

Critical Engagement Through Digital Storytelling: The Power Of Reflective Narratives

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Abstract:

This paper examines the contribution of digital storytelling (DST) to critical engagement and reflective learning in higher-level EFL learning, in line with the focus on learner-centered and higher-order cognitive approaches to second language learning. Over a span of three weeks, eleven C1-level participants from the Intensive Language Teaching Center (ILTC) at the University of Chadli Bendjedid – El Tarf were asked to produce original digital stories on matters of personal or public concern, such as identity, environmental issues, and societal transformations. Learners made use of accessible digital tools, such as Canva and Adobe Express, to combine text, images, voiceovers, and music in creating well-developed stories in which language use and higher-order cognitive processes were integrated cohesively. Data were obtained through learner journals and classroom observations, with a focus on critical thinking skills, including analysis, evaluation, and synthesis. Evidence indicates that learners were highly engaged with the topics, explored personal ideas, and confidently expressed themselves in English to communicate argumentative and expressive perspectives. Planning, scripting, and editing stages allowed participants to reflect their personal voices on complex societal issues. Even though the program was short-term, the evidence suggests that DST is an effective tool for developing both linguistic and higher-order cognitive skills. Incorporating images, voiceovers, and music helped create an environment where students actively participated in self-directed learning in second language contexts. This research contributes to the growing body of literature demonstrating DST as an effective strategy for fostering critical literacy in EFL contexts.

Keywords: *Digital Storytelling; Critical Thinking; EFL Learners; Multimodal Learning; Reflective Practice.*

1. Introduction

In the last two decades, however, EFL instruction has come to realize increasingly that attention to grammar and lexis is not enough. Students must also develop cognitive abilities that enable them to question texts, build arguments, and make judgments in English (Paul & Elder, 2019; Facione, 2020). In the majority of EFL classrooms, however, attention continues to be given to controlled exercises and teacher-led instruction with little space for genuine reflection or student voice (Alwehaibi, 2020; Benraghda et al., 2022). This disconnect often leaves students capable of doing discrete language tasks but not engaging profoundly and cognitively in higher-level thinking and working together in English (Benraghda, 2024).

Digital storytelling (DST) is one of the methodologies that most likely will close the gap. DST invites students to author and share brief multimedia stories consisting of text, images, audio, and occasionally video (Robin, 2016). Planning, scripting, media choice, revising, and narrating are imbued with meaning, representation, and audience selection. These replicatory choices are reflective and analytical, making DST an effective tool for developing critical thinking (Sadik, 2020). DST, in EFL environments, has been associated with increased motivation (Abdel-Hack & Helwa, 2014), enhanced writing and narrative skills (Alemei et al., 2022; Cheng, 2022), and increased multimodal literacy development (Gregori-Signes, 2014). A recent mixed-methods study demonstrated that the traditional versus digital storytelling experiment improved writing ability and increased motivation in students (Ajabshir et al., 2024).

Nonetheless, while DST literature is growing, its own use in critical thinking in EFL contexts is underdeveloped. Most research focuses on motivation, writing acquisition, or technology affordances, rather than on how DST construes analytical, evaluative, and synthetic thinking. Short-term interventions (e.g., several weeks) and such interventions carried out in under-researched geographical or institutional contexts are also sparsely researched. The Algerian EFL context is particularly undercovered.

This study tries to fill this gap by investigating how DST can facilitate evidence of critical thinking analysis, synthesis, and evaluation among higher-level EFL university students within a short, intensive project. More precisely, it asks:

1. What is the impact of a short DST project on learners' depth of participation, questioning assumptions, and capacity for synthesis and evaluation?
2. How do multimodal design decisions (image, sound, narration) propel the design of learners' use of language, reflection, and agency?

The following sections provide applicable literature, introduce the design approach, present results, discuss implications, and conclude on pedagogic implications and future research areas.

2. Literature Review

2.1 Critical Thinking in Language Learning

Critical thinking is generally defined as the capacity to analyze, evaluate, and synthesize information to make informed decisions (Facione, 2020). In language learning, critical thinking allows learners to cope with uncertainty, assess sources, and construct arguments in the target language (Wallace, 2018). To facilitate critical thinking, activities need to push students beyond literal comprehension and get them to question, justify, and consider multiple perspectives

(Atkinson, 2019; Mushtaq & Benraghda, 2018). Demands like testing, big classes, and scripted curricula are bound to limit teachers from designing these activities (Alwehaibi, 2020).

2.2.Digital Storytelling: Definition and Educational Promise

Digital storytelling is made up of brief multimedia tales, 2 to 5 minutes, created from narrative text, image, audio voiceover, sound effects, and sometimes video (Lambert, 2013; Robin, 2016). Its pedagogical strength is multimodal density: students must orchestrate meaning across modes and make semiotic decisions regarding how to best represent ideas (Kress & van Leeuwen, 2021). Research demonstrates that DST facilitates learner engagement, collaboration, and more profound thinking (Hung, Hwang, & Huang, 2020; Sadik, 2020).

In language learning classrooms, DST has also been used for developing writing ability, speaking ability, and narrative ability. Alemi et al., 2022, for instance, found that young EFL students improved in writing quality and motivation after a long-term DST intervention. DST's prioritization of learner voice and identity is also aligned with multimodal literacy frameworks (Gregori-Signes, 2014).

2.3 Digital Storytelling and Critical Thinking

Most DST research deals with surface skills (motivation, speaking, writing), but some do deal with the link to critical thinking also. Abdel-Hack and Helwa (2014) reported a quasi-experiment with statistically significant development in narrative writing and critical thinking when EFL majors were treated with DST and weblogs for a semester. Yoon (2022) reported improvement in inference and argumentation capacity in university EFL learners after a storytelling treatment. Bilici et al., 2024 instructed secondary school learners through collaborative DST and reported positive effects on disposition toward critical thinking, achievement, and narrative capacity. Their results suggest that group DST can support co-regulation and critical thinking of subject matter (e.g., biology). DST's narrative structure leads students to position themselves rhetorically, compare evidentiary claims, and justify media choices—all synthesis and evaluation tasks (Bilici et al., 2024).

A recent pilot study by Sapan (2024) involving college students in reading-writing classes found that digital storytelling improved critical thinking, creativity, and comprehension. These results suggest that even small-scale DST initiatives can promote higher-order thinking.

2.2 Theoretical Lenses: Multimodal and Narrative Thinking

In order to see how DST can facilitate critical thinking, the theory of multimodal learning can be applied. Meaning is made by intermodal coordination (linguistic, visual, auditory) and negotiated as learners choose and integrate modes (Kress & van Leeuwen, 2021; Miller, 2020). Media editing (e.g., altering an image or voiceover) demands metacognitive noticing and justification, and these are key aspects of critical thinking.

Narrative theory is also illuminating: narrative integrates event, causality, and perspective within a coherent totality. In narrative writing, students determine the kind of focalization, temporality, and agency to employ. Such choices are frequently a matter of weighing evidence in contention or polyphony,

and consequently giving rise to critical thinking (Bruner, 1991). DST has students integrate narrative and media choice in a bid to unite rhetorical and semiotic consideration. Therefore, DST is at an intersection of multimodal literacy and narrative reasoning that provides it with particular affordances for engaging EFL students' analytic, evaluative, and synthetic modes of thinking.

2.3 Rationale and Gaps for Current Study

In spite of compelling theoretical and empirical justification, gaps exist. Most DST studies are carried out over a period of some weeks or a whole semester; few examine brief, intensive interventions. There are not many in non-Western university EFL settings, and even fewer targeting advanced learners (C1 level). Moreover, most target output (speech, writing) and not thought behind the output. The current research bridges these gaps by investigating whether and how a three-week DST project in an Algerian university setting can foster critical thinking, learner reflection, and increased linguistic variety production.

3. Methodology

3.1 Research Design

The research employs a qualitative, interpretive action research design to examine participants' sense-making and engagement with digital storytelling in real time (Agra, 2025). Learners' experiences, reflection, and observable changes in thought, rather than statistical generalizability, are prioritized.

3.2 Participants and Context

This study was conducted at the University of Chadli Bendjedid – El Tarf's Intensive Language Teaching Center (ILTC), Algeria. Eleven students (eight female, three male), aged 20–25, enrolled in a C1-level course, volunteered to participate in the project. All participants were generally digitally literate, familiar with simple graphic editors and voice recording, but had no prior experience creating complete multimedia narratives.

3.3. Intervention / Task Design

Over a period of three weeks, each student made a personal digital narrative (3–5 minutes) on an individual or social issue, e.g., identity transformation, environmental concern, or cultural change. Scaffolds in teaching consisted of:

- Introduction session on narrative design, multimodal design principles, and example narratives
- Idea generation workshops, storyboarding, peer feedback, scriptwriting (System, 2024).
- Technical sessions in Canva, Adobe Express, voice recording, image sourcing, and transition
- Revision cycles where students re-made visuals, narration, and pacing
- Class final presentations, followed by reflection

Students were consciously asked to reflect on the ways that each media element added to meaning (e.g., "Why this image? Why this background music?").

3.3 Data Collection

Two primary sources of data were collected:

1. **Reflective Journals:** Students produced journal entries at the conclusion of every class outlining their decision-making processes, challenges, insights, and shifts in thoughts regarding their story.

2. **Observations in the Classroom:** The researcher-maintained field notes for all sessions and observed trends in discussion, scaffolding interactions, and indicators of critical dialogue (e.g., students questioning or debating choices).

Furthermore, the digital artifacts themselves (*story scripts, storyboards, media versions*) were seen as secondary evidence, though not analyzed quantitatively.

3.4 Data Analysis

Data were analyzed using thematic analysis following Braun & Clarke (2019) guidelines. A deductive (from critical thinking cues: analysis, evaluation, synthesis) and inductive (emergent) coding scheme was followed (Mannion & Lontas, 2025). Observation notes and journal entries were coded. Triangulation with data sources and member checking (student checking themes) was utilized for credibility establishment. Reflexive memos tracked researcher bias and decisions.

3.5 Trustworthiness and Ethics

To enhance trustworthiness (Lincoln & Guba, 1985), the study applied triangulation, member checking, and audit trails. A reflexive journal was maintained by the researcher to capture positionality and choices. Ethical permission was sought from the ILTC research committee; participants gave written consent; data were anonymized and stored safely.

4. Results

Results are reported in five superordinate themes, each explaining how DST encouraged learners to think more deeply, reflect, and employ more expressive language.

1 Immersion in Topic and Deep Engagement

Journaling demonstrated that students were deeply involved with investigation and research (Agra, 2025). One of them expressed:

"I spent hours searching for photographs and checking up on facts; when I replaced the photo, I liked the subtlety of what I was doing."

Observation notes confirm extensive levels of peer interaction for evidence, metaphor, and narrative coherence. Such peer interaction suggests students have passed the stages of superficial planning to analytical thinking. The cyclical media selections suggest they were not simply arranging content but negotiating meaning.

2 Questioning Assumptions and Perspective-Taking

Some participants used their stories to overturn local norms. In a waste management story, a student compared city and countryside plastic discarding

attitudes, countering the assumption that individual action is powerless. Another composed a personal journey story on bilingual identity, considering conflicts between global identities and local practices. These stories demonstrate evaluative thought: students weighed competing positions, overcame stereotypes, and revised earlier assumptions (System, 2024).

3 Expressive, Argumentative Use of Language

Student journals frequently use the terms hedging, contrastive conjunctions, and modal verbs to render claims more qualified (e.g., "may," "might," "however"). An example entry:

"I revised my voiceover to utter 'some may say' instead of 'everyone knows', I thought it softened the claim and allowed for argument."

Witnesses discussed classes where students debated the deliberateness of wording for voiceover compared to other pictures. This shows learners not only negotiating content, but also rhetorical stance (Mannion & Liontas, 2025). Their language became more "argumentative English," not merely narrative description.

4 Metacognitive Awareness and Revision

In revision drafts, students redesigned media, meaning pacing, narration tone, and sequence. A student first used stark black-and-white images in order to achieve contrast, but later switched to soft gradient transitions upon realizing that harsh images distracted the viewers. Journal:

"I re-recorded the narration after hearing from classmates; my tone was too harsh, overpowering the message."

These are syntheses bringing together narrative, media, and audience response. Students were consistently figuring out how each added up to meaning, evolving in consequence (Agra, 2025).

5 Constraints and Variability

Despite these promising indications, some constraints occurred. A couple of students struggled with audio editing or image placement due to limited technical skills (System, 2024). Time pressures towards the end session compressed some to reduce the depth of revision. Diversity emerged: some were strong in evaluative thinking but not as effective at synthesizing full-length stories; others employed more narrative than media choice. Nevertheless, all submitted completed projects and analyzed their work positively.

Combined, the themes indicate that DST elicited more than aesthetic production: students were engaging in analytic, judgmental, and synthesizing thought in refining their use of the English language.

5. Discussion

5.1 DST as a Scaffold for Critical Thinking

The results support earlier studies (Yoon, 2022; Bilici et al., 2024) on the use of DST as an intellectual scaffold for deeper-level thinking. Planning and revising cycles signal exercises in critical thinking: students analyze source material, judge competing representations, and construct narrative media work.

Image choice, narration adaptation, and segment reorganization forced learners to justify semiotic and rhetorical choices, acts of synthesis, and appraisal.

5.2 Producing Learner Voice and Autonomy

DST provided control over form and content, both augmenting their voice and a sense of ownership (Gregori-Signes, 2014). Social and personal subjects promoted more intensive meaning-making than obligatory stimuli. This aligns with constructivist philosophy: students as proactive meaning constructors, not passive consumers.

5.3 Language Use and Critical Discourse

This shift to argumentative, hedged, and qualified language can push students toward critical discourse. While the typical task typically demands descriptive or narrative production, the rhetorical demands of storytelling, anticipating the audience, and balancing claim and evidence nudge language use in more challenging directions.

5.4 Pedagogical Implications

The study identifies pedagogy to teach:

- **Scaffolding is critical:** introductory modeling, storyboarding templates, and facilitated peer review support students in maintaining their focus on significant decisions rather than technology (Agra, 2025).
 - **Option for strategic topic choice:** socially conflicted themes (culture, environment, identity) promote thinking.
 - **Revision period:** revision cycles are at the center of more profound thinking.
 - **Mixed appraisal:** integrate measures of reasoning, coherence, and use of the media with linguistic accuracy.
- Even short DST interventions can be effective with strategic scaffolding and support.

5.5 Challenges and Recommendations

Time constraints and asynchronous digital capability were challenges. In future designs, pairing or small-group DST could share workload and produce collective assessment. Mini-tutorials in audio editing or image selection can reduce technical resistance (System, 2024). Allocating additional project time or conducting hybrid (in-class + homework) sessions could facilitate more reflective thinking.

5.6 Theoretical Contribution

This study advances DST theory by situating it securely within multimodal and critical thinking in EFL. It illustrates how narrative and media choice are sites of deliberation and integration (Mannion & Lontas, 2025). The Algerian context broadens the DST literature into more under-researched contexts, showing that short, targeted projects can be as effective at providing cognitive advantage in even low-resource contexts.

6. Conclusion

In this study, the potential of Digital Storytelling (DST) in enhancing critical thinking skills of high-level EFL learners was examined. The evidence from journal writing and observation demonstrates that DST has the potential of enhancing critical thinking skills of learners regarding the development of an exploratory process (Sapan, 2024), overcoming biases (Yu & Wang, 2025), emphasizing complex expression (Agra, 2025), and performing revision and reflection (Aleml, Salmani Givi & Rezanejad, 2022). The technological issues and time factor restricted some learners from going deeper; however, the overall impact suggests that DST can be an effective educational tool in enhancing critical literacy and autonomy (Bilici et al., 2024).

Limitations include a small sample, a short time period, qualitative, self-report data, and the need for control or comparison groups, larger populations, longitudinal designs, and peer review of the digital artifact. Examining collaborative DST might also more equitably distribute cognitive load and welcome dialogic thinking (Yu & Wang, 2025). Natively, narrative + multimodality is a way to educate students not only to employ English but also to think in it (Agra, 2025; Aleml, Salmani Givi, & Rezanejad, 2022).

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