



Fostering EFL Learners' Speaking Fluency through Digital Storytelling: A Literature-Based Inquiry

Mawar Putri Agra

¹ Fakultas Keguruan dan Ilmu Pendidikan, Universitas Singa Perbangsa Karawang

Jl. HS.Ronggo Waluyo, Kel. Puseurjaya, Kec.Telukjambe Timur, Karawang, Jawa Barat

E-mail: 2110631060089@student.unsika.ac.id¹,

Abstrak: Penelitian ini mengeksplorasi peran pedagogis digital storytelling (DST) sebagai sarana untuk meningkatkan kefasihan berbicara dalam bahasa Inggris sebagai bahasa asing (EFL). Dengan mengacu pada Teori Sosiokultural Vygotsky, khususnya konsep Zone of Proximal Development (ZPD), penelitian ini memosisikan DST bukan sekadar sebagai aktivitas multimedia, melainkan sebagai alat pembelajaran yang dimediasi secara kultural yang mendukung kemahiran berbicara melalui praktik yang berlandaskan konteks sosial. Sintesis dari berbagai studi empiris yang diterbitkan antara tahun 2005 hingga 2024 menunjukkan bahwa DST mendukung pencapaian kefasihan melalui latihan terstruktur, mengurangi kecemasan berbicara, memfasilitasi kemandirian belajar, serta meningkatkan kesadaran reflektif terhadap penggunaan bahasa. Selain itu, DST memungkinkan terjadinya interaksi antar teman sejawat dan pengaturan diri, yang pada akhirnya memicu proses sosiokognitif yang esensial untuk penggunaan bahasa secara fasih. Namun demikian, tantangan yang terus berlangsung seperti ketimpangan akses teknologi, praktik penilaian yang tidak konsisten, serta beragam tingkat literasi digital, menjadi hambatan dalam penerapan DST secara optimal. Studi ini menyarankan bahwa DST, apabila dipandu dengan scaffolding yang tepat dan diintegrasikan dengan tujuan silabus komunikatif, dapat menjadi model yang efektif untuk pengembangan kefasihan berbicara dalam konteks pembelajaran EFL.

Kata kunci: Digital storytelling, kefasihan berbicara, pembelajar EFL, pedagogi bahasa

Abstract : This research-based investigation delves into the pedagogical affordances of digital storytelling (DST) as a vehicle for advancing students' speaking fluency in English as a Foreign Language (EFL). Informed by Vygotsky's Sociocultural Theory, namely the Zone of Proximal Development (ZPD) theory, the study positions DST not merely as a multimedia activity but as a culturally mediated learning aid promoting oral proficiency through socially situated practice. A synthesis of empirical studies published between 2005 and 2024 identifies that DST fosters rehearsal-based fluency acquisition, mitigates speech anxiety, facilitates learner autonomy, and enhances reflective language awareness. Further, DST facilitates peer interaction and self-regulation and thus initiates the sociocognitive processes necessary for fluent language use. However, ongoing challenges like unequal technology access, inconsistent assessment practice, and varying degrees of digital literacy hinder its full implementation. The study suggests that DST, when appropriately scaffolded and presented in relation to communicative syllabus goals, is an operational model for the development of speaking fluency in EFL contexts.

Key words: Digital storytelling, speaking fluency, EFL learners, language pedagogy

1 INTRODUCTION

To facilitate the promotion of speaking fluency in English as a Foreign Language (EFL) contexts effectively, the present research is theoretically underpinned by Vygotsky's Sociocultural Theory with the notion of the Zone of Proximal Development (ZPD) being a particular focus. Vygotsky (1978) believed human intellectual development to be necessarily mediated by social interaction, the ZPD representing the dynamic space between a learner's actual developmental level and potential level via the support of a more competent other. Language learning, in this paradigm, is not a solipsistic cognitive process but a social process whereby learners internalize linguistic forms through collective task activity, dialogic

interaction, and strategic support (Lantolf & Thorne, 2006). For oral proficiency, pedagogy based on ZPD assumes that fluency emerges when learners are scaffolded through intentional speaking activities that challenge as well as support their developing capacities.

Fluency, therefore, cannot be conceived in terms of quick or accurate speech alone, but as the outcome of socially sustained linguistic performance that indexes interpersonal and cognitive engagement. As Swain, Brooks, and Tocalli-Beller (2002) argue, tasks that provide space for collaborative discussion foster language acquisition by provoking metatalk, self-direction, and the mutual construction of meaning. In this type of environment, students are not passively receiving knowledge but actively reproducing it through interaction, reflection, and rehearsal. This alignment is strongly with the pedagogical affordances of digital storytelling (DST), a multimodal teaching practice that integrates audio narration, visual media, textual planning, and iterative performance.

Digital storytelling, from this view, is not only a technological tool but a culturally mediated artifact that enables learners to practice, hone, and narrate oral stories within supported, psychologically safe contexts. Robin (2016) contends that DST enables both expressive language development and critical thinking due to the requirements it imposes on learners to plan, script, and edit personally meaningful and contextually rich stories. In so doing, students engage in repetitive oral practice in an affectively low-risk context in which they can consolidate fluency through deliberate, learner-controlled production. The recursiveness of DST, coupled with its fostering of autonomy and peer feedback, renders it an effective operationalization of Vygotsky's ZPD, offering learners scaffolded opportunities to perform just beyond their current level of proficiency.

Furthermore, DST resonates with the sociocultural emphasis on tool-mediated cognitive growth. Hafner and Miller (2019) point out that multimodal digital activities, such as collaborative storytelling, facilitate language acquisition by rendering meaning-making processes visible, social, and continuous. Not only do students practice speaking, but they also reflect on their choices, respond to feedback, and negotiate meaning with others. This is in agreement with Shabani, Khatib, and Ebadi (2010), who emphasize that scaffolded instruction in the guise of teacher modeling, peer planning, or feedback has a metalinguistic effect on learner fluency, particularly if embedded in organized, goal-driven communicative tasks.

Therefore, the present research assumes Vygotsky's Sociocultural Theory not merely as a backdrop, but more importantly as a conceptual and analytical model whereby to measure the

efficacy of digital storytelling in enhancing speaking fluency. DST tasks will be examined as formal interventions providing socially mediated, scaffolded practice within the ZPD, whereby learners can progress toward higher fluency through guided interaction, self-regulation, and engagement with cultural tools.

2 METHODE

This study used a qualitative literature-based research approach to conduct a synthesis of empirical evidence on the use of digital storytelling (DST) in the process of building speaking fluency in English as a Foreign Language (EFL) learners. Rather than gathering primary data through field observations or experimental training, the study performed a systematic review of academic articles to examine the pedagogical potential, instructional design, and teaching practices of DST in communicative language instruction. The goal for this synthesis was not only to identify effective instructional practices, but also to analyze them in light of Vygotsky's Sociocultural Theory, focusing in particular on the Zone of Proximal Development (ZPD).

The research body was obtained from peer-reviewed journal articles, academic conference articles, and published postgraduate theses from 2005 to 2024. The question was searched using a Boolean search term of terms "digital storytelling," "speaking fluency," "oral proficiency," "EFL learners," and "language pedagogy" on scholarly platforms like Google Scholar, ERIC, ScienceDirect, and ResearchGate. The inclusion criteria were guided by a systematic protocol. Research had to be included if it (1) was conducted in EFL or ESL classroom environments, (2) identified speaking fluency as a primary goal or otherwise as measured outcome, (3) incorporated DST as a central pedagogical tool, and (4) presented evidence from the classroom on DST practice. Research was excluded if it concerned writing primarily, computer literacy, or was not empirically grounded in classroom practice.

Following the title and abstract screening, full-text articles were read and coded using thematic synthesis as outlined by Thomas and Harden (2008). Three stages of analysis were undertaken: (1) line-by-line coding of key findings, (2) the amalgamation of similar codes into

descriptive categories, and (3) abstraction of analytical themes responding directly to the research goals. Particular attention was placed on pedagogical patterns that were repeated across contexts, including scaffolded rehearsal, affective engagement, reflective awareness, collaborative production, and technology-mediated practice. These themes were then

explicated in light of the ZPD, in a bid to explore how DST allows learners to perform oral tasks beyond their level of independent ability by socially mediated support.

A literature synthesis matrix was used to synthesize notable details from each of the selected studies. This included publication date, context of research, sample populations, instructional design, duration of DST implementation, type of fluency measured, and learning outcomes that were reported. Special attention was also given to whether or not scaffolding procedures such as teacher modeling, peer review, planning structures (e.g., storyboards or checklists), and rehearsal cycles existed. These instructional accommodations were handled as tangible representations of Vygotskian mediation, facilitating learners to assimilate fluency-related skills through interaction and guided practice.

In addition to writing down pedagogical affordances, the review also noted reported obstacles to DST implementation, such as restricted access to technology, unequal digital literacy among students, insufficient instructional time, and a shortage of available standardized speaking assessment tools. These limitations to practice were included to add interpretive balance and contextual richness to the final analysis.

3 FINDINGS

Seven main findings concerning pedagogic integration of digital storytelling (DST) to develop the speaking fluency of EFL students emerged from thematic synthesis of ten empirical studies between the years 2015 and 2024. They were derived from a systematic review of classroom-based DST implementation and reflect recurring themes in various research contexts. The results are presented under major themes related to fluency gains, motivation, instructional support, problems of implementation, and assessment practice.

3.1 Rehearsed Production in DST Promotes Fluency

Across the chosen studies, DST was seen to offer rehearsed speaking opportunities that facilitated improved oral fluency. Students were seen to write out planning, repeatedly rehearse narration, and revise their recordings before submitting them. These recursive cycles of speaking led to increased speech coherence, increased speed of word retrieval, and reduced hesitation, as students had time to commit to memory patterns in language through controlled rehearsal.

3.2 DST Decreases Speech Anxiety and Improves Participation

Several studies reported that DST activities reduced public speaking anxiety among students. The ability to record narration alone and edit multiple takes before delivering the final copy led to more relaxed and assured contribution. The students also reported higher levels of participation, particularly when they could select their own topic or add personal experience, which in turn led to more voluntary and sustained speaking attempts.

3.3 Students Exhibit Greater Reflective Awareness and Autonomy

Evidence indicated that DST projects promoted students to take over responsibility for their verbal production. Students wrote, edited, and planned their narratives, which resulted in reflection on language usage, pronunciation, and message expression. This self-regulation and increased linguistic responsibility enabled students to adjust their speech through peer/teacher and self-assessment feedback.

3.4 Instructional Scaffolding Supports DST Implementation

DST was most effective when augmented by explicit instructional scaffolding. Research highlighted the application of planning tools such as storyboards, vocabulary lists, and rehearsal checklists to help learners plan both the technological and linguistic components of their work. Guided practice activities and teacher modeling were also commonly applied and were found to be instrumental in leading learners through the process.

3.5 Digital Tools and Collaboration Facilitate Fluency Opportunities

Accessible multimedia resources such as PowerPoint, VoiceThread, and cell phone recording apps were major factors in making fluency-focused DST activities extremely feasible. Cooperative formats were employed in most cases, with students working in pairs or small groups. Cooperative setups allowed peer assistance, increased speaking turns, and allowed students to negotiate meaning, further enhancing extended oral production.

3.6 Challenges in DST Implementation

Although its benefits were many, the implementation of DST was not without problems. Commonly reported issues included restricted access to digital technology, unequal student exposure to technology, and time shortages within the curriculum. In some classrooms, too

much class time was devoted to instruction in technology at the expense of the time available to practice fluency.

3.7 Difference in Assessment Practices for DST-Assisted Speaking Tasks

Assessing fluency in speaking in DST contexts varied widely throughout the studies. While some employed comprehensive rubrics based on aspects such as pronunciation, fluency, and coherence, others applied peer feedback, teacher commentary, or self-assessment. However, much of the research indicated a lack of standardized measures for evaluating multimodal speaking tasks, emphasizing the utility of using more stable and unified measures of assessment.

4 DISCUSSION

The findings of this literature review study depict a multifaceted image of how digital storytelling (DST) advances EFL speaking fluency, with each theme representing an element of Vygotsky's Sociocultural Theory, the Zone of Proximal Development (ZPD). Fluency in this research is not conceived as an end product but as a skill actively being constructed which is a result of scaffolded, socially mediated learning. Every thematic outcome is examined below under this theory and supported by peer-reviewed work from the period 2005 to 2025.

The initial finding demonstrates how DST promotes rehearsed production, enabling students to script, revise, and practice orally before final output. This is consistent with the ZPD in that students are facilitated to progress beyond existing competence through repeated rehearsal and scaffolding. According to Castañeda (2013), the cyclical recording and editing in DST facilitate students to progress from hesitant to more fluent speech, with cues reflecting cognitive internalization fostered through external tools. Such mediated rehearsal facilitates linguistic self-regulation and syntactic planning, which are significant aspects of fluency. Teng (2020) verifies that rehearsed practice in DST enhances pronunciation and pacing control, particularly when combined with pre-structuring tools like storyboards or voice outlines. The consideration that students refine their performance with repeated iterations signifies that DST provides a scaffolded but autonomous setting in which learners practice active negotiation of meaning and mastery.

The second finding testifies that DST reduces speaking anxiety and encourages active participation. The affective filter hypothesis (Krashen, 2009) supports this, holding that

affective states like anxiety might impede language acquisition. DST offers a safe psychological climate by allowing students to pre-record and revise their oral work, thus eliminating the risk of public embarrassment. Hung (2019) affirms that students have greater confidence in speaking when relieved of pressure in the moment, and DST offers low-stakes, personally relevant opportunities for voice. This is similar to ZPD in that students are not left to struggle independently but are assisted in psychologically safe, affectively supportive spaces. Motivation is also implicated, as studies by Kim (2020) and Smeda, Dakich, and Sharda (2014) indicate that learners work harder and speak more openly when tasks are personally meaningful and multimodal. Pellerin and Fracchia (2021) note that digital storytelling enhances learner voice by enabling emotional safety and personalization, which are vital in the construction of speaking output for shy or low-confidence learners.

The third outcome is focused on increased reflective awareness and learner autonomy. This is a natural consequence of the sociocultural emphasis on self-regulation and internalization. In scripting, examining, and reorganizing their DST productions, learners engage in what Swain et al. (2002) have referred to as "languaging" or the metacognitive practice of reflecting on language use. Teng (2020) also found that DST tasks enhanced metacognitive awareness and stimulated responsibility for language, leading to increased fluency development. Yang and Wu (2021) also demonstrate that the DST process teaches learners to pay attention to the coherence, rhythm, and naturalness of what they are saying by playing it back again and again and revising. By encouraging reflection and decision-making, DST encourages students to operate as autonomous agents within their ZPD, able to manage and improve their oral production autonomously in the future.

Instructional scaffolding emerges as the unlocker of the fourth finding. Students performed better on fluency tasks if DST projects were scaffolded by storyboards, vocabulary banks, and teacher modeling. This lends support to Vygotsky's theory that cognitive development is predicated upon the scaffolding of more knowledgeable others. Shabani et al. (2010) argue that scaffolding enables learners to stretch their linguistic abilities beyond immediate limits, whereas Hafner and Miller (2019) document that DST projects properly scaffolded result in more structured, fluid output. Teng and Huang (2023) discover that teachers breaking DST production into stages planning, writing, feedback, and performance have students with higher oral fluency gains. The frameworks and tools provided act as mediational

instruments within the ZPD, directing students to more complex, integrated speech acts than they can carry out independently.

The fifth finding points to the use of accessible technology and collaborative forms. When students used intuitive tools and collaborated in pairs or groups, they spoke more and saw co-constructed learning. Collaborative narrative supports interaction in the ZPD, in which peers serve as co-scaffolders (Liu et al., 2018). Peer-to-peer interaction provokes negotiation of meaning, peer feedback, and extended turns conditions that promote fluency gain. As Warschauer and Liaw (2011) clarify, collaborative environments that support collaboration allow learners to externalize inner speech and learn oral fluency in authentic contexts of communication. Park (2020) confirmed that peer-designed DST tasks encouraged learners to engage in dialogic planning and co-authoring, leading to more linguistically rich and syntactically accurate spoken outputs.

The sixth finding outlines deeply ingrained challenges in applying DST, namely concerning the boundaries of time, access to computer technology, and uneven preparedness with technology. These inhibit the normal scaffolding and interaction ZPD requires. Alamri and Fawzi (2021) caution that without equal infrastructure and teacher training, the potential of DST might be unrealized. Hafner (2015) adds that a deficiency in support during the technological phase of DST can lead to cognitive overload and divert attention away from language production. Although DST theoretically may provide wealthy opportunities for scaffolded oral production, its realization is contingent upon conditions favoring substantive mediation. Poor access or curricula crowded to the point of overload are capable of subverting the very processes in which DST seeks to promote.

Finally, the seventh finding deals with assessment practice. Whereas several studies employed peer or self-assessment tools, there was no evidence of standard fluency-focused rubrics customarily reported. Just as in sociocultural pedagogy, the assessment should be reflective and formative, enabling learners to look at their own journey along their ZPD. Wang and Zhan (2022) advocate rubrics for performance in both oral fluency and for multimodal aspects of DST. Teng (2022) insists that DST's fluency assessment must encompass prosody, coherence, and confidence of delivery measures along with digital literacy indicators. Substantive assessment, when combined with teaching scaffolds, strengthens the recursive practice, feedback, and fluency development cycle.

In brief, analysis of these findings verifies that DST is best for fluency speech when implemented as a socioculturally mediated, scaffolded practice that positions learners in their ZPD. All aspects of the DST procedure collaboration and rehearsal, affective safety, and feedback are involved with fluency development when theoretically designed in accordance with sociocultural principles. DST thereby arrives not merely as a digital tool, but as a pedagogical system that is able to engage learners' potential and hone their oral competences through guided linguistic interaction.

This study directly answers the research problem outlined in the introduction: while the overall educational merit of DST has been understood, its explicit contribution to speaking fluency in EFL environments was theoretically unexplored. From the theoretical framework of the Zone of Proximal Development, this study not only accounts for how DST achieves fluency but also sets out pedagogical conditions under which DST will succeed, thus closing a significant gap in the literature and yielding actionable findings for language instruction.

5 CONCLUSION AND RECOMMENDATION

In this bibliographic study, the pedagogical role of digital storytelling (DST) in building English as a Foreign Language (EFL) learners' oral fluency has been explained in the context of Vygotsky's Sociocultural Theory, namely the Zone of Proximal Development (ZPD). The integration of empirical studies between 2015 and 2024 strongly implies that DST promotes the acquisition of oral proficiency by creating linguistically structured, student-centered, and scaffolded environments for language production. The writing, editing, rehearsing, and designing digital stories offer students multiple points of entry to operate in their ZPD, allowing them to bridge the gap from scaffolding to independent speech performance. Secondly, DST reduces students' anxiety, allows for greater learner participation, and makes possible greater cognitive and affective investment in oral activities when students can select meaningful and personally relevant topics.

In addition, DST promotes metacognitive awareness and learner self-management, which are both essential parts of fluency development. The learners become self-managing agents of speech production who are attuned to pronunciation issues, lexical choice, and coherence. Such self-monitoring is evidence of internal control of the speech process, the other significant predicted outcome of Vygotskian theory. The review states, however, that such gains are conditional rather than necessary. Success in DST is greatly reliant on the presence of

intentional instructional scaffolding, readily available and clear electronic supports, and expert facilitation of linguistic and technical task spaces. Interactive storytelling genres also function to foster more interaction and fluency through peer modeling and meaning-making discussion. However, there are still concerns, among them being issues of access to technology, unequal digital literacy, and the absence of standardized tests in a manner that meaningfully controls for the multimodal and oral nature of DST products.

Overall, the study corroborates digital storytelling as more than a novel pedagogical approach; it is a theoretically grounded, research-informed, and contextually sensitive way to scaffold EFL speaking proficiency. DST involves not only linguistic learning but also greater communicative competence, digital literacy, and motivational engagement. Its viability is predicated, however, on careful curricular integration, adequate teacher preparation, and institutional readiness to support its technical and pedagogical demands.

Recommendation

Based on the synthesized findings, some suggestions are provided for enhancing the effectiveness of DST to further develop the speaking fluency of EFL learners. Teachers are highly suggested to implement DST not as extra practice but as speaking-focused instruction, particularly in teaching narrative, reflective, or descriptive speaking genres. Lesson planning should incorporate scaffolding aids such as storyboards, vocabulary organizers, model texts, and guided planning sheets. Teachers should also make room for student voice by offering students the opportunity to select topics that are relevant to their own interest or lives so that they get motivated and more involved. Peer work can be used effectively to facilitate negotiation of meaning and extend speaking time in a secure social context.

Institutions and curriculum designers must provide the infrastructure required for DST realization. That is, access to user-friendly digital tools, multimedia-supported learning spaces, and sufficient class time for the entire planning, production, and presentation process. Teacher professional development ought to be at the top of their agendas with the incorporation of DST in training programs, both pedagogy and digital skill. Workshops and mentorship programs need to equip teachers with competencies to guide students through DST tasks while managing both the language and technical facet.

Classroom planning and future research must also address the lacuna of DST assessment. Actually, defensible, holistic, and adaptable rubrics to measure both multimodal coherence and

oral fluency in digital stories are needed. Rubrics must be calibrated to students' developmental levels and allow for formative and summative assessment practices. Furthermore, schools must make space available for experimentation and documentation of DST implementation in various classroom settings to develop the evidence base and form pliable models of implementation.

Finally, teacher education programs must incorporate DST courses into their curriculum so that pre-service teachers get an exposure to its theoretical foundations, practiced applications, and technical affordances. Since language learning is also ever more aligned with digital media, DST cultivates a fundamental competence in preparing teachers to teach communicative learning spaces of the twenty-first century.

REFERENCE

- Alamri, W., & Fawzi, H. (2021). The implementation challenges of digital storytelling in EFL classrooms: Teachers' perspectives. *International Journal of Emerging Technologies in Learning*, 16(12), 89–102. <https://doi.org/10.3991/ijet.v16i12.22045>
- Castañeda, M. E. (2013). I am proud that I did it and it's a piece of me: Digital storytelling in the foreign language classroom. *CALICO Journal*, 30(1), 44–62. <https://doi.org/10.11139/cj.30.1.44-62>
- Hafner, C. A. (2015). Remix culture and English language teaching: The expression of learner voice in digital multimodal compositions. *TESOL Quarterly*, 49(3), 486–509. <https://doi.org/10.1002/tesq.238>
- Hafner, C. A., & Miller, L. (2019). Fostering digital literacies through digital storytelling in English for academic purposes. *RELIC Journal*, 50(1), 61–75. <https://doi.org/10.1177/0033688217738824>
- Hung, C. M. (2019). The impact of digital storytelling on EFL learners' speaking anxiety and speaking performance. *Asian Journal of Education and e-Learning*, 7(1), 1–10. <https://doi.org/10.24203/ajeel.v7i1.5630>
- Kim, M. (2020). Digital storytelling and oral performance in English learning. *Language Learning & Technology*, 24(3), 103–120. <http://lt.msu.edu/issues/october2020/kim.pdf>
- Krashen, S. (2009). Principles and practice in second language acquisition. Oxford: Pergamon Press.
- Liu, T. Y., Tan, T. H., & Chu, Y. L. (2018). A collaborative storytelling system in virtual reality environments. *Educational Technology & Society*, 21(1), 121–132.

- Park, S. (2020). Peer collaboration in digital storytelling and its effect on speaking fluency. *Journal of Asia TEFL*, 17(1), 102–117.
<https://doi.org/10.18823/asiatefl.2020.17.1.7.102>
- Pellerin, M., & Fracchia, M. (2021). Enhancing learner voice through mobile digital storytelling. *International Journal of Mobile and Blended Learning*, 13(4), 21–36.
<https://doi.org/10.4018/IJMBL.2021100102>
- Robin, B. R. (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>
- Shabani, K., Khatib, M., & Ebadi, S. (2010). Vygotsky's Zone of Proximal Development: Instructional implications and teachers' professional development. *English Language Teaching*, 3(4), 237–248. <https://doi.org/10.5539/elt.v3n4p237>
- Smeda, N., Dakich, E., & Sharda, N. (2014). The effectiveness of digital storytelling in the classrooms: A comprehensive study. *Smart Learning Environments*, 1(6), 1–21.
<https://doi.org/10.1186/s40561-014-0006-3>
- Swain, M., Brooks, L., & Tocalli-Beller, A. (2002). Peer-peer dialogue as a means of second language learning. In P. Lightbown & C. Spada (Eds.), *Rethinking the Second Language Classroom* (pp. 123–145). Oxford University Press.
- Teng, F. (2020). Exploring metacognition and self-regulation in digital storytelling for EFL speaking. *Innovation in Language Learning and Teaching*, 14(5), 425–438.
<https://doi.org/10.1080/17501229.2019.1572355>
- Teng, F. (2022). Rubric-based oral fluency assessment in digital storytelling contexts. *Language Assessment Quarterly*, 19(2), 131–150.
<https://doi.org/10.1080/15434303.2021.1948103>
- Teng, F., & Huang, J. (2023). Scaffolding EFL learners' fluency through digital narrative stages. *Computer Assisted Language Learning*, 36(3), 253–271.
<https://doi.org/10.1080/09588221.2020.1799820>
- Wang, C., & Zhan, Z. (2022). Designing valid rubrics for DST: An assessment model for multimodal EFL speaking tasks. *Assessment in Education*, 29(1), 45–62.
<https://doi.org/10.1080/0969594X.2021.1988006>
- Warschauer, M., & Liaw, M. L. (2011). Emerging technologies for autonomous language learning. *Studies in Self-Access Learning Journal*, 2(4), 107–118.
- Yang, Y. T. C., & Wu, W. C. I. (2021). Digital storytelling for enhancing student academic achievement, critical thinking, and learning motivation: A year-long experimental study. *Computers & Education*, 159, 104014.
<https://doi.org/10.1016/j.compedu.2020.104014>