CALICO INFOBYTES

August 2024

*CALICO Infobytes are short, practitioner-friendly overviews of current topics in computer-assisted language learning. CALICO publishes Infobytes several times a year, and back issues are available to members at http://www.calico.org/infobytes.*

# Leveraging Digital Storytelling for Language Learning: Things You May Need to Know

By Alimin Adi Waloyo, Washington State University
and
Tuti Hidayati, Washington State University

Language learning could be reached through better efficacy when learners are able to harness digital technology and multimodal tools. Digital storytelling is a perfect example to solidify language learning by combining those two. Storytelling can be a powerful technique for L2 language instruction. Through telling a story—involving characters, settings, and plot, students can turn their ideas or experiences into memorable piece of information, and have more meaningful and relevant learning experiences. This article will present six key points language teachers need to know when integrating digital storytelling into their classroom practice.

## 1. Digital storytelling is an upgraded version of a print story.

Digital storytelling can also stimulate imagination and evoke an audience's emotions. However, learners' engagement might be hampered by the traditional pen-and-paper way of narrating a story. Digital storytelling (DST) can be a great alternative. DST concurrently harnesses different digital tools such as audio, video, images, and texts when delivering the story (Nami & Asadnia, 2024). Therefore, it is more likely than the traditional model to effectively improve language learners' comprehension and creation of a story, due to those multimodal tools. Pictures and videos can scaffold the learners to grab messages quickly, without having to know every single word in the story. Multimedia tools increasingly engage students in more meaningful and authentic learning activities (Nami & Asadnia, 2024). Students' daily life revolves around digital tools, with abundant exposure to pictures and videos. Therefore, they easily can connect the DST to their daily experiences and knowledge. Thus, this version of

storytelling could boost learners' motivation and at the same time lower their anxiety (Kristiawan et al., 2022).

### 2. Digital storytelling can improve language learners' autonomy and collaboration.

Numerous studies have emphasized the transformative potential of DST in promoting learner autonomy. By providing EFL learners the experience of crafting narratives using digital tools, teachers can cultivate autonomy in a variety of ways. For example, learners could choose multimedia components, presentation style, and content. Having this chance, the learners can make informed choices and obtain a sense of ownership over the learning process (Kupetz et al 2006).

A key component of learner autonomy is the proactive role that DST invites learners to play in constructing knowledge. By engaging in DST activities, language learners can exercise planning, executing, and evaluating the learning process, which are crucial abilities for learners to take charge of their own learning (Pasaribu 2020). This idea is also supported by Ruiz-Perez's (2023) research, which observes that the multiliteracies component in DST gives language learners opportunities to investigate subjects of personal interest and communicate their viewpoints in a variety of media. They could also dig deeper into the cultural, social, or ideological elements of their story design, allowing them to express their voice and enact agency, thereby promoting an autonomous learning condition.

Furthermore, the features of DST can help to break down the traditional barriers to time and space, allowing learners to work on their project beyond the classroom setting. For example, in an inquiry-based DST intervention by Tsiviltidou and Vavoula (2017), learners were scaffolded to create a story by drafting a question about a museum exhibition and then collecting data by visiting the museum to answer the question. After that, the learners were introduced to an app they could use to integrate their information, make a story about the museum, and present it while guided by the teachers). This links to learner autonomy as the technology affords connecting in-class and out-of-classroom learning experiences (Lee, 2019).

DST in learning activities is often done in groups. Because of this, DST has been recognized as a powerful tool to promote effective collaboration among language learners. As Nishioka et al (2016) highlighted, collaborative learning gets learners to engage in discussion about language problems and co-construct knowledge by actively participating in creating narratives, exchanging ideas, and refining language skills together. Although there might be challenges posed by the mixed ability levels present in a group, engagement in this collaboration has the potential to enhance the learners' language proficiency and develop essential teamwork and communication skills that have value beyond the classroom.

Further, Bella & Medina (2021) found that EFL teacher candidates who worked collaboratively to produce a digital story exhibited greater inclusivity and creativity. They

also demonstrated a favorable attitude toward collaborative technology-enhanced teaching. These findings suggest that integrating DST into a language learning environment is advantageous for both learners and future teachers, as it enables them to use technology to facilitate collaboration. While they were engaged in composing digital stories, they learned to appreciate different viewpoints, practice effective communication, and develop teamwork skills. All these experiences equip learners at different levels to face the challenges of an increasingly interconnected and globalized world.

Above that, collaborative DST tasks can significantly improve language learners' writing skills, motivation, and interpersonal relations (Azis & Husnawadi, 2020). The dynamic and engaging nature of DST encourages learners to take active participation in the learning process, even in the face of some pedagogical and technological obstacles. In the same vein, Kouvara et al. (2019) observed that socially-oriented DST fosters competence and willingness to share co-learning experiences, leading to enhanced academic and digital literacies among learners. From this literature, it is apparent that supporting autonomy and collaboration through DST implementation could not only improve language proficiency but also develop critical socio-emotional skills, fundamental for living in the 21st century.

### 3. Student creativity and engagement can be enhanced through digital storytelling.

Language learners could leverage DST to narrate stories and improve their creativity. DST instruction could be in the form of group projects, where each member of the group has a different role in the project. For instance, the teacher can divide the class into several groups consisting of six members each. They are assigned to address a human metabolic topic, and two students synthesize references on food ingestion until it becomes energy production, two others prepare the content of the story, and the last two design a presentation using multimedia tools. This approach will be likely to engage students due to a clear job description based on the student's interest and specialty. Also, as previously mentioned, in Yang (2012), DST used in an interdisciplinary project can be a meaningful and authentic learning opportunity for students. Their creativity and speaking proficiency could be honed. During these DST tasks, the teacher needs to ensure the students' job division based on their specific interests or ask them to decide independently in their group, so the DST project can fulfill students' needs and interests leading to higher engagement. Eventually, that creative DST task is also correlated to higher motivation in learning a foreign language (Liu et al., 2018). Higher motivation could improve student learning outcomes.

As with any multimedia task like DST, the teacher has to have a clear idea that DST is just a tool to support language proficiency. Thus, the learning goal is language development with images, texts, and sounds as a means for its success. When room for creativity is provided and engagement is encouraged, language learners may have a sense of ownership of the tasks due to their freedom and options to create their own

stories. That situation can generate engagement and facilitate effective language learning (Tatli et al., 2022).

### 4. There are readily available apps to create digital stories.

There are a lot of digital tools available and free to use when it comes to creating DST. Those tools are usually easy to access and user-friendly; making sure that the apps are easy to operate with simple features is critical. A free and easily-operated app is critical to minimize possible access barriers. Barrier elimination can lessen student anxiety, depression, and exhaustion in completing the task (Almohesh & Altamimi, 2024). The readily available apps with sufficient features for DST that students could use include *PowerPoint, Google Slides, Canva,* and *Apple Keynote*. These tools are suitable for DST, convenient, and user-friendly. Some online websites and platforms that are also compatible with crafting digital narratives include *Story Bird, Story Jumper*, and *Book Creator*. All these apps are listed in Table 1 below.

Table 1
*Apps for crafting digital storytelling.*

| App | Platform | Accessibility | Registration |
|---|---|---|---|
| PowerPoint | Windows | Windows OS | Free |
| Google Slides | Web | google.com | Free |
| Canva | Web/App | canva.com | Free |
| Apple Keynote | iOS | Mac and iPad | Free |
| Storybird | Web | storybird.com | Free |
| Story Jumper | Web | storyjumper.com | Free |
| Book Creator | Web | bookcreator.com | Free |

Some apps listed above could be upgraded if learners want to enjoy premium features. However, they have to pay for the additional features. For generating basic DST, the free versions are sufficient to allow students to create interesting, meaningful, and appealing stories.

It is critical for teachers to teach their students how to use those apps effectively for the sake of language improvement. Some students can learn to use the apps quickly, but without systematic and well-organized guidance from their teacher, they could find those apps are just for fun, ignoring their educational value. Thus, teachers are required to envision learning objectives clearly and precisely and integrate an app as a tool to reach their determined objectives successfully. In other words, the app use is not the goal of

language learning; instead, it serves students to hone their language progress in engaging, meaningful, and relevant approaches.

## 5. Some elements to be considered in digital storytelling design.

Digital story design is an intricate process that involves the integration of various elements to create compelling narratives using digital media. Drawing on research findings, these components likely contribute to effective DST implementation:

**Multimodality**
Tasks integrating DST should allow learners to work with multimodal components that include the use of text, video, audio, graphics, and images. Yang (2012) suggested that, when engaging in digital composing activity, it is necessary that learners use a multimodal approach and combine various semiotic resources guided by their intent and imagination, resulting in the creation of hybrid texts. The presence of multimodal elements in DST-integrated tasks was evidenced in Yuniarti and Yulian (2022) to improve EFL learners' speaking performance compared to the use of conventional video. The DST group showed a significantly improved performance compared to the conventional video group, valuing the visual, auditory, and local content incorporated in their DST.

**Pedagogical Framework**
For learners to produce a compelling digital story and engage in meaningful learning, it requires an appropriate pedagogical framework that facilitates specific genres of the project. Kearney (2011) offered a framework for learner-generated video projects comprising seven stages, namely developing ideas, generating a storyboard, revising it, filming, editing, small group viewing, and publication. Besides, the author also emphasized the importance of providing a wide option for the learners in terms of material, roles, and film genre, so that learners can assume ownership of their project. Furthermore, assuring a clear target audience is found to motivate learners and direct appropriate language use in the project.

## 6. Some possible challenges may emerge in digital storytelling instruction.

As working with DST-integrated tasks does not only necessitate appropriate instruction but also technological application, a few challenges may arise during the process. Surveying Japanese university students regarding their experience in working with DST assignments, Kasami (2018) identified several challenges from students' reports. These challenges include insufficient guidance, lacking time and technical support, not understanding information ethics, and lacking interest in the task. These types of obstacles were also noted in another study (Aziz, 2020), raising concerns about adequate support and sufficient resources as the general challenges in integrating DST into language learning.

More specifically, prominent obstacles include the challenges of addressing multiple literacies—involving text comprehension and digital competency. Applying DST means dealing with these multiliteracies and being able to integrate them with various digital tools and multimedia (Dujmović & Bančić, 2014). Language teachers may also find DST difficult if they have no experience in incorporating story creation into their instruction, could not find appropriate stories, and do not have the necessary linguistic and cultural skills to manage storytelling in English, as Tsou et al., (2006) noted.

Additionally, collaborative DST poses another challenge of balancing individual and group work. Enokida (2016) reported that in a DST-integrated extensive reading course employing a smartphone, the learners found the activity as a positive experience. However, they claimed that the group work was not effective because the time was short, and some group members did not contribute sufficiently to the group work.

Overall, integrating DST into language learning tasks can be implemented in varied ways. Several challenges may arise, as DST requires a combination of different skills. Nevertheless, integrating DST can offer valuable learning experiences. With careful attention to addressing the identified obstacles, incorporating DST into language learning activities can result in effective language learning.

**Conclusion**

Overall, DST is a multifaceted process that involves the orchestration of multimodal resources, the use of digital tools, the application of pedagogical frameworks, and the necessity for collaboration. DST could serve as an effective approach for language learning instruction to improve students' language skills (see, for example, Nishioka et al, 2016; Azis, 2019; Kristiawan et al., 2022). The integration of DST is a promising strategy to make language learning activities meaningful, relevant, engaging, and motivating (Nami & Asadnia, 2024; Tatli et al., 2022; Yang 2012). As such, DST can be a great alternative technique to engage language learners in the learning process and enhance language skill acquisition. With current technological advancements, teachers can have an array of apps for integrating DST into teaching. As long as they adhere to effective teaching principles of using technology for learning, by thinking about why, how, when, and what apps to include, they can create successful language learning. Also, they need to have clear study objectives in their DST approach. More important, teachers need to keep in mind that the apps are integrated to make DST classes more effective, engaging, and meaningful. They are not meant to and cannot replace teachers' role in facilitating effective language learning and development for the students.

**References**

Almohesh, A. R. I., & Altamimi, J. A. H. (2024). Wow, I cannot stop: A concentration on vocabulary learning via instagram and its effects on informal digital learning of English, technostress, and on-line engagement. *BMC Psychology*, *12*(1), 8. https://doi.org/10.1186/s40359-023-01503-w

Aziz, Y. A. & Husnawadi, H. (2020). Collaborative digital storytelling-based task for EFL writing Instruction: Outcomes and perceptions. *The Journal of AsiaTEFL*, *17*(2), 562–579. https://doi.org/10.18823/asiatefl.2020.17.2.16.562

Belda-Medina, J. (2022). Promoting inclusiveness, creativity and critical thinking through digital storytelling among EFL Teacher Candidates. *International Journal of Inclusive Education*, *26*(2), 109–123. https://doi.org/10.1080/13603116.2021.2011440

Dujmović, M., & Bančić, I. (2014). Computer-aided storytelling in the EFL classroom. *Global Journal of Human Social Sciences*, *14*(5), 15–20.

Enokida, K. (2016). Digital story (re)telling using graded readers and smartphones. In S. Papadima-Sophocleous, L. Bradley, & S. Thouësny (Eds.), *CALL communities and culture – short papers from EUROCALL 2016* (pp. 132–136). Research-publishing.net. https://doi.org/10.14705/rpnet.2016.eurocall2016.550

Kasami, N. (2018). Advantages and disadvantages of digital storytelling assignments in EFL education in terms of learning motivation. In P. Taalas, J. Jalkanen, L. Bradley, & S. Thouësny, *Future-proof CALL: Language Learning as Exploration and Encounters – Short Papers from EUROCALL 2018* (pp. 130–136). Research-publishing.net. https://doi.org/10.14705/rpnet.2018.26.825

Kearney, M. (2011). A learning design for student-generated digital storytelling. *Learning, Media and Technology*, *36*, 169–188. https://doi.org/10.1080/17439884.2011.553623

Kouvara, T., Karasoula, S. A., Karachristos, C. V., Stavropoulos, E. C., & Verykios, V. S. (2019). Technology and school unit improvement: Researching, reconsidering and reconstructing the school context through a multi-thematic digital storytelling project. *Social Sciences*, *8*(2), 49–69. https://doi.org/10.3390/SOCSCI8020049

Kristiawan, D., Ferdiansyah, S., & Picard, M. (2022). Promoting vocabulary building, learning motivation and cultural identity representation through digital storytelling for young Indonesian learners of English as a foreign language. *Iranian Journal of Language Teaching Research*, *10*(1), 19–36. https://doi.org/10.30466/ijltr.2022.121120

Kupetz, R., & Ziegenmeyer, B. (2006). Flexible learning activities fostering autonomy in teaching training. *ReCALL*, *18*(1), 63–82.

Lee, J. S., & Lee, K. (2019). Informal digital learning of English and English as an international language: The path less traveled. *British Journal of Educational Technology*, *50*(3), 1447–1461. https://doi.org/10.1111/bjet.12652

Liu, K., Tai, S., & Liu, C. (2018). Enhancing language learning through creation: The effect of digital storytelling on student learning motivation and performance in a school

English course. *Educational Technology Research and Development, 66*, 913–935. https://doi.org/10.1007/S11423-018-9592-Z.

Nami, F., & Asadnia, F. (2024). Exploring the effect of EFL students' self-made digital stories on their vocabulary learning. *System*, *120*, 1–14. https://doi.org/10.1016/j.system.2023.103205

Nishioka, H. (2016). Analysing language development in a collaborative digital storytelling project: Sociocultural perspectives. *System*, *62*, 39–52. https://doi.org/10.1016/J.SYSTEM.2016.07.001

Pasaribu, T. (2020). Challenging EFL students to read: Digital reader response tasks to foster learner autonomy. *Teaching English with Technology*, *20*, 21–41.

Ruiz-Pérez, S. (2023). Multimodal student voice representation through an online digital storytelling project. *CALICO Journal*, *40*(3), 335–356. https://doi.org/10.1558/cj.24741

Tatli, Z., Saylan, E., & Kokoç, M. (2022). Digital storytelling in an online EFL course: Influences on speaking, vocabulary, and cognitive load. *Participatory Educational Research*, *9*(6), 89–112. https://doi.org/10.17275/per.22.130.9.6

Tsiviltidou, Z., & Vavoula, G. (2017). Digital storytelling as a framework for inquiry-based museum learning. *2017 IEEE 17th International Conference on Advanced Learning Technologies (ICALT)*, 403–405. https://doi.org/10.1109/ICALT.2017.50

Tsou, W., Wang, W., & Tzeng, Y. (2006). Applying a multimedia storytelling website in foreign language learning. *Computers & Education*, *47*(1), 17–28. https://doi.org/10.1016/j.compedu.2004.08.013

Yang, Y.F. (2012). Multimodal composing in digital storytelling. *Computers and Composition*, *29*(3), 221–238. https://doi.org/10.1016/J.COMPCOM.2012.07.001

Yuniarti, Y., & Yulian, R. (2022). Digital story telling Based on multimodal elements on EFL learners' speaking performance. *JPI (Jurnal Pendidikan Indonesia)*, *11*(2), 308–316.

**Related Articles in *CALICO* Journal**

García-Pastor, M. D., & Piqueres Calatayud, J. (2023). Crafting L2 multimodal composing identities: A study with secondary EFL learners. *CALICO Journal*, *40*(3), 313–334. https://doi.org/10.1558/cj.24237

Ruiz-Pérez, S. (2023). Multimodal student voice representation through an online digital storytelling project. *CALICO Journal*, *40*(3), 335–356. https://doi.org/10.1558/cj.24741

Solmaz, O., & Reinhardt, J. (2024). Engaging Turkish learners in digital participatory culture through social media-enhanced language instruction. *CALICO Journal*, *41*(1), 48–70. https://doi.org/10.1558/cj.25514

Xu, J. (2013). Using multimedia vocabulary annotations in L2 reading and listening activities. *CALICO Journal*, *27*(2), 311–327. https://doi.org/10.1558/cj.27.2.311-327