

# Exploring Primary Pupils' Perception in Using Online Games to Improve Spelling

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## Abstract

During the time of pandemic, face-to-face interactions are forbidden and by no means, allowed to help in controlling the spreading of COVID-19. Mobile devices and internet connection are necessary to participate in e-learning. E-learning plays a critical role in delivering a successful educational knowledge toward pupils. The adoption and incorporation of Information Communication Technology (ICT) elements into the formal education environment are crucial for teachers and students to work better during the pandemic. Pupils had played the online game to improve their spelling previously but their opinion on using online game yet to be asked. Therefore, this study explored the perspectives of Year 3 pupils in rural Chinese school towards the use of online games in improving spelling skill. A survey was conducted involving 20 respondents of Malaysian primary school pupils from one of Sabah rural primary schools using a questionnaire. The findings revealed that the pupils had fun learning spelling through online games and that they can learn the spelling pattern better through online game platforms. The results also show that pupils are motivated to improve their spelling when learning through the use of online games and they prefer online games compared to the traditional methods of learning spelling.

**Keywords:** Challenges, E-learning, Malaysian Primary Pupils' Perception, Online Games, Spelling

## Introduction

Within this 21st century, the integration of technology-based games in the process of teaching and learning is profoundly inevitable. The use of Information Communication Technology (ICT) is no longer restricted within sharing animation, videos or audios but are now providing the benefits of creating and assigning digital educational games as creative outlets through given exercises and tasks to the pupils. The importance of ICT elements in teaching and learning are further emphasized during the pandemic, especially with the reinforcement of lockdown and self-distancing are made compulsory. The changes that were brought upon by the pandemic have caused major changes in the way of teaching and learning. It causes a shift in formal learning to online interaction, which is also known as e-learning, thus making gadgets such as mobile phones and laptops are learning necessities. E-learning has created a new norm as a way to survive the pandemic. However, this causes pupils in numerous levels, especially the primary school pupils to be self-reliant in their journey in learning spelling amidst this current COVID-19 pandemic. Mohamad et al (2020)

endorsed the concept of 21st-century learning, which incorporates technology elements in the process of teaching and learning to enhance generation Z students' perceptions. This is aligned with the Malaysia Education Blueprint (MEB) 2013-2025, particularly in its seventh shift, which is to elevate ICT to leverage successful learning across the country.

With e-learning, global educators are now given the opportunity to be creative in utilizing the use of ICT. One of their ways to keep students motivated is by incorporating educational games during the online teaching and learning. The use of digital games in the process of teaching and learning can be used as an effective tool to motivate students and improve their learning experience, especially during the pandemic where their motivation in learning has depleted due to immobility. Staying at home to do e-learning has certainly had an impact on students' learning motivation. It also has been used in enhancing pupils' spelling. This is because using games breaks up the routine of instructions, provides a change in practice and environment, and allows students to develop English abilities in an enjoyable setting. An effective educational game is necessary for a student to stay active, excited, interact, solve problems, and learn all at the same time (Squire, 2011). The analysis of students' spelling mistakes provides an insight to better understand and assist students with their spelling problems (Al-Zoud & Kabilan, 2013).

The online educational game serves as a continuation from the formal interaction in the classroom context. It intends to strengthen, support memory and serves as a fun way to continue the learning of spelling during the pandemic. By the end of the games, pupils are shown the number of errors that they have produced and thus improve themselves. This method opposes the traditional way of memorizing the words. In fact, it encourages pupils to learn through their mistakes and improve as they try more. Pupils will be able to understand their mistakes at the end of the game and focus on the words that they have yet to master. The use of online games also supports the Malaysian present education assessment system, which is the Classroom-Based Assessment (CBA). This assessment system takes into account students' progress in learning through multiple mediums in order to eliminate exam-oriented assessments. Furthermore, it also opposes the conventional teaching approaches of word-attack skills, which are still widely preferred in most schools and are less engaging, ineffective as well as less encouraging as cited in (Mohamad et al., 2018).

Therefore, the researcher intended to explore pupils' perceptions in using online games in order to improve their spelling. This paper asked an important question – “What is the perception of Year 3 pupils on the implementation of online games during English classes in improving their spelling skill?”

## **Literature Review**

### **E-learning For Spelling and Educational Games**

In general, e-learning and distance learning are mutually beneficial, especially when it comes to language learning. Hashim (2018) defined 21st-century learning as the process of learning a language through a technology-based platform. Ahmadi (2018) went on to say that e-learning allows students to do computer tasks, instead of using pencil-and-paper activities. Even if physical engagement cannot take place as due to the unexpected COVID-19 outbreak, learning can nonetheless take place.

Students of all levels can improve their spelling skills through E-learning by actively participating in the e-lesson. This is due to the flexibility offered in e-learning and incorporated by the fun elements in educational games. This is supported by Mohamad et al. (2018) explained that students will be liable to a fruitful language learning environment where

they can communicate and study at the same time, communicating with other users if they are engaged in e-learning. This is due to e-adaptability in learning's in helping students learn to spell in a fun way, rather than using the classical rote memorisation method (Menelaos & Chris, 2011). Furthermore, Bakar et al (2018) discovered that elementary school students were thriving in learning spelling through Telegram Autobot, which is one of the favourite e-learning platforms. It is a messaging software that allows students to mentally visualise words before spelling them correctly. This proof that e-learning is indeed a good platform in improving students spelling skills and they love it more when added with fun elements that are gained by incorporating educational games. Furthermore, using digital educational games in improving spelling also allows students to learn in a fun environment as opposed to traditional rote-memorization.

Krashen (1985) proposed a long time ago that anyone can learn a second language if they are given meaningful input and have a low enough affective filter level to allow the input to 'enter'. Botley et al (2007) found out that the number of spelling errors in tertiary students' writing in Sabah, Sarawak Corpus Database of Students English (CALES) is decreasing as a result of their confidence in online spelling activities. Due to the absence of their teacher and peers, online learning allows students to feel confident even when they make spelling mistakes. As a result, it produces an environment for learning spelling with a low emotional filter. As Panagiotakopoulos and Sarris point out, online learning gives more flexibility than traditional rote memorization, especially when it comes to mastering spelling (2011). This shows that using e-learning and incorporate educational games indeed a good effort in helping to improve students spelling skills and students able to remember better when learning in no-stress environment.

Furthermore, Supardi and Hasanah (2020) claimed that online learning allows students to complete activities using technology in a way that permits knowledge to be taught and acquired at the same time. This is especially true when, as in this study, physical classroom sessions are non-existent during MCO due to the COVID-19 epidemic. Students were exposed to a constructive language environment, according to Chung and Yunus (2021), because they had the ability to speak and learn online with others. Participants who were better at sharing their linguistic expertise with their peers were referred to as the More Knowledgeable Other (MKO). This shows that e-learning can create the same constructive elements as they did in normal face-to-face interaction. Vygotsky (1978) stated that MKO refers to a person who is capable of performing a task better than a learner. Simin and Sanj (2015) also proposed that the usage of Technology in teaching may be used to create an active learning environment. Active learning, which is aligned with constructivist epistemology, is a style of student-centered learning in which students are involved in meaningful thought and learning processes (Cattaneo, 2017). Lynch (2018) stated that virtual classroom interactive elements could pique students' interest in learning, resulting in more active learning. However, the ability to change students' perceptions and encourage them to grasp spelling requires a genuine interaction between technology and educational approaches (Ahmadi, 2018). This is especially important during the COVID-19 epidemic, when online learning has become the only approved educational medium and the new normal. Digital educational games are able to let students especially those illiterate to technology to be interested in improving spelling through e-learning as the elements and flexibility offered can pique their interest in keep trying the activity provided.

Learning with technology and the internet encompasses a broader range of topics than traditional instruction. The use of technology in the classroom is deemed necessary in order

to meet the learning objectives. The usage of the smartphone as a tool for media of inquiry in higher education is one example of how technology may be used to improve learning. It is now widely accepted that using a smartphone facilitates dynamic learning because students may use it to communicate and cooperate with a variety of sources and partners all over the world. The smartphone as a learning tool comes in a variety of shapes and sizes. The smartphone could be used to implement game-based learning to make learning more enjoyable. In this regard, a study found that game-based learning provided a better learning experience than traditional learning methods. Another study revealed that when game-based learning was combined with learning instruction that guided the students, it might create a superior learning experience. The use of game-based learning, on the other hand, must be compatible with existing methodologies in order for the game and the lesson to work together.

Digital educational games as offered in e-learning can help to improve their spelling skills as the games used will involve them using their cognitive aspect. According to a study by Fuster-Guilló et al (2019), the game's principles and designs can help learners build critical thinking skills since they are allowed to fail, receive rapid feedback, track their progress, and enjoy the tale. According to the research, learners would benefit from learning through games because they would have instructional and metacognitive supports that would not tax their cognitive ability. Virtual learning, it is further argued, might improve students' learning capacity and foster a competitive environment among them because they would devote more time to studying. According to a study, game-based learning may be used to assess and educate the skills and competencies of learners. As a result, the purpose of this study was to find out how students felt about utilising online games for spelling.

The abundance of material addressed may create the impression that learning to spell is a topic that has gotten a lot of attention, but in truth, the field of spelling has had very little attention. The researcher hopes to explore the effectiveness of using educational games through e-learning platform in improving students' spelling.

### **Challenges Faced by Malaysia Primary Pupils in Mastering English Spelling**

Spelling is one of the difficult skills to be mastered due to the inconsistencies of the English word structure. Many of the spelling problems that most English learners face, according to Hildreth (1962), are due to "inconsistencies in English word construction" (p. 4). He suggested that there are three characteristics of the English writing system that contribute to its terrible status as an irregular language. The first reason is that different sounds are assigned to the same letter or letter combination. Secondly, a single sound can be expressed using a variety of letters or letter combinations. A third reason is that many English words have silent letters. All of these anomalies and irregularities make English spelling difficult for English learners. Non-native English speakers struggle with new word definitions, spelling, pronunciation, proper word usage, guessing meaning from context, and other obstacles (Afzal, 2019). During this pandemic, mastering spelling skills is difficult due to the irregularities of the word structure. Cook (1999), as cited in Ahmed (2017), students were unable to distinguish between the four main types of spelling errors: substitution (replacing letters with incorrect ones), omission (leaving letters out), insertion or addition (adding extra letters), and transposition (moving letters around) (to reverse the position of letters). As a result, primary school ESL students experience difficulties learning to spell accurately.

The Malaysia education system has taken up the British English variation (Amin, 2012). Within the syllabus and textbook materials for primary school uses, there are many variations

of the English language, for example, the word “color” (American English) or “colour” (British English). As a result, students should be mindful of these spelling variations as well as their relevance in various contexts. However, pupils are often confused with the spelling of British English and American English as they get exposed to both types of English in their daily lives through the online platform such educational channels that are easily accessible through Youtube channels. Adding on the confusion is the similarities between American English and British English. Both have similar pronunciation with almost similar spelling with only one or two different letters to differentiate them. Take the word ‘offence’(British English) for example and ‘offense’(American English) where both words have similar pronunciation with the letter ‘c’ and the letter ‘s’ to differentiate the variety of spelling, both words are correct by English spelling standard. However, in Malaysian context, the word “offense”(American English) is considered as wrong spelling.

The "texting" language of the short message system (SMS) hindered primary school ESL students' ability to learn proper spelling (Verheijen, 2013). They are immediately exposed to this "texting" language through their social media communication, such as Whatsapp, Telegram, Facebook, and so on. It appears that students learned to utilise abbreviations to reflect the meaning of whole words. For instance, words like “Please” as “Pls”, “Thank you” as “Tq” and “Welcome” as “Wc”. However, “texting” language is not accepted in formal language learning and writing (Verheijen, 2013). Texting language may result in one of the challenges in learning to spell properly in English. Thus, this will affect pupils’ ability to write and properly convey their thoughts, ideas and messages in writing form. Misspelled words, according to Westwood (2014), may affect students' written work. In contrast to confident spellers, students with low spelling confidence and skills tend to write less and with less authority (Ahmed, 2017; Dheifallah & Radzuwan, 2019).

Another significant issue is the students' uncertainty over word spelling. It has the potential to impact students' recollection of appropriate word kinds and deteriorate their spelling abilities. The discrepancy in the English language spelling, which may have been taken from other languages such as Latin, French, and Greek, contributes to the students' confusion. In truth, in English, the ancient form of several terms is sometimes preserved. For example, “fiancée” and “clichés”. According to Bakar et al (2018), Malaysian primary school ESL students are having difficulty mastering the language due to lack of attention and poor spelling skills. She went on to explain that English spelling can be difficult for students since many words sound the same (homophones), but have different spellings and meanings. For example, the terms "tree" (plant) and "three" (number) have opposite meanings but are uttered the same way. As previously stated by Westwood (2014), English is not a bilateral sound-to-letter or sound-to-sound relationship.

In addition, primary school ESL students have to deal with the mother tongue interference as part of their learning to spell issues. The opaque orthography of the English language, which differs much from their first language (L1) language, is a major concern in the second language (L2) spelling among Malay primary school pupils (Samuddin & Krish, 2018). Both L1 (Bahasa Malaysia) and L2 (English) use the same alphabets in their spelling. Thus, pupils tend to confuse some of the English spelling with their L1, for example the word ‘beg’ (Bahasa Malaysia) and the word ‘bag’ (English) which have the same pronunciation and meaning but have different spelling. Another example is the word ‘çap’ (English) which often misspell as ‘kap’ due to the confusion with L1 language.

Clearly, in the context of Malaysian primary school ESL students, a good mastery of spelling is essential as a stepping stone to learning other language abilities. Perveen and

Akram (2014) found that even among experienced spellers, certain words will have full and precise spelling maintained in memory (high-quality), whilst other words will have poor representations. As a result, teachers must aid elementary school ESL students in resolving learning obstacles by generating concepts and connecting them.

### **Past Studies on Online Educational Games in improving spelling**

Teachers' concerns about Malaysian students' poor vocabulary spelling have been documented in several research. They commonly make spelling errors by excluding certain letters. One of the causes contributing to Malaysian students' poor vocabulary mastery, according to Afzal (2019), is ineffective teaching strategies in language learning and teaching. Despite lots of ICT related courses and games related online apps introduced to teachers, some teachers still lack techno-literacy and insist on using conventional teaching approaches to learn the subject, which are often uninteresting to learners especially those involving memorization like spelling. Shahriarpour and Kafi (2014) found that students who enjoy the vocabulary online games, were more enthusiastic and productive when performing related tasks. Those who played online games outside formal settings were also able to use the digital game's new words in class.

Similarly, Ashraf et al (2014) found that the experimental group learned new words by playing online computer games. Online games are found to be more effective in terms of acquiring English vocabulary. Kam et al (2008) invented the "Parrot" game to investigate the importance of understanding sound-symbol correlation in learning a language like English. Indian children acquired the English alphabet and phonemes more quickly as a result of playing this game. They learnt more quickly because they appreciated how technology was used in and out of the classroom. Furthermore, being able to learn the English alphabet and phonemes by playing a game with a photo of their teacher throughout the game was entertaining and provided a form of encouragement to play the game and learn the instructional material in a fun way. These research studies clearly demonstrate positive impacts of computerised games on various areas of language, including vocabulary, spelling, and pronunciation. Garcia, Kloss and Gil (2008) who evaluated the impact of an educational digital game on acquiring and retaining the spelling of words, focusing primarily on the educational components of computerised games. According to the findings of this study, only two of the 24 students who played the game received a lower score on the post-test than on the pre-test. This suggests that after playing the game, the other 22 kids had learnt more vocabulary and improved their spelling. Since spelling is so important in learning English as a foreign language, Shokri and Abdolmanafi-Rokni (2014) ran an experiment to see how video computer games affected Persian EFL students' learning of English word spelling. The findings showed that students in the experimental group were more enthusiastic to try the spelling of English words by playing computer games like Hang Man and Spelling Bee, and they had higher dictation scores than the control group.

The researchers also found that games boost students' capacity to retain word spellings, and that the repetitions built into the games expose students to the target language on a regular basis. Furthermore, the sense of accomplishment that students experience from playing these games motivates them to play the game more and learn more about word spelling in order to improve their score. Shokri (2014) investigated the long-term impacts of video computer games on students' acquisition of the spelling of English words, as well as the impact on memory and preservation of the spelling of English words. This study found that games allow students to extensively examine words, as well as encourage them to learn and

practise them, increasing their probabilities of remembering and retaining the exact spelling of words.

### **Integration of Mobile Technology and Educational Online Game in Spelling**

The evolution of technical equipment and the digital world has opened up a plethora of learning opportunities for students of all levels, with a special focus on the current generation of tech-savvy students. There is a growing demand in Malaysia to incorporate self-reliant study via internet platforms into teaching and learning (Kessler, 2018; Nasir et al., 2018) especially since the teaching and learning process are conducted through online learning. Many teachers are interested in incorporating mobile devices into 21st-century education in an effort to increase English proficiency in all aspects. Many experts define learning using online games as combining game and thought and gameplay mechanics (Takahashi, 2010; Bakhsh, 2016; Chapman & Rich, 2018). In language learning contexts, mobile learning is known to exploit the potential of mobile devices as learning tools (Daud et al., 2015). The acceptance and development of mobile learning in Malaysia is accelerating due to the rapid global growth of mobile technology. According to Thamilarasan and Ikram (2019), learners acknowledged that the mobile application is very useful for supplemental materials for out-of-class study. The integration of mobile devices in the teaching and learning process have caused the emergence of lots of spelling related online games platforms, which are accessible via a web browser where teachers can make changes according to the number of words they wish to tackle. The use of online games is good to teach spelling due to the varieties of games provided. The spelling structure of the targeted word can be drilled many times and students will still have fun with it due to the interactive elements where each game will have different background, sound and different methods of playing while still focusing on the spelling skills. Perrin and Duggan (2015) also pointed out that computer games are well-liked by young students, particularly those between the ages of 9 and 18. A study discovered that an interactive web game can improve language acquisition for low-proficiency EFL elementary students. (Andreani and Ying, 2019); Govindasamy et al., 2019); and Fazil and Said, 2020). To solve students' difficulties and engage them in interactive learning, the online game combines thinking and game dynamics (Bakhsh, 2016; Chapman & Rich, 2018). Azli et al. (2018) assert that online games enhance learning and that using them in the classroom is helpful to students.

### **Methodology**

#### **Research Design**

The researchers use quantitative design. Creswell (1994) explained that quantitative research design is the type of research that involve collecting numerical data and analyzed it in statistic way.

#### **Participants**

The research participants in this study comprise twenty Year Three pupils studying in one of the Chinese schools located at rural Sabah. Eight of them are males and seventeen of them are female. The Chinese school type in rural Sabah. Twenty pupils are selected from purposeful sampling. The researcher purposely chose these research participants to gather data on pupils' spelling performance after the intervention and their perceptions of the intervention. Purposeful sampling are used in this study because it allows researchers to have better and detailed information to understand a situation phenomenon (Cresswell, 2014).

There are different types of purposeful sampling. For this study, the researcher will use homogenous sampling because all pupils are Year 3 pupils studying in the same school. In addition, all of the participants' parents own mobile phones which the participants will be using to play the online games during the period of study. As all participants are chosen from the same school, it is easier to get permission from the headmistress and consent from them to participate in the study. It will be convenient for the researcher and thus, it can be said that the convenient sampling design will be used.

### **Research Instrument**

The research instrument use in gathering the data involved a set of questionnaire distributed through google form to the research participants. It is an instrument for collecting the primary data (Cohen, 2013).

A set of questionnaires regarding online game was made and filled by 20 respondents of Year 3 pupils studying in one of Sabah rural SJKC schools located in Tenom.

### **Data Collection Procedures**

The researchers devised a questionnaire with two sections, Section A and Section B, for data gathering purposes. There were a total of 20 questions. The researchers then used the Google Form to deliver the questionnaires to the participants over WhatsApp. Researchers analyse data by gathering surveys connected to online gaming and using the percentage to do so. The findings were presented based on the information provided by the participants.

### **Results and Discussion**

Section A: What is the perception of Year 3 pupils on the implementation of online games during English classes in improving their spelling skill?



TABLE 1:

NO	ITEMS	ANSWER (%)	
		AGREE	DISAGREE
1	I think that online games makes me learn spelling in more fun ways.	100	0
2	I find that online games is one of the best platform to learn spelling.	100	0
3	Online games requires me to focus on the words given in screen in order for me to write the correct answer.	100	0
4	Online games makes me think that English spelling is challenging.	90	10
5	Online games helps me learn spelling pattern better.	90	10
6	I think learning spelling though online games is more interesting compared to memorizing and written tasks.	95	5
7	I usually just randomly click the answers for online games without listening the words first.	70	30
8	I feel happy when I able get the correct spelling when answering though online games	95	5
9	When I spell the words wrongly, I will try to spell it correctly in the next games.	95	5
10	Online games makes me think that learning English spelling is fun and effective at the same time.	100	0

Table 1 shows the questionnaire used to answer the research question which related to the pupils perception on the implementation of online games during English classes in improving their spelling skill. Based on the table 1 from item 1 and item 2, all respondents agreed that online games make them learn spelling in fun ways, and that the online game is one of the best platform to learn spelling. Next, the tabulation of data from item 3 showed that all respondents agreed that online games required them to focus on the words in screen in order for them to get the correct answer.

Based on the tabulation of data from item 4 and item 5 shows that 90% of the respondents agreed that online games make them think that English spelling is challenging and that online game helped them to learn the spelling pattern better, while 10% of the respondents disagree with these items. Next, item 6 showed that 95 % respondents agree that learning spelling through online game is more interesting compared to memorizing and written task while 5% of the respondents disagree with this items.

After that, 70% respondents disagree with item 7 that they usually just randomly click the answers for online games without listening to the audio of the words first, while 30% of the respondents disagree with this items. Based on the tabulation of data from item 8 and item 9 showed that 95 % respondents feel happy when they get the correct spelling when answering through online games and when they spell the words wrongly, they will try to spell it correctly in the nest games. 5% of the respondents disagree with both these items.

Last, all respondents agree with item 10 that online games make them think that learning English spelling is fun and effective at the same time.

### Conclusion

The results of this research proven that educational online games helped to improve pupils' motivation in learning spelling. Pupils feel that they can learn the spelling easily in a fun environment through the educational games platform. This is proven through the research results where majority of the research participants gave positive feedback through the questionnaire. The results gathered also shown that there is a need for future researcher to devised a challenging educational games that will give real challenge toward their cognitive skills. This is because most research participant have agreed that they tend to randomly click the answer without following the instructions.

It is hope that this research can provide an insight for future researcher to conduct further research in this field which involve different level and bigger group. The researcher also hope that this research can be a stepping stone to change the mindset of some educators that still using traditional methods to incorporate the use of digital games in the teaching and learning process.

The result from this research contribute that online games indeed help to improve pupils' performance in spelling as seen from their positive feedback in implementing online games in the teaching and learning session. Thus, future researchers can focus on the types of online games that suitable to be implemented in improving spelling skills. The positive feedback gained in this research also motivate future researchers to try researching this topic with a large group, higher level of institutions and advance types of online game. This research motivated future researcher to conduct more research involving the combination of both e-learning and educational digital games in the classroom setting.

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