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Case of Online Master Didactics University of M'sila

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Candidates:
Khemliche Sarra
Sadoun Souad

Board of Examiners

Dr. Cheriet Imane	University of M'sila	Chairperson
Dr Farrah Sabah	University of M'sila	Supervisor
Dr.Harizi Nacira	University of M'sila	Examiner

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Dedications

This work is respectfully dedicated to those whose loyal support and guidance has played a pivotal role in the realization of this academic endeavor.

To our families, especially our parents and spouses, your unwavering support, prayers, and belief in us have been a source of constant motivation. Your love and sacrifices are the foundation upon which this achievement stands.

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Abstract

This dissertation explores the perceptions of university teachers regarding the use of digital storytelling (DST) as an alternative assessment method in online education, focusing on Master in Didactics of Applied Languages – Online Programme at the University of M'sila. The research investigates both the perceived benefits and challenges of implementing DST in assessment practices. Using a mixed-methods design, data were collected through a structured online questionnaire. Results show strong agreement on DST's benefits in enhancing student engagement, creativity, and digital skills. However, teachers noted challenges such as technical barriers, lack of training, and time constraints. Qualitative findings highlight that its successful integration requires institutional support, teacher training, and access to digital resources. The study concludes that DST can enhance assessment practices if supported by adequate training and infrastructure.

Key words: Digital Storytelling (DST), Alternative Assessment, Teacher Perceptions, Master in Didactics of Applied Languages, University of Mohammed Boudiaf M'sila , Online Education.

الملخص

تتناول هذه المذكرة تصوّرات أساتذة الجامعات حول استخدام السرد الرقمي كطريقة بديلة للتقييم في التعليم عن بُعد، مع التركيز على برنامج الماستر في تعليم اللغات التطبيقية – التعليم عن بعد بجامعة المسيلة. تستقصي الدراسة كلًّا من الفوائد المتصوّرة والتحديات المرتبطة بتطبيق السرد الرقمي ضمن ممارسات التقييم. و باعتماد منهج البحث المختلط، تم جمع البيانات من خلال استبيان إلكتروني منظّم. أظهرت النتائج وجود توافق قوي بين المشاركين حول فوائد السرد الرقمي في تعزيز تفاعل الطلبة وإبداعهم ومهاراتهم الرقمية. ومع ذلك، أشار الأساتذة إلى تحديات من بينها الحواجز التقنية، ونقص التكوين، وضيق الوقت. كما أبرزت النتائج النوعية أن دمج السرد الرقمي بنجاح يتطلب دعمًا مؤسساتيًا، وتكوينًا مناسبًا للأساتذة، وتوفير الموارد الرقمية. وتخلص الدراسة إلى أن السرد الرقمي يمكن أن يُسهم في تحسين ممارسات التقييم إذا توفرت له البنية التحتية والتكوين الكافي.

الكلمات المفتاحية : السرد الرقم ي، التقييم البديل، تصورات الأساتذة، ماستر تعليمية اللغات التطبيقية، جامعة محمد بوضياف المسيلة، التعليم عن بُعد.

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List of Abbreviations

EFL :English as Foreign Language

DST : Digital story telling

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General Introduction

In recent years, digital technologies have revolutionized traditional teaching and assessment methods in education. One of the most innovative approaches is digital storytelling that has emerged as a transformative educational tool, it is considered as a creative and engaging method which integrates multimedia tool like images, audio, and video to create interactive learning experiences. This method not only provides learners with new ways to express themselves but also gives educators fresh strategies for evaluating student progress. As digital literacy becomes increasingly important in modern learning environments, educators are looking for assessment methods that evaluate not just content knowledge, but also creativity, critical thinking, and technological skills.

In this context, digital storytelling has emerged as a powerful pedagogical tool, combining multimedia elements to create engaging and meaningful narratives. While extensively used for teaching purposes, its application as an assessment tool remains under-explored. This dissertation seeks to address this gap by examining teachers' perceptions of digital storytelling as an assessment method within the context of higher education, specifically focusing on the Online Master's Programme in Didactics of applied languages at the University of Mohammed Boudiaf M'sila. The study investigates how teachers perceive the benefits, challenges, and pedagogical implications of implementing digital storytelling in their assessment practices. Understanding these perceptions is essential for identifying opportunities for improvement, informing instructional design, and enhancing the quality of digital assessments in online learning environments.

By adopting a case study approach, this research aims to provide detailed insights into the real-world experiences of educators using this method, contributing to the growing body of literature on digital pedagogies in higher education. The findings of this study may also serve as a valuable reference for institutions aiming to innovate their assessment strategies and support educators in effectively integrating digital storytelling into their teaching practices.

1. Literature Review

The integration of digital storytelling (DST) in Algerian higher education has gradually attracted scholarly attention, though its application as an assessment method particularly in online postgraduate programmes remains underexplored. Early research by Kherbache and Benmoussat (2021) investigated digital practices among language teachers and found an emerging openness to multimedia-based assessments, yet a limited understanding of DST as a structured pedagogical tool. Building on this, Bouzid and Chikhi (2022) highlighted the growing interest in digital pedagogies among university educators, while also identifying a lack of institutional support and training as barriers to effective DST implementation.

In 2023, several studies deepened the discussion: Nouari (2023) explored DST's impact on student engagement and creativity in language courses, revealing various systemic challenges without focusing on assessment or online contexts; Dziri Djemil and Ghaloussi (2023) emphasized DST's role in enhancing cross-cultural competence; and Salmi and Berrabah (2023) noted an increasing awareness of digital tools at the University of M'sila, though DST itself was not a central focus of their investigation. However, a notable gap in these studies is their limited attention to DST as an alternative method of assessment in digital or remote learning environments. While they acknowledge the pedagogical benefits of DST, they fall short of analyzing how it can function as a reliable and inclusive assessment strategy, especially in online education. This highlights the

need for more targeted research exploring teachers' perceptions of DST specifically in the context of online assessment.

More recent studies have begun to address the perceptions of educators regarding DST. Kerma (2024) provided insights into general attitudes toward digital tools in education, laying groundwork for further inquiry into DST. Bouamra (2024) examined English teachers' views on using digital short stories to foster communication skills, offering indirect implications for assessment practices. Most notably, Beldjenna and Kara Mostefa-Boussena (2024) conducted a qualitative study that directly addressed the benefits and challenges of implementing DST in EFL writing classrooms, underlining the lack of research that considers DST as an assessment tool within online higher education programmes.

Together, these studies highlight both the potential and the limitations of current research, reinforcing the need for focused investigations into teachers' perceptions of DST as a viable method of assessment in digital learning environments. While the existing literature sheds light on the benefits of DST for student engagement, creativity, and intercultural competence, it often overlooks the perspectives of educators who are responsible for implementing such tools. Furthermore, there is a lack of empirical evidence addressing the practical challenges teachers face, such as technical constraints, assessment reliability, and student preparedness in online contexts. Addressing these gaps is essential for developing effective, inclusive, and sustainable digital assessment strategies that truly reflect the needs and experiences of both learners and educators.

2. Statement of the Problem

Despite the growing integration of digital tools in higher education, particularly in the field of didactics, the use of digital storytelling (DST) as an assessment method remains under-researched, especially within online postgraduate programmes in Algeria. The existing

research has mostly concentrated on the educational benefits of DST rather than its evaluative potential, despite the fact that it has demonstrated promise in improving student engagement, creativity, self-expression and critical thinking. This gap is particularly evident in the Algerian context, where little is known about how teachers perceive and apply DST as an alternative or complementary tool for evaluating student learning in digital environments.

Furthermore, teachers' perceptions of DST's usage for evaluation are poorly understood, especially in virtual learning environments that offer significant pedagogical and technological difficulties. This gap in knowledge hinders the effective adoption and optimization of digital storytelling as an assessment method in online higher education, such innovative assessment strategies is crucial for informing effective and context-sensitive pedagogical practices. Therefore, this study seeks to explore and analyze teachers' perceptions regarding the use of DST as an assessment method within the online master's programme in Didactics, aiming to fill a critical gap in the literature and support the development of more engaging and authentic assessment approaches in Algerian higher education.

3. Research Aim

This study aims to explore teachers' perceptions of using digital storytelling as an assessment method in the online Master didactics programme at the University of Mohammed Boudiaf M'sila. It seeks to understand their attitudes toward this approach, identify its perceived benefits and challenges, and evaluate its impact on student engagement, creativity, and critical thinking. Additionally, the research aims to assess how well digital storytelling aligns with pedagogical objectives and to gather educators' recommendations for enhancing its use in higher education assessment practices.

4. Research Questions and objectives

Questions:

1. What are the perceptions of teachers in the online Master's in Didactics programme at the University of Mohammed Boudiaf M'sila regarding the use and effectiveness of digital storytelling as an assessment method?
2. How do teachers perceive the benefits and impact of using digital storytelling assessments on student engagement, creativity, and overall learning outcomes?
3. What challenges and limitations do teachers face when implementing digital storytelling as an assessment method in an online higher education context?
4. How do teachers compare digital storytelling assessments to more traditional forms of assessment in terms of authenticity, inclusivity, and relevance to real-world skills?

Objectives:

The Research objectives are:

1. To examine teachers' attitudes and perceptions toward using digital storytelling as an assessment method in the online Master Didactics of Applied languages programme at the University of Mohammed Boudiaf M'sila.

2. To identify the perceived benefits and challenges of implementing digital storytelling as an assessment tool in higher education.

3. To evaluate the impact of digital storytelling on student engagement, creativity, and critical thinking in an online learning environment.

4. To assess the alignment of digital storytelling with pedagogical objectives and gather educators' recommendations for optimizing its use in assessment practices.

These objectives structure this study to address key aspects of perception, effectiveness, challenges, and improvements related to digital storytelling in assessment.

5. Research Methodology

This study adopted a mixed-methods approach to explore university teachers' perceptions of digital storytelling (DST) as an alternative assessment method within the online Master in Didactics programme at the University of Mohammed Boudiaf M'sila. The rationale for using a mixed-methods design lies in its ability to combine the breadth of quantitative data with the depth of qualitative insights, thereby providing a comprehensive understanding of the research problem. The primary data collection instrument was a structured online questionnaire that included both Likert-scale items and open-ended questions. The quantitative section aimed to measure levels of agreement concerning DST's effectiveness, challenges, and comparative value, while the qualitative section provided space for participants to express their experiences, concerns, and recommendations in their own words.

A purposive sampling strategy was employed to recruit university teachers involved in online Master's level academic programmes. A total of 20 participants were selected based on their engagement in the online Master programme and their experience with student assessment. To ensure the validity of the questionnaire, it was reviewed by two academic experts in educational technology and pedagogy. Quantitative data were analyzed using descriptive statistics, including mean scores and frequency distributions, to assess the overall trends in teachers' responses. In parallel, thematic analysis was used to examine qualitative data from open-ended responses, allowing for the identification of key themes regarding the perceived benefits and challenges of DST, as well as suggestions for improving its integration into assessment practices. Ethical

guidelines were strictly followed throughout the study. Participants were informed of the study's purpose, assured of the confidentiality of their responses, and asked to provide informed consent before participating.

6. Significance of the study

This study is significant as it explores university teachers' perceptions of digital storytelling (DST) as an assessment method in online higher education, with a specific focus on the online Master in Didactics programme at the University of Mohammed Boudiaf M'sila. By highlighting DST as an innovative and creative alternative to traditional assessment, the research addresses current trends in digital pedagogy and contributes to the growing body of literature on educational technology. It emphasizes DST's potential to enhance student engagement, foster creativity, and support personalized student-centered learning experiences. Additionally, the study identifies practical challenges such as the digital divide, limited training, and resource constraints, offering a realistic view of the conditions affecting DST implementation. Importantly, it provides actionable recommendations for policy and practice, including professional development, infrastructure enhancement, and assessment rubric design. The study also empowers educators by giving voice to their experiences with DST and lays a solid foundation for future research on innovative, technology-enhanced assessment strategies in digital and blended learning contexts.

7. Structure of the Dissertation

The dissertation is divided into two main parts: the theoretical part and the practical part**.** The theoretical part provides a comprehensive review of the existing literature related to digital storytelling, assessment methods in higher education, and the role of technology in online learning. It also discusses key concepts, theoretical frameworks, and previous studies relevant to the topic.

The practical part focuses on the case conducted at the University of M'sila, detailing the research methodology, data collection procedures, analysis, and interpretation of results. This part presents the findings of the study, discusses their implications, and offers recommendations based on the teachers' perceptions and experiences with digital storytelling as an assessment tool.

THEORITICAL PART

CHAPTER ONE

BACKGROUND OF THE STUDY

1.1 Introduction

This chapter provides theoretical framework for the study by exploring key concepts related to digital storytelling, assessment methods in education, and teachers' perceptions. Furthermore, it references pertinent theories that support the integration of digital storytelling as an assessment tool. Establishing a clear theoretical background is essential for understanding the context and significance of the research (Black & Wiliam, 1998).

1.2 Digital Storytelling: Concept and Evolution

1.2.1 Introduction to Digital Storytelling

Digital storytelling refers to the practice of using digital tools and multimedia elements, such as images, audio, video, and text to tell a story. At its core, digital storytelling combines the timeless tradition of narrative with modern technology to create compelling, multimodal narratives. Originally emerging as a pedagogical and creative technique in the early 1990s, digital storytelling has since evolved into a versatile tool for education, communication, cultural preservation, and personal expression (Robin, 2006; Lambert, 2013).

1.2.2 Defining the Concept

The concept of digital storytelling is rooted in the fundamental human activity of storytelling, which serves as a means to share experiences, convey values, and build connections. What distinguishes digital storytelling from traditional forms is its integration of multimedia

components that enhance the narrative experience. Robin (2006) defines digital storytelling as "the practice of using computer-based tools to tell stories," typically through short multimedia narratives combining a personal voice with digital media.

Digital stories often follow a structured format that includes key elements such as a clear narrative arc (beginning, middle, end), emotional engagement, voice-over narration, background music, and visual aids. The combination of these elements not only makes the content more engaging but also caters to various learning styles and enhances memory retention (Barrett, 2006; Sadik, 2008). In the educational context, this format allows learners to articulate their ideas creatively, build digital literacy, and deepen their understanding of course content.

1.2.3 Historical Background and Origins

The evolution of digital storytelling can be traced through several stages that align with technological advancements and shifts in pedagogical paradigms. Initially, digital storytelling was popularized by the Center for Digital Storytelling (CDS), founded by Joe Lambert and colleagues in Berkeley, California, in the 1990s (Lambert, 2013). The CDS promoted the use of digital media for personal narrative construction, especially in community and educational settings.

1.2.4 Integration in EFL classroom

With the growing availability of personal computers, digital cameras, and multimedia tools since the early 2000s, digital storytelling has found increasing application in educational contexts, including both K–12 and higher education. In particular, its integration into English as a Foreign Language (EFL) classrooms has gained scholarly attention. Researchers like Barrett (2006) and Sadik (2008) have highlighted digital storytelling's potential to boost student engagement, support

language acquisition, and promote reflective thinking, making it a valuable pedagogical tool in EFL settings.

1.2.5 Contemporary Applications and Innovations

In recent years, the application of digital storytelling has diversified across disciplines, including healthcare, journalism, cultural studies, and professional development. The development of interactive and immersive technologies, such as augmented reality (AR) and virtual reality (VR), has opened new frontiers, enabling more dynamic and participatory storytelling experiences (Ohler, 2013). These innovations have not only expanded the ways stories are created and shared but have also enhanced audience engagement by providing multi-sensory and immersive experiences that transcend traditional narrative forms.

Moreover, in online and blended learning environments, particularly in response to the shift during the COVID-19 pandemic, digital storytelling has emerged as a relevant and adaptable strategy for assessment and engagement. In such contexts, it functions not only as a creative outlet but also as a means of fostering reflection, critical thinking, and digital competence (Beldjenna & Kara Mostefa-Boussena, 2024). As educators sought alternatives to conventional assessment methods, DST offered a flexible and student-centered approach that could be tailored to various disciplines and learner needs, thereby supporting continuity in learning during disruptive times.

Digital storytelling represents an evolving intersection of narrative practice and digital innovation. From its origins in community-based media projects to its integration in contemporary didactic frameworks, digital storytelling has reshaped the way learners and educators communicate and reflect. Its continued evolution is driven by advancements in technology and education,

confirming its relevance as a powerful pedagogical tool in the 21st century. As academic institutions increasingly embrace digital learning, the integration of DST offers not only pedagogical innovation but also a means of aligning instruction with the digital competencies required in modern professional and academic contexts.

1.2.6 Digital Storytelling in Educational Contexts

When discussing storytelling in education, it is shown that storytelling is not just a way to tell fairytales or stories about the past, but also a way for people to share their personal experiences and stories that reflect their culture, religion, and other topics. Besides, using multimedia tools facilitates the process of storytelling. Digital storytelling is also used in schools, and it is beneficial for both teachers and learners.

The integration of digital storytelling (DST) in educational settings has become increasingly popular due to its potential to enrich the teaching and learning experience. DST combines narrative, multimedia, and digital tools, allowing learners to construct and share knowledge through meaningful, creative expression. This method is particularly valuable in fostering engagement, promoting reflective thinking, and supporting the development of digital literacy skills (Robin, 2008; Sadik, 2008).

1.2.7 Pedagogical Foundations of Digital Storytelling

Digital storytelling is grounded in several learning theories, including constructivism, multi-literacies theory**,** and social learning theory. Constructivist pedagogy emphasizes that learners construct meaning through active engagement with content, which aligns well with the DST process where students become creators rather than passive consumers of information (Lambert, 2013). In addition, the multi-literacies framework expands the notion of literacy beyond

traditional reading and writing to include digital, media, and visual literacies, skills that are all fostered through DST (Cope & Kalantzis, 2000).Furthermore, DST encourages collaborative learning and peer interaction, which are core elements of Vygotsky's social learning theory(1978). Students often work in groups, share feedback, and learn from one another during the storytelling process (Robin, 2006). These interactions not only deepen comprehension but also promote communication and teamwork skills.

1.2.8 Benefits of Digital Storytelling in Education

The educational benefits of DST span cognitive, emotional, and social domains:

1.2.8.1 Enhancing Student Engagement and Motivation

One of the most frequently cited advantages of DST is its ability to increase student engagement and motivation. The use of multimedia element such as; images, sounds, and narration makes learning more dynamic and enjoyable. Students often find personal satisfaction in creating digital stories that reflect their ideas, experiences, and values (Sadik, 2008; Beldjenna & Kara Mostefa-Boussena, 2024).

1.2.8.2 Supporting Language and Literacy Development

In language learning contexts, particularly in English as a Foreign Language (EFL) classrooms, DST has been shown to improve students' writing, speaking, and listening skills. By narrating and recording their stories, learners practice pronunciation, vocabulary, and grammatical structures in authentic and personalized contexts (Yang & Wu, 2012). Additionally, the integration of multimedia elements enhances learners’ engagement and promotes a deeper emotional connection to the content, which can significantly improve retention and motivation.

1.2.8.3 Encouraging Critical Thinking and Reflection

DST provides students with opportunities to analyze, synthesize, and reflect on their learning. The process of creating a digital story requires them to organize information**,** make decisions, and reflect on their perspectives, all of which contribute to deeper learning (Robin, 2008; Ohler, 2013). Furthermore, this reflective process encourages metacognitive awareness, allowing students to better understand how they learn and how to improve their learning strategies.

1.2.8.4 Fostering Digital Competence

As students engage with various digital tools and platforms, they develop essential 21st-century skills**,** including multimedia editing, digital communication, and online publishing. These competencies are increasingly important in academic, professional, and social contexts (Barrett, 2006; Beldjenna & Kara Mostefa-Boussena, 2024). In addition, such experiences foster learner autonomy and confidence, empowering students to take ownership of their work and express their ideas in creative, impactful ways.

1.2.9 Applications in Different Educational Levels and Subjects

Digital storytelling has been successfully implemented across different educational levels, from primary school to higher education, and in a wide range of subjects:

- In elementary education, DST is often used to develop early literacy and narrative skills through visual storytelling and guided narration.
- In secondary education, DST is employed in subjects such as history, science, and literature to promote inquiry-based learning and interdisciplinary connections.

- In higher education**,** especially in teacher training programmes, students use DST to reflect on teaching practices, document learning experiences, and create digital portfolios (Robin, 2006; Ohler, 2013).

Moreover, DST has also been integrated into special education**,** where it supports differentiated instruction and provides alternative modes of expression for learners with diverse needs (Sadik, 2008).

1.2.10 Challenges and Considerations

Despite its many benefits, the implementation of digital storytelling in classrooms is not without challenges. These may include:

- Technical limitations (lack of devices, software, or internet access),
- Teacher readiness and familiarity with digital tools,
- Time constraints for both preparation and delivery,
- Assessment difficulties**,** especially in aligning DST outcomes with traditional grading standards (Robin, 2008; Beldjenna & Kara Mostefa-Boussena, 2024).

Addressing these challenges requires professional development for educators**,** institutional support**,** and adaptable pedagogical strategies to ensure effective integration.

Digital storytelling has emerged as a powerful educational strategy that merges creativity, technology, and pedagogy. Its benefits in enhancing engagement, promoting language and literacy skills, encouraging critical thinking, and fostering digital competencies make it a valuable tool for educators. As educational systems continue to evolve in response to digital transformation, the role

of DST is expected to expand further, offering innovative pathways for learner-centered instruction and assessment.

1.3 Assessment in online Education: An Overview

Assessment in online education plays a crucial role in measuring student learning, guiding instruction, and providing feedback to both learners and instructors. As online and blended learning environments have become more dominant, especially following the global shift prompted by the COVID-19 pandemic, educators have had to reconsider traditional forms of assessment and adapt them to digital platforms (Gikandi, Morrow, & Davis, 2011). This transition demands not only technological readiness but also pedagogical strategies that ensure assessments remain valid, reliable, and equitable.

1.3.1 Defining Online Assessment

Online assessment refers to the process of evaluating learners' performance and understanding through digital platforms, tools, and environments. It encompasses a variety of formats, including formative assessments (ongoing evaluations to guide learning), summative assessments (final evaluations of learning outcomes), diagnostic assessments, and self- or peer-assessments (Gaytan & McEwen, 2007). Online assessments can be synchronous (real-time, such as online oral exams or quizzes) or asynchronous (non-real-time, such as essays submitted through learning management systems).

1.3.2 Key Characteristics of Effective Online Assessment

1.3.2.1 Authenticity and Relevance

Effective online assessment should be authentic, mirroring real-world tasks and skills. Authentic assessments in online education often include project-based assignments**,** digital

storytelling**,** case studies, and simulations that challenge learners to apply knowledge in meaningful contexts (Herrington & Reeves, 2005).

1.3.2.2 Feedback and Interaction

Timely, constructive feedback is essential for fostering student learning in online environments. Technologies such as automated quizzes**,** rubrics, and video feedback have enabled instructors to provide personalized guidance that supports student growth (Espasa & Meneses, 2010). Peer feedback also plays a significant role in building collaborative knowledge.

1.3.2.3 Flexibility and Accessibility

Online assessments must consider learners' diverse needs and contexts. Flexibility in deadlines, formats, and assessment modes supports inclusive education**.** Moreover, ensuring accessibility for students with disabilities through assistive technologies and universal design for learning **(UDL)** principles is critical (Ally, 2004).

1.3.2.4 Tools and Technologies for Online Assessment

A wide range of digital tools is available to support online assessment. These include:

- **Learning Management Systems (LMS)** like Moodle, Blackboard, and Google Classroom, which host quizzes, discussion boards, and assignment submissions.
- **E-portfolios**, which allow learners to showcase their progress and reflect on their learning journey.
- **Video conferencing tools** (e.g., Zoom, Microsoft Teams) used for oral exams and real-time assessment interactions.

These tools offer educators the ability to track student progress, analyze performance data, and adapt instruction accordingly (Nguyen et al., 2015).

1.3.3 Challenges in Online Assessment

Despite its potential, online assessment presents several challenges:

- **Academic Integrity**: Ensuring that students complete assessments honestly remains a major concern. Remote proctoring tools help monitor test-taking behavior but raise ethical and privacy issues (Hylton, Levy, & Dringus, 2016).
- **Technological Barriers**: Unequal access to internet and devices can disadvantage certain students, particularly in developing regions (UNESCO, 2020).
- **Assessment Design**: Adapting traditional assessments to online formats without compromising learning objectives can be difficult. Instructors often need training to design assessments that are both rigorous and engaging (Gikandi et al., 2011).

1.3.4 Trends and Innovations in Online Assessment

Emerging trends in online assessment include the use of:

- **Artificial Intelligence (AI)** for adaptive testing and personalized feedback.
- **Gamified assessments** that increase student motivation through game-based elements.
- **Learning analytics** to predict student performance and inform instruction (Ifenthaler & Yau, 2020).
- **Digital storytelling and multimedia-based assessment**, particularly in language learning and creative disciplines (Beldjenna & Kara Mostefa-Boussena, 2024).

These innovations are reshaping how educators conceptualize and implement assessments in digital environments.

Assessment in online education is a dynamic and evolving field that requires thoughtful integration of pedagogy, technology, and learner needs. Effective online assessments go beyond simple quizzes and tests to include diverse, interactive, and authentic methods that support

meaningful learning. As digital education continues to expand, ongoing research and innovation will be essential to address challenges and improve assessment practices for equitable and effective learning outcomes.

1.4 Digital Storytelling as an Assessment Method

As educational institutions increasingly transition to digital and hybrid learning environments, traditional assessment strategies are being reimagined to meet the demands of 21st-century education. In this evolving context, Digital Storytelling (DST) has emerged as both a creative pedagogical approach and an innovative method of online assessment. By integrating narrative with multimedia elements such as images, audio, video, and text, DST facilitates multimodal, learner-centered evaluation that aligns with digital literacy frameworks. It not only enhances student engagement but also enables instructors to assess a range of cognitive, emotional, and communicative competencies (Robin, 2008). This section synthesizes key empirical and theoretical studies at the intersection of DST and online assessment, highlighting its pedagogical benefits, implementation challenges, and practical implications for education in digitally mediated settings.

1.4.1 Conceptual Foundations of Using Digital Storytelling for Assessment in Online Learning

The integration of Digital Storytelling (DST) into online learning platforms has been widely explored by scholars aiming to assess its effectiveness in distance education. Grounded in constructivist and socio-cultural learning theories, DST emphasizes active knowledge construction, contextualized learning, and learner autonomy (Barrett, 2006). As a method of assessment, it enables students to reflect, research, script, design, and produce digital artifacts that

communicate their understanding of academic content.(Robin ,2008) identified DST as a powerful tool for supporting constructivist learning, particularly in online contexts where students benefit from the flexibility to engage in multimodal expression beyond the limitations of physical classrooms. Yang and (Wu ,2012) found that students involved in DST projects demonstrated higher motivation and better comprehension due to the personalized, interactive, and collaborative nature of the tasks. These findings highlight how DST transforms assessment from a static measurement tool into a dynamic process fostering deep learning, critical thinking, creativity, and meaningful feedback.

1.4.2 Pedagogical Benefits of Digital Storytelling as Assessment

1.4.2.1 Promoting Student Agency and Engagement

One of the primary strengths of DST in assessment is its ability to foster student ownership of learning. Through scripting and narrating their own stories, learners take an active role in the construction of knowledge, which enhances motivation and promotes meaningful learning experiences (Robin, 2006). This is particularly beneficial in online learning contexts where student autonomy is essential.

1.4.2.2 Developing Multi literacies

DST assessments encourage the development of digital, media, and visual literacies , often referred to as multiliteracies. Students must navigate multiple modes of communication, evaluate digital resources, and use technology tools effectively, all while crafting a coherent narrative (Hafner & Miller, 2011). These are critical skills in both academic and professional environments.

1.4.2.3 Supporting Formative and Summative Assessment

Digital storytelling can serve as both a formative and summative assessment tool in online learning environments, offering educators a flexible, process-oriented strategy to evaluate student

progress. As part of formative assessment, DST allows instructors to monitor learners' development through various stages such as storyboards, drafts, and peer feedback, thus promoting continuous learning and reflection (Beldjenna & Kara Mostefa-Boussena, 2024). It plays a vital role in e-learning by providing ongoing feedback and supporting self-regulated learning. When employed as an assessment for learning, DST empowers students to demonstrate their understanding through narrative construction, creativity, and the application of digital skills. (Sadik ,2008) noted that learners viewed DST not merely as a task, but as a meaningful opportunity for self-expression and growth. Moreover, research by (Hung, Hwang, and Huang ,2012) showed that a project-based DST approach significantly enhanced learners' problem-solving abilities and academic performance. Their study, conducted in a blended learning context, found that DST fostered higher-order thinking skills and student engagement, assessed through rubrics and peer evaluation score components of contemporary digital assessment practices.

1.4.3 Practical Applications in Educational Settings

DST has been successfully applied in various disciplines, including language learning**,** social sciences**,** health education, and teacher training. For example, in English as a Foreign Language (EFL) settings , digital storytelling enables students to develop writing, speaking, and narrative skills in context-rich environments (Yang, 2012). In teacher education, pre-service teachers use DST to reflect on teaching philosophy and classroom experiences (Green, 2013).

1.4.4 Assessment Criteria for Digital Storytelling

When using DST as an assessment method, it is essential to establish clear, transparent, and pedagogically sound evaluation criteria. Common dimensions include:

- **Narrative coherence and structure**
- **Relevance and depth of content**

- **Use of multimedia elements (images, sound, video)**
- **Technical quality (editing, clarity, design)**
- **Creativity and originality**
- **Reflective insight and critical thinking**

Rubrics are often used to ensure consistency and objectivity in assessing digital stories (Barrett, 2006).

1.4.5 Challenges and Considerations

While DST offers numerous pedagogical advantages, it also presents challenges:

- **Technological barriers**, especially for students with limited access to digital tools or skills.
- **Time-intensive** nature of both creation and evaluation.
- **Need for instructor training** to effectively guide and assess DST projects.

Addressing these issues requires institutional support, digital equity initiatives, and professional development for educators (Sadik, 2008; Beldjenna & Kara Mostefa-Boussena, 2024).

Digital storytelling as an assessment method represents a powerful and innovative approach that aligns with contemporary educational goals. It allows learners to demonstrate understanding through personal voice, creativity, and technology, thus bridging academic content and digital expression. With thoughtful implementation, DST can enhance both the quality and equity of assessment in modern education, particularly within online and hybrid learning environments.

1.5 Teachers' Perceptions of Digital Storytelling

Teachers' perceptions play a pivotal role in the successful integration of digital storytelling (DST) into educational contexts, as their beliefs, attitudes, and experiences significantly influence

both the adoption and effective implementation of technological tools in pedagogy. Understanding how educators view DST offers valuable insights into its pedagogical relevance, practical challenges, and long-term viability as an assessment method (Robin, 2008; Beldjenna & Kara Mostefa-Boussena, 2024). While student outcomes are often the focus of research, teacher perspectives are equally critical in evaluating the effectiveness of assessment strategies. In their study of Algerian EFL teachers, Beldjenna and Kara Mostefa-Boussena (2024) found that instructors acknowledged the potential of DST in enhancing online formative assessment, especially in fostering writing and language development. Nevertheless, they expressed concerns about the absence of standardized assessment frameworks and the pressing need for professional training in digital tools. Likewise, Malita and Martin (2010) highlighted that university instructors valued the flexibility and authenticity of DST in online settings but often encountered obstacles such as increased workload, technical challenges, and limited time, all of which can hinder the practical application of DST in assessment practices.

1.5.1 General Attitudes Toward Digital Storytelling

Many teachers perceive digital storytelling as a motivational and engaging pedagogical approach that enhances student participation and learning outcomes. It is often seen as a way to promote creativity, critical thinking, and digital competence among learners (Sadik, 2008). Teachers acknowledge that DST shifts the learning dynamic from passive content absorption to active content creation, aligning with constructivist and student-centered learning philosophies (Robin, 2006).

However, while the overall attitude is positive, perceptions vary based on teachers' technological proficiency, access to resources, and training opportunities (Yang, 2012). Those with

higher digital literacy tend to express stronger support and enthusiasm for integrating DST into their teaching strategies.

1.5.2 Pedagogical Value in Practice

From a pedagogical perspective, teachers recognize that DST supports multimodal learning and cross-curricular integration. For example, language teachers find that DST effectively enhances writing, speaking, and storytelling skills, while science and social studies educators use it to encourage reflective inquiry and real-world application of concepts (Green, 2013).

Furthermore, teachers perceive DST as a flexible tool that can be adapted for various educational purposes, such as:

- Presenting research findings
- Reflecting on learning experiences
- Demonstrating understanding of complex ideas

Teachers also report that DST fosters collaborative learning, especially when students work in groups to plan, script, and produce their stories (Hafner & Miller, 2011).

1.5.3 Perceived Challenges and Barriers

Despite recognizing its benefits, teachers also highlight several challenges associated with implementing digital storytelling:

- **Time constraints**: Creating and evaluating digital stories can be time-consuming.
- **Lack of technical skills**: Some educators feel unprepared to guide students in using multimedia tools effectively.
- **Limited access to digital infrastructure**: In contexts with scarce technological resources, DST integration becomes difficult (Sadik, 2008).

- **Assessment ambiguity**: Teachers express concerns over how to evaluate digital stories consistently, especially when creativity and technical elements are involved (Barrett, 2006).

These barriers often deter teachers from fully embracing DST, even when they acknowledge its instructional potential.

1.5.4 Teachers' Experiences in Online and Blended Learning

The shift to online and blended education models, especially during the COVID-19 pandemic has increased teachers' awareness of the value of DST. Many educators report that DST allowed them to maintain student engagement, personalize assessment, and foster digital communication skills in remote learning environments (Beldjenna & Kara Mostefa-Boussena, 2024).

Teachers involved in online programmes have also noted that DST humanizes the digital classroom by allowing students to express their identities, cultures, and emotions through personalized narratives. This, in turn, contributes to stronger teacher-student relationships and more inclusive learning environments.

1.5.5 Professional Development Needs

A recurring theme in the literature on teachers' perceptions of DST is the need for targeted professional development**.** Teachers advocate for:

- Training workshops on multimedia tools and digital literacy
- Access to templates, rubrics, and successful DST examples
- Institutional support in terms of time, resources, and technical assistance (Robin, 2006; Green, 2013)

When adequately supported, teachers are more likely to integrate DST meaningfully into their teaching and assessment practices.

In summary, teachers generally perceive digital storytelling as **a** valuable, creative, and learner-centered approach that aligns with modern educational goals. While they appreciate its potential to enhance learning and assessment, their ability to implement DST effectively depends on their technical skills, access to resources, and institutional support. Addressing these challenges through professional development and infrastructure improvement is essential for fostering broader adoption of DST in educational settings.

1.6 Conclusion

In summary, while an expanding body of research highlights the pedagogical and evaluative benefits of Digital Storytelling (DST), several persistent limitations continue to constrain its widespread adoption, particularly in online higher education. Key among these challenges is the absence of standardized assessment frameworks tailored to DST, alongside technical and infrastructural barriers that are especially pronounced in resource-limited settings. Furthermore, the lack of digital literacy and pedagogical readiness among instructors remains a major hurdle to effective implementation. Although prior studies have demonstrated the promise of DST in face-to-face and blended environments, its application as an assessment tool in fully online university programmes, especially in postgraduate EFL education remains underexplored. This study seeks to bridge this research gap by examining university teachers' perceptions of DST within digital learning contexts, thereby contributing to a deeper theoretical understanding and offering practical insights for its integration into emerging models of online and distance education

PRACTICAL PART

CHAPTER TWO

RESEARCH DESIGN DATA ANALYSIS AND DISCUSSION

2.1 Introduction

This chapter presents the practical part of the study, which investigates the perceptions of teachers in the Online Master's in Didactics programme at the University of Mohammed Boudiaf M'sila regarding the use of digital storytelling (DST) as an assessment method. It outlines the research methodology, describes the procedures followed for data collection, and provides a detailed analysis and interpretation of the findings.

2.2 Choice of the Method

In order to address the research questions posed in this study, a mixed research method was adopted, to gain a comprehensive understanding of university teachers' perceptions regarding the use of Digital Storytelling (DST) as an assessment tool in online education. The choice of a mixed-methods approach is rooted in the need to explore both the measurable trends and the nuanced experiences associated with the implementation of DST. Quantitative data were collected through a structured online questionnaire comprising Likert-scale items to assess general attitudes, perceived benefits, and challenges. Complementarily, qualitative data were gathered via open-ended questions, allowing respondents to elaborate on their insights and contextual realities. This design enables triangulation of data, enhancing the validity and depth of the findings. The case study is centered on the online Master in Didactics programme at the University of Mohammed Boudiaf M'sila, which provides a relevant context for investigating DST in a fully digital higher

education environment. The mixed-methods design thus supports a richer, more holistic analysis by integrating numerical patterns with interpretive perspectives.

2.3 Population and Sampling

The population of this study consists of teachers enrolled in or affiliated with the online Master's programme in Didactics at the University of M'sila during the academic year 2024–2025. These participants were specifically chosen because they are directly involved in online higher education teaching and have experience with various digital pedagogical tools, including assessment strategies such as digital storytelling. To ensure the collection of relevant and insightful data, a purposive sampling technique was employed. This non-probability sampling method was chosen because it allows the researcher to intentionally select participants who are most likely to provide rich, relevant, and diverse perspectives related to the research topic. In this case, the sample was limited to teachers who have used, or are aware of, digital storytelling as a potential or actual assessment method in their courses.

The sample included a total of 20 teachers, selected based on their availability, willingness to participate, and relevance to the research focus. All participants were contacted via their professional email and were given clear instructions regarding the objectives of the study and the voluntary nature of their participation.

This sample was considered adequate to reflect a focused understanding of teachers' perceptions regarding digital storytelling in online assessment, while also allowing for general insights into the challenges, benefits, and comparative views of digital storytelling versus traditional assessment forms in higher education.

2.4 Teachers' Questionnaire

The primary data collection tool used in this study is a comprehensive online questionnaire designed to teachers involved in the online Master's programme in Didactics and applied languages at the University of Mohammed Boudiaf M'sila. It is designed with the purpose of collecting educators' views and experiences regarding the use of digital storytelling (DST) as an alternative and innovative tool for assessing students' learning. The responses gathered through this instrument will contribute to a deeper understanding of how DST can be effectively implemented within higher education assessment practices, particularly in online learning contexts.

The questionnaire is composed of six main sections, comprising both closed-ended and open-ended questions. Specifically, the instrument includes forty-nine (49) close-ended items presented on a five-point Likert scale, and four (4) open-ended questions, allowing participants to elaborate on their personal insights and recommendations. (See Appendix)

2.4.1 Section One: General Information (Q1–Q8)

This introductory section gathers demographic and background information about the respondents. Participants are asked to indicate their gender, age group, teaching experience, and familiarity with digital storytelling prior to the study. Furthermore, the section explores previous experience with DST, the types of devices typically used for implementing DST activities, the frequency of its use in assessment practices, and whether respondents have received formal training in this area. These items provide a foundational profile of the respondents and help in interpreting trends across variables such as experience, exposure, and digital readiness.

2.4.2 Section Two: Perceptions of Use and Effectiveness (Q9–Q22)

This section contains fourteen (14) statements that aim to assess teachers' attitudes toward the effectiveness and practicality of using DST as an assessment method. Items address perceived benefits such as student engagement**,** knowledge integration**,** and higher-order thinking, as well as issues related to assessment criteria**,** willingness to continue using DST, and its applicability across various disciplines**.** Additionally, teachers are asked to reflect on their confidence, motivation, and the sufficiency of training and support received. This section evaluates how well teachers accept and trust digital storytelling in their academic practice.

2.4.3 Section Three: Benefits and Impact on Students (Q23–Q32)

This ten-item (10) section focuses on the perceived impact of digital storytelling on students' learning outcomes. It explores aspects such as creativity**,** motivation**,** critical thinking**,** collaboration, and the development of digital and communication skills. The items also address how DST promotes inclusivity, supports diverse learning styles, and enhances equity in assessment practices. This section aims to assess whether digital storytelling contributes to more holistic and student-centered learning outcomes.

2.4.4 Section Four: Challenges and Limitations (Q33–Q44)

This section investigates the various challenges teachers face in implementing DST. The twelve (12) items cover potential difficulties such as lack of training**,** time consumption**,** technical issues, students' digital literacy**,** accessibility for students with disabilities**,** and academic integrity concerns. Additionally, the section gauges teachers' perceptions of whether DST should be

optional or mandatory in course assessments .It offers insights into the institutional, pedagogical, and technological challenges that may hinder effective use of digital storytelling.

2.4.5 Section Five: Comparison with Traditional Assessment Methods (Q45–Q48)

This brief four -item section is designed to compare DST with traditional forms of assessment. It explores whether DST is perceived as a more authentic, personalized, and real-world-aligned assessment method**,** and the potential for peer assessment to complement teacher evaluation within DST projects. Teachers are asked to rate the extent to which digital storytelling is a suitable or superior alternative to traditional exams or written tasks.

2.4.6 Section Six: Open-Ended Questions (Q49–Q52)

In the final section, teachers are encouraged to provide more qualitative insights regarding their experiences with digital storytelling. The four open-ended questions invite them to reflect on the benefits observed**,** challenges faced**,** and comparisons with traditional methods**,** as well as to offer recommendations for better integration of DST in assessment practices. These qualitative responses provide rich, narrative data that complement the quantitative results and offer grounded interpretations of teachers' lived experiences.

The questionnaire was created in English, the language of instruction in the programme, and was validated by academic experts to ensure content relevance and clarity. It was distributed electronically to ensure accessibility and convenience for teachers participating in the study.

2.5 Administration of Teachers' Questionnaire

The questionnaire was administered on May 15th, 2025, to a sample of teachers from the online Master's programme in Didactics at the University of Mohammed Boudiaf M'sila. It was distributed electronically via institutional email and professional platforms to ensure accessibility and convenience for participants. Although the questionnaire was initially sent to a total of twenty (20) teachers, only fifteen (15) responses were received within the allocated period. A follow-up reminder was issued, and a waiting period of one week was observed to allow for additional responses. However, due to time constraints related to the academic calendar and data analysis deadlines, it was not possible to extend the collection period further. Consequently, the final analysis was based on the fifteen completed questionnaires.

2.6 Analysis of Results Obtained from Teachers' Questionnaire

2.6.1 Section One: General Information

2.6.1.1 Question One: Gender

☐Male

☐Female

☐Prefer not to say

This question aimed to identify the gender distribution among the participants in order to understand the demographic profile of the teaching staff involved in the study. Out of the fifteen (15) teachers who responded to the questionnaire:

Table *01**Distribution of Teachers According to Gender*

Gender	Frequency (N)	Percentage (%)
Male	6	40%
Female	8	53.3%
Prefer not to say	1	6.7%

Total	**15**	**100%**

This table presents the gender distribution of teachers who participated in the questionnaire (N = 15), the gender distribution of the fifteen (15) respondents reveals a slightly higher representation of female teachers compared to male teachers. Specifically, eight teachers (08) (53.3%) identified as female, while six teachers (06) (40%) identified as male. Only one teacher (6.7%) opted not to declare their gender by selecting "Prefer not to say."

This distribution suggests a relatively balanced gender representation among the participants, with a slight predominance of female respondents. Although gender was not a central variable in the study, this demographic detail offers valuable insight into the diversity of the sample and may be relevant when analyzing perspectives on digital storytelling and assessment practices.

The predominance of female teachers reflects broader gender trends within the Algerian higher education system, particularly in the field of English language teaching. Additionally, the presence of a participant who preferred not to declare their gender underscores the respect for anonymity and personal choice in the data collection process.

Overall, this diversity in gender representation contributes to a more comprehensive and inclusive analysis of the participants' views, enhancing the reliability of the study's findings regarding the integration of digital storytelling in online higher education.

2.6.1.2 Question two: Age Group

☐ 20–29

☐ 30–39

☐ 40–49

☐ 50 and above

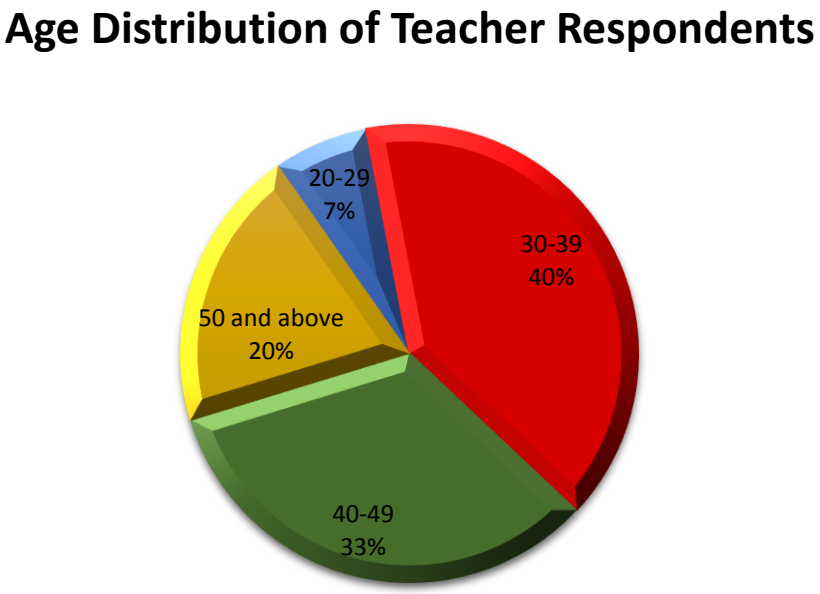
This question aimed to determine the age distribution of the participating teachers in order to gain a clearer understanding of the demographic profile of the sample. Age can be a significant factor influencing educators' familiarity with and attitudes toward digital tools, including digital storytelling. Among the fifteen (15) respondents to the questionnaire, the age groups were distributed across four categories:

Table 02 *Age Distribution of Teacher Respondents*

Age Group	Frequency (N)	Percentage (%)
20–29	1	6.7%
30–39	6	40.0%
40–49	5	33.3%
50 and above	3	20.0%
Total	**15**	**100%**

The responses revealed a noticeable concentration in the 30–39 and 40–49 age brackets, indicating a majority of participants were mid-career professionals. A smaller proportion fell within the 20–29 and 50 and above categories, representing early-career and senior educators, respectively. This age diversity contributes to a more nuanced analysis of teachers' perceptions, as it encompasses a range of professional experiences and potentially varying levels of digital literacy.

Figure 1*Distribution of Participants by Age Group*



Note. *This pie chart illustrates the age distribution of the 15 teachers who participated in the study.*

The results displayed in Figure 1 reveal that the majority of participants (40.0%) fall within the age group of 30–39 years, indicating a relatively young and dynamic teaching workforce. This is followed by 33.3% of teachers aged between 40–49 years, and 20% who are between 20–29 years old, suggesting the presence of both early-career and mid-career professionals in the department.

Only one respondent (6.7%) is over 50 years old, representing the smallest age group in the sample. These findings imply that most of the participants are in their most active professional years, combining academic vigor with growing teaching experience.

This age composition may positively influence the integration of innovative practices such as digital storytelling, as younger and mid-career educators tend to be more open to adopting educational technologies

2.6.1.3 Question three: Teaching Experience (Years):

☐ 0–5 years

☐ 6–10 years

☐ 11–15 years

☐ 16 years or more

This question aimed to determine the distribution of participants according to their years of teaching experience, providing insight into the professional backgrounds of the respondents. Understanding the range of teaching experience is essential for contextualizing the participants' perspectives on digital storytelling and assessment practices. The data collected from the fifteen (15) teachers revealed a diverse range of teaching experience.

Participants were categorized into four groups: those with 0–5 years, 6–10 years, 11–15 years, and those with 16 years or more. This variety enriches the study by capturing views from both early-career and experienced educators, which contributes to a more comprehensive understanding of the integration of digital storytelling within online higher education contexts.

Table 3 *Teaching Experience of Teachers Participating in the Study*

Teaching Experience (Years)	Frequency (N)	Percentage (%)
0–5 years	4	26.7%
6–10 years	5	33.3%
11–15 years	3	20%
16 years or more	3	20%

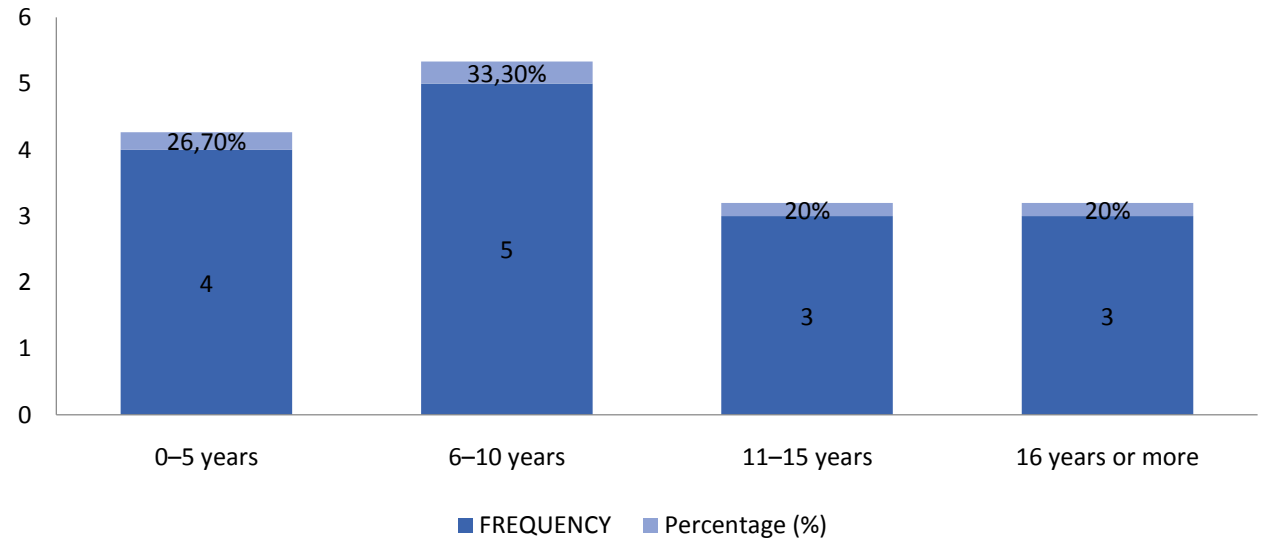
Total	**15**	**100%**

The table above illustrates the distribution of teaching experience among the 15 participating instructors. The majority of teachers (33.3%) reported having between 6 and 10 years of teaching experience, followed by 26.7% who have been teaching for 0 to 5 years. Meanwhile, an equal proportion of participants (20%) have either 11–15 years or 16 years or more of experience.

These findings suggest a fairly balanced range of professional experience among the respondents. Most of the participants are mid-career teachers, which imply that they have gained sufficient classroom practice and pedagogical awareness, including exposure to modern teaching strategies such as digital storytelling.

The diversity in experience levels also adds depth to the study, as it captures the perceptions of both relatively new and more seasoned educators regarding the use of digital storytelling as an assessment method.

Figure 2 *Distribution of Teachers by Years of Teaching Experience*



Note. *This bar chart illustrates the number of teachers categorized by their teaching experience in years.*

2.6.1.4 Question four : Familiarity with Digital Storytelling before this study:

☐ Very familiar

☐ Somewhat familiar

☐ Not familiar

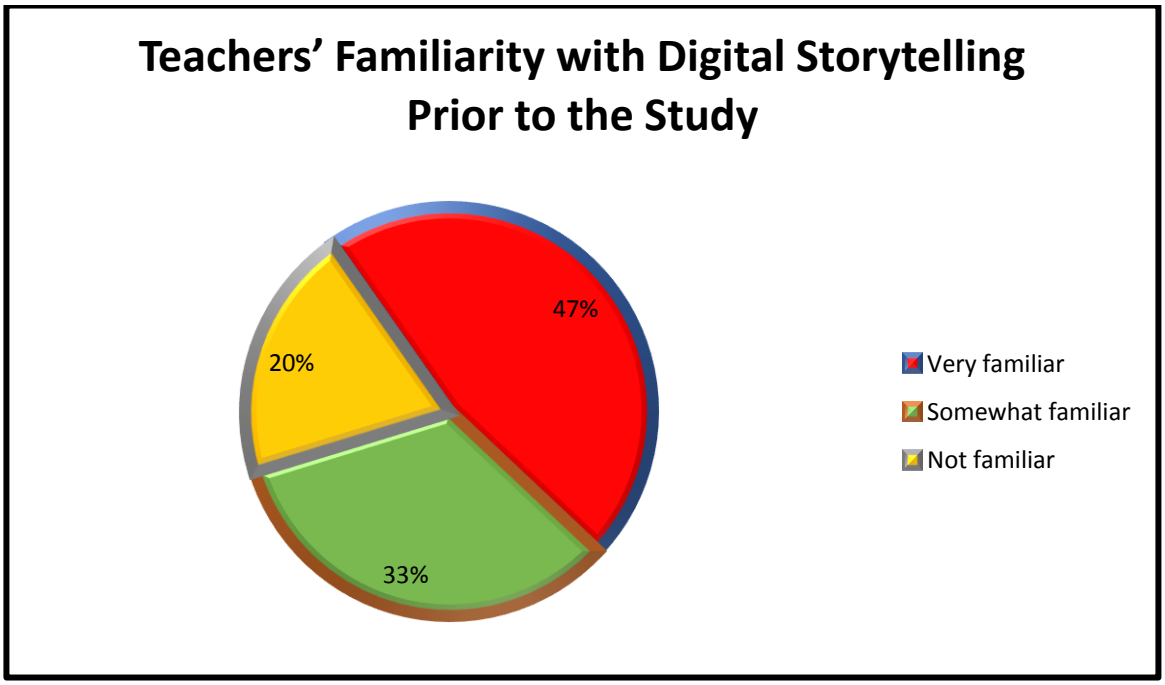
Question Four aimed to assess the participants' prior familiarity with Digital Storytelling (DST) before engaging in this study**.** The responses were categorized into three levels: "Very familiar," "Somewhat familiar," and "Not familiar." The data revealed varying degrees of exposure among the respondents, with some teachers reporting substantial prior knowledge and experience with DST, while others indicated only limited or no familiarity at all.

This variation in familiarity provides important context for interpreting teachers' perceptions of DST as an assessment method. It also highlights the relevance of professional development and training in equipping educators with the skills necessary to effectively integrate DST into online learning and assessment practices.

Table 4*Teachers' Familiarity with Digital Storytelling Prior to the Study*

Familiarity Level	**Frequency (N)**	**Percentage (%)**
Very familiar	7	46.7%
Somewhat familiar	6	40.0%
Not familiar	2	13.0%
Total	**15**	**100%**

Figure 3 *Distribution of Teachers' Familiarity with Digital Storytelling Before the Study*



Note.*This pie chart displays the self-reported levels of familiarity with Digital Storytelling (DST) among the fifteen participating teachers.*

The data in Table 4 reveal varying levels of familiarity with Digital Storytelling (DST) among the fifteen teachers who participated in the study. A notable 46.7% (n = 7) of respondents reported being very familiar with DST, indicating that nearly half of the sample had substantial prior exposure to or experience with this instructional method. This level of familiarity may reflect a growing institutional interest in integrating narrative-based and multimedia approaches into digital education.

In comparison, 40.0% (n = 6) of participants indicated they were somewhat familiar with DST. This group likely had occasional exposure to DST concepts or tools, possibly using them informally in their teaching. Their partial familiarity could influence their openness to adopting DST as a formal assessment method and their perceptions of its pedagogical value.

Meanwhile, only 13.3% (n = 2) of the respondents reported being not familiar with DST prior to the study. This minority highlights a potential gap in digital pedagogy training, pointing to the need for more inclusive professional development efforts, especially in the context of online and blended learning environments in Algerian higher education.

Overall, the distribution indicates a generally favorable awareness of DST among participants. However, the presence of varying familiarity levels underscores the importance of targeted capacity-building initiatives to ensure that all educators are equipped to implement DST effectively as both a teaching and assessment tool in digital learning contexts.

2.6.1.5 Question five : Have you previously used digital storytelling in your teaching or assessment?

☐ Yes

☐ No

This question aimed to determine whether the participating teachers had prior experience using Digital Storytelling (DST) in their instructional or assessment practices. It provided insight into the actual implementation of DST, beyond familiarity alone. Participants were asked to indicate a simple yes or no response to whether they had previously incorporated DST into their teaching or evaluation methods. The responses help contextualize the extent to which DST has been practically adopted among EFL educators and can inform the interpretation of their perceptions regarding its usefulness and feasibility in online higher education environments.

Table 5 *Teachers' Previous Use of Digital Storytelling in Teaching or Assessment*

Response	Frequency (N)	Percentage (%)
Yes	11	73.3%
No	4	26.7%
Total	**15**	**100%**

As shown in Table 5 a significant majority of the participants (73.3%, n = 11) reported having previously used Digital Storytelling (DST) in their teaching or assessment practices. This high percentage suggests a growing level of practical engagement with DST among Algerian EFL instructors, reflecting not only awareness but also a willingness to experiment with or integrate multimedia-based pedagogical tools into their work.

On the other hand, 26.7% (n = 4) of respondents indicated that they had not used DST prior to the study. While this represents a smaller portion of the sample, it is still noteworthy as it underscores the presence of instructors who may require further support or professional development to adopt innovative strategies like DST. These individuals may face challenges related to digital literacy, access to technology, or lack of institutional encouragement.

Overall, the results highlight a promising trend toward the incorporation of DST in teaching and assessment, while also pointing to the importance of targeted training programmes and resource accessibility to ensure that all educators are equipped to implement DST effectively in digital learning environments.

2.6.1.6 Question six : **Which devices do you usually use to facilitate digital storytelling activities?** (Select all that apply)

☐ Desktop computer

☐ Laptop

☐ Tablet

☐ Smartphone

☐ Other: _____

This question aimed to identify the types of digital devices commonly used by teachers to facilitate Digital Storytelling (DST) activities in their instructional and assessment practices. Participants were allowed to select multiple options, as DST can be supported by various technologies depending on availability, context, and user preference.

The listed options included desktop computers, laptops, tablets, smartphones, and an open category labeled "Other" to capture any additional devices not specified. This format was chosen to reflect the diverse technological environments in which teachers operate, particularly in online or blended learning contexts.

By examining the frequency and combination of device usage, the study seeks to better understand the digital infrastructure that supports DST in Algerian higher education. The results also help to identify which devices are most accessible and preferred by educators, offering insight into how DST is practically implemented and what technical considerations might need to be addressed for broader adoption.

Table 6 *Devices Used by Teachers to Facilitate Digital Storytelling Activities*

Device	Frequency (N)	Percentage (%)
Desktop computer	3	20%
Laptop	9	60%
Tablet	0	0%
Smartphone	3	20%
Other	0	0%
Total	**15**	**100%**

The data from the table reveal clear trends in device usage among the fifteen teachers participating in the study regarding the facilitation of digital storytelling (DST) activities in their teaching practices. The laptop emerged as the most commonly used device, with 9 out of 15 teachers (60%) reporting its use. This strong preference likely stems from the multi-functionality and convenience that laptops offer, combining portability with robust processing power. Laptops support a range of multimedia tools necessary for scripting, recording, editing, and presenting digital stories, making them a practical and accessible choice for educators.

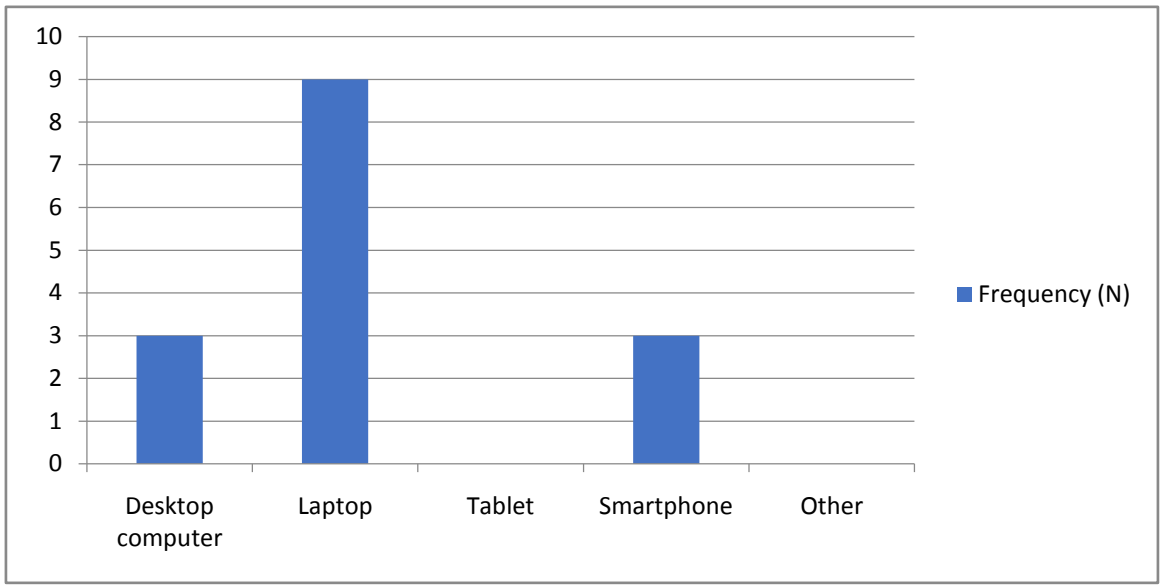
Desktop computers and smartphones followed, each reported by 3 participants (20%). The equal use of desktops may reflect the availability of these devices in institutional settings such as university computer labs or personal offices, where they are valued for their stability and ability to run more demanding software. In contrast, smartphone usage indicates a growing integration of mobile technologies in pedagogical tasks, especially for capturing photos, recording audio or video clips, and quick content editing. Their presence in DST activities signals a shift toward

mobile-supported learning and highlights the increasing flexibility teachers require in hybrid or remote learning environments.

Interestingly, tablets and other devices were not used at all (0%). The absence of tablets may be attributed to factors such as limited institutional availability, teachers' unfamiliarity with tablet-based apps for DST, or perceptions of tablets as less powerful than laptops for complex multimedia tasks. Similarly, the absence of "Other" devices (e.g., projectors, interactive whiteboards, smartboards) could indicate a lack of integration between DST tools and more collaborative, classroom-based technologies, possibly due to infrastructure constraints or the online nature of the context in which most of these teachers operate.

Overall, the findings suggest that while laptops remain the dominant and preferred tool for implementing DST, smartphones and desktops also play a supporting role. The absence of tablets and other tools, however, points to opportunities for technological expansion and professional development. As digital storytelling continues to gain traction in online and blended educational models, institutions must ensure access to a variety of devices and provide training that equips teachers to utilize all available platforms effectively. These results align with prior studies (e.g., Robin, 2008; Beldjenna & Kara Mostefa-Boussena, 2024) emphasizing the role of digital tools in enhancing learner engagement and teacher innovation in digital pedagogy.

Figure 4*Devices Used to Facilitate Digital Storytelling Activities*



Note*Bar chart representing the frequency of different digital devices used by teachers (N = 15) to facilitate digital storytelling activities in their instructional or assessment practices.*

2.6.1.7 Question7 : Have you ever received formal training on integrating digital storytelling into your teaching?

☐ Yes

☐ No

This question aimed to explore whether participants had received any structured or formal training on the use of digital storytelling (DST) as part of their instructional or assessment practices. The objective was to assess the level of professional development support available to educators in this domain.

Participants were asked to respond with either “Yes” or “No.” The responses provide insight into the extent to which digital storytelling has been included in teacher development

programmes, which may influence its effective implementation in online education contexts. The results of this question are presented in the table that follows.

Table 07 *Teachers' Formal Training on Integrating Digital Storytelling*

Response	Frequency (N)	Percentage (%)
Yes	0	0%
No	15	100%
Total	**15**	**100%**

The results presented in the Table 7 indicate a unanimous response among the participants: none of the fifteen teachers (0%) reported having received formal training on integrating digital storytelling (DST) into their teaching or assessment practices, while 100% (n = 15) indicated that they had not received any such training.

This result is both striking and significant. It highlights a critical gap in professional development within Algerian higher education, particularly regarding emerging digital pedagogies such as DST. Despite the increasing emphasis on the use of digital tools and innovative assessment strategies in online and blended learning environments, the complete absence of formal training suggests that educators may be relying on self-directed learning, peer support, or informal experiences to integrate DST into their teaching.

The lack of training may also explain the uneven levels of familiarity with DST previously observed among participants, as well as the potential challenges teachers face in effectively implementing DST as a pedagogical or evaluative method. This finding underscores the urgent need for institutional support and targeted capacity-building programmes that focus on digital

pedagogies, ensuring that educators are adequately prepared to harness the educational benefits of DST in their classrooms.

Overall, the results point to a systemic issue that could hinder the scalability and sustainability of digital storytelling as a teaching and assessment strategy unless addressed through comprehensive training initiatives.

2.6.1.8 Question 8 : How often do you incorporate digital storytelling in your assessments?

☐ Rarely

☐ Sometimes

☐ Often

☐ Always

☐ never

This question aimed to determine the frequency with which participants integrate digital storytelling (DST) into their assessment practices. The options provided ranged from “Never” to “Always”, allowing respondents to indicate the extent of their use of DST as an evaluative tool in their teaching.

Participants were asked to select one of the following five response options: Rarely, Sometimes, Often, Always, and Never. This item provides insight into the degree to which DST is practically applied in real classroom or online teaching settings. It also serves to contextualize previous responses related to familiarity and training by examining how these factors may influence the actual implementation of DST in assessment tasks.

The findings from this question contribute to understanding whether DST remains a theoretical concept for most educators or is being regularly integrated into pedagogical assessment routines, despite potential challenges such as lack of training or resources. Quantitative data gathered from this item can help determine prevailing usage trends and identify areas where additional support or encouragement may be necessary to increase adoption.

Figure 8 *Frequency of Digital Storytelling Use in Teachers' Assessment Practices*

Response Option	Frequency (N)	Percentage (%)
Rarely	3	20 %
Sometimes	12	80%
Often	0	0%
Always	0	0%
Never	0	0%
Total	**15**	**100%**

The results for Question 8, which explored the frequency with which teachers incorporate Digital Storytelling (DST) into their assessments, reveal a clear trend. A significant majority of the respondents (80.0%, n=12) reported using DST sometimes, indicating that while DST is present in their assessment practices, it is not yet consistently or systematically integrated. This suggests a moderate level of adoption, where educators may be experimenting with or selectively applying DST based on course content, objectives, or student needs.

In contrast, only 20.0% (n=3) indicated using DST rarely, and no participants reported using it often, always, or never. The absence of responses for “often” and “always” suggests that

DST is not yet a frequent or habitual assessment method among the participants. Similarly, the lack of “never” responses implies that all respondents have at least some exposure or openness to the method, even if its implementation is still limited.

These findings highlight an opportunity for professional development and institutional support to encourage more consistent and confident use of DST in assessment. Teachers appear receptive to the approach but may require further training, resources, or structural incentives to integrate DST more regularly and effectively into their teaching practices.

2.6.2 Section 2: Perceptions of Use and Effectiveness

Table 9*Perceptions of Use and Effectiveness*

Statement	1 (Strongly Disagree)	2 (Disagree	3 (Neutral)	4 (Agree)	5 (Strongly Agree)
9. Digital storytelling is an effective method to assess students' understanding of course content.	0	0	0	15	0
10. I feel confident assessing students through digital storytelling projects.	0	0	9	6	0
11. It is easy to integrate digital storytelling into online courses.	0	0	0	12	3

12. I would recommend digital storytelling to colleagues as an assessment method.	0	0	0	12	3
13. Digital storytelling promotes a deeper understanding of course material and connects theoretical knowledge with real-world applications.	0	0	0	12	3
14. Clear rubrics or guidelines are necessary to ensure fair and objective assessment of digital storytelling projects.	0	0	0	3	12
15. I am willing to continue using digital storytelling as an assessment tool in the future.	0	0	3	9	3
16. Digital storytelling should be integrated across various subjects, not just language or arts.	0	0	0	12	3
17. Digital storytelling is suitable for all students in the online Master's programme.	0	0	6	9	0

18. I feel motivated to develop my own digital storytelling skills.	0	0	3	12	0
19. Digital storytelling allows students to demonstrate higher-order thinking and creativity.	0	0	3	9	3
20. Digital storytelling provides a more holistic picture of student learning than traditional assessments.	0	0	0	12	3

Statement	**Yes**	**No**
22. Do you feel you have received sufficient training and support to use digital storytelling?	3	12

Table 10 *Perceptions of Use and Effectiveness*

The table 9 presents the responses of 15 teachers to a set of 12 Likert-scale statements (items 9 to 21), where respondents rate their level of agreement on a scale from 1 (Strongly Disagree) to 5 (Strongly Agree). These statements are designed to gauge participants' beliefs, confidence, and motivation concerning DST, as well as its perceived impact on teaching, learning, and assessment practices. Here is a descriptive summary of the findings:

- There is a strong overall agreement among teachers regarding the benefits and effectiveness of digital storytelling.

- The majority of responses fall within the “Agree” and “Strongly Agree” categories.

- No participants disagreed with any of the statements, and none selected “Strongly Disagree” or “Disagree” for any item, indicating a generally positive perception of DST.

The items cover various dimensions of DST in assessment, including:

1. **Effectiveness of DST for Assessing Understanding (Q9)**
    - All 15 respondents agreed that DST is effective for assessing student understanding.
    - Unanimous agreement (100%) with no variation.
2. **Confidence in Assessment (Q10)**
    - 60% were neutral, while 40% agreed.
    - Indicates moderate confidence, suggesting a need for more training or experience.
3. **Ease of Integration into Online Courses (Q11)**
    - 80% agreed, and 20% strongly agreed.
    - Suggests that teachers find DST adaptable to digital platforms.
4. **Recommendation to Colleagues (Q12)**
    - 80% agreed, 20% strongly agreed.
    - Shows a high level of endorsement among peers.
5. **Connection to Real-World Applications (Q13)**
    - 80% agreed, 20% strongly agreed.
    - Reinforces the perceived pedagogical value of DST.
6. **Importance of Clear Rubrics (Q14)**
    - 80% strongly agreed, 20% agreed.
    - Indicates strong consensus on the necessity of structured assessment tools.

7. **Willingness to Continue Using DST (Q15)**
    - 20% neutral, 60% agreed, 20% strongly agreed.
    - Shows a positive outlook with some hesitance—likely linked to confidence levels.
8. **Integration Across Subjects (Q16)**
    - 80% agreed, 20% strongly agreed.
    - Respondents see DST as a cross-disciplinary tool, not just for language/arts.
9. **Suitability for All Students (Q17)**
    - 40% neutral, 60% agreed.
    - Reflects some uncertainty about DST's inclusivity or accessibility for all learners.
10. **Motivation to Develop DST Skills (Q18)**
    - 20% neutral, 80% agreed.
    - Most participants are eager to build competence, though some may need encouragement or resources.
11. **Promotes Higher-Order Thinking (Q19)**
    - 20% neutral, 60% agreed, 20% strongly agreed.
    - Highlights DST's cognitive benefits in fostering creativity and critical thinking.
12. **Holistic Assessment (Q20)**
    - 80% agreed, 20% strongly agreed.
    - Teachers view DST as offering a more comprehensive evaluation of student learning.
13. **Enhances Assessment Process (Q21)**
    - Same pattern: 80% agreed, 20% strongly agreed.
    - Suggests DST improves the overall quality of assessment practices.
14. **Training and Support for DST (Q22) (table 10)**

- Opposite trend: 80% responded No, 20% responded Yes.
- Indicates a lack of sufficient training and institutional support, which could hinder effective implementation despite positive perceptions.

After describing the section about teachers' perceptions of using digital storytelling (DST) in assessment, it was important to calculate the average level of agreement. This helps us better understand how strongly teachers support the use of DST. By doing this, we can clearly see which ideas they agree with the most and where more training or support might be needed.

Table 11*average of agreement*

Statement No.	Frequencies (1–5)	Average
9	0, 0, 0, 15, 0	4.00
10	0, 0, 9, 6, 0	3.40
11	0, 0, 0, 12, 3	4.20
12	0, 0, 0, 12, 3	4.20
13	0, 0, 0, 12, 3	4.20
14	0, 0, 0, 3, 12	4.80
15	0, 0, 3, 9, 3	4.00
16	0, 0, 0, 12, 3	4.20
17	0, 0, 6, 9, 0	3.60
18	0, 0, 3, 12, 0	3.80
20	0, 0, 0, 12, 3	4.20
21	0, 0, 0, 12, 3	4.20

2.6.2.1 Interpretation

- The average level of agreement is approximately 4.10 out of 5, indicating that participants generally agree or strongly agree with the positive statements about digital storytelling.
- The highest-rated item is Statement 14 (*the need for clear rubrics*), with an average of 4.80.
- The lowest-rated item is Statement 10 (*confidence in assessing with DST*), at 3.40, suggesting an area for training or support.

2.6.2.2 Discussion

The overall average agreement score of approximately 4.10 out of 5 reflects a generally positive perception among participants regarding the use and effectiveness of digital storytelling (DST) as an assessment tool. Most respondents either agreed or strongly agreed with the favorable statements about DST, which highlights a strong inclination toward its educational value.

Notably, Statement 14, which emphasizes the importance of clear rubrics or guidelines, received the highest average score of 4.80, indicating that participants strongly believe in the need for structured and transparent criteria when assessing digital storytelling projects. This underscores a common concern for fairness and objectivity in evaluation processes.

On the other hand, Statement 10, related to participants' confidence in assessing students through DST, scored the lowest average at 3.40. This suggests a potential gap in skills or experience, pointing to the need for professional development or targeted training to boost teachers' confidence and competence in using DST for assessment purposes. Addressing this area could further enhance the overall effectiveness of digital storytelling integration in the programme.

2.6.3 Section 3: Benefits and Impact on Students

This section presents the teachers' perceptions regarding the benefits and overall impact of digital storytelling on students, as summarized in Table 12 below.

Table 12*Teachers' Perceptions of the Benefits and Impact of Digital Storytelling on Students*

Statement	1 (Strongly Disagree)	2 (Disagree)	3 (Neutral)	4 (Agree)	5 (Strongly Agree)
23. Digital storytelling enhances	0	0	0	12	3

students' creativity and self-expression.					
24. DST promotes critical thinking skills	0	0	0	15	0
25. Digital storytelling makes learning more engaging for students.	0	0	0	15	0
26. Students are more motivated when working on digital storytelling assignments.	0	0	0	15	0
27. Students can express themselves more effectively through digital storytelling than through traditional assignments.	0	0	6	9	0
28. Digital storytelling supports diverse learning styles and fosters inclusivity.	0	0	3	12	0
29. Digital storytelling encourages collaboration among students.	0	0	6	9	0
30. Digital storytelling develops students' communication and digital literacy skills.	0	0	0	15	0
31. Digital storytelling provides a more equitable way to assess	3	0	0	9	3

students with different strengths.					
32. Digital storytelling positively impacts overall student learning outcomes.	3	0	0	12	0

This section explores participants' perceptions of how digital storytelling (DST) impacts students, particularly regarding creativity, motivation, learning engagement, collaboration, inclusivity, and skill development. The statements cover both cognitive and affective aspects of student learning.

The responses indicate a high level of agreement across most items:

- For Statements 23 to 26, which address creativity, critical thinking, engagement, and motivation, all participants either agreed or strongly agreed, showing unanimous positive perceptions of DST in these areas.
- In Statement 30, all participants strongly agreed that DST enhances students' communication and digital literacy skills.
- Some neutral responses appeared in Statements 27 and 29 (self-expression and collaboration), suggesting slightly mixed views on how DST compares to traditional assignments in these dimensions.
- For Statements 31 and 32, while the majority agreed, a small number of participants strongly disagreed, possibly reflecting diverse experiences with DST's fairness and impact on learning outcomes.

To better understand participants' perceptions of the benefits and impact of digital storytelling (DST) on students, the average level of agreement for each statement in Section 3

was calculated. This analysis helps identify the overall trends and highlights specific areas where DST is perceived as most or least effective. By quantifying agreement levels, we gain clearer insight into how strongly participants support each benefit.

Table 13*Average agreement level of Teachers on the Benefits and Impact of Digital Storytelling on Students*

Benefit/Impact Statement	Average Agreement Level
23. Digital storytelling enhances students' creativity and self-expression.	4.27
24. DST promotes critical thinking skills	3.93
25. Digital storytelling makes learning more engaging for students.	4.47
26. Students are more motivated when working on digital storytelling assignments.	3.60
27. Students can express themselves more effectively through digital storytelling than through traditional assignments.	3.87
28. Digital storytelling supports diverse learning styles and fosters inclusivity.	4.00
29. Digital storytelling encourages collaboration among students.	3.67
30. Digital storytelling develops students' communication and digital literacy skills.	4.13
31. Digital storytelling provides a more equitable way to assess students with different strengths.	3.73

32. Digital storytelling positively impacts overall student learning outcomes.	3.87

The table above indicates that teachers generally hold positive perceptions regarding the benefits and impact of digital storytelling (DST) on students. The highest average agreement level was for the statement *"DST makes learning more engaging"* (4.47), suggesting that most teachers strongly agree on the motivational and interactive power of DST in the classroom.

Other statements with high agreement include *"DST enhances creativity and self-expression"* (4.27) and *"DST develops communication and digital literacy"* (4.13), highlighting the tool's effectiveness in promoting 21st-century skills.

On the other hand, statements such as *"DST increases student motivation"* (3.60) and *"DST encourages student collaboration"* (3.67) received slightly lower scores, indicating a more moderate but still positive perception.

Overall, the results show that teachers perceive DST as a valuable and inclusive assessment method that supports engagement, creativity, and learning outcomes across diverse learners.

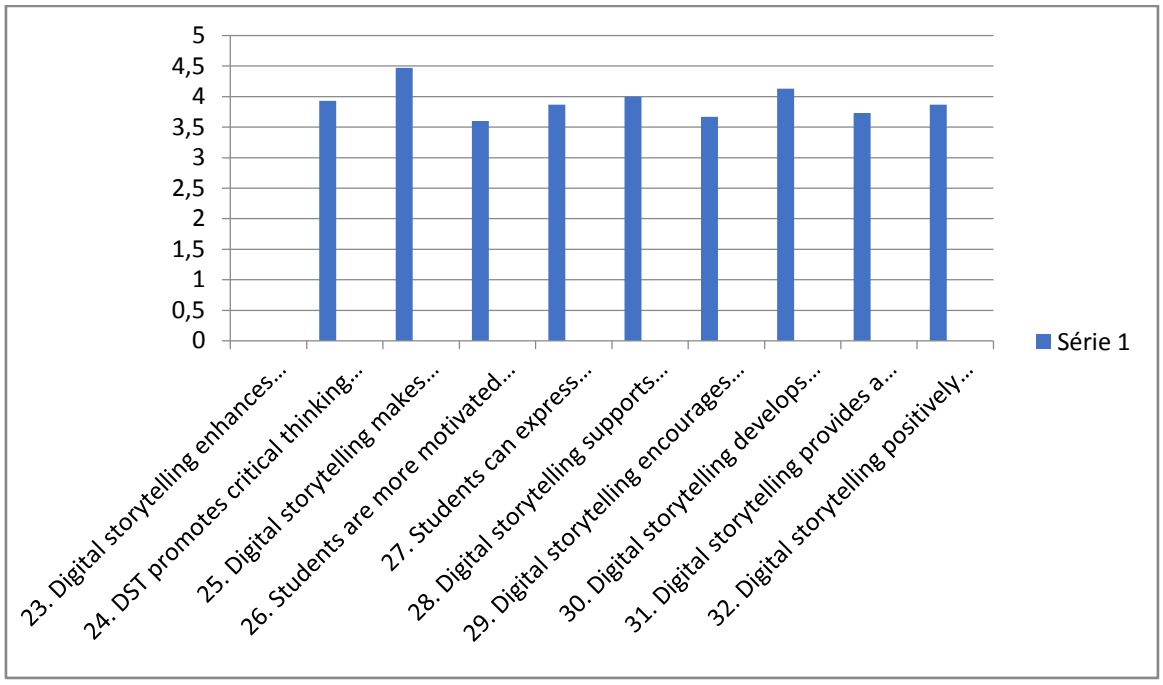


Figure 5 *Average Agreement Level of Teachers on the Benefits and Impact of Digital Storytelling*

Here is a horizontal bar chart illustrating teachers' perceptions of the benefits and impact of digital storytelling on students. Each bar represents the average agreement level (on a 1–5 scale) with statements about digital storytelling. As shown**, a**ll values are rounded to the nearest hundredth**.**

Teachers generally agree that digital storytelling:

- Strongly enhances student engagement, creativity, and digital literacy.
- Positively influences motivation and critical thinking.
- Offers inclusive and equitable learning and assessment opportunities.

The results indicate that teachers generally have a favorable perception of using digital storytelling (DST) as a tool to enhance student learning. The highest average agreement score was recorded for the statement:

- “Digital storytelling makes learning more engaging” with an average of 4.47, showing that most teachers strongly agree that DST increases student interest and participation.

Other highly rated benefits include:

- “DST enhances students’ creativity and self-expression” (4.27)
- “DST develops students' communication and digital literacy skills” (4.13)
- “DST supports diverse learning styles and fosters inclusivity” (4.00)

These scores suggest that teachers believe DST promotes innovative learning**,** supports inclusive education, and helps students build essential 21st-century skills**.**

On the lower end, though still positive:

- “DST provides equitable assessment opportunities” received an average score of 3.60
- “DST encourages student collaboration” averaged 3.67

These values reflect a more neutral to slightly positive view, indicating that while teachers recognize some benefits in these areas, there may still be challenges or limitations in fully realizing them.

Overall, the average agreement levels show that teachers appreciate the educational value of digital storytelling and recognize its positive impact on student engagement**,** creativity, and learning outcomes. However, areas such as collaboration and equity may benefit from further exploration or targeted support.

2.6.4 Section 4: Challenges and Limitations

This section outlines the key challenges and limitations faced by teachers when implementing digital storytelling in their teaching and assessment practices.

Table 14 *Response about Challenges and Limitations of Digital Storytelling*

Statement	1 (Strongly Disagree)	2 (Disagree)	3 (Neutral)	4 (Agree)	5 (Strongly Agree)
33. I have received sufficient training and support to use digital storytelling effectively.	0	3	6	3	3
34. I need additional resources or training to implement digital storytelling assessments effectively.	0	3	3	6	3
35. Assessing and guiding digital storytelling projects is time-consuming.	0	3	6	3	3

36. Technical difficulties (e.g., software, internet) often interfere with digital storytelling implementation.	0	0	3	12	0
37. Students often struggle with the digital tools required for digital storytelling.	0	0	3	6	3
38. Students need initial training before engaging in digital storytelling projects.	0	0	6	3	6
39. Students' varying technology backgrounds impact their ability to use digital storytelling effectively.	0	0	3	12	0
40. Digital storytelling assessments may	0	3	3	6	3

disadvantage students with low digital literacy.					
41. Accessibility concerns can hinder students with disabilities in digital storytelling tasks.	0	0	6	12	0
42. It is difficult to ensure academic integrity with digital storytelling assessments.	0	0	3	6	3
43. Students need more technical support to complete digital storytelling assignments successfully.	0	0	3	9	0
44. Digital storytelling assignments should be optional rather than	0	0	0	15	0

mandatory.

This section focuses on the challenges and support related to the implementation of digital storytelling (DST) as an assessment method. The statements explore both teachers' perceptions of their preparedness and the various obstacles they and their students face.

Many participants expressed moderate agreement with needing more resources and training (Statement 34), and acknowledged that guiding DST projects can be time-consuming (Statement 35). Notably, 12 participants agreed that technical difficulties often interfere with implementation (Statement 36), and several responses highlight that students struggle with the digital tools or require initial training (Statements 37 and 38). Concerns about digital literacy, accessibility, and academic integrity also appeared, with moderate levels of agreement across Statements 39–42. Finally, in Statement 44, all 15 participants agreed that digital storytelling assignments should be optional rather than mandatory, signaling a unanimous viewpoint on the flexibility of its use.

Overall, this section reveals that while DST is valued, there are notable barriers that need to be addressed particularly around training, technical support, and equitable access to make its implementation more effective and inclusive.

Table 15 *Average Agreement Level of Challenges and Limitations of Digital Storytelling*

Statement Number	Average Agreement Level
33	3.40
34	3.60
35	3.40
36	3.80
37	4.00
38	4.00

39	3.80
40	3.60
41	3.67
42	4.00
43	3.75
44	4.00

Based on the average agreement levels for statements 33 to 44, a clear pattern emerges regarding educators' perspectives on the practical challenges and needs associated with the implementation of digital storytelling (DST) in educational settings. Here is a structured discussion and extraction of key findings :

1. Moderate Support and Training for Teachers

- Statements 33 (avg. 3.40) and 34 (avg. 3.60) reflect that teachers are somewhat divided on whether they have received sufficient support or need additional training.
- The average for statement 33 remains one of the lowest in the set, indicating that a significant portion of teachers still feel underprepared to use DST effectively.

Finding: Institutions must continue to prioritize professional development, as many educators still lack the confidence or competence to fully embrace DST.

2. Time Commitment and Technical Barriers Remain Significant

- Statement 35 (avg. 3.40): "DST is time-consuming" reaffirms time as a barrier to adoption.
- Statement 36 (avg. 3.80) and 39 (avg. 3.80) reflect moderate concern over technical difficulties and unequal student backgrounds, respectively.

Implication: There is a need for streamlined DST processes and technical infrastructure upgrades to make the integration more feasible in practice.

3. Student Preparedness and Support Are Priorities

- High averages for statements 37, 38, and 42 (all avg. 4.00) show strong agreement that:
    - Students struggle with DST tools.
    - They need initial training.
    - Ensuring academic integrity is difficult in DST formats.

Key Insight: These are critical areas of vulnerability that can undermine the effectiveness and fairness of DST unless actively addressed through orientation sessions, scaffolding, and transparent assessment guidelines.

4. Concerns Around Equity and Accessibility

- Statements 40 (avg. 3.60) and 41 (avg. 3.67) suggest moderate agreement that:
    - DST might disadvantage students with low digital literacy.
    - Accessibility barriers could affect students with disabilities.

Finding: Educators recognize that DST, if not implemented inclusively, may contribute to educational inequities. Inclusive design and alternative assignment formats should be considered.

5. Student Support and Implementation Strategy

- Statement 43 (avg. 3.75): There is a general consensus that students require more technical support to successfully complete DST assignments.
- Statement 44 (avg. 4.00): The strong agreement that DST assignments should be optional indicates that many teachers do not see DST as a one-size-fits-all solution.

Interpretation: Flexibility in assignment type and optional use of DST may be necessary to ensure student-centered learning that respects diverse learner needs.

Area of Concern	Key Takeaway
Training & Support	Both teachers and students need more structured training and ongoing support to succeed in DST.
Time & Tech Barriers	DST is seen as time-intensive and technically challenging, requiring institutional support.
Equity & Inclusion	Without accommodations, DST may unintentionally exclude or disadvantage certain students.
Academic Integrity	DST introduces new challenges in upholding assessment fairness and originality.
Flexibility Needed	Many educators advocate for **optional DST** assignments rather than mandatory use.

Table 16 *Summary of Key Insights*

This detailed analysis indicates that while teachers clearly recognize the pedagogical value of digital storytelling (DST), they also face substantial practical, technical, and ethical challenges that hinder its effective implementation. The data reflects an overall appreciation for DST's potential to enhance learning, particularly in higher education and online programmes such as the Master in Didactics at the University of M'sila. However, to fully leverage this potential, it is essential to address the identified barriers through targeted training programmes, robust technical support, and inclusive design strategies. These strategic actions are vital to ensure that DST is not only effective but also equitable and accessible for both educators and students.

2.6.5 Section 5: Comparison with Traditional Assessment Methods

Table 17*Teachers' Perceptions on Digital Storytelling Compared to Traditional Assessment Methods*

Statement	1 (Strongly Disagree)	2 (Disagree)	3 (Neutral)	4 (Agree)	5 (Strongly Agree)
45. Digital storytelling can replace some traditional written assessments.	0	3	3	6	0
46. Digital storytelling is a more authentic assessment method than traditional formats	0	0	3	12	0
47. Digital storytelling aligns better with real-world communication and problem-solving skills than traditional assessments.	0	3	3	9	0
48. Compared to traditional methods, digital storytelling allows for more personalized assessment of students' learning.	0	3	6	6	0

Table 17 presents the distribution of teachers' responses to five statements comparing digital storytelling (DST) with traditional assessment methods. The responses were measured using a 5-point Likert scale ranging from *1 = Strongly Disagree* to *5 = Strongly Agree*. The data reveals a general trend of agreement toward the effectiveness of DST as a modern assessment alternative.

This section explores how participants perceive digital storytelling (DST) in comparison to traditional assessment methods such as written tests and essays. The responses to four key statements help to assess whether educators see DST as a viable, authentic, and effective alternative for evaluating student learning.

The results reveal moderate agreement across the statements, with most respondents choosing “Agree” or “Neutral.” For example, 12 participants agreed that DST is a more authentic assessment method than traditional formats (Statement 46), while only 3 were neutral and none disagreed—highlighting a strong perception of DST’s real-world relevance.

Similarly, the idea that DST aligns better with real-world communication and problem-solving skills (Statement 47) received 9 “Agree” responses, showing moderate support for its practical value over conventional tests.

However, statements such as DST can replace some traditional written assessments (Statement 45) and DST allows for more personalized assessment (Statement 48) showed a more balanced spread between “Neutral” and “Agree” responses. This indicates some hesitation among participants, possibly due to unfamiliarity with DST as a full substitute or concerns about standardization and evaluation consistency.

Overall, educators appear open to integrating DST as a complementary or partial replacement for traditional assessments, especially when it supports authentic, real-world skills. Nonetheless, the responses also suggest a need for clearer guidelines and examples to strengthen confidence in DST’s role within formal assessment frameworks.

Table 18*Average Agreement Levels*

Statement Number	**Statement Description**	**Average Agreement Level(**mean score)
45	Digital storytelling can replace some traditional written assessments.	3.25
46	Digital storytelling is a more authentic assessment method than	3.80

	traditional formats	
47	Digital storytelling aligns better with real-world communication and problem-solving skills than traditional assessments.	3.40
48	Compared to traditional methods, digital storytelling allows for more personalized assessment of students' learning.	3.20

Based on the average agreement levels for Section 5 (Comparison with Traditional Assessment Methods), several key findings emerge:

1. Moderate Acceptance of DST as an Alternative:

- **Statement 45 ("DST can replace some traditional written assessments")** received an average of **3.25**, suggesting that while some educators see potential in using DST as a partial replacement, there is still hesitation about abandoning traditional formats entirely.

2. Stronger Agreement on Authenticity:

- **Statement 46 ("DST is a more authentic assessment method than traditional formats")** scored the highest in this section with an average of 3.80. This reflects a relatively strong belief that DST better mirrors real-world tasks and evaluations, making it more meaningful for learners.

3. Real-World Relevance Recognized, but Not Fully Embraced:

- **Statement 47 ("DST aligns better with real-world communication and problem-solving skills")** had a moderate average of 3.40. This suggests educators see the

real-world relevance of DST, yet some may still be unsure about its practical application or effectiveness compared to traditional methods.

4. Personalized Assessment Value Not Fully Acknowledged:

- **Statement 48 ("DST allows more personalized assessment of student learning")** scored **3.20**, indicating a lukewarm perception of DST's ability to tailor evaluations to individual learners. This might be due to concerns about consistency, fairness, or the teacher's ability to manage personalized approaches.

Educators recognize several comparative advantages of digital storytelling ,particularly its authenticity and potential alignment with real-world skills. However, full acceptance of DST as a viable alternative to traditional assessment remains limited. These insights point to the need for further exposure, practical demonstrations, and professional development to increase confidence in DST's effectiveness and applicability in varied educational settings.

2.6.6 Section 6: Open-Ended Questions

49. What benefits have you observed when using digital storytelling with your students?
50. What are the main obstacles you face when using this method?
51. How does digital storytelling compare to traditional assessment methods in your teaching context?
52. What recommendations would you give to better integrate digital storytelling into assessment practices?

The analysis will shift from numerical trends to qualitative content analysis. Here's how we can proceed methodically:

Q49 – What benefits have you observed when using digital storytelling with your students?
Emerging Themes:

Table 19 *Emerging Themes according Q 49 What benefits have you observed when using digital storytelling with your students?*

Theme	Frequency (Sample Count)	Example Quote
Interest and motivation, especially for visual learners	4	"Above all, digital storytelling compels students to familiarize themselves with the content delivered, conversely to, say, written assignments..."
Flexibility and time management	3	"It offers flexibility—students can plan and work at their own pace, which is often not possible with in-class written tests."
Student engagement	6	"Students tend to be more engaged when creating something visual and multimedia-based; it sparks more enthusiasm than traditional exams."
Lack of use or experience	2	"I already mentioned that I didn't use it."

This table synthesizes qualitative data gathered from teachers' responses to Question 49**,** which asked them to identify the main obstacles they encounter when using digital storytelling (DST) as an assessment method. The analysis reveals several recurring themes, each of which reflects a critical dimension of the implementation challenges in educational settings.

Theme 1: Interest and Motivation Especially for Visual Learners

Interpretation:

Many teachers noted that DST significantly enhances student engagement, particularly among visual learners. The multimedia nature of DST (videos, images, audio, etc.) caters to different learning preferences and helps students connect more deeply with content.

Discussion:

This finding aligns with existing literature emphasizing the power of DST to engage students cognitively and emotionally. One teacher emphasized that unlike written assignments—which may be copied or completed passively—DST compels students to interact with content actively. This

suggests DST not only increases interest but also promotes **authentic learning and content mastery**. This insight supports the case for integrating DST as a complementary or alternative assessment strategy in diverse classrooms.

Theme 2: Flexibility and Time Management

Interpretation:

DST allows for greater flexibility in both teaching and learning. Teachers mentioned that students can manage their time better when engaging in DST tasks, especially in asynchronous or online environments.

Discussion:

In the context of online programmes (such as the Master in Didactics), this is particularly relevant. DST can accommodate different paces of learning and allow students to develop their projects over time. However, this flexibility must be balanced with **clear deadlines and support structures**, especially since some students may procrastinate or underestimate the time needed for production and editing. Educators may need training in structuring DST timelines effectively.

Theme 3: Student Engagement

Interpretation:

Multiple respondents highlighted that students show more enthusiasm and involvement in DST tasks compared to traditional assignments.

Discussion:

Engagement is a strong indicator of effective learning. The creative freedom offered by DST motivates students and encourages ownership of their work. However, higher engagement does not

automatically translate to better outcomes unless paired with **well-designed rubrics, clear objectives, and constructive feedback** mechanisms. This echoes findings from your quantitative data, where rubrics and guidance were identified as essential.

Theme 4: Non-Use or Hesitancy in Implementation

Interpretation:

Some teachers admitted to not using DST or feeling unsure about its implementation, often due to lack of training or institutional support.

Discussion:

This signals a gap between theoretical interest and practical application. Even though many teachers see the potential benefits of DST, the **absence of structured support, training, or infrastructure** prevents its widespread use. This highlights the need for **capacity-building efforts**, including workshops, technical assistance, and peer-sharing of best practices to build confidence and competence in DST use.

The qualitative feedback provides rich insights that complement the quantitative results from previous sections. While DST is seen as innovative, inclusive, and effective**,** its adoption is contingent on technical, pedagogical, and institutional readiness**.** Educators value its ability to engage learners and support various styles, but call for more training, time, and resources to fully integrate DST into their assessment repertoire.

Key Implications:

- **Professional development** is essential to address teacher hesitancy.
- **Flexible instructional design** is needed to optimize DST's benefits.
- **Institutional investment** must support both educators and students with infrastructure and technical help.

Q50 – What are the main obstacles you face when using this method (Digital Storytelling)?, integrating the **example quotes** you provided:

Table 20 *Emerging Themes from Q50 – Obstacles in Implementing Digital Storytelling*

Theme	Frequency (Sample Count)	Example Quote
Difficulty in Ensuring Student Engagement and Equity	4	"Reaching out to learners' satisfaction is sometimes difficult to realize how to gain the learners' utter motivation, how to offer every student a chance to listen, interact and implement the activities in class."
Technological Accessibility Issues (Digital Divide)	3	"Homework gap or digital divide."
Technical and Pedagogical Design Complexity	1	"Design it and modifying it."
Lack of Student Interest and Digital Skills	5	"Many students are not interested in storytelling, and most of them are not well equipped with TIC skills."
Non-Use or Lack of Experience with DST	2	"I didn't."

Analysis and Interpretation of Main Themes

1. Difficulty in Ensuring Student Engagement and Equity (Frequency: 4)

This theme captures a major concern among teachers: the challenge of ensuring active participation, motivation, and inclusivity for all students. Teachers expressed difficulty in adapting DST activities to reach all learners, especially when differences in interest, learning style, or participation levels are evident. This indicates a need for differentiated instructional strategies that tailor DST to varying student needs and preferences.

Key Finding: Educators need structured guidance on how to adapt DST to diverse learners and increase engagement in both online and face-to-face settings.

2. **Technological Accessibility Issues (Digital Divide) (Frequency: 3)**

Teachers identified limited student access to digital devices, internet connectivity, and necessary platforms as major obstacles. This so-called "homework gap" creates an uneven playing field, where some students are unable to participate in DST projects outside the classroom.

Key Finding: The digital divide remains a substantial barrier, highlighting the importance of providing institutional support and equitable access to technology for all learners.

3. **Technical and Pedagogical Design Complexity (Frequency: 2)**

Some educators pointed to the challenges of designing, customizing, and integrating DST projects into their curriculum. This includes the time and expertise required to adapt assignments to course objectives and learning outcomes.

Key Finding: There is a need for professional development focused on instructional design techniques and digital tools that can help teachers integrate DST more effectively.

4. **Lack of Student Interest and Digital Competence (Frequency: 5)**

This was the most frequently mentioned challenge. Teachers observed that many students lacked both the interest in storytelling-based tasks and the technical skills needed to complete them effectively. This problem directly impacts the effectiveness and fairness of DST as an assessment method.

Key Finding: DST implementation must be preceded by digital literacy training for students and connected to real-world relevance to boost interest and participation.

5. **Non-Use or Lack of Experience with DST (Frequency: 1)**

At least one participant reported not having used DST at all, which may reflect unfamiliarity, discomfort with technology, or institutional barriers. This signals potential gaps in awareness or training among educators regarding DST tools and methodologies.

Key Finding: Increasing awareness and offering hands-on training for novice users is crucial to widen the adoption of DST practices.

The analysis shows that although digital storytelling has recognized pedagogical value, significant practical and contextual challenges hinder its widespread and effective implementation. Key issues include technical barriers, low student readiness, and the need for educator support. To move forward, institutions must invest in inclusive design strategies, digital infrastructure, and ongoing professional development, ensuring that both teachers and students are prepared for the demands of modern, creative assessment methods like DST.

Q51 – How does digital storytelling compare to traditional assessment methods in your teaching context?

Emerging Themes:

Table 21 *Emerging Themes from Q51 – How does digital storytelling compare to traditional assessment methods in your teaching context?*

Theme	Frequency (Sample Count)	Example Quote
DST as a highly engaging and skill-integrating method	4	"Digital storytelling is highly engaging, while traditional assessment is often passive. Digital storytelling encourages integration of multiple skills—writing, speaking, listening, critical thinking, and digital literacy."
Enhanced student connection and motivation compared to traditional assessments	3	"As opposed to traditional assessment methods, digital storytelling is engaging for the student themselves as connecting

		to the subject matter delivered is no longer an option."
Complementary role of DST in assessment	2	"It is complementary."
Effective tool for literature and humanities teaching	2	"Digital storytelling is an excellent tool in teaching literature."
Creativity enhancement through DST	3	"Creative."

Based on the completed table, here is a detailed analysis, interpretation, and discussion of the main themes and key findings regarding teachers' perceptions of Digital Storytelling (DST) compared to traditional assessment methods:

1. DST as a Highly Engaging and Skill-Integrating Method

Frequency: 4

Interpretation: A recurring perception among respondents is that DST is more engaging than traditional assessments. It was frequently described as active, immersive, and multi-dimensional, integrating writing, speaking, listening, critical thinking, and digital literacy.

Key Finding:

Teachers see DST as a holistic tool that promotes diverse 21st-century competencies, in contrast to traditional assessments which are often limited to isolated cognitive skills. This highlights DST's potential to support competency-based education.

2. Enhanced Student Connection and Motivation

Frequency: 3

Interpretation: Participants emphasized that DST fosters personal connection to the subject matter.

By engaging learners in story creation related to academic topics, students become co-creators rather than passive recipients.

Key Finding:

Teachers believe DST encourages greater intrinsic motivation and emotional involvement, especially useful for personalized learning environments and affective domain development.

3. Complementary Role of DST

Frequency: 2

Interpretation: Some teachers suggested that DST should not entirely replace traditional assessments but serve as a supplementary or complementary tool. This suggests a balanced view where multiple assessment formats can coexist.

Key Finding:

The role of DST is seen as context-dependent—it can enhance traditional assessment systems by adding diversity and addressing different learner needs without displacing core evaluation practices.

4. Effective for Literature and Humanities

Frequency: 2

Interpretation: DST was identified as particularly effective for teaching literature, where narrative, emotion, and creativity are central. It allows students to visualize and narrate texts, making abstract concepts more accessible.

Key Finding:

DST may be especially powerful in humanities disciplines, aligning well with learning outcomes like interpretation, reflection, and cultural expression.

5. Creativity Enhancement

Frequency: 3

Interpretation: Teachers mentioned "creativity" as a standalone theme, emphasizing that DST allows both students and educators to explore innovative formats, visuals, and storytelling techniques.

Key Finding:

DST fosters creative thinking and expression, which is often constrained in conventional written exams. This supports a move toward constructivist and learner-centered pedagogies.

This analysis reveals that teachers regard Digital Storytelling as a dynamic, engaging, and multi-faceted assessment strategy that contrasts sharply with the more rigid and passive nature of traditional methods. While not seen as a complete replacement, DST is valued for its ability to foster motivation, creativity, critical thinking, and cross-disciplinary learning. The findings suggest that integrating DST into educational assessment frameworks—especially in humanities, language learning, and creative subjects—could enrich student learning experiences and outcomes

Q52 – What recommendations would you give to better integrate digital storytelling into assessment practices?

Emerging Themes:

Table 22 *Emerging Themes from Q52 – What recommendations would you give to better integrate digital storytelling into assessment practices?*

Recommendation	Frequency (Sample Count)	Example Quote
1. Offer mini-workshops or tutorials on	4	"Teachers should scaffold suchlike modes

how to use digital tools		of assessment and could, in so doing, adopt a social constructivist approach so students of diverse aptitudes could synergise."
2. Encourage group or pair work to build teamwork and shared responsibility	3	"Group work might help shy students engage and promote negotiation skills during storytelling production."
3. Link DST projects to curriculum goals and clear learning outcomes	3	"Digital storytelling should not just be an activity, but part of the learning objectives, tied to what we want students to achieve."
4. Provide training for both teachers and students on digital storytelling tools and pedagogy	5	"Training is essential—neither students nor teachers can do it right without technical and pedagogical guidance."
5. Scaffolding and building up learner interest gradually before high-stakes DST assessments	3	"Scaffold the experience by giving low-stakes practice first. Students need time to develop confidence and interest in storytelling."
6. Institutional recommendation to formally implement DST into assessment policies	2	"I recommend digital storytelling to be part of the official assessment methods, especially in subjects that benefit from creativity and narration."

Here is a detailed **analysis and interpretation** of the recommendations provided in response to **Q52 – "What recommendations would you give to better integrate digital storytelling into assessment practices?"**, based on the completed table:

Analysis and Interpretation of Main Themes

1. **Training and Capacity Building (Most Frequent Recommendation)**

   A recurring recommendation was the need for structured **training sessions** for both **teachers and students**. This includes tutorials, workshops, and hands-on support aimed at improving technical and pedagogical competence. The frequency of this recommendation suggests a clear **skill gap** that hinders effective implementation of digital storytelling (DST).

   ➤*Key Insight:* Without sufficient training, DST may remain an underused or misapplied tool.

2. **Curriculum Alignment and Outcome-Based Design**

   Several participants stressed the importance of **integrating DST within the curriculum** by aligning it with well-defined **learning outcomes**. This ensures that DST is not perceived as an "extra" task but rather as an **authentic, meaningful form of assessment**.

   ➤*Key Insight:* When DST is tied to curriculum objectives, its legitimacy and relevance are strengthened.

3. **Collaborative Learning and Group Projects**

   Encouraging **group or pair-based DST activities** was proposed to build not only teamwork but also **social learning**, negotiation, and shared responsibility. These skills are aligned with 21st-century competencies, enhancing the overall learning experience.

   ➤*Key Insight:* DST can be used to foster both academic and social-emotional skills through collaborative storytelling.

4. **Scaffolding and Gradual Introduction**

   Teachers highlighted the value of **scaffolding DST tasks**, starting with low-stakes, interest-building exercises before moving to high-stakes assessments. This pedagogical strategy can help students build **confidence** and **digital fluency**.

   ➤*Key Insight:* A gradual, supportive introduction can improve learner motivation and reduce performance anxiety.

5. **Institutional and Policy Support**

   A few responses called for **formal institutional endorsement** of DST in the form of clear guidelines, policy integration, or inclusion in standard assessment frameworks.

   ➤*Key Insight:* Institutional backing is essential to ensure consistent and scalable implementation of DST across departments or faculties.

Key Findings

- **Digital storytelling holds significant promise** as an assessment tool, but successful implementation requires foundational support.
- **Professional development for teachers and digital literacy training for students** are critical enablers of success.
- **Purposeful alignment with learning goals and curriculum standards** ensures that DST is not viewed as peripheral or optional.
- **Collaborative formats and scaffolding strategies** enhance both engagement and learning equity.
- **Institutional commitment** through policy and resource allocation is necessary to institutionalize DST as a mainstream assessment approach.

2.7 Conclusion

This chapter has provided a comprehensive overview of the research design and a detailed analysis of the data collected on teachers' perceptions of digital storytelling (DST) as an assessment tool within the online Master in Didactics programme at the University of M'sila. Through both quantitative and qualitative methods, the findings revealed a generally positive attitude toward the pedagogical value of DST, particularly in enhancing student engagement, creativity, and communication skills. However, several practical challenges were also highlighted, such as the need for technical support, additional training for both teachers and students, and concerns regarding equity, time management, and digital literacy.

The statistical analysis showed high levels of agreement on the benefits of DST, especially in promoting critical thinking and inclusivity, yet it also exposed gaps in institutional support and preparedness. The qualitative responses further enriched the findings by providing

contextual insights into teachers' experiences, needs, and recommendations. Themes such as motivation, collaboration, technical difficulties, and comparison with traditional assessment methods emerged as critical points of reflection.

Together, the results emphasize the need for targeted training programmes, investment in digital infrastructure, and the development of clear rubrics and inclusive strategies to ensure DST can be implemented effectively and equitably. These insights serve as a foundation for the next section, which will deal with the implications of these findings in light of the literature and propose practical recommendations for integrating DST into assessment practices in Algerian higher education.

General conclusion and recomendations

GENERAL CONCLUSION

This dissertation explored university teachers' perceptions of Digital Storytelling (DST) as an alternative method of assessment within the framework of online education, specifically in the Master in Didactics of Applied Languages at the University of Mohammed Boudiaf M'sila. Through a mixed-methods approach, the study illuminated both the perceived pedagogical value and the practical challenges of integrating DST into assessment practices.

The findings demonstrate that educators view DST as a dynamic and learner-centered tool that promotes engagement, creativity, digital competence, and reflective learning qualities increasingly aligned with 21st-century educational goals. Yet, despite its potential, the integration of DST remains hindered by infrastructural limitations, insufficient training, time constraints, and concerns about digital accessibility.

In light of these insights, the study concludes that the effective adoption of DST in online higher education settings requires a supportive institutional framework that includes professional development, technological investment, and inclusive policies. When such conditions are met, DST can emerge as a transformative, equitable, and pedagogically robust alternative to traditional assessment methods.

Suggestions and Recommendations

Based on the findings of this study, which explored teachers' perceptions of Digital Storytelling (DST) as an alternative method of assessment in online higher education; several recommendations are proposed to facilitate its effective integration:

1. Institutional Support and Policy Integration

- The University should formally recognize DST as a legitimate assessment method by integrating it into curriculum frameworks and assessment policies.
- Establish a supportive digital infrastructure that provides both teachers and students with access to appropriate software and hardware tools needed for DST.

2. Teacher Training and Capacity Building

- Organize regular workshops and training sessions focused on the technical and pedagogical aspects of digital storytelling.
- Promote communities of practice among teachers to share successful DST experiences and troubleshoot challenges collaboratively.

3. Student Orientation and Digital Literacy

- Offer introductory tutorials or mini-courses to familiarize students with the principles and tools of DST before they engage in such projects.
- Identify and support students with limited digital skills to ensure equitable participation and minimize the digital divide.

4. Curriculum and Learning Outcomes Alignment

- Align DST tasks with specific learning objectives to ensure relevance and academic rigor.
- Encourage the integration of DST across different modules to build students' multimodal literacy and creativity progressively.

5. Assessment and Feedback Mechanisms

- Develop clear rubrics and criteria for evaluating DST assignments to ensure transparency and fairness.
- Include peer-review and self-assessment components to enhance students' reflective and evaluative skills.

6. Time Management and Feasibility

- Acknowledge the time-consuming nature of DST by allowing flexible deadlines and adequate preparation time.
- Encourage collaborative DST projects to distribute workload and foster team-based learning.

7. Inclusion and Accessibility

- Ensure that DST projects are designed with accessibility in mind, accommodating students with diverse needs.
- Provide alternative formats or support for students with disabilities to guarantee full participation.

8. Continued Research and Development

- Conduct further empirical studies to examine the long-term effects of DST on learning outcomes and student motivation.
- Evaluate the scalability of DST across other departments or online programmes within the university to expand its benefits.

Limitations of the Study

Despite the valuable insights provided by this research, several limitations should be acknowledged:

1. Limited Sample Size and Scope

The study was confined to a relatively small group of university teachers within a single online Master's programme (Didactics of Applied Languages) at the University of M'sila. This narrow scope may limit the generalizability of the findings to other departments, institutions, or contexts.

2. Self-Reported Data

The data collected relied primarily on self-reported perceptions through an online questionnaire. As with any self-reported method, there is a risk of social desirability bias or subjective interpretation, which may affect the accuracy and objectivity of responses.

3. Absence of Longitudinal Data

This study captured perceptions at a single point in time. It did not investigate how teachers' views or the effectiveness of digital storytelling evolve over a longer duration or across multiple academic terms.

4. Limited Exploration of Student Outcomes

While the focus was on teachers' perceptions, the study did not directly assess the actual impact of DST on student learning outcomes, engagement, or performance. Future studies could include student feedback and academic results for a more holistic view.

5. Technical and Contextual Constraints

The study did not account for all external factors influencing DST implementation, such as institutional policies, available digital infrastructure, or varying levels of digital literacy among students and staff. These contextual elements could significantly affect the success of DST in different settings.

6. Mixed-Methods Depth

Although a mixed-methods approach was employed, the qualitative component was limited. A more extensive use of interviews or classroom observations could have offered deeper insights into the practical experiences and challenges of using DST.

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Appendix

Questionnaire for the teachers

This questionnaire is part of a research study aimed at gathering your views and experiences regarding the use of digital storytelling as a tool for assessing students' learning. Your responses will be treated with strict confidentiality and used solely for academic purposes. Your input is highly valuable and will contribute to a better understanding of innovative assessment practices. Thank you for your participation!

Section 1: General Information

1. Gender:

   ☐ Male

   ☐ Female

   ☐ Prefer not to say

2. Age Group:

   ☐ 20–29

   ☐ 30–39

   ☐ 40–49

   ☐ 50 and above

3. Teaching Experience (Years):

   ☐ 0–5 years

   ☐ 6–10 years

☐ 11–15 years

☐ 16 years or more

4. Familiarity with Digital Storytelling before this study:

   ☐ Very familiar

   ☐ Somewhat familiar

   ☐ Not familiar

5. Have you previously used digital storytelling in your teaching or assessment?

   ☐ Yes

   ☐ No

6. Which devices do you usually use to facilitate digital storytelling activities? (Select all that apply)

   ☐ Desktop computer

   ☐ Laptop

   ☐ Tablet

   ☐ Smartphone

   ☐ Other: _____

7. Have you ever received formal training on integrating digital storytelling into your teaching?

   ☐ Yes

   ☐ No

8. How often do you incorporate digital storytelling in your assessments?

   ☐ Rarely

☐ Sometimes

☐ Often

☐ Always

Section 2: Perceptions of Use and Effectiveness

Please indicate your level of agreement with the following statements:

(1 = Strongly Disagree | 2 = Disagree | 3 = Neutral | 4 = Agree | 5 = Strongly Agree)

Statement	1 (Strongly Disagree)	2 (Disagree)	3 (Neutral)	4 (Agree)	5 (Strongly Agree)
9. Digital storytelling is an effective method to assess students' understanding of course content.					
10. I feel confident assessing students through digital storytelling projects.					
11. It is easy to integrate digital storytelling into online courses.					
12. I would recommend digital storytelling to colleagues as an assessment method.					
13. Digital storytelling promotes a deeper understanding of course material and connects theoretical					

knowledge with real-world applications.					
14.Clear rubrics or guidelines are necessary to ens fair and objective assessment of digital storytellin projects					
15. I am willing to continue using digital storytelling as an assessment tool in the future.					
16. Digital storytelling should be integrated across various subjects, not just language or arts.					
17. Digital storytelling is suitable for all students in the online Master's programme.					
18. I feel motivated to develop my own digital storytelling skills.					
19. Digital storytelling allows students to demonstrate higher-order thinking and creativity.					
20. Digital storytelling provides a more holistic picture of student learning than traditional					

assessments.					
21. Digital storytelling can enhance the overall assessment process in the programme.					

Statement	Yes	No
22. Do you feel you have received sufficient training and support to use digital storytelling?		

Section 3: Benefits and Impact on Students

Please indicate your level of agreement with the following statements:

Scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree

Statement	1 (Strongly Disagree)	2 (Disagree)	3 (Neutral)	4 (Agree)	5 (Strongly Agree)
23. Digital storytelling enhances students' creativity and self-expression.					
24. DST promotes critical thinking skills					
25. Digital storytelling makes learning more engaging for students.					
26. Students are more motivated when working on digital storytelling					

assignments.					
27. Students can express themselves more effectively through digital storytelling than through traditional assignments.					
28. Digital storytelling supports diverse learning styles and fosters inclusivity.					
29. Digital storytelling encourages collaboration among students.					
30. Digital storytelling develops students' communication and digital literacy skills.					
31. Digital storytelling provides a more equitable way to assess students with different strengths.					
32. Digital storytelling positively impacts overall student learning outcomes.					

Section 4: Challenges and Limitations

Please indicate your level of agreement with the following statements:

Scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree

Statement	1 (Strongly Disagree)	2 (Disagree)	3 (Neutral)	4 (Agree)	5 (Strongly Agree)
33. I have received sufficient training and support to use digital storytelling effectively.					
34. I need additional resources or training to implement digital storytelling assessments effectively.					
35. Assessing and guiding digital storytelling projects is time-consuming.					
36. Technical difficulties (e.g., software, internet) often interfere with digital storytelling implementation.					
37. Students often struggle with the digital tools required for digital storytelling.					
38. Students need initial training before engaging in digital					

storytelling projects.					
39. Students' varying technology backgrounds impact their ability to use digital storytelling effectively.					
40. Digital storytelling assessments may disadvantage students with low digital literacy.					
41. Accessibility concerns can hinder students with disabilities in digital storytelling tasks.					
42. It is difficult to ensure academic integrity with digital storytelling assessments.					
43. Students need more technical support to complete digital storytelling assignments successfully.					
44. Digital storytelling assignments should be optional rather than mandatory.					

Section 5: Comparison with Traditional Assessment Methods

Please indicate your level of agreement with the following statements:

Scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree

Statement	**1 (Strongly Disagree)**	**2 (Disagree)**	**3 (Neutral)**	**4 (Agree)**	**5 (Strongly Agree)**
45. Digital storytelling can replace some traditional written assessments.					
46. Digital storytelling is a more authentic assessment method than traditional formats					
47. Digital storytelling aligns better with real-world communication and problem-solving skills than traditional assessments.					
48. Compared to traditional methods, digital storytelling allows for more personalized assessment of students' learning.					

Section 6: Open-Ended Questions

49. What benefits have you observed when using digital storytelling with your students?

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50. What are the main obstacles you face when using this method?

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51. How does digital storytelling compare to traditional assessment methods in your teaching context?

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52. What recommendations would you give to better integrate digital storytelling into assessment practices?

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