Interactive Learning via Digital Storytelling in Teaching and Learning

Vaishnavi Rajendran*, Melor Md Yunus

Faculty of Education, Universiti Kebangsaan Malaysia

Corresponding author: Vaishnavi Rajendran, E-mail: p100252@siswa.ukm.edu.my

ARTICLE INFO	ABSTRACT
	Web 2.0 based applications are becoming a way of teaching and learning tool. This study takes a systematic review to understand various studies related to digital storytelling (DS) intervention. The research found through Education Resources Information Center (ERIC) from the year 2016 to the year 2020, which included full-text articles and peer review journal articles. This study was conducted based on ten research articles. The results show that the mixed-method research and qualitative research approach were the most famous designs with four research each. The critical findings indicated that DS engages the learners, DS creates a positive learning environment, and DS increased the learner's motivation and self-confidence. DS could help learners to learn interactively during the Covid-19 Pandemic. Furthermore, various age groups, methodology and research design are differentiated in the studies. **Key words:** Digital Storytelling, Interactive Learning, Speaking Skill, Education

INTRODUCTION

Technology has a prominent role in education as today's education no longer depends solely on the chalk and talk method. Education has shifted its dependency from merely reading books and visiting a library to e-learning and surfing the internet for information (Zhao, 2020; Sá & Serpa, 2020). The technology and e-learning dependency further strengthened with web 2.0. According to Can et al. (2019), web 2.0 allows users to have two-way communication rather than passive readers or users. Bugawa and Mirzal (2017) stated that using web 2.0, interactivity among learners could be increased. They also found that web 2.0 technology allows sharing the experience with ease among the research participants through their study. YouTube, Facebook, Kahoot, Twitter, and Instagram are some examples of Web 2.0. Web 2.0 is also recognised as an easy platform to collaborate with others. Giannikas (2020) stated that Facebook might offer learners an opportunity to be autonomous and might be able to explore their potentials as learners.

Interactive learning is a 21st-century learning tool in a classroom that focuses on the learners instead of the teacher. The learner's needs are prioritised, and a pupil-centred classroom is conducted. Interactive learning may be characterised as collaboration and information by discussing, discourse or activity (Abykanovaa et al., 2016). Through their study, Zakaria et al. (2019) found that the emotional aspect and positive values of the primary school students must be addressed for them to speak comfortably in English. Meanwhile, Parsons (2017) suggests that interactive learning requires a face to face communication. DS is not a relatively new term as it was first introduced in the 1990s. DS could be defined as the art of combining texts, recorded audio, music or video with a story (Robin, 2016). Har Leong et al. (2019) further stated that DS promoted interactivity and flexibility among learners. Okumus (2020) stated that DS among digital natives enables them to think creatively and think out of the box. Jantakoon et al. (2019) has said that DS contains eight steps: composing, writing planning, storyboarding, mixed media finding, making a computerised story, sharing an advanced story, incorporating issue- understanding prepare successfully and story network and pertinence.

Teaching English as a Second language is not easy as its many skills make it an impossible task. The speaking skill is more difficult to teach than listening, reading, and writing. It requires a lot of practice and guidance and helps learners easily comprehend other skills (James et al., 2019; Devi & Subba, 2018). Har Leong et al. (2019) had stated that vocabulary is essential in language learning. On the other hand, Akkakoson (2016) states that learners would not express their ideas or understand others without sufficient vocabulary. Akkakoson also claims that anxiety plays a role in stopping learners from speaking as they have a limited vocabulary. Shamsudin et al. (2019), in their study, imply that blending synchronous with asynchronous in the classroom would create fun learning and engage the learners.

Under the Revised Standard Primary School Curriculum in Malaysia aligned with the Cambridge European Framework of Reference (CEFR), speaking skills have been given more importance in an English lesson classroom. The speaking skill itself could complement the other skills.

The Malaysian curriculum, Kurikulum Standard Sekolah Rendah Bahasa Inggeris Dokumen Standard Kurikulum dan Pentaksiran Sekolah Kebangsaan Tahun 4 (2018) states that speaking skill focuses on the learner›s capacity of communication to others, learner's ability when connecting with others, and their capacity when they are communicating to gather information to many people.

Even though DS had been discovered in the 1990s, it is no longer a popular choice. There is not much research on DS in the past five years. The lack of research could be reasoned as there are other methods to teach and learn a speaking skill, such as audio and video-guided materials. There is not much research conducted on primary school pupils. There are also many traditional methods to conduct a speaking lesson. For example, role play, miming, broken telephone and storytelling are ways of teaching speaking. Despite that, DS is one of the most practical interventions as it can be conducted efficiently. It also does not require much knowledge of technology.

Purpose of the Study

This systematic literature review (SLR) aims to understand how DS intervention has been used in various age groups in different countries and to understand the various methods and research design used in carrying out the intervention. This SLR aims to answer three research questions:
1. What effect does DS has on interactive learning?
2. How does DS benefit the learners in improving their speaking skills and vocabulary mastery?
3. What is the perception of the learners towards DS?

LITERATURE REVIEW

Interactive Learning

Farisi (2016) examined and clarified the evolution of academics towards dedication and further advancement in research, the skills map for the social skills of the 21st century and the consequences for the growth of teacher skills and curriculum for teachers. Besides, learner autonomy depends on the design of classrooms to be able to speak the language fluently. Interactive learning activities which offer chances to upgrade are of great significance in these environments (Gocer, 2017). Samat et al. (2019) claim that it is possible to interact actively in a virtual environment. Everyone could express their views by commenting on each other.

DS as an Intervention

DS has gained popularity, and it has been practised at various locations, such as libraries, schools, museums, community centres, medical and nursing schools (Robin, 2016). The education setting differs from kindergarten to higher education through various topics ranging from art to zoology (Robin, 2016). Besides, personalising children's imaginary worlds, stories enhance reading, speaking, listening and writing skills along with lexical development in first and second language education (Ciğerci & Gultekin, 2017). Today, story

planning is performed using written media or oral techniques and interactive media platforms (Del-Moral et al., 2016). It is also an interactive medium from which users can share tales, accompanied by their voices and visual images, thanks to digital learning platforms (Sezginsoy, 2016). Semingson et al. (2016) noted that using DS alongside technology, the elements of a great story have to be considered. Robin believed that it would have been more attractive if the learners could generate their storylines through DS websites and applications as the activity would actively involve the learners.

Challenges in Teaching and Learning Speaking Skills

Dincer (2017) suggested that most of today's globalised world learners study English to acquire speaking skills. It is considered the most demanding and most difficult to learn among the four main language skills: reading, listening, writing and speaking. While speaking is the most challenging skill, most English language learners have few opportunities to practice the language outside the classroom (Pawlak, 2018). Additionally, the main aim for language learners has continuously progressed in oral communication (Dincer, 2017; Pawlak, 2018). Lee and Heinz (2016) grouped the advanced learners' effective and unsuccessful methods for communicating with unstructured essays in a more recent review. Zara-Behtash et al. (2016) explained that teacher should provide a comfort zone for the learner to improve their confidence level and simultaneously to decrease the anxiety and destress and not be scared of making mistakes. Hashim et al. (2019) found that developing strong communication skills is possible through practice. Hashim et al. suggested that the learners are allowed to decide on their learning method.

Challenges in Vocabulary Mastery

The use of technology in education has expanded rapidly over the last decade. Several studies on vocabulary mastery using online programs to promote speech acquisition has been carried out (Khezrlou et al., 2017). They argued about the advantages of using online vocabulary learning tools, saying they allow learners to connect three elements. There is form, meaning and use, improving the ability to read, increasing the number of words exposed to learners, retaining vocabulary knowledge and saving learners time and effort in reading text. Thus, the learners have also claimed that technology makes learning more engaging, enjoyable, interactive, and creative. Teng (2016) emphasised that the learners could easily attain vocabulary mastery if visual materials were presented to the learners repetitively and are motivated to use the newly learned vocabulary. Hence, the other outcome of this study was that the benefit of technology has increases the motivation level of those learners, their social interaction among them, learning and the commitment they are willing to give.

METHOD

The paper aims to find relevant studies related to answering the research questions related to the teaching and learning

of the speaking skills and vocabulary mastery. In order to provide an unbiased and comprehensive set of findings and discussions, this systematic literature review makes use of an explicit search strategy to mentor and advise the inclusion and exclusion of studies and researches in a review (Terms of Reference for Systematic Reviews Funded by The UK Department for International Development Supported by The EPPI-Centre Table Of Contents, 2016). The systematic literature review termed as a research guide by an explicit and transparent set of methods, procedures and phases with the potential to be reproduced and modernised. This study is based on systematic analyses and dissections of articles searched from Education Resources Information Centre (ERIC) databases. The literature review process was performed from 2016 until 2020. This systematic review aimed to provide guidance and pledged to serve as Web 2.0 and Digital Learning area. This digital learning aims to change the learning attributes, learn institutional directions and path, intensify technology, and quantify technical security. Thus, the five phases proposed by Khan et al. (2003) were employed in this study.

Phase 1: Framing Questions for a Review

Electronic devices have a huge role in becoming an effective tool for learning to take place smoothly and continuously due to the continuous development of technology. Besides, the web 2.0 application has created an excellent opportunity for learners to learn via virtual learning. Thus, this study aims to research DS in speaking and vocabulary mastery. This study is directed through these three research questions, and the research questions are as follows: a) What effect does DS have on interactive learning? b) How does DS benefit the learners in improving their speaking skills and vocabulary mastery? c) What is the perception of the learners towards DS?

Phase 2: Identifying Relevant Work

In this phase of the systematic review, the researcher has identified relevant studies which will allow sharing of meaningful and competent information to shed light on the objectives of this study. Initially, the researcher has gathered and obtained all the relevant articles through an electronic search of the ERIC database. This step continued by accepting articles that surpass the inclusion criteria but excluding articles included in the exclusion criteria. Further articles were searched based on the references lists. In turn, the researcher

found few articles that could meet the extensive scope and lessen the risk of bias. Hence, only full-text articles and peer review journal articles were selected to make an effective comparison between these selected journal articles (Baran, 2014). So, only one database used in this study is ERIC to make sure comprehensive data collection. ERIC has been deemed the most relevant and pertinent databases. They provide rich information in the discipline of education belongings. Besides, the selected articles must be published from 2016 to 2020. Through the search of journal articles identification, several variations of keywords were used in the search engines. The keywords used were 'digital storytelling to learn speaking', 'digital storytelling to learn vocabulary', 'digital storytelling as interactive learning, interactive learning, speaking skills and vocabulary mastery.

Phase 3: Assessing the Quality of the Study

The selected articles searched were analysed based on the framework criteria, the inclusion and exclusion criteria. The criteria were used as an indicator to decide if the articles should be included in the review. Hence, articles chosen for this review met both inclusion and exclusion criteria, as shown and stated in Table 1. The inclusion and exclusion criteria were closely adhered to obtain relevant answers for the research questions.

Phase 4: Summarising the Evidence

ERIC is the sole database used for this study. Keywords such as 'digital storytelling to learn speaking', 'digital storytelling to learn vocabulary', 'digital storytelling as interactive learning, interactive learning, speaking skills and vocabulary mastery keyed in the search engine. Furthermore, only articles published within the 2016 to 2020 range were selected. It resulted in 148 articles. Hence, not many types of research in Malaysia were related to the preferred keyword-only. Only two research were found. It was also found that there was not much research on primary school learners. The articles were filtered according to the inclusion and exclusion criteria, and only ten articles were finally chosen to be relevant for this systematic review.

Phase 5: Interpret the Findings

The fifth step uses content analysis to classify the results for the analysis of the data. The data analysis of the content can be carried out using quantitative, qualitative and mixed

Table 1. Inclusion and exclusion criteria for this study

Inclusion	Criteria	Exclusion
Articles or journals published in English	Published in English	Articles not published in English
Articles published in journals	Published in journals	Book chapters and proceedings are not included
Journal articles published from the year 2016 to 2020	Period of Research	Journal articles published before the year 2016
Articles related to digital storytelling	Intervention	Articles not related to digital storytelling
Researches conducted in a qualitative, quantitative or mixed-method methodology	Research design	Articles which is not based on research or study. Literature review, systematic literature review and conceptual paper are excluded

methods so that categorical data can be used to reveal the trends in the studies. In the teaching and learning of speech

Table 2. Analysis of the level of the learners and the methodology used

Level of the learners	qualitative	quantitative	Mixed method	Total
Primary (2)	1		1	2
Secondary (2)	1	1	0	2
Tertiary (6)	2	1	3	6
Total	4	2	4	10

and vocabulary mastery, a total of 148 papers were focused on enjoyment, understanding and acceptance of immersive learning by digital storytelling. Between 2016 and 2020, interactive learning in formal education was collected in various settings and only ten were selected, which fit perfectly into the inclusion criteria.

RESULTS

Table 2 illustrates the analysis of the methodology used in the initial publications from 2016 until 2020. The most used approach in previous research was mixed-method and

Table 3. Research findings significant to Digital Storytelling

No	Authors	Key Findings
1	Okumus (2020)	It was revealed in this study that through the integration of technology and storytelling, the learners became motivated in their learning and developed a positive attitude towards learning. As the learners became exposed to DS, they came up with new ideas related to the digital tools in the lessons. At the same time, DS engages the learners to use the different skills in language learning to create materials. They are also motivated to create a fun activity.
2	Banny et al. (2017)	Through DS, the learners engage and becomes motivated in the learning process as DS provides an authentic learning environment. The learners are given the freedom to be creative in developing the plot, storyboards and script. The learners learn as they create as apply their skills when they create their DS. The learners use their prior knowledge as they create the video, and hence their self-confidence increases with time.
3	Dalim et al. (2019)	In the study conducted among pre-service teachers, it was found that DS is a teaching approach that can nurture positive values such as collaborative learning, active learning engagement, critical thinking skills, and creativity among the learners. It was found that the learners engage more actively when DS was employed as it provides an environment for the learners to explore and learn. The learners would be able to interact and collaborate when they create content as a group.
4	Har Leong et al. (2019)	DS has had several impacts on vocabulary learning, and all those effects are positive. The DS application is an appropriate and appropriate learning material for vocabulary learning in the primary school setting. DS has positively impacted young learners' vocabulary learning. The learners became more positive and motivated to use this app to learn.
5	Hsun Chiang (2020)	It was found that through the use of DS, the learner's confidence level and self-efficiency increased. Through the use of Storybird as the DS was preferred over the conventional method of storytelling. Through the use of Storybird, English Writing was made more exciting and less inhibiting. The learners could also interact with other Storybird writers. The visuals helped the learners to stay engaged in Storybird. The integration of Storybird and conventional English writing has positive effects in cultivating the learner's efficiency and boost their confidence in writing.
6	Jantakoon et al. (2019)	It was found that through the phase of the Virtual Immersive Learning Environment (VILE) that DS was suitable to improve and to create deeper learning among undergraduate learners. The immersion of virtual reality provides a better environment for the learners to learn and convert the information as a Digital Story. DS through VILE can help increase learner's motivation, promote student teamwork, develop spatial skills, and enhance physical task performance.
7	Mesa & Alejandro (2020)	The research found that it is important to determine the curriculum's goals and expectation. DS is considered as part of the curriculum because of the various advantages its usage offers. Simultaneously, the use of technology in creating a Digital Story helps to enhance the learners to express their idea understandably and comprehensibly. Moreover, the learners developed their vocabularies and appropriate writing and speaking skills as they take on different skills.
8	Preradovic et al. (2016)	The findings indicate that interactive DS is better when compared to traditional storytelling. DS can be used effectively to develop children's cognitive and computer literacy abilities when Information, Communication and Technology (ICT) is first introduced in preschool.
9	Ruppert et al. (2017)	DS allows learners to dig deeper into content and reflection and pushes them forward. The intention of using DS is to continue exploring ways in which the learners can implement cultural competence by examining their practices during the phase of their education.
10	Yamac & Ulusoy (2016)	DS provides the learners with new opportunities to create meaning through multimodal texts, understand the nature of multiform texts, and use technology to join information and visuals in creating content. Modern storytelling transformed the narrative writing process and emerged as a valuable tool for bridging the digital gap by developing learners' current reading comprehension, competency, and skills. DS also plays a role in strengthening the learner's experiences in the classroom and their ability to write overall; DS helped build a learning environment for the learners.

qualitative research design. Quantitative research design is the least used research design as analysed from the table.

The sample or the respondents of all the studies consisted of all level of education, as stated above. Most of the study was from the tertiary level. Meanwhile, the rest was from the primary and secondary level respectively. Only two studies were carried out in Malaysia from these ten studies, and again, out of these ten studies, only two were conducted at the primary school level. Table 3 illustrates the key findings found from the ten studies.

DISCUSSIONS

As stated earlier, the aim of the review was to understand the use of DS as an intervention in various setting and research methodology and design. Based on Table 2, the number of studies that employed qualitative research design was 2; studies used a quantitative research design, whereas the other five studies favoured mixed-method research design. The various research design employed by the researchers shows the diversity of DS. Although Okumus (2020), Dalim et al. (2019), Jantakoon et al. (2019), and Preradovic at al. (2016) used quantitative- Quasi-Experimental research design in their study, the number of participants in their studies varied from 15 to 150 participants. Two of the studies also employed a mixed-method approach to analyse the data (Dalim et al., 2019; Jantakoon et al., 2019). Banny et al. (2017), Yamac & Ulusoy (2016) conducted action research whereby the study was conducted solely as qualitative research. Another study by Ruppart et al. (2017); Mesa & Alejandro (2020) both used a qualitative research design where the student learning objectives were analysed, and documents were analysed, respectively. Moreover, though Har Leong (2019); Hsun Chiang (2020) conducted a case study, they had used pre-test and post-test, respectively.

This section discusses the key findings of the studies in Table 3. The first research question in this study established to foresee the effects of DS has on learning interactively. Dalim et al. (2019); Preradovic et al. (2016) found that through their respective study DS is an interactive tool as it engages the learners, and the learners can use ICT in a meaningful way. Likewise, in their study, Samat et al. (2019) viewed that interactive, authentic learning experiences would provide the learners with an exciting and genuine. The second research question addresses the beneficial factors on speaking skill and vocabulary mastery. Har Leong et al. (2019); Mesa & Alejandro (2020), in their study, found that DS provided a positive learning environment for speaking skill and vocabulary mastery. This finding was relatable to Hashim et al. (2019), who also found that learners would be more comfortable and at ease with the language skills through a positive learning environment. The third research question focuses on the perception of the learners on DS. Almost all the studies emphases on the perception of the learners in their studies. Okumus (2020); Banny et al. (2017); Hsun Chiang (2020); Jantakoon et al. (2019), through their study, found that the motivation and self-confidence of the learners increased when DS was implemented. This could be further supported by Har Leong (2019), who found that the

learners were more confident and interested in the class after DS implementation in the learner's class.

CONCLUSION

The main limitation experienced was the small number of studies focusing on the topic DS. It is because only ten studies fitted into the exclusion and inclusion criteria of the review and were reviewed. DS is very much implemented in various stages of education, there is not much importance given to it. The shift from traditional storytelling to DS is significant as many uses DS without realising it. The second limitation found in this review is that though the studies used DS as their intervention, many studies used different software and virtual reality such as Storybird and VILE (Hsun Chiang, 2020; Jantakoon et al., 2019).

Tatlı et al. (2019) technology inclusion in teaching and learning have always been related to the motivation and perception of learners. It is because effective pedagogy happens with a positive motivation that is influenced by positive perceptions. More findings have indicated the increase in terms of motivation among learners who use the technology for learning purposes. These findings have been recorded by researchers such as Khezrlou et al. (2017) and Har Leong et al. (2019). This is very important because, as stated by Sarker (2019), motivation towards something is evident when learners have the capacity to apply the knowledge effortlessly. It also defines a transformation of their perceptions towards the knowledge because only a positive perception can induce motivation, making the learner achieve something effortlessly.

The first implication is that the DS technique could be explored and fully utilised to create more interactive activities. These activities should promote communication, collaboration, critical thinking, and creativity that will eventually give more significance to implementing digital storytelling in the second language classroom. The second implication is to learners as they discover how DS could encourage learners to speak the second language in different daily contexts. Tik- Tok, Instagram Stories, Facebook and Vlogs on YouTube are examples of the current trends in DS techniques. The third implication is towards the shift of education to e-learning. As the Covid- 19 pandemic worsens, more and more schools become online. Zhao (2020) claims that Covid- 19 became the game-changer in education as it shifts online. Smith (2020) believed that educators should equip themselves with a growth mindset to overcome the teaching challenges during the Covid- 19 pandemics. DS would enable the teachers to create materials for the learners. The learners could share their progress by recording a video.

Conclusively, DS is one of the interventions that has been increasingly used for long time. DS combines still images with a soundtrack-like voice and music or computer-generated content described here. DS is an interactive method of learning that accentuates the learning process without being bound by the learning environment. This method also provides various alternatives that can be used in the classroom to improve the teaching methods and concept of learning. Interactive learning through digital learning is thus a form

of encouraging students to use electronic media and enhance them to the learning skills of the 21st-Century. DS as a representation of newer genres, including text, images, and sound, has the potential to become an accessible platform for interactive learning and the development of multi-literacy. It broadens the teaching method, and it also promotes further review of theoretical structures that better inform us of the characteristics of this and new genres to come.

REFERENCES

Abykanovaa, B., Nugumanovab, S., Yelezhanovaa, S., Kabylkhamita, Z., & Sabirovaa, Z. (2016). The Use of Interactive Learning Technology in Institutions of Higher Learning. *ERIC - Education Resources Information Center*. https://files.eric.ed.gov/fulltext/EJ1124626.pdf

Akkakoson, S. (2016). Speaking anxiety in English conversation classrooms among Thai students. *Malaysian Journal of Learning and Instruction*, *13*(1), 63-82. https://doi.org/10.32890/mjli2016.13.1.4

Aykac, N. (2016). *Principles and methods of teaching.* Pegem Academy Publishing.

Banny, S., Chan, K., Churchill, D., Thomas, K., & Chiu, F. (2017). *Digital Literacy Learning in Higher Education through Digital Storytelling Approach*. The University of Hong Kong. https://eric.ed.gov/?q=digital+storytelling+to+learn+speaking&pr=on&ft=on&id=EJ1144564

Bugawa, A. M., & Mirzal, A. (2017). The impact of Web 2.0 technologies on the learning experience of students in higher education. *International Journal of Management and Applied Science, 3*(5), 1-17. https://www.researchgate.net/publication/315749587_The_impact_of_the_Web_20_technologies_on_students'_learning_experience_Interactivity_inside_the_classroom

Can, I., Gelmez-Burakgazi, S., & Celik, I. (2019). An Investigation of Uses and Gratifications for Using Web 2.0 Technologies in Teaching and Learning Processes. *International Online Journal of Education and Teaching (IOJET)*, *6*(1), 88-102. http://www.iojet.org/index.php/IOJET/article/view/504

Ciğerci, F. M., & Gultekin, M. (2017). Use of digital stories to develop listening comprehension skills. *Issues in Educational Research*, *27*(2), 252-268.

Dalim, S. F., Muhamad Azliza, N. Z., Ibrahim, N., Zulkipli, Z. A., & Mohd Yusof, M. M. (2019). Digital Storytelling for 21st Century Learning: A Study on Pre-Service Teachers› Perception. *Asian Journal of University Education*. https://eric.ed.gov/?q=digital+storytelling+to+learn+speaking&pr=on&ft=on&id=EJ1238633

Del-Moral, M. E., Villalustre, L., & Neira, M. R. (2016). Digital storytelling: Activating communicative, narrative and digital competences in initial teacher training. *Ocnos*, *15*, 22-41.

Devi, G. K., & V. Subba R. V. (2018). Integrated approach - A tool to enhance English speaking skills. *i-manager's Journal on English Language Teaching*, *8*(3), 1. https://doi.org/10.26634/jelt.8.3.14565

Dincer, A., & Yesilyurt, S. (2017). Motivation to speak English: A self-determination theory perspective. PASAA: *Journal of Language Teaching and Learning in Thailand*, *53*(1), 1–25. https://doi.org/10.14456/pasaa.2017.1

Farisi, M. I. (2016). Developing the 21st-century social studies skills through technology integration. *Turkish Online Journal of Distance Education*, *17*(1), 16-30.

Giannikas, C. (2020). Facebook in tertiary education: The impact of social media in eLearning. *Journal of University Teaching and Learning Practice*, *17*(1), 1-13. https://files.eric.ed.gov/fulltext/EJ1247596.pdf

Gocer, A. (2017). *Turkish special teaching methods* (2nd ed.). Ankara: Pegem Academy Publishing.

Har Leong, A. C., Zainal Abidin, M. J., & Saibon, J. (2019). Learners' Perception of the Impact of Using Digital Storytelling Vocabulary Learning. *Teaching English with Technology*, 19(4), 3-26. https://files.eric.ed.gov/fulltext/EJ1233478.pdf

Hashim, H. U., Yunus, M. M., & Hashim, H. (2019). 3-Minutes Pitching with Flip Grid: An Antidote of Innovation for Speaking Anxiety. *International Journal of Innovative Technology and Exploring Engineering*, 8, 1798-1801.

Hsun Chiang, T. M. (2020). *Exploring the Effects of Digital Storytelling: A Case Study of Adult L2 Writers in Taiwan.* Tunghai University Taiwan. https://eric.ed.gov/?q=digital+storytelling+to+learn+speaking&pr=on&ft=on&id=EJ1245831

James, P. R. A. P., Yong, K. L., & Yunus, M. M. (2019). Hear Me Out! Digital Storytelling to Enhance Speaking Skills. *International Journal of Academic Research in Business and Social Sciences*, *9*(2), 190–202. https://doi.org/10.6007/ijarbss/v9-i2/5533

Jantakoon, T., Wannapiroon, P., & Nilsook, P. (2019). Virtual Immersive Learning Environments (VILEs) Based on Digital Storytelling to Enhance Deeper Learning for Undergraduate Students. Division of Information and Communication Technology for Education, Faculty of Technical Education, King Mongkut's University of Technology North Bangkok, Bangkok, Thailand. https://eric.ed.gov/?q=digital+storytelling+to+learn+speaking&pr=on&ft=on&id=EJ1203741

Khezrlou, S., Ellis, R., & Sadeghi, K. (2017). Effects of computer-assisted glosses on EFL learners' vocabulary acquisition and reading comprehension in three learning conditions. *System*, *65*, 104–116. https://doi.org/https://doi.org/10.1016/j.system.2017.01.009

Khan, K.S., Kunz, R., Kleijnen, J., & Antes, G. (2003). *Systematic Reviews to Support Evidence-Based Medicine. How to Review and Apply findings of Health Care Research.* RSM Press.

Kurikulum Standard Sekolah Rendah Bahasa Inggeris Dokumen Standard Kurikulum dan Pentaksiran Sekolah Kebangsaan Tahun 4 (1). (2018). Bahagian Pembangunan Kurikulum. http://bpk.moe.gov.my/index.php/terbitan-bpk/kurikulum-sekolah-rendah/category/335-dskp-tahun-4

Mesa, G., & Alejandro, P. (2020). Digital Storytelling: Boosting Literacy Practices in Students at A1-Level. The Colombian Association of Teachers of English. https://eric.ed.gov/?q=digital+storytelling+to+learn+speaking&pr=on&ft=on&id=EJ1243024

Okumus, A. (2020). The perceptions and preferences of 8ᵗʰ grade students in digital storytelling in English. *International Online Journal of Education and Teaching (IOJET)*, *7*(2), 585-604. http://iojet.org/index.php/IOJET/article/view/654

Parsons, C. S. (2017). Reforming the Environment: The Influence of the Roundtable Classroom Design on Interactive *Learning. Journal of Learning Spaces*, *6*(3), 24-33. https://eric.ed.gov/?q=interactive+learning&pr=on&ft=on&id=EJ1164644

Pawlak, M. (2018). Investigating the use of speaking strategies in the performance of two communicative tasks: The importance of communicative goal. *Studies in Second Language Learning and Teaching*, 8(2), 269–291. https://doi.org/10.14746/ssllt.2018.8.2.5

Preradovic, N. M., Lesin, G., & Boras, D. (2016). Introduction of Digital Storytelling in Preschool Education: A Case Study from Croatia. University of Zagreb. https://eric.ed.gov/?q=digital+storytelling+to+learn+speaking&pr=on&ft=on&id=EJ1125505

Robin, B. (2016). The power of digital storytelling to support teaching and learning. *Digital Education Review*, *30*, 17-29. https://doi.org/10.1344/der.2016.30.17-29

Ruppert, N., Lee T, T., Adcock, & Crave, J. (2017). Digital Storytelling: A Tool for Identifying and Developing Cultural Competence with Preservice Teachers in an Introduction to Middle Level Education Course. University of North Carolina Asheville. *ERIC - Education Resources Information Center*. https://eric.ed.gov/?q=digital+storytelling+to+learn+speaking&pr=on&ft=on&id=EJ1151670

Sá, M. J., & Serpa, S. (2020). The Global Crisis Brought about by SARS-Cov-2 and its Impacts on Education: An Overview of the Portuguese Panorama. *SSRN Electronic Journal, 5*(2), 525-530. https://doi.org/10.2139/ssrn.3565613

Samat, N., Hashim, H., & Yunus, M. M. (2019) Live Streaming: A New Platform for ESL Learning. *Creative Education*, *10*, 2899-2906. doi: 10.4236/ce.2019.1012215

Sarker, M. F. (2019). Zone of Proximal Development. *International Journal of Advancements in Research & Technology, 8*(1), 27-47. Retrieved from http://www.ijoart.org/docs/Zone-of-Proximal-Development.pdf

Semingson, P., Hurlbut, A., Owens, D., & Robertson, M. (2016). Scaffolding digital writing and storytelling in online-only teacher education courses. In J. Keengwe & G. Onchwari (Eds.), *Handbook of research on learner-centered pedagogy in teacher education and professional development* (pp. 104-127). Information Science References

Sezginsoy, S. B. (2016). An evaluation of digital stories created for social studies teaching. *Journal of Education and Practice*, *7*(29), 18-29.

Shamsudin, H., Hashim, H., & Yunus, M. M. (2019). Integration of Asynchronous and Synchronous Gameplay to Improve Pupils' Vocabulary. *Creative Education*, *10*, 3101-3106. https://doi.org/10.4236/ce.2019.1012234

Smith, T. (2020). Faculty Mindsets in the Era of COVID-19. International Journal of Multidisciplinary Perspectives in Higher Education, 5(2), 123-128. https://files.eric.ed.gov/fulltext/EJ1286253.pdf

Tatlı, Z., İpek Akbulut, H., & Altınışık, D. (2019). Changing attitudes towards educational technology usage in classroom: Web 2.0 tools. *Malaysian Online Journal of Educational Technology, 7*(2), 1-19. https://doi.org/10.17220/mojet.2019.02.001

Teng, F. (2016). The effects of word exposure frequency on incidental learning of the depth of vocabulary knowledge. GEMA Online® Journal of Language Studies, 16(3), 53-70. https://doi.org/10.17576/gema-2016-1603-04

Terms of Reference for Systematic Reviews Funded by the UK Department for International Development Supported By the EPPI-Centre Table of Contents. (2016). https://eppi.ioe.ac.uk/CMS/Portals/0/PDF reviews and summaries/Terms of reference 24 June 2016.pdf

Yamac, A., & Ulusoy, M. (2016). The Effect of Digital Storytelling in Improving the Third Graders' WritingSkills. https://eric.ed.gov/?q=digital+storytelling+to+learn+speaking&pr=on&ft=ond=EJ1126674

Zakaria, N., Hashim, H., & Yunus, M. M. (2019). A Review of Affective Strategy and Social Strategy in Developing Students' Speaking Skills. *Creative Education*, *10*, 3082-3090. https://doi.org/10.4236/ce.2019.1012232

Zara-Behtash, E., Saed, A., & Sajjadi, F. (2016). The effect of storytelling technique on speaking ability of female Iranian intermediate EFL learners. *International Journal of Applied Linguistics and English Literature, 5*(1), 209-214. https://doi.org/10.7575/aiac.ijalel.v.5n.1p.209

Zhao, Y. (2020). COVID-19 as a Catalyst for Educational Change. *Prospects, 49*(1-2), 29-33. https://doi.org/10.1007/s11125-020-09477-y