



Flipgrid: La plataforma de debate en vídeo para reforzar las destrezas de comunicación oral

Flipgrid: The video discussion platform to reinforce oral communication skills

Flipgrid: A plataforma de discussão em vídeo para reforçar as habilidades de comunicação oral

Silvia Nataly Bejarano Criollo ^I sbejarano@espoch.edu.ec https://orcid.org/0000-0001-6761-47507

Luis Armando Quishpe Hipo ^{III} luisarm.quishpe@espoch.edu.ec https://orcid.org/0000-0002-3242-5295 María Yadira Cárdenas Moyano ^{II} yadira.cardenas@espoch.edu.ec https://orcid.org/0000-0002-9606-3780

Wilson Gonzalo Rojas Yumisaca ^{IV} wilson.rojas@espoch.edu.ec https://orcid.org/0000-0003-0302-3315

Correspondencia: sbejarano@espoch.edu.ec

Ciencias de la Educación Artículo de Investigación

* Recibido: 23 de mayo de 2023 * Aceptado: 12 de junio de 2023 * Publicado: 18 de julio de 2023

- I. Magíster en Lingüística y Didáctica de la Enseñanza de idiomas extranjeros, Docente de la Escuela Superior Politécnica de Chimborazo, ESPOCH, Riobamba, Ecuador.
- II. Magíster en la Enseñanza del Idioma Inglés como Lengua Extranjera, Docente de la Escuela Superior Politécnica de Chimborazo, ESPOCH, Riobamba, Ecuador.
- III. Magíster en Lingüística y Didáctica de la Enseñanza de Idiomas Extranjeros, Docente de la Escuela Superior Politécnica de Chimborazo, ESPOCH, Riobamba, Ecuador.
- IV. Magíster en la Enseñanza del Idioma Inglés como Lengua Extranjera, Docente de la Escuela Superior Politécnica de Chimborazo, ESPOCH, Riobamba, Ecuador.

Resumen

En el aprendizaje de idiomas, las destrezas de comunicación oral son cruciales para que los estudiantes lleguen a dominar una lengua. Este artículo de revisión pretende analizar el impacto de una innovadora plataforma de debate basada en vídeo, Flipgrid, en el refuerzo de las destrezas de comunicación oral de los estudiantes de inglés como lengua extranjera. Por lo tanto, el estudio sintetiza la literatura existente y examina la base teórica, los beneficios y las limitaciones de la plataforma. La sección de metodología ofrece una visión general de cómo los enfoques de métodos mixtos, cualitativos y cuantitativos determinaron la eficacia de Flipgrid en la mejora de las habilidades orales de los estudiantes. La sección de resultados y discusión analiza y contextualiza los resultados de investigaciones anteriores, destacando los avances y rectificando conceptos sobre el impacto de Flipgrid en las percepciones, el compromiso, la colaboración, la fluidez oral y la confianza de los estudiantes en diversos entornos educativos. La sección de conclusiones aborda la pregunta de investigación y proporciona información actualizada que demuestra la influencia de Flipgrid en las habilidades de comunicación oral de los estudiantes de inglés como segundo idioma y la mejora de sus niveles de competencia. Este estudio de revisión implica que se necesita más investigación sobre Flipgrid para comprender todo el potencial de una función de comentarios en vídeo que tenga en cuenta las implicaciones para dar y recibir una retroalimentación eficaz y para la investigación lingüística y tecnológica en general.

Palabras Clave: rejilla abatible; habilidades de comunicación oral; tecnología; educación

Abstract

In language learning, oral communication skills are crucial for becoming proficient in a language. This review article aims to analyze the impact of an innovative video-based discussion platform, Flipgrid, on strengthening the oral communication skills of learners of English as a foreign language. Therefore, the study synthesizes the existing literature and examines the platform's theoretical basis, benefits, and limitations. The methodology section provides an overview of how mixed methods, qualitative, and quantitative approaches determined the effectiveness of Flipgrid in improving students' speaking skills. The results and discussion section analyzes and contextualizes previous research findings, highlighting advances and rectifying concepts about Flipgrid's impact on students' perceptions, engagement, collaboration, oral fluency, and confidence in diverse educational settings. The findings section addresses the research question and provides



updated information demonstrating Flipgrid's influence on English as a second language learners' oral communication skills and improved proficiency levels. This review study implies that more research on Flipgrid is needed to understand the full potential of a video feedback feature that considers the implications for giving and receiving effective feedback and for linguistic and technological research in general.

Keywords: Flipgrid; oral communication skills; technology; education.

Resumo

No aprendizado de idiomas, as habilidades de comunicação oral são cruciais para se tornar proficiente em um idioma. Este artigo de revisão tem como objetivo analisar o impacto de uma plataforma inovadora de discussão baseada em vídeo, Flipgrid, no fortalecimento das habilidades de comunicação oral de aprendizes de inglês como língua estrangeira. Portanto, o estudo sintetiza a literatura existente e examina a base teórica, os benefícios e as limitações da plataforma. A seção de metodologia fornece uma visão geral de como métodos mistos, abordagens qualitativas e quantitativas determinaram a eficácia do Flipgrid em melhorar as habilidades de fala dos alunos. A seção de resultados e discussão analisa e contextualiza resultados de pesquisas anteriores, destacando avanços e retificando conceitos sobre o impacto do Flipgrid nas percepções, envolvimento, colaboração, fluência oral e confiança dos alunos em diversos ambientes educacionais. A seção de resultados aborda a questão da pesquisa e fornece informações atualizadas que demonstram a influência do Flipgrid nas habilidades de comunicação oral dos alunos de inglês como segunda língua e nos níveis de proficiência aprimorados. Este estudo de revisão implica que mais pesquisas sobre o Flipgrid são necessárias para entender todo o potencial de um recurso de feedback de vídeo que considere as implicações para dar e receber feedback eficaz e para pesquisas linguísticas e tecnológicas em geral.

Palavras-chave: Flipgrid; habilidades de comunicação oral; tecnologia; Educação.

Introduction

In today's world, communicating effectively in English can be challenging, especially if English is considered a foreign language. However, building interpersonal connections or socializing with others with basic English communicative skills is necessary. English Second Language (ESL)

students need more opportunities to practice speaking outside the classroom to achieve fluency in English, considering that speaking is the most difficult of the four language skills. Rao (2019) claims that speaking is a productive skill that may help students and language users communicate with others and build relationships. This communication might be crucial for students' personal and professional development.

Traditional classroom methods often need help to provide sufficient opportunities for students to practice and refine these skills. However, technological advancements in language learning have drastically transformed how students learn a second language, making it a meaningful, motivating, and exciting experience (Yamasque & Castillo, 2023). From the view of Melnyk (2015), technology permits teachers to make their classrooms more creative, interactive, and exciting and to collaborate with peers worldwide to share-design different learning experiences for their students. Digital technology also allows students to carry out activities from home (Brunett et al., 2014).

One such platform that has gained popularity in language classrooms worldwide is Flipgrid. It is a video-sharing platform that allows students to create and share short videos, enabling teachers to evaluate students' language proficiency. Several studies have explored the impact of technology on language learning, with many showing positive results. However, the effectiveness of Flipgrid in improving learners' oral communication skills has yet to be fully explored. This study aims to analyze the potential use of Flipgrid to reinforce oral communication skills in ESL students.

Literature Review:

The reviewed literature demonstrates the positive impact of Flipgrid on reinforcing oral communication skills in students. Studies consistently show that the platform enhances student engagement and motivation by providing a dynamic and interactive learning environment. Hashim et al. (2018) stated that Flipgrid could help students improve their confidence level, as they were more comfortable using the language when they could practice it encouraging introverted students to become more involved in discussions with their classmates. This free online tool, founded in 2014 by Professor Charles Miller from the University of Minnesota, makes student interaction easier (Young, 2018).

Flipgrid can be used in many subjects, especially those which require progressing oral communication skills. Flipgrid encourages students to develop speaking fluency, critical thinking, and digital literacy skills, which are essential in 21st-century education. Flipgrid has gained tremendous popularity for academic units, enabling educators to engage students in various learning and assessment activities. Flipgrid has been designed to empower learners and facilitate social interaction between teachers and students (Stoszkowski, 2018). In conjunction, another study showed that students tend to have a positive attitude toward online learning, primarily if the activity promotes student friendliness towards others and is socially engaging (Dogoriti, 2015).

Students' perceptions

A variety of circumstances can influence the success and learning of students. One of these circumstances is students' perceptions. When students are delighted with their learning, they are likely to engage in educational activities and, as a result, succeed in their studies. Moreover, how teachers engage students in the classroom is essential to positively affect their oral communication skills (Fredricks & Paris, 2004).

Students tend to develop a positive sense of self-efficacy when they see themselves succeeding after exerting effort into their learning and when others appraise them as likely to succeed (Graham, 2006). This kind of experience is especially relevant to the student's learning experience. Students' accomplishments are vital for success in the language classroom. Students feel motivated and develop a positive sense of self-efficacy when they see their learning progress. The more improvement they see, the more invested in their education they become. This literature review study allows the researcher to realize that self-efficacy is related to academic persistence and performance. This will motivate students in the face of difficulties and failure in oral communication skills.

Benefits of Flipgrid

Although oral communication skills should be worked on in face-to-face learning, incorporating Flipgrid in the classroom can offer several benefits for improving oral communication skills in ESL students (Hobbs, 2021). Here are the most common ones:

Enhancing speaking practice: Speaking in front of the whole class can be challenging and frustrating for some students, so this platform is ideal for those who want to speak in public. Some review studies revealed that a group of quieter students had produced some of the best Flipgrid videos without any distractions, even though they knew their videos would be exposed to their classmates. The students showed great enthusiasm and a positive attitude when recording their videos.

Students can record and share their speaking assignments, allowing them to practice their oral communication skills extensively. This regular speaking practice helps build fluency, pronunciation, and confidence in speaking English. Blyznyuk et al. (2021) added that students can observe their oral performance and practice as often as they wish before presenting it. McLain (2018) also states that Flipgrid motivates students to record videos, review their performance, and evaluate themselves non-judgmentally, boosting their confidence without being intimidated by the teacher or peer. In addition, Concheiro et al. (2021) argued that students could add text, filters, frames, stickers, photos, and other elements.

Providing a safe space for practice: Some ESL students may feel hesitant or anxious about speaking in front of others. Flipgrid offers a safe and non-threatening space for them to practice and receive feedback. Students can record their videos privately, allowing them to improve their speaking skills at their own pace. Flipgrid may help ESL students reduce anxiety about learning English speaking and enhance their speaking performance. The platform may also help students build their confidence in learning to speak English using artificial intelligence (AI) technology (Khang & Tran, 2020). Additionally, students can redo their records as often as possible before submitting the videos.

Promoting active participation: Flipgrid encourages active student engagement by allowing them to share their ideas, thoughts, and opinions on various topics. It fosters a more inclusive and collaborative classroom environment where every student can participate actively, regardless of their proficiency level. Creating a collaborative environment among students is essential to share

their perspectives, promoting a space where they can learn from each other and foster their confidence in their English-speaking skills.

Focusing on pronunciation: Flipgrid is an ideal digital tool to improve students' pronunciation by allowing them to practice and record as many times as students deem necessary. The platform offers the option to pause, replay and review their video projects. The role of the teacher is vital as they can check the students' videos and provide correct feedback in class on pronunciation errors. In this context, students can re-watch their oral presentation performance on the videos and identify their strengths, weaknesses, and possibilities for improvement in their future oral presentations. Some researchers recommended that teachers might support the students' learning process with other tools to foster correct pronunciation.

Focusing on vocabulary: The studies showed that students' vocabulary noticeably improved, and students who were afraid of making grammatical mistakes had greater confidence (Ker & Yunus, 2021). Flipgrid also allows learners to use new vocabulary in different contexts, which helps learners remember and retain words for future use. Students' oral communication skills improved once their vocabulary increased.

Encouraging self-reflection and self-assessment: Flipgrid allows students to review their recorded videos and reflect on their performance. This self-assessment helps students identify areas for improvement, such as pronunciation, grammar, or vocabulary usage. It promotes self-directed learning and empowers students to take ownership of their language development. Flipgrid enables students to speak and listen to videos, which enhances their fluency and comprehension skills. The app provides a platform for recording with peers and discussing topics relevant to their interests. Students can practice various speaking techniques to improve fluency, such as intonation, diction, and stress. Moreover, ESL students can view classmates' videos and gain insight into different cultural contexts, perspectives, and ideas. The platform fosters a supportive and inclusive community that enables students to practice oral communication skills easily.

Facilitating peer feedback and collaboration: Flipgrid enables students to provide feedback on their peers' video submissions. This peer-to-peer interaction promotes active listening, critical

thinking, and constructive feedback skills. Students can learn from each other, exchange ideas, and develop a sense of community within the classroom. As with social media, peer comments can be made with a simple "like" button or more detailed written or video comments.

Supporting teacher feedback and assessment: Flipgrid provides a convenient way to evaluate students' speaking abilities. Teachers can review and provide targeted feedback on students' recorded videos, focusing on specific linguistic or communicative aspects. This personalized feedback helps students understand their strengths and weaknesses, facilitating their progress in oral communication.

Expanding learning beyond the classroom: Flipgrid allows students to access and engage with language learning materials outside the school. Teachers can assign speaking tasks, discussions, or debates as homework, extending the learning experience beyond traditional class time. This flexibility promotes continuous language practice and fosters independent learning.

By incorporating Flipgrid into the classroom, ESL students can benefit from increased speaking practice, active participation, a safe learning environment, self-reflection, peer collaboration, and effective teacher feedback. These benefits collectively contribute to improving their oral communication skills in English.

Limitations of Flipgrid

While Flipgrid offers numerous benefits for improving oral communication skills in ESL students, the researchers identified some limitations to consider for future researchers:

Technological requirements: Flipgrid relies on access to technology, including devices with cameras and internet connectivity. Not all students may have consistent access to these resources, which can create a digital divide and limit the participation of specific students.

Limited real-time interaction: Flipgrid primarily focuses on asynchronous communication, where students record and share their videos. While this allows for flexibility, it limits the

opportunity for real-time interaction and spontaneous conversation, which are essential components of oral communication.

Reduced non-verbal cues: In a face-to-face conversation, non-verbal cues such as gestures, facial expressions, and body language play a significant role in communication. When using Flipgrid, these non-verbal cues may be reduced or lost, impacting students' ability to express themselves and understand others fully.

Lack of immediate feedback: Flipgrid allows students to receive feedback from peers and teachers, but this feedback is only sometimes immediate. Students may have to wait for some time before receiving feedback, slowing their learning process and hindering immediate improvement (Mango, 2021).

Limited authentic contexts: The topics and situations presented on Flipgrid may not always reflect real-life or authentic communication contexts. While it provides practice opportunities, students may encounter a different range of language use and cultural nuances than they would in real-life conversations.

Privacy concerns: Recording and sharing videos on a digital platform like Flipgrid may raise privacy concerns for some students. They may feel uncomfortable sharing personal information or speaking publicly, affecting their willingness to participate fully.

Technical issues and learning curve: Using Flipgrid may involve a learning curve for both students and teachers. Technical issues, such as connectivity problems, recording difficulties, or unfamiliarity with the platform, can disrupt the learning process and frustrate students.

To overcome these limitations, it is essential to supplement Flipgrid with other instructional strategies and activities that provide opportunities for real-time interaction, authentic communication, and non-verbal cues. Balancing digital tools with in-person or synchronous activities can help create a well-rounded approach to improving oral communication skills in ESL

students. Furthermore, due to the extensive administrative work that teachers need to do, the time limitation is another reason the teachers find it challenging to practice (Rosita & Halimili, 2023)

Methodology

This research review allowed the researchers to identify the most practical approaches used by the major of researchers, determining that the mixed-method research study approach was primarily used. According to Creswell and Creswell (2018), "Mixed methods involves combining qualitative and quantitative research and data in a research study." While qualitative data tends to be open-ended and quantitative data represents closed-ended responses, a mixed methods approach allows for collecting both data forms to provide vast and expansive data collection with minimal errors (Difilippantonio-Pen, 2020). The mixed-method research design allowed for a more comprehensive analysis to confirm the effectiveness of Flipgrid in improving oral communication skills in ESL students.

Researchers also supported their studies with surveys, interviews, observations, and pre/post assessments to evaluate the impact of Flipgrid on oral communication skills. Some researchers have also employed comparative analyses examining students' performance using Flipgrid compared to traditional methods. The diversity of research methodologies has contributed to an overall understanding of Flipgrid's effectiveness and informed the conclusions drawn in this review.

Tuyet & Khang (2020) conducted their study in two stages, the first with a one-group pre-test and post-test quasi-experimental design and the second with a mixed-method study designed with a questionnaire and semi-structured interviews. Both qualitative and quantitative data were collected to answer the research questions related to Flipgrid's impact on reducing students' anxiety and their attitudes toward using the platform in oral communication skills.

Cárdenas & Naranjo (2021) focused their research on a mixed method because data were collected and analyzed from a questionnaire with Likert scale questions, dichotomous questions, and openended questions. While the quantitative questions focused on students' motivation, the open-ended questions and interviews focused on students' attitudes toward using the Flipgrid platform. The researchers wanted to know their college students' perceptions about the efficacy of Flipgrid on language production, where 65 A2 level students participated in the study.

Results and Discussion:

Most researchers aimed to determine the impact of Flipgrid on reinforcing oral communication skills in ESL students. Once the researchers completed their studies, they found that the students improved their speaking fluency, increased confidence, and a greater willingness to express their ideas and perceptions (Kupczynski et al., 2020). The platform also promotes inclusive learning, allowing students to participate actively, regardless of their communication apprehension or proficiency levels (Ferdig & Baumgartner, 2019). Furthermore, Flipgrid encourages peer-to-peer interaction and collaboration, creating a supportive and collaborative learning community (Hew & Lo, 2018).

In Johnson & Skarphol's (2018) study, a significant improvement was observed in the oral production skills of ESL learners who used Flipgrid as a regular practice tool. Littlefield (2018) found that using Flipgrid in the language classroom improved EFL learners' fluency and confidence in speaking. According to Wang & Chen (2020), incorporating Flipgrid into online English courses contributed to the development of oral production in university students by providing an interactive and motivating environment. Rosita & Halimi (2023) argue that combining Flipgrid with face-to-face learning is an excellent way to practice speaking in ESL classes.

It is worth noting that the role of teachers in encouraging students to use Flipgrid is elemental, as students could follow specific instructions from downloading the Flipgrid application on their technology devices to sharing their videos. Students also took into account feedback from peers and teachers to work on the strengths and weaknesses of their video projects to improve their presentations. Students also demonstrated that they could use the platform objectively and found using Flipgrid to be a positive learning experience. Another reason for the platform's effectiveness is that students were encouraged to self-assess their videos before uploading them and to re-record

them to improve their content, accuracy, intonation, and fluency in English (Peterson & Onaka, 2020).

Conclusions

The reviewed literature consistently highlights the positive impact of Flipgrid on reinforcing oral communication skills in students. By providing an engaging and interactive platform, Flipgrid empowers students to develop speaking fluency, confidence, and collaboration abilities. Integrating Flipgrid into educational practices can boost student engagement and motivation, foster a supportive learning environment, and prepare students for effective communication in various personal and professional contexts.

Flipgrid has revolutionized the way ESL students practice their speaking skills. The app provides a fun, interactive, and personalized environment for students to record videos and interact with their peers. The technology enhances students' oral communication skills by increasing engagement, improving pronunciation and vocabulary, and promoting better fluency and comprehension.

The research indicates that Flipgrid's impact on ESL students' oral communication skills is profound. With the increasing demand for digital learning platforms, Flipgrid is a valuable addition to the teaching and learning process. Flipgrid allows ESL teachers to engage students in authentic communication and create immersive language learning experiences

References

- Blyznyuk, T., Budnyk, O., & Kachak, T. (2021). Boom in Distance Learning During the Coronavirus Pandemic: Challenges and Possibilities. Journal of Vasyl Stefanyk Precarpathian National University, 8(1), 90-98. https://doi.org/https://doi.org/10.15330/jpnu.8.1.90-98
- Brunett, C., Davies, J., Merchant, G., & & Rowsell, J. (2014). New literacies around the globe. Policy and pedagogy. Routledge.

677

- Cárdenas, S., & Naranjo, X. (2021). College students' attitudes towards the use of Flipgrid to improve speaking skills. Alpha publicaciones, 3(31), 175-184. https://doi.org/https://doi.org/10.33262/ap.v3i3.1.85
- Concheiro, P. E. (2021). Flipgrid, a video app for virtual exchange, propinquity, and language learning. Perspectiva, 1(1-17), 39. https://doi.org/http://dx.doi.org/10.5007/2175-795X.2021.e70066
- Creswell, J. W., & Creswell, J. D. (2018). Research design: qualitative, quantitative, and mixed methods approaches (5th Ed.). Thousand Oaks, CA: SAGE Publications.
- Difilippantonio-Pen, A. (2020). Flipgrid and Second Language Acquisition Using Flipgrid to Promote Speaking Skills for English Language Learners. In BSU Master's Theses and Projects. https://vc.bridgew.edu/theses/75 Copyright
- Dogoriti, E. (2015). Towards an Instructional Tool for Teaching of English as A Second/Foreign Language (ESL/EFL) in Higher Education. International conference on information, communication technologies in education(401-411).
- Fredricks, J. B., & Paris, A. (2004). School engagement: Potential of the concept, state of the Evidence. Review of Educational Research, 74(1), 59–109.
- Graham, S. (2006). A study of students' metacognitive beliefs about foreign language study and their impact on learning. Foreign Language Annals, 39(2), 296–309. https://doi.org/https://doi.org/10.1111/j.1944-9720.2006.tb02267.x
- Hashim, H. U. (2018). Bitesize learning: WhatsApp status for English communication skills. Edu. Edu Innovation Proceeding(8-10).
- Hobbs, J. (2021). Necessity is the mother of invention: Facilitating learner interaction in university English courses during the COVID-19 pandemic. Annual Report of Iwate Medical University Center for Liberal Arts and Sciences.
- Johnson, M., & Skarphol, M. (2018). The effects of digital portfolios and Flipgrid on student. https://sophia.stkate.edu/maed/270
- Ker, J., & Yunus, M. (2021). The Attitudes of Pupils towards using Flipgrid in Learning English Speaking Skills. International Journal of Learning, Teaching and Educational Research, 20(3), 151-168. https://doi.org/https://doi.org/10.26803/ijlter.20.3.10

- Khang, N., & Tran, B. (2020). Revealing Teachers' and Students' Perception of the Use of Flipgrid for Speaking Assessment. European Journal of Foreign Language Teaching. https://doi.org/10.46827/ejfl.v5i1.3264
- Littlefield, J. (2018). The difference between synchronous and asynchronous distance learning. ToughtCo.: https://www.thoughtco.com/synchronous-distance-learning-asynchronousdistance-learning-1097959
- Mango, O. (2021). Flipgrid: Students' Perceptions of its Advantages and Disadvantages in the Language Classroom. International Journal of Technology in Education and Science (IJTES, 5(3), 277-287. https://doi.org/https://doi.org/10.46328/ijtes.195
- McLain, T. (. (2018). Integration of the video response app FlipGrid in the business writing classroom. International Journal of Educational Technology and Learning, 4(2). https://doi.org/68-75
- Melnyk, A. (2015). Advantages and disadvantages of using skype for educational purposes. Revista Virtual Lingu@ Nostr@, 3(1), 84-94.
- Peterson, J., & Onaka, N. (2020). Utilizing Flipgrid Application on Student Smartphones in a Small-Scale ESL Study. Canadian Center of Science and Education, 13(5). https://doi.org/10.5539/elt.v13n5p164
- Rao, P. S. (2019). The Importance of Speaking Skills in English Classrooms. Alford. Alford Council of International English & Literature Journal(ACIELJ)(6-18).
- Rosita, E., & Halimi, S. (2023). The Use of Flipgrid in Improving Secondary School Teachers' Motivation and Confidence in Speaking English. JEELS (Journal of English Education and Linguistics Studies), 10(1), 27-55. https://doi.org/10.30762/jeels.v10i1.842
- Stoszkowski, J. (. (2018). Using Flipgrid to Develop Social Learning. Compass: Journal of Learning and Teaching(1-5).
- Tuyet, T. T., & Khang, N. D. (2020). The Influences of the Flipgrid App on Vietnamese Efl High School Learners' Speaking Anxiety. European Journal of Foreign Language Teaching, 5(1), 128-149. https://doi.org/10.46827/ejfl.v5i1.3264
- Wang, H.-c., & Chen, C. (2020). Learning English from YouTubers: English L2 learners' selfregulated language learning on YouTube. Innovation in Language Learning and Teaching, 4(333–346), 14. https://doi.org/https://doi.org/10.1080/17501229.2019.1607356

- Yamasque, E., & Castillo, H. (2023). The Ecuadorian educational system; Impacts. Polo del Conocimiento, VIII(6), 274-289. https://doi.org/10.23857/pc.v8i6
- Young, J. (2018). Microsoft buys video-discussion platform Flipgrid EdSurge News. EdSurge. https://www.edsurge.com/news/2018-06-18-microsoft-buys-video- discussion-platformflipgrid

© 2023 por los autores. Este artículo es de acceso abierto y distribuido según los términos y condiciones de la licencia Creative Commons Atribución-NoComercial-CompartirIgual 4.0 Internacional (CC BY-NC-SA 4.0) (https://creativecommons.org/licenses/by-nc-sa/4.0/).