

## EFL Secondary Education Teachers' Perceptions Toward Using Online Student Response Systems

Percepciones de profesores de inglés como lengua extranjera respecto al uso de sistemas de respuesta en línea para estudiantes

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This mixed-methods study explored 30 EFL teachers' perceptions of online student response systems (OSRSs) in emergency remote teaching settings. Data were collected using a survey addressing components related to the acceptance and use of OSRSs and semi-structured interviews. Survey findings revealed that OSRS components are regarded as helpful and engaging by EFL teachers. At the same time, interview data identified drivers (ease of use, increased student engagement, and immediate feedback) and obstacles (internet connection issues, lack of training, and distractive elements) concerning OSRS use. Pedagogical implications refer to the need for EFL teachers to receive proper training before using OSRSs and the benefits of accepting the gamified aspects of OSRSs as a significant feature that can support learning.

*Keywords:* EFL teachers' perceptions, emergency remote teaching, gamification, online student response system

Este estudio de métodos mixtos exploró las percepciones de 30 profesores de inglés sobre los sistemas de respuesta en línea para estudiantes (OSRS, por sus siglas en inglés) en entornos de enseñanza remota de emergencia. Los datos se recolectaron mediante una encuesta y entrevistas semiestructuradas. La encuesta reveló que los componentes de OSRS son considerados útiles y atractivos por los profesores, mientras que las entrevistas identificaron motivantes (facilidad de uso, mayor participación de los estudiantes y retroalimentación inmediata) y obstáculos (conexión a Internet, falta de capacitación y elementos distractores). Las implicaciones pedagógicas apuntan a la necesidad de que los profesores de inglés como lengua extranjera reciban formación adecuada antes de utilizar los OSRS y a los beneficios de aceptar los aspectos lúdicos de estos sistemas para el aprendizaje.

*Palabras clave:* enseñanza remota de emergencia, ludificación, percepciones de profesores de inglés, sistema de respuesta en línea de estudiantes

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## Introduction

Over the last three years, technological approaches to teaching and learning have flourished due to the COVID-19 pandemic, which forced many teachers to teach remotely (Alqahtani & Rajkhan, 2020). Emergency remote teaching refers to the unplanned practice that prompted teachers to deliver their lessons remotely to deal with the logistic problems raised by the pandemic or other unforeseen circumstances (Bond et al., 2021). Participation and motivation have decreased in online environments influenced by emergency remote teaching due to the physical and affective distance between peers and their learning environment and the increased learner anxiety accompanying the process (Sharma & Bumb, 2021). The abrupt change in teaching modality has required teachers to become more aware of the available technological resources to foster creativity and critical thinking among their students (Ali, 2020; Campillo-Ferrer et al., 2020). Furthermore, teachers have been burdened with the need to quickly adapt to these new technological tools. Teaching children and teenagers requires teachers to be updated with the latest trends to enhance engagement and motivation in an increasingly virtual world (Graafland, 2018). These new approaches have sought to improve learning and provide more instances for flexibility and creativity in the classroom. In this respect, gamified approaches to learning have been proliferating in the literature, as they seem to yield better learning experiences and outcomes than traditional learning methods (A. I. Wang & Lieberoth, 2016).

Gamification is “the practice of using game design elements, game mechanics, and game thinking in non-game activities” (Al-Azawi et al., 2016, p. 133). In educational settings, gamification is characterized by approaches that use game elements to promote desired behaviors and drive learning outcomes (Zainuddin et al., 2020). Thus, gamified approaches can bring game-like elements—such as board games, flashcards, total physical response approaches, and online student response systems—into pedagogical practices that

take place in non-game settings (Wong et al., 2020). The psychological states achieved by learners being exposed to these approaches are triggered by game-like components such as reaching new levels, using badges and leaderboards as a reward system, and being immersed in a game context (Huotari & Hamari, 2013). A traditional non-gamified context can thus turn into a more dynamic learning setting that nurtures learner persistence, learning by repetition, collaboration and teamwork, and friendly peer competition (Campillo-Ferrer et al., 2020; Ding, 2019).

The positive impact of gamification on learning and motivation in learning contexts has been documented in educational research, where using gamified approaches not only motivates and engages learners but allows teachers to access online environments and adapt their teaching to specific groups, styles, and levels (Alabbasi, 2017; Al-Azawi et al., 2016; A. I. Wang & Tahir, 2020). One such gamified platform is the online student response system (OSRS), a web-based tool that collects and shares language assessment data and effectively provides immediate feedback (Bruff, 2009). These systems allow learners to use their technological devices as online tools to complete learning activities, such as quizzes, while increasing participation (A. I. Wang & Tahir, 2020). The first attempts to integrate student response systems in the classroom included “clickers,” electronic devices handed to students to elicit answers from them (Badia-Valiente et al., 2016). Then, OSRSs overcame the logistic difficulties of the clickers by replacing specific devices with computers, laptops, tablets, and smartphones. To use an OSRS, teachers and students only need to log on to a website or application and respond to real-time questions via the internet. The use of OSRS platforms such as Kahoot! and Socrative has increased in tertiary education contexts (Muir et al., 2020), as they include elements providing helpful information for teachers, such as a statistic treatment of correct response rates from single participants and the whole group (Cancino & Capredoni, 2020).

Through the use of OSRSs, teachers have sought to increase collaboration and motivation in a complex pandemic learning context (Herrada et al., 2020). The employment of these technological tools has helped to strike a balance between upholding traditional teaching strategies and adopting new approaches to the transmission of knowledge, as well as to increase students' attention and engagement in general educational settings (Sánchez-Mena & Martí-Parreño, 2017). There is a scarcity of studies addressing the perspective of EFL teachers regarding OSRSs and how the current pandemic and emergency remote teaching settings have influenced their use in language settings. It becomes necessary to understand EFL teachers' perceptions of the impact of OSRSs on active participation and motivation. In addition, this impact needs to be addressed regarding the drivers and challenges posed when using the technology in emergency remote language learning settings, as perceptions can be influenced by using a foreign language to achieve learning goals. Therefore, the present study sought to explore Chilean EFL high school teachers' perceptions regarding implementing and using OSRSs in an emergency remote teaching environment.

## Literature Review

### Teachers' Perceptions of Gamification and Learning

Research on gamification in education has exponentially increased over the past ten years (Kasurinen & Knutas, 2018). For example, Sánchez-Mena and Martí-Parreño (2017) found that 16 teachers who implemented gamification through educational video games perceived that their students' engagement increased and that the approach facilitated their learning more comprehensively when compared to more traditional methodologies. However, teachers also found that gamified approaches were challenging in other ways, such as requiring increased knowledge of gamification elements, not having a proper environment to introduce

the technology, and not having enough time to incorporate the activities into the lessons. Alabbasi (2017) administered a survey that assessed game elements regarding their psychological and cognitive effects and how they facilitate the formation of learning habits. He found that teachers felt that including gamified approaches in the lesson increased their learners' autonomy and allowed them to track their learning development. In line with this, Wong et al. (2020) aimed to investigate preservice teachers' perceptions of using gamified language activities to improve young learners' language skills. The study analyzed the perceptions of 33 senior-year preservice teachers completing a 16-week internship in their last semester. Data were collected through a 22-item questionnaire assessing the effectiveness of gamified language learning activities in the preservice teachers' practicums. Results revealed that integrating gamification in primary language learning contexts improved creativity and critical thinking in learners. In line with this, Chen et al. (2010) found that college students using gamified web-based learning platforms were more engaged and had higher self-reported evaluations of their learning than peers who were not exposed to the technology.

Specific aspects have been found to impact gamification success negatively. In this respect, Sánchez-Mena and Martí-Parreño (2017) identified four main demotivators teachers have regarding the use of OSRSs: the perceived lack of resources regarding time, training, economic support, and the classroom setting; the impact of students' apathy on gamified learning when seen as a waste of time rather than a learning instance; teachers beliefs that particular subject areas are more complex to gamify than others due to time constraints and a tight schedule; and the impact of disruptive elements on gamified lessons (e.g., disrupting other teachers' lessons). The adverse effects of gamification on educational settings are also reported by Toda et al. (2018). They argue that gamification can have deleterious effects on students' performance when instructions are misunderstood,

which may lead to a loss of motivation and a diminished focus on the task at hand. Indeed, reduced focus can become a frequent outcome of a gamified lesson due to the many aspects learners need to pay attention to while engaging with technology. Furthermore, learners may show indifference and display undesired behaviors when distractors are not adequately addressed (Toda et al., 2018). Learners need to be engaged with the gamified task, but at the same time, they must feel they are learning through the approach (Lavoué et al., 2018).

### OSRSs: A Gamified Approach to Learning

OSRSs are technological tools with gamified elements that are designed for learning. They help teachers diversify their lessons and remove traditional components such as the whiteboard. An OSRS exposes students to various interactive options—such as multiple-choice and open-ended questions—previously created by the teacher to test specific aspects of the lesson (Cancino & Capredoni, 2020). Teachers can create activities on the platform and then assess results using charts and graphs with percentile reports that identify areas where learners lag while ensuring anonymity for students in the group. OSRSs have also been referred to as personal response systems, audience responses systems, and electronic voting systems (Ranieri et al., 2018).

The technological tool has been found to support learning during the COVID-19 pandemic, as many students in educational institutions have undergone some switch from face-to-face teaching to emergency remote teaching (Herrada et al., 2020). OSRSs are frequently used in large classrooms to simplify teaching by providing immediate feedback to students (Cardoso, 2012) and to create an interactive classroom environment. OSRSs allow teachers to gather students in a shared virtual platform during a lecture, a quiz activity, or as practice time to review the contents taught during the lesson. They provide different alternatives for input—such as multiple-choice, true or false, and open-ended questions—and

tools to organize information (e.g., percentile analysis and progress charts). These features have characterized OSRSs as innovative software allowing teachers to control the lesson's context, timing, and learner participation in post-activity feedback when correct answers are discussed (Lavoué et al., 2018).

There are many types of OSRSs available on the market. Some of the most commonly used are Kahoot!, Socrative, Wordwall, Quizzizz, Nearpod, and Mentimeter. They share similar features: colorful design, attractive images, innovative templates, interactive presentations and activities, and competition modalities. Some are more utilitarian, including platforms to solve quizzes, share opinions, and analyze results. Although teachers have included OSRS activities in their face-to-face classrooms, emergency remote teaching contexts have decisively pushed for the inclusion of these tools in online settings and their adaptation to students' needs. OSRSs are increasing their popularity owing to the wide variety of options they can provide to users, making them an appealing tool for educational purposes. However, the same sanitary condition that prompted their use in emergency remote teaching settings presented teachers with challenges such as a lack of resources, inadequate training, and an increased workload (Sharma & Bumb, 2021).

### OSRSs in Educational Contexts

Several studies have addressed the benefits of using OSRSs in the classroom. A frequently researched OSRS is Kahoot!, an engaging and motivating tool for teachers and a platform that can improve learning outcomes, classroom dynamics, and learners' attitudes toward the lesson (A. I. Wang & Tahir, 2020). Similarly, Campillo-Ferrer et al. (2020) studied the effects of using Kahoot! in a social sciences program with 101 students. Data were collected through a questionnaire assessing participants' perceptions regarding technical expertise and use of the tool, motivation to use the platform, and its impact on problem-solving skills and social competencies. After

creating Kahoot! activities in their class and implementing them, students had learning sessions that included explanations, descriptions, and reflections on main social science concepts. Results showed that OSRS activities increased students' motivation and allowed them to learn with this approach. The authors underscore the benefits of introducing digital platforms in the classroom because they can help learners develop creativity and critical thinking and increase concentration, which has been confirmed in other studies (Yapıcı & Karakoyun, 2017). Finally, in language learning settings, Cancino and Capredoni (2020) assessed 23 preservice EFL teachers' perceptions towards an OSRS (Socrative) in terms of its usability and its impact on engagement and learning. Survey and focus group interview data revealed that the preservice teachers held positive perceptions of the usability of the OSRS. However, they reported relatively neutral opinions on the impact of the application on learning and engagement, which was explained by the lack of immediate feedback and perceived issues with the layout of the application.

To sum up, the literature review has suggested that using OSRSs positively impacts learning perceptions, as perceived by pre- and in-service teachers. Teachers also use these tools to motivate their learners and support their lessons. Gamified approaches to learning, such as OSRSs, increase students' efficacy, engagement, quality of learning, and positive perceptions toward using the technology in general educational settings. Fewer studies have been conducted on EFL teachers' perceptions of using and implementing OSRSs in emergency remote teaching settings.

## Method

### Research Design

A mixed-method approach was used to collect and analyze data, as we wanted to combine the strengths of both qualitative and quantitative methods to deepen the richness and understanding of the data (Strijker et

al., 2020). While the quantitative approach provided descriptive statistics to characterize the sample, the qualitative perspective sought to understand individual views and the nature of the phenomenon based on the participants' personal experiences (Creswell, 2012). Therefore, the present study assessed in-service teachers' perceptions ( $N = 30$ ) of the use of OSRSs in emergency remote teaching contexts and identified several factors that hindered (such as internet connection issues and lack of proper OSRS training) or facilitated OSRS use (such as ease of use and immediate feedback provision).

### Participants

Convenience sampling was used to ask 30 EFL graduate teachers from a private university in Chile to participate in the current research study. They graduated between 2016 and 2018 and worked face-to-face (for at least one year) and then in emergency remote teaching (for at least one semester) EFL contexts due to the pandemic. The graduation year range was selected to access a more homogeneous group of EFL teachers exposed to emergency remote teaching. However, they did not receive formal training in their university program to navigate teaching during the COVID-19 pandemic. They worked in several types of high school institutions (private, public, and subsidized), and their ages ranged from 24 to 33 years.

### Instruments

#### Adapted UTAUT Survey

A survey was adapted from Cheung et al.'s (2018) instrument, which drew from the unified theory of acceptance and use of technology (UTAUT) proposed by Venkatesh et al. (2003). The instrument assesses the factors influencing perceptions toward using and applying technologies in various settings. The UTAUT instrument includes 20 items addressing five components: performance expectancy, which refers to the perceived consequences associated with the use of technology (e.g.,

“If I use OSRS, I will increase my chances of becoming more competent in teaching”); effort expectancy, which assesses the cognitive burden associated with learning how to use the technology (e.g., “It would be easy for me to become skillful at using OSRSs”); social influence, characterized by the impact that others’ beliefs may have on the individual using the technology (e.g., “People who influence my teaching behavior think that I should use OSRSs”); facilitating conditions, which refer to the beliefs and actions in the workplace that support the use of technology (e.g., “I have the tangible resources necessary, such as equipment and accessories, to use OSRSs”); and behavioral intention, which addresses general perceptions of the technology (e.g., “I am a keen user of OSRSs”).

The questionnaire uses a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The adapted survey was translated into participants’ L1 (Spanish) and included sections addressing demographic information, academic background, and type and frequency of OSRS use. The UTAUT survey has been used to study and predict users’ perceptions of using technology (Al-Saedi et al., 2020) and to assess participants’ perceptions of using clickers in educational settings (Cheung et al., 2018). It has also been used to assess teachers’ attitudes toward using social media for educational purposes (Gruzd et al., 2012). These studies suggest that the UTAUT components can be adapted to investigate in-service teachers’ perceptions of diverse technologies. Thus, the instrument was modified to focus on OSRSs in emergency remote teaching environments.

#### **Semi-Structured Interviews**

Semi-structured interviews were conducted with eight teachers randomly extracted from the sample. This instrument allowed the researchers to explore the in-service teachers’ attitudes toward OSRSs in their learning contexts. The interviews were conducted in the participants’ L1 to avoid comprehension issues. The

interview protocol included questions that sought to explore the five components of the UTAUT survey and address challenges and drivers as OSRSs were implemented in emergency remote teaching settings. Some of the questions included in the interview protocol addressed performance expectancy (e.g., “How do you think OSRSs can improve your work?”), effort expectancy (e.g., “How hard is it for you to understand how to use OSRSs?”), social influence (e.g., “How do you think your colleagues see the use of these platforms?”), facilitating conditions (e.g., “Does your workplace give you the necessary technological resources to use OSRSs?”), and behavioral intention (e.g., “Do you think that OSRSs affect the learning process positively or negatively?”).

#### **Procedures and Data Analysis**

The UTAUT survey and the semi-structured interviews were piloted to receive feedback regarding comprehension issues with the instructions and the adapted items. Ten EFL teachers who were not part of the sample were asked to complete the UTAUT survey through a Google Forms document that included a section for participant feedback. Then, two pilot interviews were carried out to confirm the clarity of the questions and the length of the interview. Pilot participants reported no major comprehension issues regarding survey items or interview questions.

Once pilot procedures were completed, an email with information about the study and a Google Forms link to the survey was sent to a list of 150 EFL graduate teachers from a private university. In the link, participants were informed that their personal information would not be published and that they could withdraw from the study at any point in the process. Thirty teachers responded to the emails and agreed to participate. Once the consent form was secured and survey data were collected, the semi-structured interview was conducted with eight participating teachers. The interviews were conducted online via Zoom and lasted between 45 and 60 minutes.

Quantitative data obtained through the Google Forms UTAUT survey was analyzed utilizing descriptive statistics and relevant frequency analyses. Means and standard deviations are presented for each component in the questionnaire. As for the interview data, qualitative content analysis (Creswell, 2012) was used. The interviews were transcribed, and relevant codes were categorized into themes, following an inductive approach to analysis (with no pre-determined codes). Thus, the teachers' perceptions were assessed from an emergent, bottom-up perspective that could identify drivers and barriers toward the use/implementation of OSRSs in emergency remote teaching environments.

## Results

### Quantitative Results

#### Descriptive Statistics

Table 1 presents descriptive statistics for the UTAUT survey. The table revealed that the UTAUT components'

means were relatively high. The highest component mean is found in *effort expectancy* ( $x = 4.38$ ), which suggests that participants held positive views toward the perceived effort needed when adopting and using OSRSs. This trend is similar to *behavioral intention*, as teachers seemed very open to using OSRSs in their classrooms ( $x = 4.32$ ). Similarly, *performance expectancy* yielded a high mean score ( $x = 4.27$ ), which indicates that teachers regard OSRSs as valuable tools in their online classrooms, which help them accomplish their teaching tasks more efficiently. Perceptions toward the *facilitating conditions* component ( $x = 3.89$ ) reveal that these teachers consider they have the necessary conditions (i.e., access to computers, good Wi-Fi connection, and training courses) to implement OSRSs; however, this mean score is one of the lowest in the set. Finally, the lowest mean score component is *social influence* ( $x = 3.75$ ), which suggests that external factors, such as the opinions of peers in the educational community, play a less significant role in using OSRSs when compared to the other components.

**Table 1.** Descriptive Statistics UTAUT survey ( $N = 30$ )

	Minimum	Maximum	<i>M</i>	<i>SD</i>
Performance expectancy	3.00	5	4.27	.59
Effort expectancy	2.75	5	4.38	.57
Social influence	2.25	5	3.75	.66
Facilitating conditions	2.50	5	3.89	.64
Behavioral intention	2.25	5	4.32	.70
Total UTAUT	3.25	4.9	4.12	.44

Although none of the components yielded low mean scores, low scores on specific items show that participants held more positive views towards particular aspects of OSRSs. For example, for *facilitating conditions*, the item "A specific person or group is available for assistance when using the OSRS" displayed the lowest mean ( $x = 2.8$ ).

#### OSRS Frequency Data

The questionnaire included specific questions about the types of OSRSs used in the classroom and their frequency. As shown in Figure 1, the two most frequently used OSRSs were Kahoot! and Google Forms, both used by 27 out of the 30 participants (90%). They were followed by Wordwall and Quizziz, with 14 teachers each (46%); Mentimeter, with eight teachers (26%); and Nearpod, with five teachers (16%).

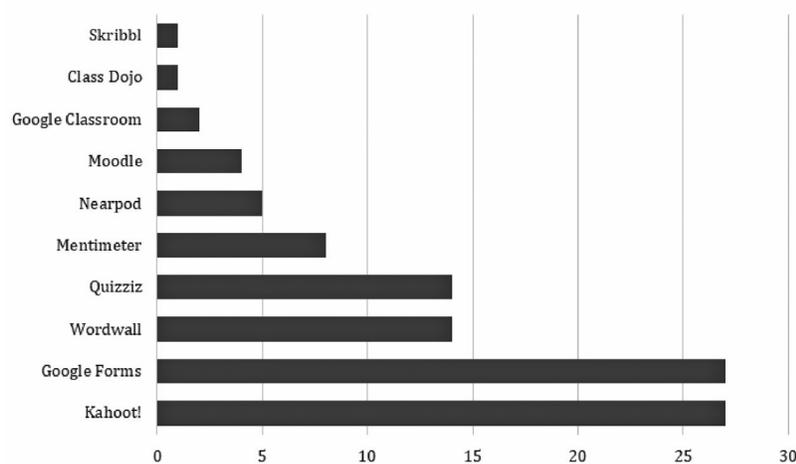
Teachers also reported their OSRS frequency use in their online classrooms. Two teachers (6.7%) stated they used OSRSs in every class, 13 teachers (43.3%) reported using them five times a month or more, six teachers (20%) said three or four times a month, seven teachers (23%) stated they used them once or twice a month, and two teachers (6.7%) rarely used them in the semester. These results reveal that most of these teachers were familiar with several types of

OSRSs and that 93.3% of them used OSRSs at least once or twice per month.

### Qualitative Results

Demographic information for the interview participants (two women and six men) is provided in Table 2, which includes participants' pseudonyms, gender, age, type of school, online teaching experience, and types of OSRSs they use.

**Figure 1.** Main Types of OSRSs Used by Teachers



**Table 2.** Demographic Information for Interview Participants

Participant	Gender	Age	Type of school	Online teaching experience	Type of OSRS experience
Juan	Male	28	Subsidized	One year	Nearpod, Google Forms, Mentimeter, Moodle
Alberto	Male	26	Subsidized	More than a year	Kahoot!, Google Forms
Luis	Male	26	Public	More than a year	Kahoot!, Google Forms, Google Classroom
Andrea	Female	28	Corporation	More than a year	Kahoot!, Google Forms, Class Dojo, Google Classroom
Carlos	Male	28	Public	One semester	Kahoot!, Wordwall
Angelo	Male	25	Public	More than a year	Kahoot!, Wordwall, Google Forms, Mentimeter
Rodrigo	Male	27	Corporation	More than a year	Google Forms, Mentimeter
Luisa	Female	29	Private	One year	Kahoot!, Wordwall, Google Forms, Quizziz

In the interviews, several drivers and obstacles to using OSRSs were identified. The themes identified as drivers were *ease of use*, *student engagement*, and *relevance of feedback*. The obstacles identified were *internet connection issues*, *lack of training*, and *distractive elements*.

#### OSRS: Drivers

**Ease of Use.** Teachers noted how easily new users could learn to master OSRS resources appropriately.

We check the results and tell students where the mistake was or what the weak parts were, which lightens up work a bit. (Juan)

I feel very comfortable [using OSRSs]. I find that it's not difficult for me to use them appropriately. (Andrea)

I also check tutorials. Well, I rarely use them because I think these systems are straightforward to use. It took me a couple of days to assimilate what to do, but I could make it work in the end. (Alberto)

[With OSRSs], we can give feedback online. Kids can log in through their phones, join the activity through their cellphones, and see new updates about the class. (Luisa)

The participants agree that the ease of use of these platforms positively influences their perceptions and is crucial when implementing them in the classroom. These teachers also notice a learning curve at the beginning of the process; according to Alberto, it can be easily overcome with practice. In addition, Luisa affirms that access to online tools may be relevant to achieving more effective use of OSRSs.

**Student Engagement.** Teachers reported feeling motivated to use OSRSs, as they perceived that the platforms allowed them to increase student engagement with the lesson.

Usually, students don't participate a lot, but when I tell them that we will start a game [with an OSRS], they all come back online, as it catches their attention. (Juan)

OSRSs motivate students who are not very participative because these activities don't require them to answer a very complex problem orally. (Carlos)

Teachers focus on their students as the center of their pedagogical choices involving OSRSs in the online classroom. For example, Juan goes on to state that students nowadays require new methodologies in the classroom:

I think I had to learn [to use OSRSs] because of students. Old ways of teaching are becoming more obsolete with each passing year and, nowadays, students are the focus of the lessons. We have to adapt to them and how they learn.

**Relevance of Feedback.** One of the most relevant features of OSRSs, as perceived by these teachers, was the immediate, automatic, and remote access to feedback that the platform provides.

OSRSs support what we do at the end of the class. Students see the activity as a game where they can express their ideas, and, at the same time, it gives me an insight into the knowledge they have acquired during the lesson. (Juan)

The immediacy of feedback is essential, more so to us teachers, because we have little time to review due to the number of students we teach in each group. With 45 students per class, these tools alleviate the feedback process. (Rodrigo)

Instant, positive, and constructive feedback is a positive aspect of OSRSs, as it allows the teacher to evaluate knowledge of a particular topic by considering individual and group responses. It facilitates the work of the teacher, which they highly regard.

#### OSRSs: Obstacles

**Internet Connection Issues.** Facilitating conditions concerning inadequate internet connection impinge upon how these teachers regard OSRSs, as they are crucial for creating and maintaining remote learning.

I usually hear teachers say that their classes didn't work because they couldn't connect their computers. That's also why my class didn't work. So, I get feelings of self-sabotage and negativity...the idea that it's not working. (Juan)

All the students have a smartphone, but not all have an internet data plan to use them. So, I believe that a critical problem is the internet connection. (Rodrigo)

The issue is connectivity. Unfortunately, we live in a more rural place where internet connections are weak. We have Wi-Fi, but it fails more often than it works. It's a problem for online lessons. (Luis)

The lack of facilitating conditions when using OSRSs is mainly related to internet connection issues, hindering the platform's successful application and the lesson itself. Luis points out that it can be more common in less connected places than in large cities.

**Lack of Training.** Interview data revealed that teachers might not perform adequately in emergency remote teaching settings if they are not appropriately trained in using OSRSs. For the participating in-service teachers, this training can be part of the courses they take at university, or it can be provided by the institution where they work. These teachers graduated without proper training to manage online technologies in emergency remote teaching contexts, as revealed in their responses.

At first, it was hard to use [OSRSs] because I was unfamiliar with them. I used to do everything manually. (Juan)

The introduction of OSRSs affected my colleagues negatively. Most of them are older adults, and the pandemic and online classes affected them greatly. I feel there was no support for teachers unfamiliar with technology. [At university] we were never shown a video teaching how to use this stuff. (Angelo)

The only problem I have with [the use of OSRSs] is that there is no training. Older teachers are not used to the systems. I have taught my colleagues how to use the new platforms the school requires us to use. An older colleague takes considerably more time to learn these tasks. (Rodrigo)

These participants stated that inadequate training in using OSRSs and new technologies could affect how teachers prepare and deliver a lesson. Furthermore, teachers who know how to use the platforms must spend valuable time helping other teachers navigate them.

**Distraction Elements.** Despite how valuable OSRSs may be in the classroom, their gamified components can present students with distractive features that prevent them from fully committing to a learning activity.

The computer and the phone are distracting elements. Unfortunately, unlike regular face-to-face classes where a teacher knows what the students are doing, we're all behind a screen in an online lesson, which prevents us from knowing what our students are doing. (Juan)

I believe we must always face the risk of the students getting distracted [with OSRSs]. They can forget the assignment or the specific language aspect being asked. (Andrea)

I see that students use them, and they know how, but they get distracted too easily. It is hard for them to use a phone and not get distracted while completing a task. (Luisa)

Carlos regards OSRSs as a less strict approach to learning. Thus, the gaming element in OSRSs influences his perspective on the impact of the platform:

Students might enjoy these [OSRS] activities a lot because they only see the gaming elements in them, to the point that they don't feel like participating in class once the activity has concluded. My students usually ask me to add more of these games to the lessons, but I have time slots assigned for each class section, games included. For this reason, I also need to make them work more seriously, so we can work effectively.

## Discussion

### Quantitative Discussion

Results revealed that teachers' perceptions toward implementing OSRSs were positive in the different

components of the UTAUT survey. *Effort expectancy* was the highest-rated component as perceived by these teachers, a finding that is in contrast with Mahande and Malago's (2019) study, where this component was the fourth lowest mean among the five constructs with a medium score. Participant teachers reported that they could implement OSRSs with ease and valued their usefulness, in line with Lee et al. (2015). These authors found that the young South Korean preservice teachers in their study did not need to make extra efforts to use new technologies because they had a higher digital literacy. These results also agree with Cancino and Capredoni (2020). They reported that preservice teachers were highly acquainted with technology, which positively influenced their perceptions of the usability of an OSRS.

Regarding *performance expectancy*, teachers considered OSRSs useful in their classrooms and thought they could improve their teaching productivity, which mirrors Mahande and Malago (2019). Users who form positive expectations toward technology due to its features may continue to use it in the future (Zhou, 2011). *Social influence* was the lowest component mean score, which suggests that it was not the most prevalent aspect determining OSRS acceptance and use. As stated by Venkatesh et al. (2003), the influence of peers and the social environment may substantially impact older individuals using new technologies. The young adult teachers in this study have been exposed to a wide array of technological gadgets, which has characterized their positive perceptions of using OSRSs more directly than by the influence of peer feedback. The high mean score regarding *facilitating conditions* confirmed the importance of online connectivity and computer access, as they can affect the value of technological platforms in EFL settings (Cancino & Capredoni, 2020).

The high mean scores for all the components highlight these teachers' positive attitudes toward using OSRSs. The high frequency and the type of OSRS used by the teachers confirm their positive attitudes toward their implementation in foreign language educational settings.

## Qualitative Discussion

The themes identified in the analysis suggested that these teachers had drivers and obstacles influencing their perceptions toward using OSRSs. First, teachers acknowledged that OSRSs are easy to use, in line with the UTAUT survey results, where most teachers agreed on their usability. These results align with Yapıcı and Karakoyun (2017). They found that teachers' perceptions of an OSRS were positive, that the platform was attention-grabbing and enhanced motivation, and that it improved the teaching process. These teachers' positive perceptions of usability also mirror EFL findings focused on Kahoot! (Chiang, 2020) and Socrative (Cancino & Capredoni, 2020). Indeed, technology is regarded by EFL teachers as an essential ally, as students in their classrooms accept it as ubiquitous and typically prefer more interactive approaches to learning, in line with research reported beyond the language classroom context (Phillips & Trainor, 2014).

The positive views of the teachers regarding OSRSs may also be influenced by how they believe that gamified approaches increase students' engagement (Huotari & Hamari, 2013). Implementing OSRSs boosts creativity and meaningful learning, as they include technology-driven components that separate them from traditional learning methods, which students appreciate. Most of these teachers believed that students could manage technology efficiently, which can be used to grab their attention with creative approaches (Muir et al., 2020; Phillips & Trainor, 2014). Thus, gamified devices such as OSRSs can create environments that support learning and are more engaging (Campillo-Ferrer et al., 2020). Finally, the ability to provide instant feedback to evaluate individual and group performance in specific tasks was a feature of OSRSs that the teachers well regarded. These findings are mirrored in other learning contexts (W. Wang et al., 2018). The facilitating feedback features of OSRSs are a positive aspect identified by these EFL teachers. Their absence in the EFL classroom may negatively impact EFL learners' perceptions of their engagement and learning while using OSRSs (Cancino & Capredoni, 2020).

Regarding the obstacles faced by the teachers when implementing OSRSs in their emergency remote teaching classrooms, the first theme that emerged was related to the problems that arise when facilitating conditions are lacking, particularly concerning poor internet connection. The teachers pinpointed internet connection issues as a central obstacle since it is necessary to implement gamified approaches such as OSRSs. Their absence can hinder learning and engagement in the classroom (Sánchez-Mena & Martí-Parreño, 2017). Teachers agreed that technological tools are imperative to organize modern lessons requiring remote teaching; however, students must have proper access to at least updated mobile devices with a data plan. The lack of OSRS training is another aspect related to facilitating conditions. As Sánchez-Mena and Martí-Parreño (2017) argue, not having proper training programs addressing OSRS use can hurt the teachers who do not know how to properly use the media and the teachers who did receive training, as they must spend time training their colleagues. Facilitating conditions become even more crucial in EFL contexts, as learners must follow instructions on using the gamified platforms and simultaneously understand the second language used in the instructions and activities.

Finally, another obstacle identified by the teachers was the distracting components in OSRSs. If teachers are not aware of the potential outcomes of using game-like elements when evaluating or delivering knowledge, learners will get distracted, and teachers will struggle to regain their attention (Licorish et al., 2018). EFL teachers can benefit from accepting the gamified aspects of the applications and regarding them as a significant feature that can support learning, since they can prevent learners from losing concentration and prompt them to focus on task completion.

## Conclusion

The purpose of this study was to explore 30 EFL teachers' perceptions of the implementation of OSRSs

in emergency remote teaching classrooms. Through mixed-methods research, it was found that these technological tools are helpful for teachers who have been forced to teach remotely throughout the COVID-19 pandemic. Most teachers regarded OSRSs as easy to use and believed that the gamified components in OSRS increased engagement. These beliefs were found to be more influenced by the features of OSRSs, rather than by social influences. Interview data revealed drivers and obstacles concerning OSRS use in the selected learning environment. Drivers of OSRSs were the ease of use of the platform, the impact of OSRS on students' engagement, and the advantage of providing immediate feedback. Although these teachers perceived adequate facilitating conditions in their institutions in the quantitative instrument, in the interviews, they identified obstacles related to issues with internet connection and the lack of proper training in OSRS use. In addition, the presence of distractive elements in OSRSs was seen as a further obstacle. These results characterize the perceptions of EFL in-service teachers toward OSRSs in online classes that have been spontaneously implemented in many learning contexts and reveal similarities with findings in other educational settings (Campillo-Ferrer et al., 2020; Muir et al., 2020).

## Implications

It can be helpful for pre- and in-service teachers to understand how other practitioners use and implement OSRS platforms and the areas that can be improved to make these tools less challenging for them. A pedagogical implication of this approach points toward acknowledging the perceptions, drivers, and obstacles that teachers face when using OSRSs, as they can nurture awareness of their impact when they are applied in EFL classrooms (Cancino & Capredoni, 2020). One of the biggest hurdles that need to be overcome while implementing gamified approaches in general, and OSRSs in particular, is giving EFL teachers the adequate tools to take advantage of them. Educational institutions

can benefit from providing preservice teachers with courses focusing on these technologies as part of their undergraduate teaching programs. As for in-service teachers, training courses can indeed give teachers the possibility to adopt gamified technologies and face emergency remote teaching in primary and secondary learning settings. The courses can also focus on maximizing OSRS use in the classroom, monitoring learner performance using feedback, addressing potential issues derived from using OSRSs (such as competitiveness), and maintaining learners' engagement and focus. Thus, teachers who struggle with finding ways of coping with emergency remote teaching might consider OSRSs to boost learning in such settings.

There are some limitations in the present study. The number of participants who agreed to participate in the study ( $N = 30$ ) was somewhat small compared to the total number of teachers contacted (160). It also impacted the selection of profiles for the qualitative interviews, as we expected to identify different profiles based on the quantitative findings. This selection process was not feasible due to having fewer participants agreeing to be interviewed. An unforeseen negative impact of emergency remote teaching has been the difficulty for researchers to access participants and the issues with implementing experimental studies. Further studies should strive to include a higher number of teachers as the use of OSRSs unfolds in emergency remote teaching settings.

## References

- Alabbasi, D. (2017). Exploring graduate students' perspectives towards using gamification techniques in online learning. *Turkish Online Journal of Distance Education*, 18(3), 180–196. <https://doi.org/10.17718/tojde.328951>
- Al-Azawi, R., Al-Faliti, F., & Al-Blushi, M. (2016). Educational gamification vs. game based learning: Comparative study. *International Journal of Innovation, Management and Technology*, 7(4), 131–136. <https://doi.org/10.18178/ijimt.2016.7.4.659>
- Ali, W. (2020). Online and remote learning in higher education institutes: A necessity in light of COVID-19 pandemic. *Higher Education Studies*, 10(3), 16–25. <https://doi.org/10.5539/hes.v10n3p16>
- Alqahtani, A. Y., & Rajkhan, A. A. (2020). E-learning critical success factors during the COVID-19 pandemic: A comprehensive analysis of e-learning managerial perspectives. *Education Sciences*, 10(9), 216. <https://doi.org/10.3390/educsci10090216>
- Al-Saedi, K., Al-Emran, M., Ramayah, T., & Abusham, E. (2020). Developing a general extended UTAUT model for M-payment adoption. *Technology in Society*, 62, 101293. <https://doi.org/10.1016/j.techsoc.2020.101293>
- Badia-Valiente, J. D., Olmo-Cazeville, F., & Navarro-Jover, J. M. (2016). On-line quizzes to evaluate comprehension and integration skills. *Journal of Technology and Science Education*, 6(2), 75–90. <https://doi.org/10.3926/jotse.189>
- Bond, M., Bedenlier, S., Marin, V. I., & Händel, M. (2021). Emergency remote teaching in higher education: Mapping the first global online semester. *International Journal of Educational Technology in Higher Education*, 18(1). <https://doi.org/10.1186/s41239-021-00282-x>
- Bruff, D. (2009). *Teaching with classroom response systems: Creating active learning environments*. John Wiley & Sons.
- Campillo-Ferrer, J.-M., Miralles-Martínez, P., & Sánchez-Ibáñez, R. (2020). Gamification in higher education: Impact on student motivation and the acquisition of social and civic key competencies. *Sustainability*, 12(12), 4822. <https://doi.org/10.3390/su12124822>
- Cancino, M., & Capredoni, R. (2020). Assessing pre-service EFL teachers' perceptions regarding an online student response system. *Taiwan Journal of TESOL*, 17(2), 91–118. [https://doi.org/10.30397/TJTESOL.202010\\_17\(2\).0004](https://doi.org/10.30397/TJTESOL.202010_17(2).0004)
- Cardoso, W. (2012). Learner response systems in second language teaching. In C. Chapelle (Ed.), *The Encyclopedia of Applied Linguistics*. John Wiley & Sons. <https://doi.org/10.1002/9781405198431.wbeal1317>
- Chen, P.-S. D., Lambert, A. D., & Guidry, K. R. (2010). Engaging online learners: The impact of web-based learning technology on college student engagement.

- Computers & Education*, 54(4), 1222–1232. <https://doi.org/10.1016/j.compedu.2009.11.008>
- Cheung, G., Wan, K., & Chan, K. (2018). Efficient use of clickers: A mixed-method inquiry with university teachers. *Education Sciences*, 8(1), 31. <https://doi.org/10.3390/educsci8010031>
- Chiang, H.-H. (2020). Kahoot! in an EFL reading class. *Journal of Language Teaching and Research*, 11(1), 33–44. <https://doi.org/10.17507/jltr.1101.05>
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4<sup>th</sup> ed.). Pearson Education.
- Ding, L. (2019). Applying gamifications to asynchronous online discussions: A mixed methods study. *Computers in Human Behavior*, 91, 1–11. <https://doi.org/10.1016/j.chb.2018.09.022>
- Graafland, J. H. (2018). New technologies and 21st century children: Recent trends and outcomes. *OECD Education Working Papers*. <https://doi.org/10.1787/e071a505-en>
- Gruzd, A., Staves, K., & Wilk, A. (2012). Connected scholars: Examining the role of social media in research practices of faculty using the UTAUT model. *Computers in Human Behavior*, 28(6), 2340–2350. <https://doi.org/10.1016/j.chb.2012.07.004>
- Herrada, R. I., Baños, R., & Alcayde, A. (2020). Student response systems: A multidisciplinary analysis using visual analytics. *Education Sciences*, 10(12), 348. <https://doi.org/10.3390/educsci10120348>
- Huotari, K., & Hamari, J. (2013). Defining gamification: A service marketing perspective. In A. Lugmayr (Chair), *Proceedings of the 16th international academic MindTrek conference* (pp. 17–22). Association for Computing Machinery. <https://doi.org/10.1145/2393132.2393137>
- Kasurinen, J., & Knutas, A. (2018). Publication trends in gamification: A systematic mapping study. *Computer Science Review*, 27, 33–44. <https://doi.org/10.1016/j.cosrev.2017.10.003>
- Lavoué, É., Monterrat, B., Desmarais, M., & George, S. (2018). Adaptive gamification for learning environments. *IEEE Transactions on Learning Technologies*, 12(1), 16–28. <https://doi.org/10.1109/tlt.2018.2823710>
- Lee, J., Chung, H., Moon, J., & Yoo, Y. R. (2015). Exploring preservice teachers' acceptance of smart learning. In G. Chen, V. Kumar, Kinshuk, R. Huang, & S. C. Kong (Eds.), *Emerging issues in smart learning* (pp. 175–181). Springer. [http://doi.org/10.1007/978-3-662-44188-6\\_25](http://doi.org/10.1007/978-3-662-44188-6_25)
- Licorish, S. A., Owen, H. E., Daniel, B., & George, J. L. (2018). Students' perception of Kahoot!'s influence on teaching and learning. *Research and Practice in Technology Enhanced Learning*, 13(1). <https://doi.org/10.1186/s41039-018-0078-8>
- Mahande, R. D., & Malago, J. D. (2019). An e-learning acceptance evaluation through UTAUT model in a postgraduate program. *Journal of Educators Online*, 16(2). <https://doi.org/10.9743/jeo.2019.16.2.7>
- Muir, S., Tirlea, L., Elphinstone, B., & Huynh, M. (2020). Promoting classroom engagement through the use of an online student response system: A mixed methods analysis. *Journal of Statistics Education*, 28(1), 25–31. <https://doi.org/10.1080/10691898.2020.1730733>
- Phillips, C. R., & Trainor, J. E. (2014). Millennial students and the flipped classroom. *Proceedings of ASBBS*, 21(1), 519–530.
- Ranieri, M., Raffaghelli, J. E., & Bruni, I. (2018). Game-based student response system: Revisiting its potentials and criticalities in large-size classes. *Active Learning in Higher Education*, 22(2), 129–142. <https://doi.org/10.1177/1469787418812667>
- Sánchez-Mena, A. A., & Martí-Parreño, J. (2017). Drivers and barriers to adopting gamification: Teachers' perspectives. *Electronic Journal of e-Learning*, 15(5), 434–443. <http://hdl.handle.net/11268/6683>
- Sharma, S., & Bumb, A. (2021). The challenges faced in technology-driven classes during COVID-19. *International Journal of Distance Education Technologies*, 19(1), 66–88. <https://doi.org/10.4018/IJDET.20210101.0a2>
- Strijker, D., Bosworth, G., & Bouter, G. (2020). Research methods in rural studies: Qualitative, quantitative and

- mixed methods. *Journal of Rural Studies*, 78, 262–270. <https://doi.org/10.1016/j.jrurstud.2020.06.007>
- Toda, A. M., Valle, P. H. D., & Isotani, S. (2018). The dark side of gamification: An overview of negative effects of gamification in education. In A. Cristea, I. Bittencourt, & F. Lima (Eds.), *Higher education for all: From challenges to novel technology-enhanced solutions* (pp. 143–156). Springer. [https://doi.org/10.1007/978-3-319-97934-2\\_9](https://doi.org/10.1007/978-3-319-97934-2_9)
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478. <https://doi.org/10.2307/30036540>
- Wang, A. I., & Lieberoth, A. (2016). *The effect of points and audio on concentration, engagement, enjoyment, learning, motivation, and classroom dynamics using Kahoot!* [Paper presentation]. 10<sup>th</sup> European Conference on Games Based Learning, Paisley, Scotland.
- Wang, A. I., & Tahir, R. (2020). The effect of using Kahoot! for learning: A literature review. *Computers & Education*, 149, 103818. <https://doi.org/10.1016/j.compedu.2020.103818>
- Wang, W., Ran, S., Huang, L., & Swigart, V. (2018). Student perceptions of classic and game-based online student response systems. *Nurse Educator*, 44(4), 6–9. <https://doi.org/10.1097/NNE.0000000000000591>
- Wong, M., Tengku-Shahdan, T. S., Ismail, M. R., Abd-Ghani, K., Pek, L. S., Von, W. Y., Woo, A., & Rao, Y. S. (2020). Role of gamification in classroom teaching: Pre-service teachers' view. *International Journal of Evaluation and Research in Education*, 9(3), 684–690. <https://doi.org/10.11591/ijere.v9i3.20622>
- Yapıcı, İ., & Karakoyun, F. (2017). Gamification in biology teaching: A sample of Kahoot! application. *Turkish Online Journal of Qualitative Inquiry*, 8(4), 396–414. <https://doi.org/10.17569/tojqi.335956>
- Zainuddin, Z., Chu, S. K. W., Shujahat, M., & Perera, C. J. (2020). The impact of gamification on learning and instruction: A systematic review of empirical evidence. *Educational Research Review*, 30, 100326. <https://doi.org/10.1016/j.edurev.2020.100326>
- Zhou, T. (2011). Understanding mobile internet continuance usage from the perspectives of UTAUT and flow. *Information Development*, 27(3), 207–218. <https://doi.org/10.1177/0266666911414596>

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