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Sustaining Education with Digital Storytelling in the English Language Teaching and Learning: A Systematic Review

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Abstract

Digital storytelling has always been emphasised as a revolutionary approach as it sustains the education in the modern era. It is a trending educational approach which are being researched in many current studies. However, despite its importance in sustaining the education, the review of digital storytelling in the teaching and learning of English, specifically on the four main language skills, is sparse. Hence, this review systematically focuses on the state-of-practice of digital storytelling in English language teaching and learning of the four skills. Using the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) review methodology, a total of 20 articles related to the use of digital storytelling in the English language classroom were identified from the ERIC, Web of Science, and SCOPUS databases. The inclusion and exclusion criteria were taken into consideration and all authors of the articles provided empirical proof which supports the implementation of digital storytelling in the English language teaching and learning of the four skills. First, the major findings revealed that digital storytelling is commonly utilised through project-based learning tasks. Second, writing skills are more emphasised through digital storytelling in the English language teaching and learning. These two findings implied that there are gaps in research on digital storytelling in the English language teaching and learning. In general, this review is important for practitioners to know which tasks to be used in using digital storytelling to teach the four language skills and in identifying gaps for research in digital storytelling and English language teaching and learning, to sustain the education in the future.

Keywords: Digital Storytelling, English Language Teaching and Learning, Systematic Literature Review, PRISMA

Introduction

This systematic review paper examines the sustainability of education in regard to the practice of digital storytelling in the English language teaching and learning. Particularly, this paper provides a recapitulation of the way digital storytelling is used in the English language teaching and learning, in terms of the nature of the practice and the language skills that are tackled. The art of oral storytelling has been a part of human civilisation for a very long time (Harjono & Wiryotinoyo, 2020). It has been practiced in various cultures and has been passed down throughout generations until today (Yee et al., 2020). As the world moves forward, the

oral storytelling undergoes transformational phase, in which it evolves in terms of its mean of delivery as well as its purposes for its users. In recent years, oral storytelling has evolved digitally, making digital storytelling a popular practice in many fields, especially the education field (Tanrikulu, 2020). This is considered as an advance in the modern technology of language education, as it encourages interactive learning with the use of technological aid.

In digital storytelling, technology plays the vital role as the turning point in the transformation of the traditional oral storytelling. As the era shifted, the direction of language education further adapts and adopts the more current ideals of better language learning. One of the ideals is interactive learning. Rajendran and Yunus (2021) defined interactive learning as a 21st century learning tool which prioritises the learners' learning experience in the classroom more than the teacher's role itself. In other words, interactive learning involves learner-centred classroom and teachers who acts as facilitators. As there is argument which suggested the interactive learning to be a face-to-face process (Parsons, 2017), the use of digital storytelling does not necessarily cater to the said argument. It can both be utilised in language learning remotely and through face-to-face session. Andayani (2019) studied the engagement of English student teachers in digital storytelling project for young learners by applying a project-based digital storytelling task. In contrast, another study conducted by Radaideh et al (2020) investigate the potential effect of digital storytelling on fifth grade students' reading comprehension skills by deploying a classroom-based teaching and learning sessions using digital storytelling as the teaching aid. Thus, digital storytelling can be adapted in any types of process and is still considered as an interactive learning.

Digital storytelling has recently become a global phenomenon in the teaching and learning of English language, especially after the recent hit of COVID-19 pandemic. The disruption has restricted the usual face-to-face learning session, hence resorted most people to sustain the education remotely through the quarantine period. Online teaching was implemented throughout the period without official guidelines and proper resources, which negatively impacted learners (Burgess & Sievertsen, 2020). A few studies regarding the use of digital storytelling surfaced, showing the rise of attention towards digital storytelling as one of the alternatives in language learning during the affected period. Among those are a study conducted by Marais (2021) where digital storytelling is deployed as a mean to enhance the learners' learning experience, as well as an alternative for the teachers to reinstate the 2020 academic year. Learners were able to be creative and innovative with their digital stories based on the language content. In another study, Nair and Yunus (2022) investigated the use of Toontastic 3D, a digital storytelling application in improving learners' speaking skills. This study was conducted due to the inadequate opportunities for the rural pupils to use the language especially during the pandemic.

Digital Storytelling in English language teaching and learning

The practice of digital storytelling involves the elements of multimedia being brought together to form a medium of storytelling which is widely called as digital stories. As defined by Hung (2019), the creation of digital stories is a practice of mixing and combining oral narration with digital elements of sound, images, video, and animation into a short video. With the combination of multimodal digital content, the art of storytelling is upgraded in such a manner that it caters to the current needs of education where language learning can be done by involving both learners and teachers to its maximum.

Formal English language learning in Malaysia, at its core, begins from the basic six year of primary level. The Standards-Based English Language Curriculum (SBELC) has been

developed with the collaboration between the Ministry of Education, Malaysia (MOE) and Cambridge English United Kingdom (CE) to cater to the current waves of education, which focuses on the 21st century curriculum and assessment (Bahagian Pembangunan Kurikulum, 2022). SBELC is integrated into the English language curriculum in Malaysia, the Standards-Based Primary Curriculum (KSSR), which is used by the primary language learners in Malaysia. In addition, the curriculum emphasises the development of learners' thinking skills and life skills, in order to produce learners who can compete globally. The curriculum content focuses on four main language skills, namely the listening, speaking, reading, and writing skills, in addition to grammar and language arts.

Digital storytelling, in the context of education, is turning into a prominent support for the betterment of learning in terms of language content, critical thinking, information literacy as well as motivation (Moradi & Chen, 2019). Throughout the recent years, digital storytelling has been implemented in studies concerning its effects on the improvement of learners' four language skills, as well as other learning aspects such as critical thinking skills, values education, learning motivation, and learning and study strategies (Nassim, 2018; Özen & Duran, 2021; Ayten & Polater, 2021; Kasami, 2021; Kabaran & Duman, 2021). The variety of studies utilising the DST provides an extensive, wide, and diverse spectrum of perspectives and information for its practitioners and users. The vast potential of digital storytelling may cater to the needs of language learners from all grade levels and ages as it can be a highly effective tools for them to be independent and flexible learners (Girmen et al, 2019).

Aim of Current Systematic Review

This systematic literature review (SLR) was done to explore the stances and perspectives of various scholars and practitioners on the current state-of-practice of digital storytelling in English language teaching and learning. In details, this paper will highlight the state-of-practice of digital storytelling, in terms of the type of tasks and the language skills applied. Digital storytelling has been widely applied in the education field due to the advancement of technological aid and the current educational needs (Nuroh et al., 2021). Hence, it has become a need to explore the current trend on the use of digital storytelling in English language teaching and learning. Therefore, the objective of the paper is to explore the state-of-practice of digital storytelling in English language teaching and learning. The main research questions are as followed:

1. What are the types of tasks used in the practice of digital storytelling in the English language teaching and learning?
2. What are the focused skills covered within the practice of digital storytelling in English language teaching and learning?

Method

This systematic literature review was conducted based on the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA). According to Page et. al (2021), The PRISMA statement was published in 2009 with the aim of helping systematic reviewers to report their reviews transparently. As time advances, the PRISMA 2020 statement was updated to cater to the more current necessities in systematic review methodology and terminology. The PRISMA 2020 consisting of a 27-item checklist has been used in this systematic review, with the descriptive comparison approach. As this paper intents to explore the current state-of-practice of digital storytelling in the English language teaching and

learning, this paper functions as a systematic medium to demonstrate how digital storytelling is being used by English language scholars and practitioners.

This study particularly explores and provides readers with better understanding on the use of digital storytelling in the English language teaching and learning, in terms of the types of tasks and the focused language skills covered. It is postulated on a systematic analysis of articles sourced out based on three main databases, which are, ERIC, Web of Sciences, and SCOPUS. The literatures processed are based on journals dated between 2018 and 2022. For the analysis, the researchers adopted the four phases of systematic review from Nair and Yunus (2022) which includes the identification phase, screening phase, eligibility phase, and inclusion phase respectively.

Phase 1: Identification Phase

In this phase, the analysis requires the identification of relevant work. This phase directs the researchers into two vital processes, involving the collection of relevant articles and identifying the appropriate articles postulated on the inclusion and exclusion criteria. This process did not include analysing material from sources such as technical reports, white papers, and book chapters, but rather only from peer-reviewed journals from journals databases. As shown in Table 1, the primary databases used were ERIC, Web of Sciences, and SCOPUS. The journal articles used in this researched are published between 2018 and 2022. The chosen articles are at least within previous 5 years to ensure the relevance of the ideas and results presented from the studies given that there are numerous published articles in the academia (Bramer et al., 2018). The various keywords used to source out the articles includes digital storytelling in education, digital storytelling in English language teaching and learning, and digital storytelling in language skills.

Table 1

Source of Journals

Journal Source	Quantity	Keywords
ERIC	9 articles	Digital storytelling in education, digital
Web of Sciences	3 articles	storytelling in English language teaching and
SCOPUS	7 articles	learning, digital storytelling in language skills

Phase 2: Screening Phase

Based on the articles obtained from ERIC, Web of Sciences and SCOPUS, duplicates were identified and removed. The remaining articles were reassessed to ensure that the requirements of the researchers were met.

Phase 3: Eligibility Phase

In the third phase, the gathered articles were examined for eligibility, where they need to meet the requirements listed in the inclusion section of Table 2. This essential step ensured that the gathered data in this study fulfil the needs of having high reliability and quality data.

Table 2

Inclusion Criteria

Inclusion Criteria
Digital storytelling in education
Research methodologies: mixed method, qualitative, and quantitative
Respondents or sample from diverse levels of education
Evaluate digital storytelling in the English language teaching and learning
Journal articles published between 2018 and 2022

The articles were chosen by identifying the researchers who applied digital storytelling in the English language teaching and learning. The articles were assessed and evaluated based on the criteria presented in Figure 1.

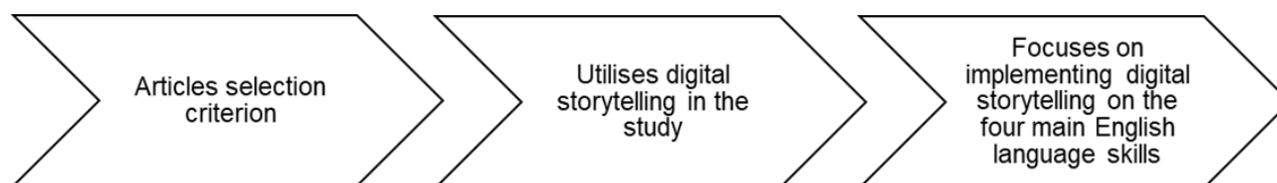


Figure 1. Criterion of assessment for the articles.

Phase 4: Exclusion Phase

The eligibility of the articles was checked in the third phase. In phase 4, the remaining articles which were obtained from the third phase were assessed through the exclusion criteria. As stated in Table 3, the exclusion phase is important to ensure that the researchers were left with data of high quality and relevance.

Table 3

Exclusion criteria.

Exclusion Criteria
Digital storytelling is not implemented in the English language teaching and learning
Not review of literatures
Journal articles which were not published between 2018 and 2022

20 articles were finalised, which presented data on the utilisation of digital storytelling on the English language teaching and learning. These journal articles particularly provided data on the use of digital storytelling on the four main skills in English language, which are listening, speaking, reading, and writing skills. Review of literatures were not included in the studies as to ensure that the data was obtained directly from the studies that recorded authentic practices of digital storytelling in the English language teaching and learning in detail. In addition, the researchers strictly excluded the articles that did not implement digital storytelling on the four main English language skills, namely the listening, speaking, reading, and writing skills.

In Figure 2, the complete procedure from Phase 1 until Phase 4 is shown based on the Preferred Reporting Items For Systematic Reviews and Meta-Analyses (PRISMA) 2020 checklist.

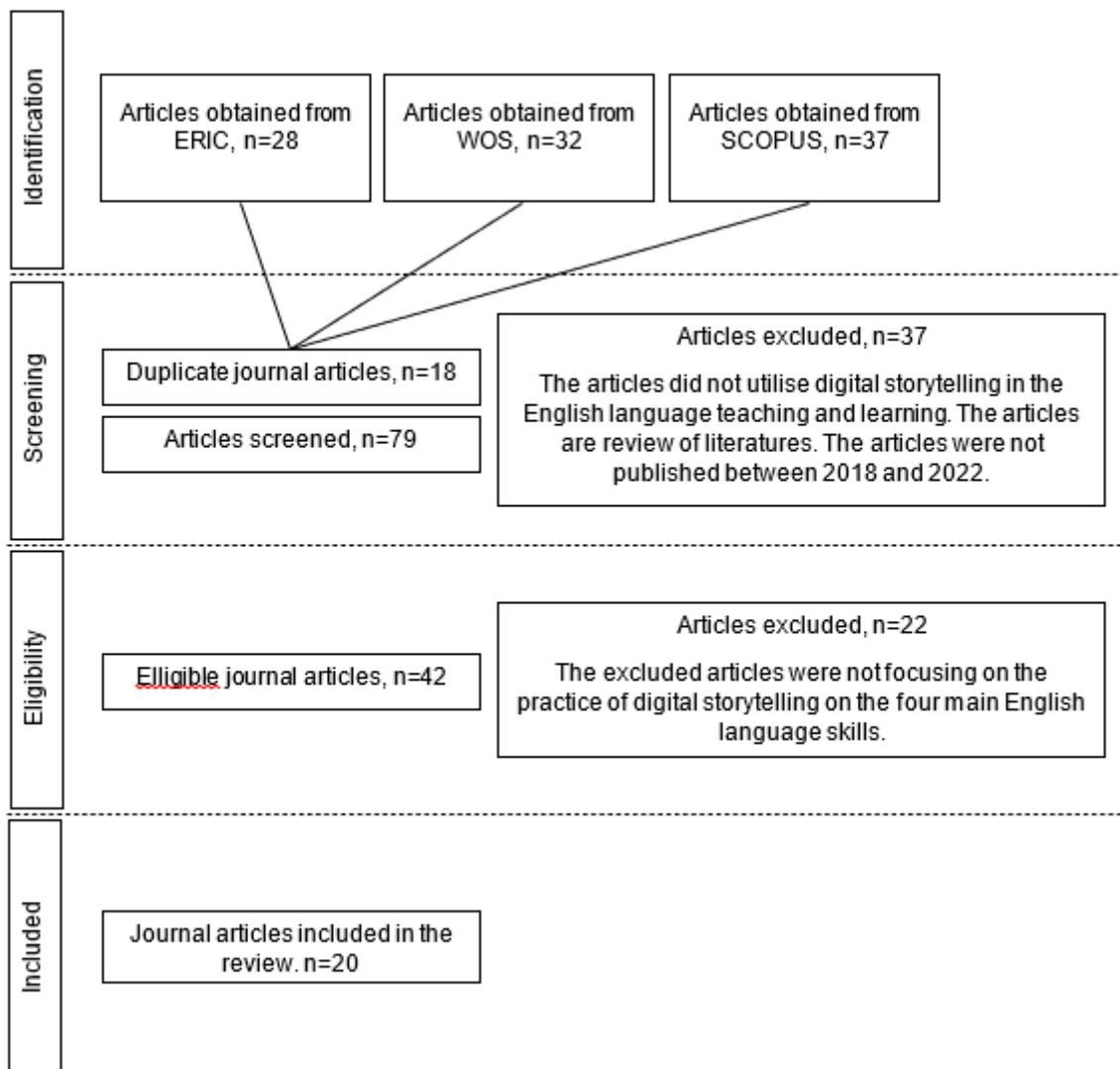


Figure 2. Journal article selection process.

Results

In this section, the findings from the journal articles will be thoroughly examined. 20 articles were chosen to be appropriate for the nature of this investigation after the four phases of articles selection and evaluation. Many journal articles have discussed the utilisation of digital storytelling on the English language teaching and learning. However, only the most exhaustive and thorough articles are described in Table 5.

Table 5

Main characteristics, the task used in the implementation of digital storytelling, and the language skills evaluated in the teaching and learning of English language.

Authors	Territory	Purpose of Study	Task used	Language skills evaluated
Article 1 (Syafryadin et al., 2019)	Indonesia	To investigate the impact of digital storytelling towards senior high school students' speaking ability in various text genres and to analyse to what extent it works effectively.	Project-based learning	Speaking skill
Article 2 (Nassim, 2018)	Oman	To motivate students to read and improve their language skills and creativity and to give better understanding of the usage of multimodal approach like digital storytelling in language learning classrooms.	Classroom-based learning	Reading and Writing skills
Article 3 (Leong & Mohamad, 2018)	Malaysia	To examine the effects of using tablet-based digital storytelling application on English language learning among young ESL learners.	Tablet-based digital storytelling application	Listening, Speaking, Reading and Writing skills
Article 4 (Uslu & Uslu, 2021)	Turkey	To examine the effect of collaborative digital storytelling on the creative writing and social-emotional learning skills of elementary school fourth grade students.	Classroom-based learning	Writing skill
Authors	Territory	Purpose of Study	Task used	Language skills evaluated
Article 5 (Azis & Husnawadi, 2020)	Indonesia	To provide empirical evidence on the efficacy of collaborative digital storytelling-based task orchestrated by a smartphone app in an Indonesian EFL writing classroom.	Project-based learning	Creative writing skill

Article 6 (Girmen et al., 2019)	Turkey	To define the role of digital storytelling in improving writing skills.	Project-based learning	Writing skill
Article 7 (Radaideh et al. 2020)	Jordan	To investigate the potential effect of digital storytelling of basic fifth grade students' reading comprehension skills.	Classroom-based learning	Reading comprehension skill
Article 8 (Loniza et al., 2018)	Malaysia	To investigate the effectiveness of digital storytelling on the language listening comprehension of kindergarten pupils.	Classroom-based learning	Listening comprehension skill
Article 9 (Budianto et al., 2021)	Indonesia	To investigate students' and teachers' voices of the implementation of digital storytelling using discovery learning in EFL listening class.	Classroom-based learning	Listening skill

Authors	Territory	Purpose of Study	Task used	Language skills evaluated
Article 10 (Jakob et al., 2018)	Indonesia	To find out whether or not the use of digital storytelling develops the students' listening comprehension and to find out the students' learning interest towards the use of digital storytelling.	Project-based task	Listening comprehension skill
Article 11 (Castillo-Cuesta et al., 2021)	Ecuador	To analyse the impact of digital storytelling on English as a Foreign Language (EFL) pre-service teachers' writing skills.	Project-based task	Writing skill
Article 12 (Hayam, 2019)	Saudi Arabia	To find out the potential relationship between learners' inability of choosing vocabularies and grammar and even speaking in English on	Project-based task	Speaking skill

the one hand, and the strategy of teaching on the other hand.

Article 13 (Zakaria & Aziz, 2019)	Malaysia	To investigate the impact of DS on ESL secondary school students' narrative writing skill.	Classroom-based task	Writing skill
Authors	Territory	Purpose of Study	Task used	Language skills evaluated
Article 14 (Arroba & Acosta, 2021)	USA	To determine the effectiveness of authentic DST as an alternative strategy to improve speaking in EFL classes at the university level.	Project-based task	Speaking skill
Article 15 (Kazazoglu & Bilir, 2021)	Turkey	To explore the Turkish middle school students' experiences on the integration of a digital storytelling tool called Storybird in their English classrooms.	Project-based task	Writing skill
Article 16 (Tabieh et al., 2020)	Jordan	to investigate the impact of implementing digital storytelling as a method to be utilized to help pupils acquire active listening skills and creative thinking skills, including fluency, flexibility, and originality, in the Arabic language classes of the primary third grade.	Classroom-based task	Listening skill
Article 17 (Basyoni et al., 2020)	Saudia Arabia	To develop and evaluate the impact of students' created DST to improve the Saudi ninth grader's critical listening skills.	Classroom-based task	Listening skill

Authors	Territory	Purpose of Study	Task used	Language skills evaluated
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Article 18 (James et al., 2019)	Malaysia	To investigate the use of digital storytelling in enhancing students' speaking skills in English and the perceptions of the students with regards to the use of digital storytelling to improve their speaking skills.	Project-based task	Speaking skill
Article 19 (Lim & Noor, 2019)	Malaysia	To implement one digital storytelling tool in teaching writing for English Form 1 and tries to identify the elements of digital storytelling tool that might be able to promote students' writing skills.	Project-based task	Writing skill
Article 20 (Al-Shaye, 2021)	Kuwait	To explore the impact of online digital storytelling on developing critical reading skills, critical thinking and self-regulated learning skills of prospective teachers of Arabic.	Classroom-based learning	Critical reading skill

Discussion

The advance of technologies has become a stepping stone for the education field to unfold with many benefits for its users. The technology has been continuously improving as its primary goal is to elevate the human existence (Plch, 2020). Given the importance of education in human existence, it is easy to see how important the direct connection between technology and education is. As a result, it can be premised that technological innovation has a reasonable impact on students' learning and teaching styles, which are the fundamental components of the teaching and learning processes (Jayashanka et al., 2022). New learning approaches and techniques emerge from utilising the elements of digital technology in the effort to make learning more meaningful (Falloon, 2020). The use of digital storytelling has also contributed to the 21st century learning as it encourages the development of many skills such as the communication, collaboration as well as the information technology skills (Cigerci, 2020). There are many ways to integrate digital storytelling in the English language teaching and learning to enhance the learners' proficiency. The results, however, depends on how well it is utilised by the practitioners (Kahtali & Gençer, 2021).

In this analysis, a significant number of articles demonstrated that the digital storytelling has been utilised in the English language teaching and learning of the four main language skills. It is noteworthy that the researchers mainly utilised digital storytelling through three types of tasks, namely the classroom-based task, the project-based task, and the tablet-based

task. Based on Table 6, 9 out of 20 articles reported the use of classroom-based task in implementing the digital storytelling, while 10 out of 20 articles utilised digital storytelling through the project-based task. Interestingly, 1 out of 20 articles discussed the use of tablet-based task in the implementation of digital storytelling. In the classroom-based task, digital storytelling is implemented in normal language learning lessons within the duration of mainly one to three hours (Nassim, 2018; Radaideh et al., 2020; Shu & Goh, 2020). The classroom-based task integrates digital storytelling in a language lesson, usually supported by complete stages in the lesson plan and the materials needed by the research participants. In contrast, the project-based task which utilises the digital storytelling requires the research participants to create their own product, mainly digital stories using any digital storytelling tool such as Microsoft PowerPoint, Viva video application and computer softwares (Azis & Husnawadi, 2020; Girmen et al., 2019; Syafryadin et al. 2019). These creations of digital storytelling done by the participants are usually assisted by the researchers through clear guided process with defined stages and steps (Castillo-Cuesta et al., 2021). Another task which has been used is the tablet-based task. The tablet-based task comprised of tablet-based digital storytelling application which can be used inside and outside of the formal teaching and learning session. As it is a flexible tool which can be used independently according to the participants' different rate of learning, it has shown positive improvement on all four language skills: listening, speaking, reading, and writing skills (Leong & Abidin, 2018).

Table 6

The types of tasks used in the implementation of digital storytelling.

Articles	Types of tasks used in digital storytelling		
	Classroom-based task	Project-based task	Tablet-based task
1		/	
2	/		
3			/
4	/		
5		/	
6		/	
7	/		
8	/		
9	/		
10		/	
11		/	
12		/	
13	/		
14		/	
15		/	
16	/		
17	/		
18		/	
19		/	
20	/		

Apart from the task used in implementing digital storytelling, the analysis has looked into the focused language skills in the articles. Based on Table 7, 9 out of 20 articles focused on the implementation of digital storytelling on the writing skills, while 6 out of 20 articles focused on the listening skills. 5 out of 20 articles implemented the digital storytelling on the speaking skill, and 4 out of 20 articles focused on the utilisation of digital storytelling on the reading skill. A few articles looked into the development of multiple language skills (Nassim, 2018; Leong & Abidin, 2018). Overall, all of the articles discussed the use of digital storytelling in improving or developing at least one language skill and all four skills are found in the analysis.

Table 7

The focused language skills in the implementation of digital storytelling.

Articles	Focused Language Skills			
	Listening	Speaking	Reading	Writing
1		/		
2			/	/
3	/	/	/	/
4				/
5				/
6				/
7			/	
8	/			
9	/			
10	/			
11				/
12		/		
13				/
14		/		
15				/
16	/			
17	/			
18		/		
19				/
20			/	

Limitation

Given that there may be academic interest in this issue, there are two limitations in this study that should be worked out in the future. The researcher focused on 20 highest-quality articles to address the needs of the research in detail, from ERIC, Web of Science, and SCOPUS. More articles might be obtained from other databases such as Google Scholar. Expanding the study to incorporate other viewpoints from other academics and revealing further findings would be fascinating. Furthermore, studies utilising digital storytelling on other English language learning elements such as grammatical language content, learning motivation and vocabulary repertoire should be explored and probed in future studies as this review focuses on the implementation of digital storytelling on the four main language skills.

Conclusion

Overall, this systematic review analysed 20 articles on the utilisation of digital storytelling on the English language teaching and learning of the four skills. It is shown that digital storytelling has been implemented through three types of tasks, namely the classroom-based task, the project-based task, and the tablet-based task. As the tablet-based task might not be as commonly utilised as the other two due to the lack of references, it ignites a spark of ideas on what the digital storytelling can achieve in enhancing the English language teaching and learning. The researchers reviewed in this study have investigated the use of digital storytelling in the English language teaching and learning through various methodologies while taking account the empowerment of the four language skills: the listening, speaking, reading, and writing skills. Learners from various levels of education from kindergarten to the tertiary level have participated in the studies, making digital storytelling a reliable technological tool to be used in the language learning. As the four main language skills are important in the English language teaching and learning, learners who participate in either the development process of creating digital stories or the learning sessions utilising digital storytelling as the medium, can develop their language skills through the process. The tasks used by the researchers showed how diverse the digital storytelling can be utilised by English language teachers and practitioners to polish their proficiency in those skills. In this digital era, technology is taking over the field of education as it has become relevant to the learners' current needs. Digital storytelling has become a part of the new era of learning and has a big potential in sustaining the education for a long time. In essence, a substantial amount of literature on the subject of digital storytelling has been presented in this systematic review, and this research has validated its flexible application in the English language teaching and learning.

Implications and Recommendation

Digital storytelling functions as an alternative approach or a digital boost for educators to fit into the current virtual learning era. It serves as a platform for educators to catch up with the current needs of educational system, as well as the coping mechanism when faced with future unexpected barriers in the education field, especially during the COVID outbreaks. Through digital storytelling, educators will be able to sustain the education in a flexible manner, whether it is a face-to-face learning session or through online learning. Sustaining education requires educators to take part in the current trend of teaching and learning to create meaningful learning as well as to empower the learners' potential of language learning to a greater degree. Exploring the digital storytelling may offer educators more diverse approach in the English language teaching and learning, hence, setting forth the sustainability of education.

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