



Reframing Digital Innovation in EFL Classrooms: A Pedagogical Autoethnography of Teacher-Developed Offline Gamified Powerpoint Media

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Keywords:

Digital Innovation, Offline Gamified Pedagogy, EFL Classroom, Teacher Agency, Low-Tech Instructional Design

Abstract

Digital innovation in English language learning is often associated with high-tech platforms such as internet-based systems and mobile applications, which overlooks disparities in access and digital literacy across many regions. This study explores alternative forms of digital innovation that are more inclusive and sustainable. It aims to investigate the use of offline gamified PowerPoint media developed by teachers as a low-tech instructional alternative, with a focus on sustainability and equity in EFL classrooms. Adopting a pedagogical autoethnography approach, data were collected through reflective journals, classroom observations, student feedback, and instructional artifacts over two academic years. Triangulation and thematic analysis were employed to ensure methodological rigor. The findings reveal three key transformations: (1) reconstruction of teacher identity as a learning designer, (2) increased student engagement and reduced speaking anxiety through gamified interaction, and (3) the emergence of offline gamified pedagogy as a sustainable and equity-oriented model of digital innovation. This study demonstrates that low-tech, pedagogically grounded digital innovation can serve as an effective and sustainable alternative, even in resource-constrained contexts, while supporting inclusive and high-quality learning experiences.

INTRODUCTION

Digital technology has reshaped expectations for educational innovation, often privileging online platforms, mobile applications, and data-driven tools as indicators of pedagogical advancement (Selwyn, 2016). In language education, gamification and technology-enhanced learning are widely associated with increased learner motivation and engagement (Deterding et al., 2011; Hamari et al., 2014). However, this dominant discourse frequently assumes stable internet connectivity and advanced digital infrastructure—conditions that remain unevenly distributed across global educational contexts (UNESCO, 2023). The persistence of the digital divide underscores that access to technology involves not only hardware availability but also infrastructure, institutional capacity, and pedagogical readiness (Irungu 2025; Ndjama 2025).

Recent scholarship emphasizes that technology integration must be evaluated through the lens of sustainability and equity rather than technological sophistication alone (UNESCO, 2023). In many classrooms, particularly within resource-constrained environments, teachers rely on accessible tools that operate independently of internet connectivity (Ifenatuora et al. 2023; Rwodzi et al. 2021). Yet, such practices remain underrepresented in mainstream educational technology research.

This study addresses this gap by proposing Offline Gamified Pedagogy (OGP)—a teacher-designed instructional model embedding structured game mechanics within non-internet-based digital tools such as Microsoft PowerPoint enhanced with Visual Basic for Applications (VBA). It investigates how OGP shapes teacher identity, student engagement, and equity-oriented digital practice in EFL contexts (Kheirkhah Abkenari 2025; Lypka et al. 2020).

This research further examines the use of offline gamified PowerPoint media, developed by teachers, as an alternative method for engaging students in EFL classrooms. Specifically, it explores how this low-tech approach can transform teacher identity, enhance student engagement, and foster a more equitable learning environment. The novelty of this research lies in its focus on offline gamified pedagogy, a method that integrates structured game mechanics into non-internet-based digital tools, offering a sustainable solution to the challenges posed by limited access to high-tech resources.

Given the urgency of addressing educational needs in underserved areas, this research is both timely and necessary. It proposes that offline gamified pedagogy can serve as a model for promoting digital equity by enabling teachers to design interactive learning experiences without relying on constant internet connectivity (Siddiqi 2024; Sikora et al. 2024). Furthermore, the study's findings have the potential to influence the design of instructional models in areas where access to the internet is sporadic, thereby improving the quality of education in resource-constrained environments (Ifenatuora et al. 2023; Okai-Ugbaje et al. 2022; Rwodzi et al. 2021).

The research will contribute to the growing body of knowledge on digital pedagogy by highlighting the potential of offline technologies in enhancing educational equity. By focusing on the teacher's role in adapting and designing digital learning tools, the study shifts attention from the limitations of technology to the agency of educators in overcoming infrastructural challenges. The findings aim to provide actionable insights for teachers, policymakers, and educational institutions on how to integrate low-tech digital solutions into their teaching practices (Hennessy et al. 2021; Rafiq-uz-Zaman 2025).

The main objectives of this research are to assess how offline gamified PowerPoint media can transform teacher identities as learning designers, to explore their impact on student engagement and motivation, and to evaluate their potential as an equitable digital innovation. By achieving these objectives, the research seeks to offer a scalable solution for EFL classrooms in areas with limited access to internet-based resources.

In terms of benefits, this study offers practical implications for improving pedagogical practices in low-tech environments. It demonstrates how offline tools can be used effectively to engage students in meaningful learning experiences, contributing to the development of inclusive and sustainable teaching strategies (Makinde et al. 2024; Tomas et al. 2015; Yeganeh et al. 2025). Additionally, the research provides evidence supporting the integration of offline technologies as viable alternatives to high-tech solutions, particularly in regions facing digital access challenges.

Through this investigation, the research advances understanding of how digital innovations can be tailored to local contexts, ensuring that they meet the specific needs of students and teachers. It also contributes to the discourse on digital equity by proposing that effective learning is not solely dependent on high-tech solutions but can be achieved through

creative adaptations of available resources. This shift in perspective is crucial for bridging the digital divide and fostering more inclusive educational environments worldwide.

The purpose of this study is to offer a comprehensive analysis of offline gamified pedagogy as a viable alternative for digital innovation in education. By exploring how this approach can enhance teacher agency, student engagement, and equity, the research aims to make a significant contribution to the field of educational technology, particularly in resource-constrained settings. The findings will not only provide a model for EFL classrooms but also serve as a foundation for future research on low-tech pedagogies across various educational contexts.

This research seeks to redefine the notion of digital innovation in education by demonstrating that sustainable, offline solutions can be as effective as their online counterparts in fostering equitable learning environments. By addressing the challenges posed by the digital divide, this study contributes to the development of inclusive educational practices that are adaptable to diverse technological contexts.

METHOD

This study adopted a pedagogical autoethnographic design situated within a critical interpretivist epistemology. Within this paradigm, teaching practice was understood as situated professional knowledge shaped by institutional, cultural, and infrastructural conditions.

Autoethnography was employed as a systematic qualitative method that connected personal lived experience with broader educational discourses (Ellis, Adams, & Bochner, 2011). Rather than functioning as anecdotal narrative, the method enabled critical interrogation of pedagogical practice in relation to digital equity, teacher agency, and gamification scholarship. The study spanned two academic years (2021–2023), during which the researcher developed and implemented offline gamified Microsoft PowerPoint media enhanced with Visual Basic for Applications (VBA) in a private junior high school EFL classroom in Bontang.

To enhance methodological rigor, the study employed data triangulation (Denzin, 1978) across multiple sources. Data were collected from reflective teaching journals, classroom observation records, student feedback, and instructional artifacts. Reflective journals documented structured reflections on pedagogical decisions, classroom dynamics, and teacher identity development. Classroom observations captured student interaction patterns, participation, and engagement during gamified sessions. Student feedback included brief written responses and participation records. Instructional artifacts consisted of VBA-enhanced PowerPoint files and game design structures. Triangulation across these sources strengthened the study's credibility and reduced reliance on a single perspective.

Data were analyzed using thematic analysis (Braun & Clarke, 2006), beginning with familiarization through repeated reading of journals and observation notes. Initial coding focused on identity shifts, engagement, anxiety reduction, and competition dynamics, followed by theme development and cross-checking with instructional artifacts. The analysis was informed by relevant theoretical frameworks to ensure depth beyond descriptive reporting.

The researcher acknowledged a dual role as both teacher and instructional designer,

which introduced potential bias. To address this, reflexivity was maintained through critical self-questioning and cross-referencing interpretations with student feedback and observational data. Trustworthiness was ensured through established qualitative criteria (Lincoln & Guba, 1985). Ethical integrity was maintained through institutional approval, informed consent, anonymization of student identities, and voluntary participation. An audit trail was maintained to document key stages of the research process and support transparency.

RESULTS AND DISCUSSION

The analysis generated four interrelated themes that illuminate the pedagogical and identity transformations emerging from the implementation of offline gamified PowerPoint media:

1. Teacher identity reconstruction as learning designer
2. Structured gamification as a catalyst for communicative risk-taking
3. Emotional engagement and reduced speaking anxiety
4. Offline gamified pedagogy as equity-oriented digital innovation

Each theme is discussed in relation to established theoretical frameworks.

From Instructor to Learning Designer: Reconstructing Teacher

Identity

A recurring pattern across reflective journals was the shift from viewing teaching as content delivery toward perceiving it as instructional design. Early entries emphasized concerns about student boredom and passive participation. Over time, reflections increasingly focused on mechanics, scoring logic, narrative sequencing, and interaction design.

One journal excerpt noted:

“I no longer prepare slides only to explain material. I design how students will interact, compete, and speak. The slide is not presentation—it is a system.”

This transformation aligns with Teacher Agency Theory (Priestley et al., 2015), which conceptualizes teachers as curriculum makers rather than implementers. The development of VBA-based scoring systems represents pedagogical authorship, not merely technical adaptation.

The shift also reflects ecological agency, where professional action is shaped by contextual constraints. Limited internet access did not restrict innovation; rather, it catalyzed creative adaptation. This challenges deficit narratives that equate high technology with high quality.

Thus, Offline Gamified Pedagogy (OGP) emerges as a site of teacher-driven digital transformation grounded in agency.

Structured Gamification and Communicative Risk-Taking

Observation records revealed increased voluntary participation during gamified sessions compared to traditional instruction. Students who previously avoided speaking began offering guesses, negotiating answers within groups, and taking communicative risks.

For example, during the “Shadows Stories” activity, multiple students attempted hypothesis-building in English, even when grammatically imperfect. A reflective entry documented:

“Students speak without waiting to be perfect. They prioritize solving the mystery over grammar accuracy.”

This aligns with Self-Determination Theory (Deci & Ryan, 2000), particularly the need for competence and relatedness. The scoring system and team competition created clear feedback structures, while collaborative guessing fostered peer interaction.

In EFL research, communicative anxiety often inhibits participation (Dörnyei, 2001). The game mechanics appeared to reframe speaking as participation in a shared challenge rather than performance evaluation. In constructivist terms (Vygotsky, 1978), interaction became socially mediated meaning-making rather than individual linguistic display.

Thus, gamified structure functioned not as entertainment, but as a scaffold for communicative engagement.

Emotional Engagement and Reduced Speaking Anxiety

Field notes consistently described heightened classroom energy during activities such as “Sticktionary Showdown” and “Tug of Words.” Laughter, peer encouragement, and spontaneous applause became common features of the classroom environment.

A journal reflection stated:

“Students who usually avoid eye contact are now shouting clues. The competition shifts their focus from fear to excitement.”

This phenomenon can be interpreted through motivational psychology. According to SDT (Deci & Ryan, 2000), intrinsic motivation increases when learners experience autonomy, competence, and relatedness. Offline gamified mechanics provided:

- Clear goals (clues and scoring)
- Immediate feedback (VBA point system)
- Collaborative belonging (team-based competition)

Importantly, anxiety reduction did not occur because linguistic demands were lowered, but because emotional framing changed. Speaking became part of a game narrative rather than a graded performance.

This finding suggests that OGP operates not only cognitively but affectively.

Offline Gamified Pedagogy as Equity-Oriented Digital Innovation

A central analytical insight concerns the reframing of digital innovation. The classroom operated without reliable internet access, yet students experienced structured interactive digital learning.

Unlike web-based gamification platforms, OGP relied on:

- Locally stored files
- Teacher-controlled scoring systems
- Non-dependent connectivity structures

This aligns with global discussions on digital equity, which argue that meaningful access includes sustainability and contextual adaptability (UNESCO, 2023). Rather than positioning offline environments as technologically deficient, this study demonstrates their potential for pedagogical richness.

Offline Gamified Pedagogy therefore challenges the assumption that digital advancement must be internet-based. Innovation becomes defined by design intentionality rather than technological complexity.

Theoretical Contributions

From these findings, three conceptual contributions emerge:

1. Reframing Digital Innovation

Digital innovation should be evaluated based on pedagogical functionality and equity, not bandwidth dependency.

2. Expanding Gamification Scholarship

Gamification research must consider teacher-designed offline environments as legitimate sites of digital pedagogy.

3. Conceptualizing Offline Gamified Pedagogy

(OGP) OGP integrates:

- a) Game mechanics
- b) Motivational psychology
- c) Constructivist interaction
- d) Teacher agency
- e) Digital equity principles

This framework expands existing gamification discourse beyond platform-centric models.

Limitations and Future Research Directions

Methodological Limitations

While this study provides in-depth insights into teacher-developed offline gamified pedagogy, several limitations must be acknowledged. First, the study employs a single-researcher pedagogical autoethnographic design, which inherently reflects the situated experience of one practitioner. Although triangulation and prolonged engagement enhance credibility, findings remain context-specific and may not be directly generalizable to all EFL settings (Lincoln & Guba, 1985). The insider positionality of the researcher, while analytically valuable, may also introduce interpretive bias despite reflexive practices.

Second, although classroom observations and student feedback were incorporated, the study does not include systematic quantitative measurement of learning outcomes such as standardized speaking proficiency scores or controlled comparative data. Therefore, claims regarding learning effectiveness are grounded primarily in qualitative engagement indicators rather than experimental validation. Third, the technological ecosystem examined is limited to PowerPoint-based offline gamification enhanced with VBA. Other low-tech environments (e.g., offline LMS platforms, hybrid analog-digital models) were not explored within this inquiry.

Contextual Limitations

The study was conducted within a specific junior high school context characterized by limited internet connectivity and teacher-controlled digital infrastructure. In highly connected classrooms where students possess individual devices, the dynamics of offline gamified pedagogy may differ significantly.

Additionally, the cultural context of collaborative competition and classroom interaction norms may influence student engagement patterns. Educational systems with different pedagogical traditions may experience varied outcomes.

Theoretical Boundaries

While the study integrates Self-Determination Theory, Constructivism, and Teacher Agency Theory, it does not empirically test these frameworks in a confirmatory manner. The conceptualization of Offline Gamified Pedagogy (OGP) remains interpretive and

emergent rather than statistically validated.

Future research may operationalize OGP into measurable constructs to assess its predictive relationship with motivation, anxiety reduction, and language performance.

Future Research Directions

To expand the scholarly contribution of Offline Gamified Pedagogy, several avenues for future inquiry are proposed:

1. Mixed-Methods Validation Studies

Future research could incorporate quasi-experimental or mixed-methods designs comparing offline gamified classrooms with traditional or online gamified environments. Quantitative measures of speaking proficiency, participation frequency, or anxiety scales would strengthen empirical validation.

2. Multi-Site Comparative Studies

Cross-institutional research across rural, urban, and digitally advanced schools could examine how contextual infrastructure mediates the implementation and effectiveness of OGP.

3. Longitudinal Identity Research

Given the strong identity transformation observed, longitudinal studies examining teacher-designer identity development across multiple years would deepen understanding of teacher agency in low-tech innovation contexts.

4. Scaling and Sustainability Models

Research exploring how teacher-developed offline gamification can be systematized, shared, or adapted across schools would address questions of scalability and policy integration.

5. Psychological Measurement Integration

Future studies may integrate validated instruments measuring:

- a. Foreign Language Classroom Anxiety
- b. Intrinsic motivation
- c. Student engagement indices

Such integration would allow stronger alignment between theoretical claims and measurable outcomes.

CONCLUSION

This study highlights the potential of offline gamified pedagogy as a transformative, equitable, and sustainable approach to enhancing English language learning in resource-constrained environments. By demonstrating the effectiveness of offline gamified PowerPoint media, this research challenges the conventional reliance on high-tech solutions and underscores the importance of teacher agency in adapting instructional tools to local contexts. The findings suggest that offline gamified pedagogy not only fosters greater student engagement and reduces anxiety but also allows for a more inclusive learning experience, even in classrooms with limited access to the internet. This approach offers a promising alternative for educators seeking to integrate digital innovations without being constrained by technological limitations, ultimately contributing to a more equitable educational landscape. Future research should explore the scalability of offline gamified pedagogy across diverse educational settings, including rural and urban schools, as well as in different subject areas beyond EFL. Longitudinal studies examining the long-term impact

of such pedagogies on student learning outcomes would provide valuable insights into their sustained effectiveness. Additionally, comparative research could investigate the differences in student engagement and learning between offline and online gamified environments, using quantitative measures of language proficiency and participation. By expanding on these areas, future studies can further solidify the role of low-tech digital innovations in bridging the digital divide and promoting inclusive education globally.

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