Storytelling as an Innovative Teaching Tool for Promoting Meaningful Learning in the Educational Environment: Exploration and Applications

Benjamin Ingram[1]

[1] Tasmanian Technical Institute – Australia, benjaminingram0908@outlook.com, https://orcid.org/0009-0007-8170-960X.

ABSTRACT

In today's society, the integration of technologies has become essential in educational environments. This research emerges from the issue related to the limited incorporation of technologies in teaching and learning processes, specifically addressing the need to adopt storytelling as an innovative strategy to achieve meaningful learning. The main objective was to contribute to the development of novel educational approaches by applying tools centered around digital narratives, taking into consideration the transformation of the educational model in the post-pandemic context. The structure of this work is organized as follows: firstly, a synthesis of key elements of digital narratives and storytelling is presented; secondly, the methodology used is described, involving a qualitative-quantitative approach through an exploratory study that engaged a sample of 36 teachers from the Educational District 17D03 of the Ministry of Education in the city of Quito, Ecuador. Additionally, an interview with the academic coordinator was conducted. Finally, the results revealed that teachers do not implement digital narratives like storytelling in the classroom. In conclusion, it is emphasized that storytelling is an engaging and accessible methodology that promotes motivation and interest in learning among students.
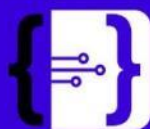
Keywords: Digital narrative; storytelling; meaningful learning

La Narración de Historias como Herramienta Didáctica Innovadora para Promover el Aprendizaje Significativo en el Entorno Educativo: Exploración y Aplicaciones

RESUMEN

En la sociedad actual, la integración de tecnologías se ha vuelto esencial en entornos educativos. Esta investigación surge a partir del problema relacionado con la limitada incorporación de tecnologías en los procesos de enseñanza y aprendizaje, abordando específicamente la necesidad de adoptar el storytelling como una estrategia innovadora para lograr un aprendizaje significativo. El objetivo principal fue contribuir al desarrollo de enfoques educativos novedosos mediante la aplicación de herramientas centradas en narrativas digitales, teniendo en cuenta la transformación del modelo educativo en el contexto postpandémico. La estructura de este trabajo se organiza de la siguiente manera: en primer lugar, se presenta una síntesis de los elementos clave de las narrativas digitales y el storytelling; en segundo lugar, se describe la metodología utilizada, que involucra un enfoque cualitativo-cuantitativo a través de un estudio exploratorio que incluyó a una muestra de 36 docentes del Distrito Educativo 17D03 del Ministerio de Educación en la ciudad de Quito, Ecuador. Además, se llevó a cabo una entrevista con el coordinador académico. Finalmente, los resultados revelaron que los docentes no implementan narrativas digitales como el storytelling en el aula. En conclusión, se enfatiza que el storytelling es una metodología atractiva y accesible que fomenta la motivación y el interés en el aprendizaje entre los estudiantes.

Palabras clave: Narrativa digital; storytelling; aprendizaje significativo

INTRODUCTION

In the current educational context, this study aims to analyze the impact of storytelling on meaningful learning, exploring the integration of visual, auditory, and multimedia elements. The research emerges in response to national and international transformations in the educational system triggered by the COVID-19 pandemic. In this new post-pandemic scenario, the proposal addresses the need to leverage resources and tools to motivate both students and teachers, fostering innovative and meaningful teaching and learning processes.

The identified issue revolves around the lack of proficiency in New Information and Communication Technologies by teachers, despite their integration into contemporary society. This results in a limited ability for students to fully harness these resources, hindering the construction of profound knowledge and the acquisition of meaningful learning.

The methodology employed in this study is defined as descriptive field research. A literature review was conducted to analyze specialized documents, complemented by on-site data collection. This approach allows for contextualizing and justifying the need to incorporate storytelling as a strategy for meaningful learning.

The relevance of the research is highlighted in the fundamental role of teachers as direct agents influencing the development of students' skills. The application of new strategies is presented as essential to capture and sustain children's interest, thus facilitating the continuous construction of deeper learning processes. In this context, the implementation of processes that stimulate sensory development at individual, familial, and social levels take on significant importance.

From the perspective of education theorists, such as Hermann-Acosta (2015), the integration of textual, auditory, and visual languages with a focus on interaction is emphasized as key to achieving this goal. Information and Communication Technologies (ICT) are presented as tools not only for cultural representation but also for education within the community.

The objectives pursued in this research aim to contribute to the development of innovative approaches in educational processes through the application of tools centered around digital narratives.

The structure of this article is organized into the following sections: the theoretical framework introduces key concepts; the methodology provides details on each step of the research, from literature review to on-site data collection; the results and analysis evaluate the measurements from the teachers' perspective and through surveys; the proposal section introduces the use of storytelling as a strategy to address the identified issue. Finally, the conclusions synthesize the findings and suggest possible directions for future research.

THEORETICAL FRAMEWORK

Digital Narratives In the realm of contemporary communication, digital narratives emerge as an evolved expression of storytelling, leveraging the possibilities offered by digital technology to create immersive narrative experiences. These narratives, according to Johnson (2013), represent a natural evolution of traditional storytelling in response to the opportunities presented by digital technology. This approach not only transforms the way stories are told but also the audience's perception and relationship with them. Digital narrative takes on crucial importance in hybrid models that have emerged as a result of the COVID-19 pandemic, promoting the development of cognitive, metacognitive, argumentative, and critical judgment processes (Díaz Barriga, 2019). Considered as an innovative methodology, according to Díaz Barriga (2019, p. 254), digital narrative presents itself as a set of elements supporting the execution of projects or problem-solving, acting as a mediator in processes of reflection and planning interventions. The interactive and adaptable nature of digital narratives allows users to make decisions that influence the direction of the story, offering, according to Murray (2017), a sense of agency that allows viewers to impact the narrative development. This interactivity creates participatory experiences, particularly effective in the educational realm, where students can explore and learn at their own pace. In conclusion, digital narratives configure themselves as an innovative way of storytelling, capitalizing on digital technology to create interactive and enriching narrative experiences. With diverse applications, these narratives offer new effective and engaging ways to communicate information and experiences.
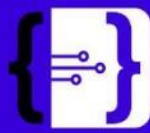
Categories of Digital Narratives

Digital narratives, as a constantly evolving genre, encompass a diversity of approaches and formats, each with distinctive characteristics. Below, we will explore some of the most relevant categories in contemporary digital narrative, supported by updated academic sources.

1. Transmedia Narratives: According to Jenkins (2007), transmedia narratives are defined as stories that unfold across various media and platforms, engaging the audience in diverse ways. These narratives encompass elements such as videos, blogs, social media, and video games, offering an immersive experience that involves the audience comprehensively.

2. Interactive Narratives: Montfort (2007) explores interactive narratives, where the reader or viewer plays an active role in constructing the story. This concept manifests in video games, where player decisions affect the course of the plot, as well as in hypertextual narratives, where readers choose their own path through the storyline.

3. Augmented and Virtual Reality Narratives: Digital narrative has embraced augmented reality and virtual reality. These technologies enable the creation of immersive experiences, merging narrative with the user's environment and opening new possibilities for storytelling and learning.

4. Social Media Narratives: Boyd and Ellison (2007) investigate user-generated narratives on social media, where individuals share their experiences and tell stories through photos, videos, and posts. These narratives often focus on everyday life and the construction of online identities.

5. Data Narratives: In the digital era, data narratives play a fundamental role. Through effective visualizations, these narratives can communicate complex stories and reveal meaningful patterns, allowing for a deeper understanding of information.

6. Digital Learning Narratives: Within the educational realm, digital narratives are employed as pedagogical tools to engage students. According to Robin (2016), these narratives serve to promote understanding and retention of information, as well as to develop communication skills.

Storytelling

Narration in the transmedia context is an art of storytelling utilized in the educational realm, arising from the creator's personal connection with information and plot. Some describe it as the use of

interactive digital technology to develop participatory stories that encourage immersion (Rosales & Roig, 2017, p.165).
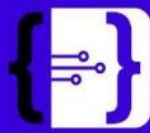
Storytelling, or the narration of stories, is a powerful communication tool that has acquired a central role in various fields, from marketing to education. According to McKee (1997), storytelling is "the most powerful way to convey ideas in the human world," as stories have the ability to emotionally connect with people and convey messages in a memorable way.

In the educational domain, storytelling has gained importance. Gardner (1993) suggests that telling stories can be an effective way to communicate complex and abstract information, as it allows students to contextualize and personalize knowledge. Furthermore, in the digital age, digital narratives have expanded the possibilities of storytelling, offering new ways to engage students through media such as videos, animations, and interactive experiences (Robin, 2016).

In summary, storytelling is a powerful technique that transcends disciplinary boundaries and has become a fundamental skill in contemporary communication. In the marketing domain, authors like Brown (2013) emphasize that effective storytelling can be used to build a brand's identity, connecting with the audience on an emotional level and forging lasting relationships.

In contemporary education, innovative didactic strategies play a crucial role, representing an essential approach. Their aim is to enhance the teaching and learning process through the application of novel and effective educational methods. Bransford (2000) highlights that these strategies are specifically "designed to actively engage students in the construction of their own knowledge," implying a student-centered approach to foster deep understanding and critical thinking. Additionally, according to Johnson and Johnson (2014), these strategies often incorporate collaboration among students, thus promoting the development of social skills and problem-solving in an interactive learning environment.

The variety of approaches encompassed by these strategies is broad, ranging from Project-Based Learning (PBL) to gamification and Cooperative Learning. In a constantly changing world, the application of innovative didactic strategies, supported by research and modern pedagogy, has become a fundamental pillar. Their purpose is to prepare students for the challenges of the 21st century, ensuring meaningful and lasting learning.

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In contemporary pedagogy, the key concept of meaningful learning is built upon a solid theoretical foundation. According to Ausubel (1995), a prominent theorist in this field, meaningful learning takes place when new knowledge connects logically and substantively with what is already known. This perspective underscores the importance of building upon students' prior knowledge, which, according to Novak (1981), promotes deep understanding and the ability to transfer learning to novel situations. Furthermore, meaningful learning aligns with the idea that students should be active participants in their own educational process, requiring the active application of knowledge in relevant and meaningful contexts. Ultimately, it goes beyond surface-level memorization, fostering a rooted and lasting understanding that genuinely impacts students' lives.

The application of discovery-based learning is considered a distinct process from simple reception, a constant in traditional education. According to Ausubel (2002: 91), students transform the existing cognitive structure to integrate new information, reorganizing this combination to achieve different outcomes.

Regarding the application of the theoretical foundation of digital narratives in the educational context, we construct a new framework incorporating the contributions of Kolb. This theorist argues that the main problem in teaching and learning processes lies in the cognitive realm, where students often fail to develop skills, competencies, and abilities to apply in real-world contexts (Kolb, 2005).

METHODOLOGY

This research is based on the results obtained from the study sample of Educational District 17D03 La Delicia in the city of Quito, Ecuador. It specifically focuses on teachers from all educational levels and centers on the application of digital narratives.

To address this research, a mixed-methods approach is adopted, incorporating qualitative aspects derived from reflections based on interviews and theoretical analyses, as well as quantitative aspects obtained through the processing of interview data. The study is characterized as descriptive and field-based, involving the collection of both theoretical and on-the-ground information to analyze the current situation and justify the need to implement digital narratives in education. Techniques employed include surveys of teachers and qualitative interviews with an education expert.

Following the suggestion of Hernández-Sampieri et al. (2010), when the target population is relatively small, as in this case, where it concerns the group of teachers in Educational District 17D03, the entire group is considered a sample for data collection. The type of sampling used is non-probabilistic homogeneous, selecting all teachers in the group for the research.

RESULTS AND DISCUSSION

Regarding the research question on the role of storytelling as an innovative didactic strategy among teachers at all levels of District 17D03, La Delicia, in the city of Quito, Ecuador, the following results are obtained: the study sample consists of 36 teachers, of which 88.89% consider the inclusion of storytelling as an innovative didactic strategy necessary, as it positively contributes to the meaningful learning of students. Meanwhile, 11.11% believe that the inclusion of storytelling is not necessary
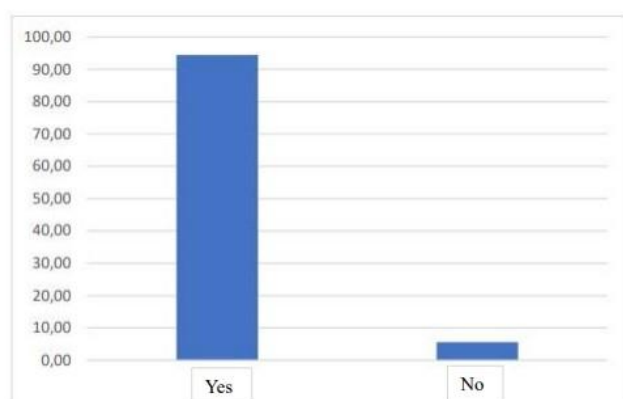

Figure 1: Do you believe that the implementation of storytelling as an innovative didactic strategy is necessary in teaching processes in the classroom? Source: (Teachers' Survey, 2023)

In Figure 1, it is evident that the majority of respondents favor the implementation of storytelling as an innovative didactic strategy in classroom teaching processes.

In contrast to these results, in the interview, teacher Servio Cadena presents his perspective. He expresses that storytelling has the ability to effectively capture students' attention. He argues that stories

have the power to emotionally engage students, thus facilitating the understanding and retention of concepts. By presenting information in a narrative form, a context is created that helps students relate to and remember the content more meaningfully.

Furthermore, he points out that storytelling promotes creativity and the oral and written expression of students, providing them with the opportunity to develop narration, argumentation, and critical analysis skills. He emphasizes that this strategy can be an inclusive tool that adapts to various learning styles, enabling students to actively participate in the construction of the story.

Application of the TAM Model

When applying the TAM model, Question 5 investigates the teacher's overall perception regarding the utility of storytelling in their classes, both in face-to-face and virtual environments.
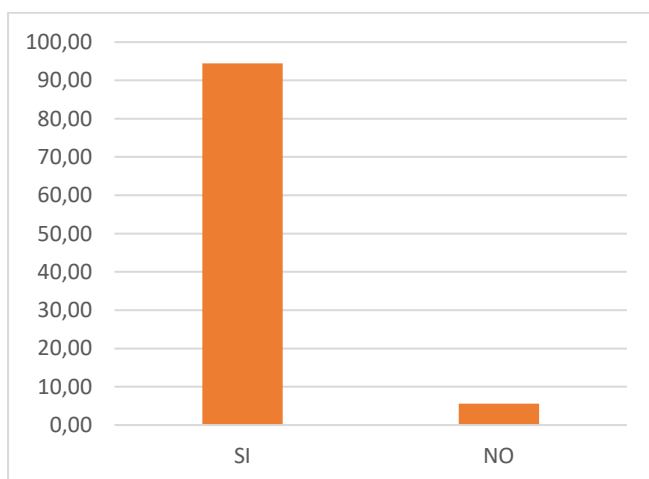

Figure 2. Question 5 from the Teachers' Questionnaire

Out of a total group of 36 teachers who participated in the survey, equivalent to 100% of the population, 94.44%, corresponding to 34 teachers, affirm that storytelling is a useful strategy for the teaching and learning process in both face-to-face and virtual environments. In contrast, 5.56%, equivalent to 2 teachers, indicate that they do not consider this strategy useful. This result indicates that the majority of teachers consider storytelling to be a beneficial strategy for teaching and learning processes, especially in the hybrid environments that emerged as a result of the COVID-19 pandemic, involving a combination of face-to-face and virtual settings.

CONCLUSIONS

To achieve meaningful learning, it is imperative to consider the interaction between prior knowledge, experience, and new knowledge in the teaching context. Effective organization of knowledge is essential to ensure the internalization and retention of new learning. Additionally, providing students with tools that allow them to connect and assimilate new material is crucial. In this sense, the incorporation of digital narratives, in various multimedia, hypertextual, and transmedia formats, plays a fundamental role as organizers that facilitate the assimilation and retention of knowledge.

Digital narratives, acting as pedagogical tools and teaching strategies, are grounded in fundamental pedagogical principles such as meaningful learning while aligning with the principles of educational technology. These narratives find their place in learning environments that are open, adaptable, and decentralized, allowing them to adapt to the needs of various types of students.

Through the conducted study, it was observed that teachers lacked knowledge about innovative teaching strategies, which play a crucial role in the teaching and learning process. This underscores the urgent need to create novel educational strategies that leverage the tools available today to facilitate meaningful learning. In the specific context of Educational District 17D03, which was examined, it was concluded that digital narratives represent a solid resource from which these processes can be initiated.

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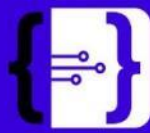
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