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Boosting English Reading and Writing Skills Through the Implementation of Technological
Activities that Promote Phonological Awareness in First- Grade Students

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Boosting English Reading and Writing Skills Through the Implementation of Technological Activities that Promote Phonological Awareness in First-Grade Students

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Abstract: The purpose of this paper is to focus on the usage of activities that promote literacy acquisition with the assistance of phonemic awareness and technology. It seeks to promote processes that can support literacy in first grade students. Also, this paper will attempt to define phonemic awareness, literacy, and the benefits that technology and e-learning activities can bring to literacy.

Keywords: Reading, writing, phonological awareness, literacy, technology, learning, activities, innovative

Introduction

Education's main purpose is to help students with their integral development as people. Based on this, and according to Geng et al. (2017), teachers need to be prepared to develop innovative strategies, meet the pedagogical expectations in the classroom, and help students achieve the necessary skills to succeed in society and in life situations. The twenty-first century and a globalized society demand more abilities such as creativity, collaboration, critical thinking, and the use of technology, among others. Teachers need to work with students to integrate all those abilities to potentialize their skills and motivate them to learn.

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English teachers face a lot of challenges when teaching to children. A challenge as a Teacher in English as Second Language can find is the limited classroom language opportunity for the learners to practice the language. In Costa Rica, at the first grade, students start their literacy process in the Spanish language. Since six years ago, with the new lesson plans for English as a Second language in Costa Rica, students are also able to start a literacy process with the introduction of phonological awareness (MEP, 2016).

Moreover, phonological awareness is an ability that is generally developed during pre-school and school level. Phonological awareness is essential in learning to read (Knoop-van Campen et al., 2018). We will initially define critical concepts such as *phonological awareness* to understand the subject better. Lederberg et al. (2019) mentioned that "phonological awareness is the ability to attend to and manipulate the sublexical structure of words (syllables, rimes, and phonemes)" (p. 401). Authors have defined it as the ability to recognize and manipulate the sounds of a language to read and identify sounds, letters (vowels and consonants), syllables, and words (Rokhman et al., 2020).

Furthermore, phonology is the linguistic domain relevant for early literacy development because explicit instruction of the phonemic structures of a word can help children draw connections between the spoken word and its written representation (Gillon, 2018). In addition, when phonological awareness is introduced at an early age, children recognize sounds and distinguish a word from another (Kalia et al., 2018). It is essential to mention this because, in Costa Rica, students initiate their literacy process in first grade. Research has shown that phonemic awareness plays an essential role in

the early stages of beginning reading in different languages. It is always important to include phonemes because it has been demonstrated that identifying and recognizing English phonemes is a skill that supports English as a Foreign Language (EFL) learners in their English productive and receptive skills (Adams et al., 1998).

On the other hand, technology usage has become very popular, and children use it for different activities. Further, technology has been included to improve the learning of a second language and skills to promote different strategies in the classrooms. According to Wang (2005), there are many advantages integrating technology in classrooms especially for English as a Foreign Language students. To be able to improve language skills like writing, reading, listening and speaking, English language learners use computers, online dictionaries, and software programs to check their work and correct themselves, improve their language skills; use the Internet, listen to songs, read or listen technology texts like stories, communicate each other even worldwide. Implementing technological activities could be seen as an opportunity to include tools to enhance the use of the target language. Wang (2005) also stated that “technology integration in foreign language teaching demonstrates the shift in educational paradigms from a behavioral to a constructivist learning approach” (p. 2).

Teachers need to organize their lessons by considering different initiatives that captivate the students' attention. Activities that include technology are considered meaningful tools in the development of human beings (Tashkenbayevna et al., 2018). According to Genç (2015), teachers need periodic reinforcement in their specific areas so that they can transmit all the tools and materials to students. Periodic training for professors is relevant to develop different skills that allow them to update processes and

strategies in the classrooms. Clements and Sarama (2003) declared that teachers can find different technological materials that can be used for specific purposes and with practice educators can adapt those materials to different levels. Through the use of technology, many authentic materials can be provided to learners, and they can be motivated to learn the new language.

In addition, teachers need to be aware that the technological moments should be planned and focused on the learner's learning process. It is critical thinking and meaningful connections through the use of technology that can help children during their learning process. According to Oblinger (2004), interactive activities can stimulate engaging students in interactive, multisensory activities that promote elaboration, solving problems, learn from their actions, and improve student engagement and academic performance.

On the other hand, in Costa Rica, students learn English as a Foreign Language (EFL). Frequently, English teachers find out that their students are reading words, but they do not know what they mean or cannot read or pronounce them even after first grade (Gilakjani, 2011). Also, many students are not exposed to the foreign language as much as they are involved in their native language. For this reason, teachers must create environments that allow students to be exposed to different situations so that they feel attracted to the new language during the English lessons.

Undoubtedly, it is necessary to address pronunciation and improve the literacy process situation in the early years. It is essential to be aware of developing good reading skills in primary school. Indeed, the Ministry of Public Education in Costa Rica (MEP in Spanish) introduced the new English curriculum in 2016. Teachers started to

apply for the new study program in first grade. This curriculum certainly includes phonemic awareness and phonology which are defined as "the ability of children to hear, identify..., and manipulate sounds in spoken language" (MEP, 2016, p. 44). The new program also includes the importance of technology usage in the classrooms based on the idea that new learners feel attracted to the Internet and technological tools.

This proposal is focused on the usage of technological activities that promote the use of literacy with the assistance of phonemic awareness. It seeks to promote processes that can support literacy in first grade. Moreover, this paper proposes to boost the use of technology to improve literacy skills and seeks to answer the following questions: What is phonemic awareness? How does technology help students in education? What are some classroom obstacles? What are the benefits of technological activities that promote phonemic awareness? and What are some e-learning activities that can promote literacy?

Literacy Acquisition

Reading is a complex process involving cognitive, intellectual, cultural, and linguistic processes. During first grade, students in public education start their formal literacy process. As mentioned by Hoover and Gough (1990), to comprehend a text, the reader needs to be able to recognize the sounds of the words, the letters, syllables at the same time, and apply their background knowledge to make meaning and be able to pronounce and read. Also, Seidenberg (2013), stated that "the beginning reader's initial challenge is to learn how the spoken language they know relates to the written code

they are learning” (p.6). There are different techniques used for literacy. According to Snow and Mathews (2016), “fundamental literacy skills can be classified as constrained skills which are readily teachable because they’re finite: for example, the 26 letters of the alphabet, or a set of 20 to 30 common spelling rules” (p. 57). Also, unconstrained skills are relevant for children's long-term literacy success (e.g., critical thinking). It is relevant and necessary to mention them here because curricula, schools, teachers, and parents focus on constrained skills but little on unconstrained skills at early ages.

Moreover, Muhamad et al. (2020) mentioned that reading is related to the identification of letters or words, organizing them correctly, and including the ability to understand the meanings. In fact, the connection between phonemic awareness and reading is logical; "investigating reading strategies is thus needed; and this, the researchers' thrust, requires an intervention on grade one children's phonemic awareness to improve their reading performance" (Melesse & Enyew, 2020, p. 387). Melesse and Enyew (2020) mentioned that students in first grade need teachers' guidance on letters, vowels, words, sentences, and analysis to develop a critical understanding so that later they can construct different ideas. When teachers add phonemes to the structures, students will be able to connect sounds in words (Melesse & Enyew, 2020). Therefore, it will be possible for students to develop different skills that will allow them to read and write later.

Phonemic instruction in early reading includes the teaching of words and sounds. Children need to identify and discriminate between different sounds of oral language to achieve understanding. According to Brown (2014), learners also need basic knowledge

about the written alphabet, sounds, and relationships because these are the basis for decoding and reading comprehension skills. Brown (2014) states the following:

Learning to read is a developmental process. Most children follow a similar pattern and sequence of reading behaviors as they learn how to read: from appreciation for and awareness of print to phonological and phonemic awareness to phonics and word recognition. (p. 35)

Furthermore, according to Jimenez et al. (2014):

One of the critical skills children must develop when learning to read and write in a second language is oral language proficiency. As for linguistic competence (vocabulary and oral comprehension), this is one of the critical skills that children also begin to develop when learning to read. It refers to comprehension and oral expression skills as well as knowledge and control of the oral language, including the phonological component, vocabulary, morphology, grammar and pragmatic skills. (p. 532)

In other words, students need to be able to understand, express, and analyze the oral language, sounds, grammar, expressions, and cultural contexts to communicate with other people.

According to Stanovich and Siegel (1994), another skill that directly influences the acquisition of reading and writing is phonological processing. Research has identified three main components of phonological processing: phonological awareness, phonological recoding, and phonological memory. Gillon (2018) stated that "phonology is the linguistic domain relevant for early literacy development because explicit instruction of the phoneme structures of a word can help children draw connections

between the spoken word of a word and its written representation” (p. 3). Phonemes are essential during the reading-writing process because they help students identify and recognize sounds, letters, and words.

Moreover, researchers have investigated what it takes to teach reading. Spear-Swerling (2018) agreed on the importance of investing time in well-structured teaching environments that promote literacy at early ages, which will help students to be more suited to perform successfully in future challenges. Providing examples and modeling the task that students need to perform can clarify questions that students may have. Teachers need to keep in mind to provide a scaffolded mediation in which assessment is closely linked to what the student can do. "In the early stages of instruction, when students' decoding skills are relatively limited, most approaches have students read decodable texts, those constrained mostly to the specific phonics patterns that students have been taught" (Spear-Swerling, 2018, p. 3).

Technology in Language Education

Technology is here to stay, and teachers improve their classes with different activities focused on learning a new language. Kern (2015) explored the importance of technology mediation during language teaching and stated that “communication technologies are designed in particular social and cultural contexts, and their use is adapted in creative ways by individuals” (p. i) . This means that technology can be used for different needs, and in this case, literacy plays an essential role in improving various educational aspects of society. She created a connection between humans and technology that allows educators to find an action plan for their student's education

(Kern, 2015). Moreover, during the pandemic context, technology became more relevant because it was the only link between students and schools. Teachers had to implement different activities in a virtual environment to promote the learning process differently.

On the other hand, human interaction is necessary. It is fundamental to consider the future professional activities that the students will have in their lives. Also, it is very important to find innovative solutions to teach foreign languages skills such as reading, listening, and speaking. Capodieci et al. (2020) pointed out creative approaches and combined activities with individualized classes that could help learners who need more time to enhance literacy and improve their skills. Educators need to be conscious and be able to control situations to visualize and understand students' perceptions, and improve the educational process.

Furthermore, the use of technology needs a purpose. When students play games or watch videos without any goal, they are not learning. Professionals in education need to be aware that having the Internet and a laptop in the classroom to do activities without the planned intention of learning can affect children's learning process. According to Belibi (2021), planning is a key to the development of educational tasks. When educators plan, they are also reflecting and analyzing the best options for students. When the educators analyze what students should learn, how to motivate them, how to make them learn, and what teaching resources to use, it allows organizing the expected learning. In other words, teachers can observe and balance their lesson plan based on their students' needs.

Nevertheless, based on Erben et al. (2009)," the way in which teachers can stimulate the language development of English Language Learners is by providing what is known as an acquisition-rich classroom" (p. 15), which makes clear the importance of options in a class. This focuses on helping teachers to integrate technology with various options to improve different skills. In addition, it exemplifies possibilities for different realities so that educators can diversify the activities and strategies in the classroom.

In a world of options, we encounter different technological activities that can be included to motivate them and improve their pronunciation, rhythm, intonation, and reading skills. It is essential to assist students with the best option to engage them in using specific activities to learn.

On the other hand, there has always been apprehension about using new technology. Based on Pazilah et al. (2019), some teachers are more traditional, others may think that students can get distracted or educators do not know how to use it. However, teachers should know that technology can be a helpful tool to practice and improve skills in specific moments. In addition, teachers need to learn how to use the e-learning activities they want or plan to use. Also, they need to test the materials before the classes and try to use them with a "student point of view." It is important to start with small activities and avoid assigning extensive homework or activities if you know the students do not have internet or gadgets at home.

Furthermore, educators can customize and create their materials and use technology and applications to provide examples in the classrooms, such as audio files or short videos focused on the topics that need to be covered. Professionals in education need to make sure that the way they use technology highlights the content

they want students to use and improve. Teachers want students to use the content to learn and not that they have something "cool" that they do not know how to use. If an activity is complicated for teachers, it will probably be more difficult for learners.

There are several activities that can be used in the classrooms to help and assist first graders in the literacy process. The first strategy that can be used is digital story-telling. Web pages for children contain reading activities in different formats, some of them can bring the reading and the images, others can be animated, or with audios. According to Mayer (2003), "learning with multimedia tools encourages students to learn in-depth, by combining words with visual images, and educational messages included in multimedia tools enhance meaningful learning" (p. 125). Teachers can work with different vocabulary and show the pronunciation as well. Web pages such as [StoryLine](#) online and [Story Place](#) provide images, subtitles, and audios to listen and see the book story. From that, teachers can work with different activities in the classroom such as vocabulary practice, pronunciation, rhyming, fluency, and intonation.

The second activity can be to sing songs and say tongue twisters. These can help students to become aware of sounds, pronunciation, and fluency. Tongue twisters are phrases or sentences that are difficult to pronounce. Tongue twisters are a great way to practice and improve pronunciation and fluency.

Third, kids are not unfamiliar with YouTube videos. YouTube is a place where children can find several songs, gameplay and movies. According to Purnamasari (2018), students mentioned that YouTube helped with pronunciation and many other skills. The students also mentioned that with the web page or mobile application they could watch videos, see images, add comments, and listen to pronunciation and

grammar. Many channels on YouTube are dedicated to guiding people with the proper pronunciation of words. Watching videos with a purpose can have a huge impact on your child's English speaking.

Also, web pages such as [Starfall](#), [PBS Learning Media](#), [Phonics Bloom](#) provide games and activities for children related to phonics, rhyming, matching sounds, learning to read, interactive readings with specific phonemes and its pronunciation, songs that are free and useful in the classroom and that if parents have the possibility to use them it can be a great resource for children to improve their abilities.

Students can also use the learning to read program [Phonics Games for School](#), a tool created by Sophie Cooper, an elementary school teacher who wanted to help students with the aim to read in a motivating way. It has videos and songs to practice and reinforce content.

In addition, the web page [LearningApps.org](#) is an application created to support the processes of teaching and learning with interactive modules. Teachers are able to use and create interactive activities with purposes that can be used for their classes.

Also, [The Alphablocks guide to phonics](#) is a show from BBC that helps children to learn through phonetics. Teachers can find materials such as flashcards, videos, games, among others. Furthermore, the Usborne Publishing Foundation created a free game called [Teach your Monster to Read](#), this resource has received several awards and it has become a very useful tool for reading. You can find games; children can create their own characters. It has many interactive games and videos that allow teachers, children, parents, and classes to apply knowledge through exciting ways to learn.

Conclusions

It is necessary to train teachers about the necessary process to make a student read accurately and fluently a foreign language. Professionals in education need to know how phoneme identification and recognition eventually make students decode and blend phonemes. Teachers can also learn that this process develops reading competence, which eventually and under other processes can help students comprehend a text.

Another recommendation would be to share with teachers the names and examples of activities linked to the techniques that help students become competent readers. In addition, it is necessary to create web pages dedicated to specific literacy purposes and specific countries so that teachers can contextualize situations with the help of different activities.

Also, teachers need to know that they can create original material on the web in different web pages such as [Genially](#), [Wordwall](#), among others. These web pages allow the creation of interactive material and animated educational content. In addition, the material will be original, meaningful and personalized for learners. Professionals in education can have the opportunity to teach students to use these websites so that they can create their own projects.

Teachers need to diagnose students more regularly and apply sound discrimination on time to recognize students' capacity to produce the phonemes studied previously to avoid a significant gap. Some students can identify sounds but cannot decode and blend them.

Finally, educators should pay attention to the phonemes and words proposed by the study program they must follow in schools. However, they also need to introduce the didactic sequence techniques to enrich the learner process.

In conclusion, the development of technological competences can be useful in the classrooms. However, previous training is necessary for teachers to develop original materials and to look on the web for different options based on the plan objectives. Teachers can be able to offer different options in the class so that students can also learn about different games or platforms that they can use at home.

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DECLARACIÓN JURADA

Yo, Karen Rocío Arias Salazar, cédula de identidad 401980309, estudiante de la Universidad Nacional, declaro bajo fe de juramento y consciente de las responsabilidades penales de este acto, que soy autor intelectual del Trabajo Final de Graduación Titulado “Boosting English Reading and Writing Skills Through the Implementation of Technological Activities that Promote Phonological Awareness in First- Grade Students” , para optar por el grado de Maestría en Educación con énfasis en Enseñanza del Inglés.

Heredia, a los 07 días del mes de Setiembre del año 2022.

KAREN ROCIO
ARIAS SALAZAR
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Refrendo

Los abajo firmantes avalamos el Trabajo de Graduación de la estudiante Karen Arias Salazar, cédula 401980309, que lleva como título **Boosting English Reading and Writing Skills Through the Implementation of Technological Activities that Promote Phonological Awareness in First- Grade Students**, dado que cumple con las disposiciones vigentes y la calidad académica requerida por el posgrado.

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