feedback provided by other students.
A8. I have improved my foreign language skills.
A9. I am more self-confident as a foreign language learner.
A10. I have developed my cross-cultural awareness.

Section B consisted of a set of open questions:

B1. Which aspects of the project have been the most helpful/interesting/motivating so far?
B2. Which aspects have been the least helpful/interesting/motivating so far?
B3. What is your opinion of working with Flipgrid?
B4. What do you think of this multicultural approach?
B5. What aspects of the project would you change?
B6. Other comments.

In section C, respondents had to rank their satisfaction with their Oxfordcett project experience on a 5-point Likert scale. Both descriptive and inferential statistical analyses of data from sections A and C, including t-tests and correlation tests, were conducted using the Microsoft Excel Analysis Tool Pack. On the other hand, qualitative data from section B was processed by means of content analysis and categorization using QDA Miner. The following section includes sample comments collected from student surveys.

RESULTS

Bibliometric analysis

Having analyzed the content of the documents included in the above-mentioned bibliographic database (N=36), the main topics were classified, as shown in Table 3. This is the underlying thematic structure for the Literature review, which provides an account of significant scholarly publications on Flipgrid to date.

Table 3

Categorization of bibliographic database content

Category	Subcategories
C1. Previous research	C1.1. Research approaches and methods
	C1.2. Main antecedents
	C1.3. Role in COVID-19 pandemic
C2. Functions	C2.1. Description and applications
	C2.2. Modalities
	C2.3. Educational purposes
	C2.3.1. Learners' engagement
	C2.3.2. Assessment
	C2.3.2.1. Teacher feedback
	C2.3.2.2. Self-reflection
	C2.3.2.3. Peer-feedback
	C2.3.2.4. Feedback for teachers
C3. Educational contexts	C3.1. Virtual environments
	C3.1.1. Online
	C3.1.2. Blended
	C3.1.3. Onsite
	C3.2. Educational levels
	C3.2.1. Primary school
	C3.2.2. Secondary school
	C3.2.3. Higher education
C4. Implementation	C4.1. Pros
	C4.2. Cons
C5. Language learning	C5.1. Learners' first language
	C5.2. Second language acquisition

With respect to bibliometric data, Table 4 summarizes the main results bearing in mind that the bibliographic exploration for this article was conducted a few months before the end of 2021 (minor percentages are not shown). As Flipgrid was created recently, the first academic contribution only dates back to 2018, but a progressive increase in the number of publications can be observed since then. All the documents were published in English, mostly in the US, where Flipgrid was born. The bibliometric results reveal that Flipgrid's implementation has been reported in a wide range of disciplines, particularly within the social sciences. In this respect, it must be pointed out that a single document can be linked to different areas of knowledge simultaneously.

Table 4

Bibliometric results

Year	Country	Document type	Subject area
47% 2020	61% US	70% articles	89% social sciences
25% 2021 19% 2019	11% Malaysia	14% conference papers	31% computer science
8% 2018	8% Spain	8% reviews 8% book chapters	17% arts & humanities

Regarding term co-occurrence, Figure 1 displays the most relevant terms based on the score calculated by VOSviewer. They are grouped in 5 clusters indicated in different colors within a network of 142 links that connect all the terms. The clusters refer to relevant research topics and contexts, while the size of particular terms represents their frequency of occurrence.

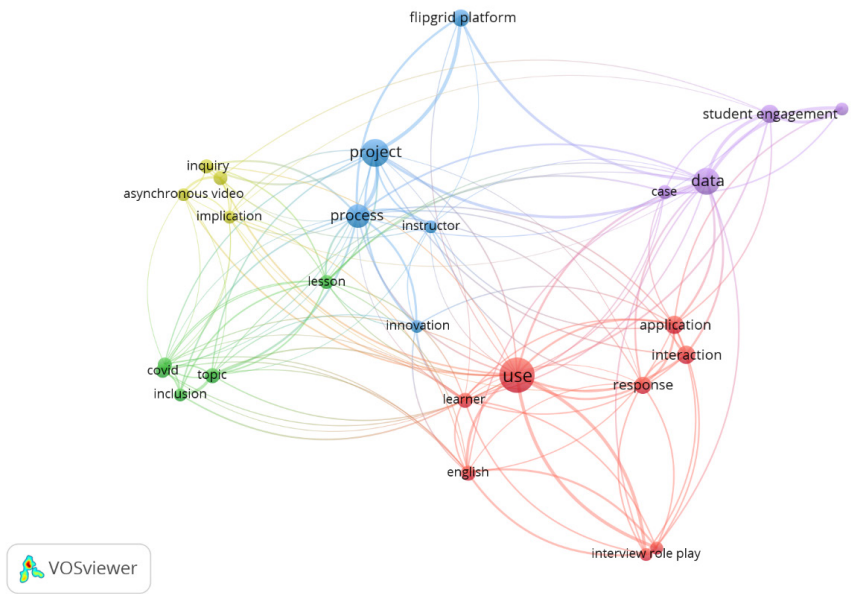

Figure 1 Term co-occurrence map

Cluster 1 (in red) is related to the use of the mobile application to foster language learning, and more specifically, to the development of interactive oral skills in English. Cluster 2 (in green) points to the inclusive role of Flipgrid in learning contexts determined by the COVID-19 pandemic. Cluster 3 (in blue) refers to Flipgrid as an innovative tool for project development in learning processes. Cluster 4 (in yellow) denotes learners' implication through asynchronous Flipgrid videos in online courses. Lastly, cluster 5 (in purple) alludes to student engagement in a specific open distance educational institution, namely the University of South Africa (UNISA). Table 5 shows the number of occurrences and relevance scores for all the terms (N=26). Considering the combination of both indicators, the most relevant term is "student engagement", which seems to be the main attribute associated with Flipgrid.

Table 5

Term clusters

Cluster	Term	Occurrences	Relevance
1	application	9	0.42
	English	7	0.57
	interaction	9	0.36
	interview role play	5	1.15
	learner	7	0.33
	mobile learning application	5	1.15
	response	8	0.47
	use	26	0.44
2	COVID	6	1.65
	inclusion	5	2.10
	lesson	6	0.52
	pandemic	6	1.61
	topic	7	1.45
3	Flipgrid platform	8	1.05
	innovation	5	0.57
	instructor	5	0.43
	process	14	0.59
	project	18	0.77
4	asynchronous video	5	2.27
	implication	5	0.83
	inquiry	6	1.17
	online course	6	2.00
5	case	6	0.61
	data	17	0.59
	student engagement	9	1.28
	UNISA	5	1.64

Descriptive analysis of Flipgrid tasks

As already mentioned, students from both universities completed a total of four tasks. In the first one, they introduced themselves and commented on their country's educational system, job market, and their own professional goals. In the second task, students recorded an elevator pitch. For their third task, they wrote a résumé and cover letter for a job application. Lastly,

for their fourth task, they shared their experiences and opinions about Saint Valentine's Day, as indicated in Figure 2.

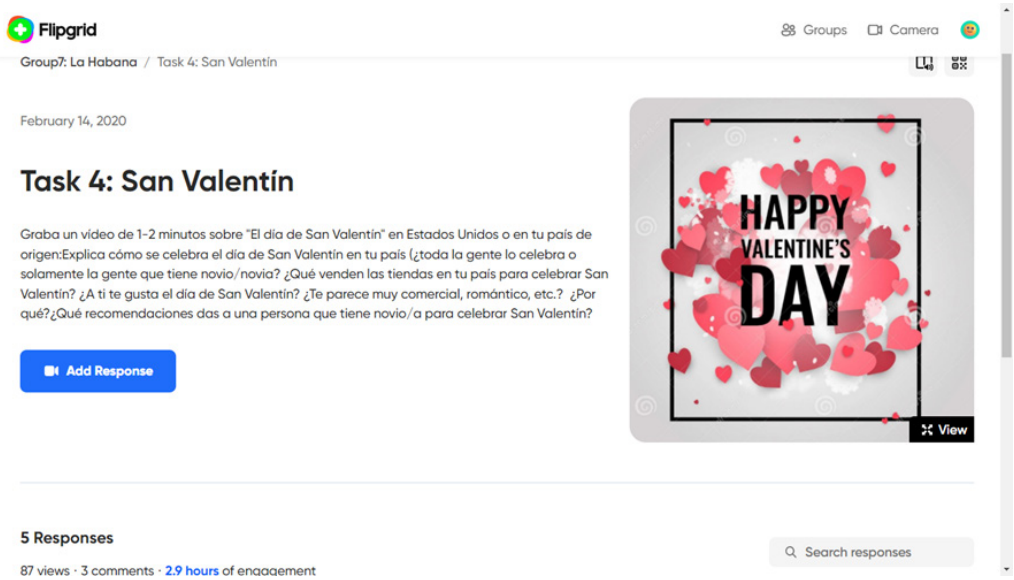

Figure 2 Flipgrid task 4

Except for the third activity, which was done in writing as a group, all the other oral assignments were video recorded individually. After watching the videos posted for each task, students had to respond to their counterpart peers and record a video giving each other feedback in their mother tongues on language use, task achievement, fluency and pronunciation, and communicative resources. The global Flipgrid metrics provided in Table 6 illustrate the differences across groups regarding the number of videos posted by students as a response to the four tasks, the number of videos posted subsequently by their peers as comments, the number of views for both types of videos, and the total video recording time. Even though some groups were more prolific than others, all the groups provided between 16 and 21 responses and between 21 and 27 comments. As for audience indicators, discrepancies are more noticeable. Group 10 received the largest quantity of views and hours of discussion, more than double that in group 5.

Table 6

Flipgrid metrics for each group

	Responses	Comments	Views	Hours of discussion
Group 1: Hong Kong https://flipgrid.com/Oxfordcett5937	17	27	534	11.8
Group 2: Quebec https://flipgrid.com/Oxfordcett3292	17	26	817	17.0
Group 3: Shanghai https://flipgrid.com/Oxfordcett5030	17	22	600	12.3
Group 4: Barcelona https://flipgrid.com/Oxfordcett0027	20	21	634	11.2
Group 5: Munich https://flipgrid.com/Oxfordcett4843	18	22	455	9.8

	Responses	Comments	Views	Hours of discussion
Group 6: Bridgetown https://flipgrid.com/Oxfordcett4846	16	27	649	10.7
Group 7: La Habana https://flipgrid.com/Oxfordcett5818	18	27	763	18.3
Group 8: Little Rock https://flipgrid.com/Oxfordcett3689	18	23	530	10.7
Group 9: Honolulu https://flipgrid.com/Oxfordcett5767	21	23	559	11.3
Group 10: Copenhagen https://flipgrid.com/Oxfordcett3264	17	27	944	23.6

Overall, 424 videos were uploaded, including 179 responses to tasks and 245 feedback contributions. The four Flipgrid tasks entailed 136.7 hours of discussion, which were viewed a total of 6,485 times. Table 7 shows detailed metrics for each task, as well as responses provided by each educational institution and comments received. The introductory task and the elevator pitch originated a similar volume of responses and comments from both institutions, whereas the résumé and cover letter triggered the lowest production of videos. A visible difference in student responses can be observed concerning the activity related to Saint Valentine, which encompassed a lower participation from UB students.

Table 7

Flipgrid metrics for each task

Groups	Responses		Comments		Views	Hours	Responses		Comments		Views	Hours
	EU	UB	EU	UB			EU	UB	EU	UB		
G1	3	2	6	6	270	6.3	3	2	6	6	164	2.8
G2	3	2	6	6	505	12.3	3	3	6	5	221	2.9
G3	3	2	6	6	342	8.4	3	2	2	6	195	2.0
G4	5	2	6	2	293	6.4	3	3	6	5	247	3.3
G5	5	1	6	1	215	5.3	3	3	6	7	194	3.0
G6	3	2	6	6	287	4.7	3	2	6	6	246	3.5
G7	3	2	6	6	365	10.4	3	2	6	6	283	4.7
G8	4	1	6	2	227	6.0	3	2	6	6	233	3.4
G9	3	2	6	6	272	6.9	5	3	5	4	179	2.8
G10	3	2	6	6	581	16.6	3	3	6	6	261	4.4
	Task 3						**Task 4**					
Groups	Responses		Comments		Views	Hours	Responses		Comments		Views	Hours
	EU	UB	EU	UB			EU	UB	EU	UB		
G1	2	1	0	0	35	0.6	3	1	3	0	65	2.1
G2	1	1	0	0	24	0.3	3	1	3	0	67	1.5
G3	2	1	0	0	23	0.6	3	1	2	0	40	1.2
G4	2	1	0	0	37	0.5	4	0	2	0	57	0.9
G5	2	1	0	0	19	0.4	3	0	2	0	27	1.1
G6	2	1	0	0	36	0.3	3	0	3	0	80	2.2
G7	2	1	0	0	28	0.3	4	1	3	0	87	2.9
G8	4	1	0	0	28	0.5	3	0	3	0	42	0.8
G9	2	1	0	0	35	0.4	5	0	2	0	73	1.2
G10	2	1	0	0	20	0.4	3	0	3	0	82	2.2

Analysis of evaluation questionnaire

The descriptive statistical analysis of the respondents' answers to sections A and C of the evaluation questionnaire indicate that, in global terms (N=46), mean overall scores range between 4.1 and 4.4, and standard deviations between 0.6 and 0.9. Items A2, A5 and A7 received the highest scores, whereas A4 and A9 obtained the lowest. Looking at the responses from each group, both EU (n=29) and UB (n=17) provided mean scores higher than 4 for all items except from A8, A9 and A10, which were evaluated by UB respondents slightly below 4. In general, EU respondents' scores are higher, with the exception of A3.

An independent samples *t*-test was conducted to examine those discrepancies between EU and UB groups by means of inferential statistics. An initial *F*-test confirmed that equal variances could be assumed for all items excepting A5, A8 and A10, in relation to which unequal variances were assumed. The two-tailed *t*-test for equality of means proved to be statistically significant for A5, $t(29)=2.34$, $p=0.026$, for A8, $t(28)=3.16$, $p=0.004$, and for A10, $t(27)=2.46$, $p=0.021$, since these three items received significantly lower scores from UB respondents. An alpha level of 0.05 was used for all statistical tests. Table 8 shows the main statistical results related to questionnaire sections A and C.

Table 8

Statistical questionnaire results

Item	Global		EU		UB		*F*-test		*t*-test		
	M	*SD*	*M*	*SD*	*M*	*SD*	*F*	*p*	*df*	*t Stat*	*p*
A1	4.2	0.7	4.3	0.7	4.1	0.8	0.64	0.144	28	1.07	0.294
A2	4.4	0.6	4.4	0.6	4.3	0.6	0.93	0.423	33	0.67	0.505
A3	4.2	0.7	4.1	0.8	4.4	0.6	1.69	0.135	44	-0.97	0.339
A4	4.1	0.7	4.2	0.8	4.1	0.7	1.03	0.489	44	0.49	0.625
A5	4.4	0.8	4.6	0.7	4.0	0.9	0.72	0.213	29	2.34	0.026
A6	4.3	0.8	4.5	0.8	4.1	0.7	1.27	0.314	44	1.59	0.120
A7	4.4	0.9	4.5	0.7	4.2	1.0	0.53	0.068	26	1.09	0.287
A8	4.3	0.8	4.6	0.6	3.9	0.8	0.65	0.151	28	3.16	0.004
A9	4.1	0.8	4.2	0.9	3.9	0.7	1.72	0.130	44	1.40	0.169
A10	4.2	0.9	4.5	0.7	3.8	1.0	0.60	0.116	27	2.46	0.021
C1	4.3	0.7	4.4	0.8	4.2	0.6	1.50	0.197	44	1.06	0.294

In addition, correlation tests were performed to measure the statistical relationship between all the questionnaire items included in sections A and C. Within each group of respondents, an alpha level of 0.05 was set and Pearson's correlation coefficients were calculated for each pair of items. Only statistically significant correlations are displayed in Table 9, and the strongest correlations are the ones with the highest coefficients. Comparing the results obtained in EU and UB, EU showed more correlations, but the highest correlation coefficients ($r>0.70$) and the highest number of strong correlations were detected in UB. Five positive correlations between the same pair of items were found in both groups, namely:

A2 and C1 in EU, $r(27)=0.41$, $p=0.029$, while in UB, $r(15)=0.52$, $p=0.032$.
A3 and A4 in EU, $r(27)=0.67$, $p<0.001$, while in UB, $r(15)=0.78$, $p<0.001$.
A6 and A7 in EU, $r(27)=0.63$, $p<0.001$, while in UB, $r(15)=0.50$, $p=0.041$.
A7 and C1 in EU, $r(27)=0.39$, $p=0.039$, while in UB, $r(15)=0.63$, $p=0.007$.
A10 and C1 in EU, $r(27)=0.51$, $p=0.005$, while in UB, $r(15)=0.57$, $p=0.017$.

Table 9

Statistically significant correlation results

EU					UB				
Items		*df*	*r*	*p*	Items		*df*	*r*	*p*
A1	A2	27	0.60	0.001	A2	A5	15	0.74	0.001
A1	A3	27	0.39	0.034	A2	A6	15	0.52	0.032
A1	A4	27	0.46	0.012	A2	A9	15	0.70	0.002
A2	A8	27	0.40	0.033	A2	C1	15	0.52	0.032
A2	C1	27	0.41	0.029	A3	A4	15	0.78	<0.001
A3	A4	27	0.67	<0.001	A5	A6	15	0.73	0.001
A3	A7	27	0.49	0.006	A5	C1	15	0.68	0.003
A3	A9	27	0.45	0.015	A6	A7	15	0.50	0.041
A3	A10	27	0.37	0.047	A6	A8	15	0.49	0.048
A3	C1	27	0.48	0.008	A6	A9	15	0.55	0.024
A4	A8	27	0.38	0.042	A6	C1	15	0.51	0.035
A4	A9	27	0.40	0.031	A7	C1	15	0.63	0.007
A4	C1	27	0.42	0.024	A10	C1	15	0.57	0.017
A6	A7	27	0.63	<0.001					
A7	A8	27	0.37	0.048					
A7	C1	27	0.39	0.039					
A8	A9	27	0.62	<0.001					
A10	C1	27	0.51	0.005					

As for questionnaire section B, a qualitative approach was followed to analyze the content of the replies to the open-ended questions. The answers provided by each one of the 46 respondents were uploaded in QDA Miner as a distinct case. Recurrent topics were categorized and subcategories or codes were also introduced to count the number of times that every code had been used, the percentage of coding associated with each code, the number of cases in which codes appeared, the percentage of cases containing each code, the total number of words in all text segments associated with each code, and the percentage of documents tagged with each code based on the total number of words (Provalis Research, n.d.). Summary statistics on code usage generated automatically by QDA Miner are displayed in the following figures. Figure 3 shows respondents' global perspectives towards the Oxfordcett project, which were clearly favorable.

	Count	% Codes	Cases	% Cases	Nb Words	% Words
General evaluation						
Liked the experience	42	76,4%	42	91,3%	297	5,9%
Nothing should be changed	10	18,2%	10	21,7%	53	1,1%
Had an initial negative opinion	3	5,5%	3	6,5%	23	0,5%

Figure 3 Global perspective

The reported positive aspects of this project have been gathered in Figure 4. The most frequent ones refer to language learning outcomes and cultural development. In particular, the project was seen as an effective means to receive feedback from native students, to develop communicative competence, and to learn about other cultures. Other secondary aspects that respondents underscored were the opportunity to practice their oral skills, to get to know international students and their contexts, and to use Flipgrid, which they considered user-friendly. Below are some students' comments that illustrate these sentiments:

> "The most interesting part of the project for me was the fact that we were able to communicate with native speakers similar in age and could learn about aspects of their culture that we might not be able to find in a textbook." (EU student)

> "The most interesting parts are the fact that we are communicating with people from the other side of the world, and motivates you to get to know them." (UB student)

> "Being able to receive feedback on my Spanish has been most helpful so far because I have been able to understand what areas I need to improve on." (EU student)

> "The [positive] aspects are that I got to talk to people from other countries and I got to improve my communication skills." (UB student)

> "Talking with people of outside Spain and learning about them and their lifes[sic] as well as their customs or traditions" (UB student)

> "Flipgrid is pretty easy to navigate and easy to use! I had no problem with using it and sending videos." (EU student)

	Count	% Codes	Cases	% Cases	Nb Words	% Words
Language learning						
Developing communicative competence	24	13,3%	24	52,2%	392	7,3%
Fostering authentic communication	7	3,9%	7	15,2%	129	2,4%
Practicing oral skills	15	8,3%	15	32,6%	177	3,3%
Receiving feedback from native students	24	13,3%	24	52,2%	478	8,9%
Listening to native accents	6	3,3%	6	13,0%	118	2,2%
Building up self-confidence as a speaker	4	2,2%	4	8,7%	70	1,3%
Practicing writing skills	3	1,7%	3	6,5%	56	1,0%
Cultural development						
Getting to know international students	20	11,1%	20	43,5%	338	6,3%
Learning about real lifestyles and educational contexts	17	9,4%	17	37,0%	340	6,4%
Learning about other cultures	24	13,3%	24	52,2%	307	5,7%
Method						
Original learning approach	10	5,6%	10	21,7%	120	2,2%
Easy-to-use app	18	10,0%	18	39,1%	195	3,6%
Dynamic	3	1,7%	3	6,5%	11	0,2%
Fun	5	2,8%	5	10,9%	17	0,3%

Figure 4 Positive aspects

Considerably fewer comments were related to respondents' negative opinions and improvement suggestions, as percentages and numbers of codes, cases, and words indicate in Figure 5 and Figure 6. This aligns with the results displayed in Figure 3. The main negative aspect was linked to the task topics in general, and more specifically a few respondents from the UB group pointed to the topic of Saint Valentine. On the other hand, task preparation was perceived as challenging by some respondents, while others did not like having to record videos or provide feedback. Occasional time management problems and Flipgrid malfunction were reported too, as well as difficulties in benefitting from peer feedback, either because it was unintelligible or because its focus was not really helpful. UB respondents preferred not to give feedback in Spanish, whereas EU respondents complained that they could not understand comments made in Spanish, and regretted the unbalance caused by their lower level of Spanish in comparison to the more advanced English level of their UB counterparts. Following is a selection of comments provided by students:

> "For us, I think that giving the feedback to them was the least helpful aspect, but I understand that is something that had to be done." (UB student)

> "I personally didn't like critizing the students English. I understand pointing out major problems but I didn't feel comfortable correcting a lot of things." (EU student)

> "The topics we talked about were not motivating." (UB student)

> "Creating a video for valentines day was least helpful because I feel that the vocabulary that was used applied for a very specific occasion." (EU student)

> "It's a good app for share the videos and also for reply but sometimes [it] was not working very good [well]." (UB student)

"In my opinion, the least motivating aspect was that we had to record videos. I don't like to record myself." (UB student)

"There was different level[s] of languages." (UB student)

	Count	% Codes	Cases	% Cases	Nb Words	% Words
Tasks						
Topics	12	21,4%	12	26,1%	198	4,8%
Preparation	8	14,3%	8	17,4%	150	3,6%
Method						
Recording videos	6	10,7%	6	13,0%	94	2,3%
Problems with app	7	12,5%	7	15,2%	92	2,2%
Providing feedback	8	14,3%	8	17,4%	130	3,1%
Time management	6	10,7%	6	13,0%	113	2,7%
Participants						
Different language levels	4	7,1%	4	8,7%	69	1,7%
Problems with peers' feedback	5	8,9%	5	10,9%	89	2,1%

Figure 5 Negative aspects

Even though 21.7% of the respondents believed that there was no need to change any aspect of the Oxfordcett project, some improvement suggestions were made, as shown in Figure 6. In line with the above-mentioned negative comments, the main suggestion was to change some of the tasks. Some respondents also wished that feedback could be more effectively given and that this project could be expanded, including synchronous conversation exchanges with the same partner all through. Additionally, they mentioned the need to continue improving Flipgrid. Below are some illustrative comments shared by students:

"It's very cool to interact with students from a different country, but I would prefer to talk about other topics which I consider more interesting." (UB student)

"I thought the elevator pitch was too similar to the first introduction task, so maybe do a different task?" (EU student)

"I would change the way the feedback is made, maybe in written is a little better, especially for non-native speakers feedback." (EU student)

"I would suggest, possibly, finding a group of students who are also just starting to learn English, like us, who are just starting to learn Spanish. But other than that, everything was good!" (EU student)

"Maybe as I said try to make more [live] interaction between students." (UB student)

"I would add more assignments and maybe even try to arrange a video chat session with the Spanish students, even if it might be tough with differing time zones." (EU student)

"Maybe I would develop the Flipgrid App." (UB student)

	Count	% Codes	Cases	% Cases	Nb Words	% Words
Interaction						
Enabling live interaction	7	14,6%	7	15,2%	205	4,8%
Complementing with written interaction	2	4,2%	2	4,3%	23	0,5%
Keeping same partners	4	8,3%	4	8,7%	111	2,6%
Feedback						
Improving effectiveness	7	14,6%	7	15,2%	135	3,2%
Avoiding systematic feedback provision	2	4,2%	2	4,3%	20	0,5%
Method						
Changing tasks	13	27,1%	13	28,3%	284	6,7%
Using social media	2	4,2%	2	4,3%	27	0,6%
Improving app	4	8,3%	4	8,7%	45	1,1%
Extending project	7	14,6%	7	15,2%	62	1,5%

Figure 6 Improvement suggestions

In summary, the bibliometric analysis has shown that student engagement is the main Flipgrid feature in global terms, and a descriptive analysis of the specific tasks included in our Flipgrid project offers evidence for high student participation in recording and commenting videos. The quantitative analyses of the evaluation questionnaires reveal that, in general, they were very pleased with the experience, particularly with the first tasks and with the comments they received from their peers, which made them cognizant of their communicative traits. The qualitative analysis confirms these results and indicates that students perceived their communicative and cross-cultural competence development. Our findings are discussed in more detail in the next section.

DISCUSSION

The triangulation of these results leads to several conclusions with regard to the initial research objectives. Having delved into academic publications on Flipgrid for educational purposes to date, the promotion of learners' engagement mentioned in the literature review was also highlighted in the Oxfordcett project. While some aspects were not included in this study -for example as regards the role of Flipgrid in teacher feedback and self-assessment, or in the development of teamwork, creativity, and problem-solving skills-, numerous pros and cons pointed out by other authors were identified in this project as well. In particular, the research presented in this article is strongly related to cluster 1 resulting from the bibliometric analysis, i.e. the use of the Flipgrid application to foster language learning.

In line with a high degree of motivation reported in previous studies (Edwards & Lane, 2021; Huertas-Abril, 2021; Lam & Habil, 2020; Saçak & Kavun, 2020; Sebach, 2020; Serembus & Murphy, 2020; Stoszkowski & Collins, 2021; Stoszkowski et al., 2020), Flipgrid metrics for the Oxfordcett project reveal that student involvement was globally achieved, especially in the first two oral tasks. Given that the third task was primarily concerned with collective written production, the reduced number of video recordings was very much to be expected. However, for the final task, which consisted of exchanging impressions on Saint Valentine's celebration, Flipgrid metrics point to a significant decrease in overall student engagement, particularly among UB students. In fact, this activity was primarily completed by EU students, with only

5 out of the 17 UB students participating in it. This disparity in student engagement between both groups may be attributed to several factors. On one hand, UB students experienced a tighter curriculum than their counterparts in their final weeks of the project and they may have prioritized other academic assignments over this one. On the other hand, the fact that the topic of this task sharply deviated from the topic of employment, which holds utmost importance in the study of English for Tourism and Hospitality -as it is the case with UB students-, might have led students to perceive this task as less valuable. Finally, another factor that may have contributed to UB students' lower interest may have been the fact that the celebration of Saint Valentine is not as ingrained in Spanish culture as it is in the United States, and therefore, students may have felt that it was a cultural limitation for them since they did not have as much to contribute to the topic. With the exception of this final task, though, students were overall highly engaged as confirmed by metrics results and survey responses. Students appreciated the opportunity to use Flipgrid as a means to enhance their language and cultural competence by interacting with native speakers of their target language who were of a similar age.

With regard to students' qualitative responses to the multicultural approach employed in this project, both groups expressed positive opinions. The results clearly corroborate that students viewed this project as an opportunity to develop their cultural understanding of their target community and that it enabled them to increase their cross-cultural awareness. They commonly expressed how appreciative they were to engage with college students from another country, and to exchange their perspectives and knowledge about themselves, their identities, and their respective countries. The interactive nature of this project enabled students to gain valuable insights of each other's lives and societies.

In accordance with other Flipgrid experiences (Falco et al., 2020; Grieger & Leontyev, 2020; Hashim et al., 2019; Iglesias, 2021; Lam & Habil, 2020; Lowenthal & Moore, 2020; Shin & Yunus, 2021), the analysis of learners' opinions about the Oxfordcett project clearly indicates high levels of satisfaction in global terms, as well as very positive perceptions of achievement, particularly in terms of producing an elevator pitch and benefitting from peer feedback. Even though the views expressed by the EU group seem slightly more favorable than the UB group, no significant dissimilarities can be appreciated, except from three aspects which may be linked to the gap between both groups' communicative competences, acknowledged in their replies to questionnaire section B. Firstly, providing feedback was more highly valued by the EU group than by the UB group. In fact, more UB students also expressed in their open comments their reluctance to give feedback to EU students, probably owing to the basic level of Spanish of the latter. Secondly, UB students' high level of English may have determined their lower perception of linguistic improvement because of the ceiling effect in contrast to EU elementary students' feeling of progress. Thirdly, UB students' higher exposure to the English language and the Anglo-Saxon cultures may have influenced their lower self-reported increase in cross-cultural awareness compared to the cultural discoveries made by EU students.

Learners perceived that a good number of aspects were correlated -and in the case of UB students, more strongly correlated- such as the relationship between different tasks, between the provision of feedback and learning about their own improvement areas, or between

linguistic progress and the strengthening of their self-confidence. Five correlations with learners' degree of satisfaction were made in each group. Three of them were common in both groups and align with the above-mentioned findings, so they can be considered significant. These correlations point to items that were both important for them and with which they were satisfied, namely their ability to video record an elevator pitch, the gains derived from peer feedback, and their cross-cultural development. The fourth common correlation is related to the association made by students between profiting from peer feedback and becoming more aware of their own strengths and weaknesses, and the last common correlation couples the ability to write a résumé and a cover letter.

The results obtained after examining questionnaire section B from both a holistic and an analytic perspective are consistent not only with the high scores provided in sections A and C, but also with the positive experiences described by other scholars. The participants in the Oxfordcett project also valued Flipgrid for its ease of use as a means to enhance their intercultural (Mai et al., 2020) and communicative competences (Chaka & Nkhobo, 2019; Colton, 2020; Dettinger, 2018; Edwards & Lane, 2021; Falco et al., 2020; Hashim et al., 2019; Huertas-Abril, 2021; Iglesias, 2021; Lam & Habil, 2020; Mai et al., 2020; Newman et al., 2022; Palacios-Hidalgo, 2020; Shin & Yunus, 2021; Stoszkowski & Collins, 2021; Striker et al., 2020). Our findings seem to confirm the mediation of Flipgrid in boosting learners' oral production (Dettinger, 2018; Huertas-Abril, 2021; Shin & Yunus, 2021) and reception skills (Mai et al., 2020), as well as their self-confidence (Dettinger, 2018; Falco et al., 2020; Hashim et al., 2019). Likewise, some of the drawbacks expressed by Oxfordcett project participants support the claims made by other researchers, such as the sporadic technical complications (Edwards & Lane, 2021; Iglesias, 2021) or the occasional discomfort to video record their own performance (Edwards & Lane, 2021; Hashim et al., 2019; Stoszkowski & Collins, 2021).

To sum up, our study sustains other views concerning the suitability of Flipgrid to foster virtual interaction and inter-personal connectivity (Green & Green, 2018; Holbeck & Hartman, 2018; Lowenthal & Moore, 2020; Serembus & Murphy, 2020; Stoszkowski & Collins, 2021), as well as peer assessment (Dettinger, 2018; Falco et al., 2020; Johnson et al., 2019; Nadjwa Miskam et al., 2019; Stoszkowski & Collins, 2021). Nonetheless, despite appreciating the originality of this learning approach and the associated opportunities for authentic input from native speakers, the negative comments and improvement suggestions regarding the tasks and the problems with peer feedback were uniquely related to this specific project's idiosyncrasy and had not been reported by prior research. These contributions should be taken into account when considering its replication with participants from diverse cultural backgrounds at different stages of SLA.

Future pedagogical interventions should match groups of students with more similar linguistic levels to minimize challenges posed by language barriers in multilingual and multicultural virtual exchanges. Moreover, some of the tasks ought to be adjusted according to students' interests, making sure students find them motivating and manageable. In addition, Flipgrid could be combined with social media and online synchronous conversation exchanges, as mentioned by respondents in their improvement suggestions, which may address some remarks regarding the limitations of asynchronous interaction noted by other authors (Dettinger, 2018;

Edwards & Lane, 2021). This can be conducive to the provision of more effective peer feedback from a constructivist angle.

Although the generalizability of the results is limited by the size of the sample and the scope of the project, they build on existing evidence of the usefulness of Flipgrid in learning processes. This study relied on content from only two databases, Scopus and WoS, which, while important sources of information, presented a limiting factor. Scholarly production on Flipgrid as an educational tool will continue growing and more supporting research will further our understanding of its efficacy.

CONCLUSION

This article has provided insight into the use of Flipgrid to foster SLA by reporting on previous investigations' findings, and by illustrating and analyzing its application in a specific language learning intervention. Having adopted a mixed-methods approach including different perspectives and techniques, evidence from primary and secondary sources through several research instruments was collected and the initial objectives were met. Through its findings, this study contributes to the limited existing pool of knowledge about the use of Flipgrid, particularly with regard to its value motivating SLA in higher education.

The positive outcomes from this study matched our expectations, even though some results related to tasks and peer feedback proved somewhat unanticipated. From those results, a new consideration arises regarding the instructor's point of view. Future research should examine instructor perceptions and analyze larger samples of language learners using Flipgrid in a wide range of educational settings worldwide. Further understanding is necessary with respect to how the drawbacks that have been pinpointed in relation to Flipgrid can be counterbalanced, or how to address students' reluctance to self-exposure and virtual saturation. This can be a challenging issue in a world with growing digitalization needs and requirements in educational and professional contexts where cyber-attacks and crime are gradually more frequent. Furthermore, attention ought to be paid to technological inequality and discrimination within and across geographical regions.

A number of other aspects could also be investigated, such as the opportunities deriving from the current digitalization trends and the increasingly important role of information and communication technologies in education, the popularity of social media and learners' familiarity with them, and the proliferation of free webinars and forums to share pedagogical experiences. Researchers could also take advantage of the interest in collaborative projects and inter-institutional alliances, coupled with the need for cross-cultural, cross-curricular, multi-methodological approaches to explore the high applicability of Flipgrid and other similar tools in post-pandemic adverse situations when on-site contact is restricted. New times require exploration of these and other new lines of action.

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