DIGITAL COMICS IN ENGLISH FOREIGN LANGUAGE LEARNING: A SYSTEMATIC REVIEW

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ABSTRACT

This study systematically reviews empirical research on the use of digital comics in English as a Foreign Language (EFL) learning to evaluate their effectiveness in enhancing language skills and learner engagement. Guided by the PRISMA framework, 13 studies published between 2020 and 2025 were analyzed, covering various educational levels and language competencies. The findings show that digital comics significantly improve vocabulary acquisition by providing contextualized, multimodal input that supports memory retention and comprehension. They also enhance reading comprehension, foster sustainable reading habits, and reduce cognitive load through integrated visual and textual elements. In grammar instruction, digital comics offer meaningful contexts that encourage functional language use beyond simple rule memorization. Limited evidence further indicates that interactive digital comics, incorporating audio and dialogue features, can support speaking skills by providing low-anxiety opportunities for oral practice. Across all studies, learners consistently reported higher motivation, engagement, and enjoyment compared to traditional materials, highlighting the suitability of digital comics for digitally literate learners. The review concludes that digital comics are an effective, flexible, and student-centered medium, and recommends their thoughtful integration while encouraging future research on long-term effects, student-created comics, and blended or online applications.

Keywords : *Digital Comics, EFL Learners, Language Skills, And Systematic Review*

INTRODUCTION

The integration of digital technology into English as a Foreign Language (EFL) instruction has become increasingly significant in response to the evolving demands of 21st-century education. Learners today are predominantly digital natives who require engaging, interactive, and multimodal learning environments to support language acquisition effectively. However, many EFL classrooms still rely on traditional text-based materials that often fail to motivate learners or support meaningful language use, particularly in developing reading comprehension, vocabulary mastery, and grammatical understanding. This gap highlights the need for innovative instructional media that align with learners' cognitive and motivational characteristics.

One digital medium that has gained growing attention in language education is digital comics. Digital comics combine visual images, written text, and narrative structures in a multimodal format, enabling learners to process language meaningfully through contextualized input. Unlike printed comics, digital comics are created, accessed, and distributed through digital platforms or applications, allowing for greater interactivity and flexibility in learning activities (Puspasari, 2019). In EFL contexts, digital comics are considered particularly effective because they present language in authentic situations while simultaneously supporting comprehension through visual cues.

From a theoretical perspective, the use of digital comics in EFL learning can be explained through Multimodal Learning Theory and Dual Coding Theory. Dual Coding Theory posits that learners process information more effectively when verbal and visual elements are presented together, as these are stored in separate but interconnected cognitive systems (Paivio, 1990). Similarly, multimodal learning emphasizes that combining multiple modes such as text, images, and symbols enhances comprehension and retention (Mayer, 2009). Digital comics embody these principles by integrating visuals and linguistic input in a coherent narrative, thereby supporting learners' understanding of vocabulary, grammar, and discourse.

Previous studies have consistently reported positive outcomes from the use of digital comics in EFL classrooms. Research indicates that digital comics improve students' vocabulary acquisition by providing contextualized exposure to new words (Saputri et al., 2021; Farissi et al., 2024). Other studies reveal that digital comics enhance reading comprehension by supporting inferencing skills and sustaining learners' interest during reading activities (Wati, 2025; Puspasari, 2019). Additionally, digital comics have been found to positively influence learners' motivation and engagement, as the visual narratives make learning more enjoyable and less intimidating (Herrera et al., 2025). In grammar instruction, digital comics offer meaningful contexts that help learners understand grammatical forms and functions in real-life communication (Iskandar et al., 2025).

Despite the growing number of empirical studies on digital comics in EFL education, existing research remains fragmented across different language skills, educational levels, and research designs. Many studies focus on isolated outcomes, such as vocabulary or reading skills, without providing a comprehensive overview of how digital comics function as an instructional medium in EFL learning. Moreover, the lack of synthesized evidence makes it difficult for educators and researchers to evaluate the overall effectiveness and pedagogical value of digital comics.

Therefore, this study employs a Systematic Literature Review (SLR) approach to critically examine and synthesize empirical research on the use of digital comics in EFL contexts. Guided by the PRISMA framework, this review aims to identify patterns, research trends, and learning outcomes associated with digital comic-based instruction. By systematically analyzing selected studies, this review seeks to provide a clearer understanding of how digital comics contribute to EFL learning and to offer evidence-based insights for future research and classroom practice.

METHOD

This study employed a Systematic Literature Review (SLR) to synthesize empirical research on the use of digital comics in EFL learning. The SLR method enables a structured, transparent, and replicable review process through systematic identification, screening, evaluation, and interpretation of relevant studies (Triandini et al., 2019). To ensure methodological rigor, this review followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework, which provides clear guidance for reporting literature selection processes (Moher et al., 2009).

Data collection was conducted by searching Google Scholar and ERIC databases using the keyword *"Digital comic in EFL."* The search was limited to articles published between 2020 and 2025, with a maximum of 200 articles retrieved in the initial search. The screening process was carried out in stages, beginning with title and abstract review to remove duplicates and irrelevant studies. Articles were included if they focused on digital comics as learning media in EFL contexts and reported empirical findings, while studies unrelated to EFL or lacking research outcomes were excluded. After the screening process, 52 articles met the initial inclusion criteria.

Further eligibility assessment was conducted through full-text review to evaluate relevance, methodological quality, and alignment with the research focus. Articles that did not directly address EFL learning outcomes or did not meet the established criteria were excluded. The final set of included studies was then analyzed and synthesized to identify patterns, dominant themes, and reported impacts of digital comics in EFL education. The entire selection process was documented using a PRISMA flow diagram to ensure transparency and reliability of the review.

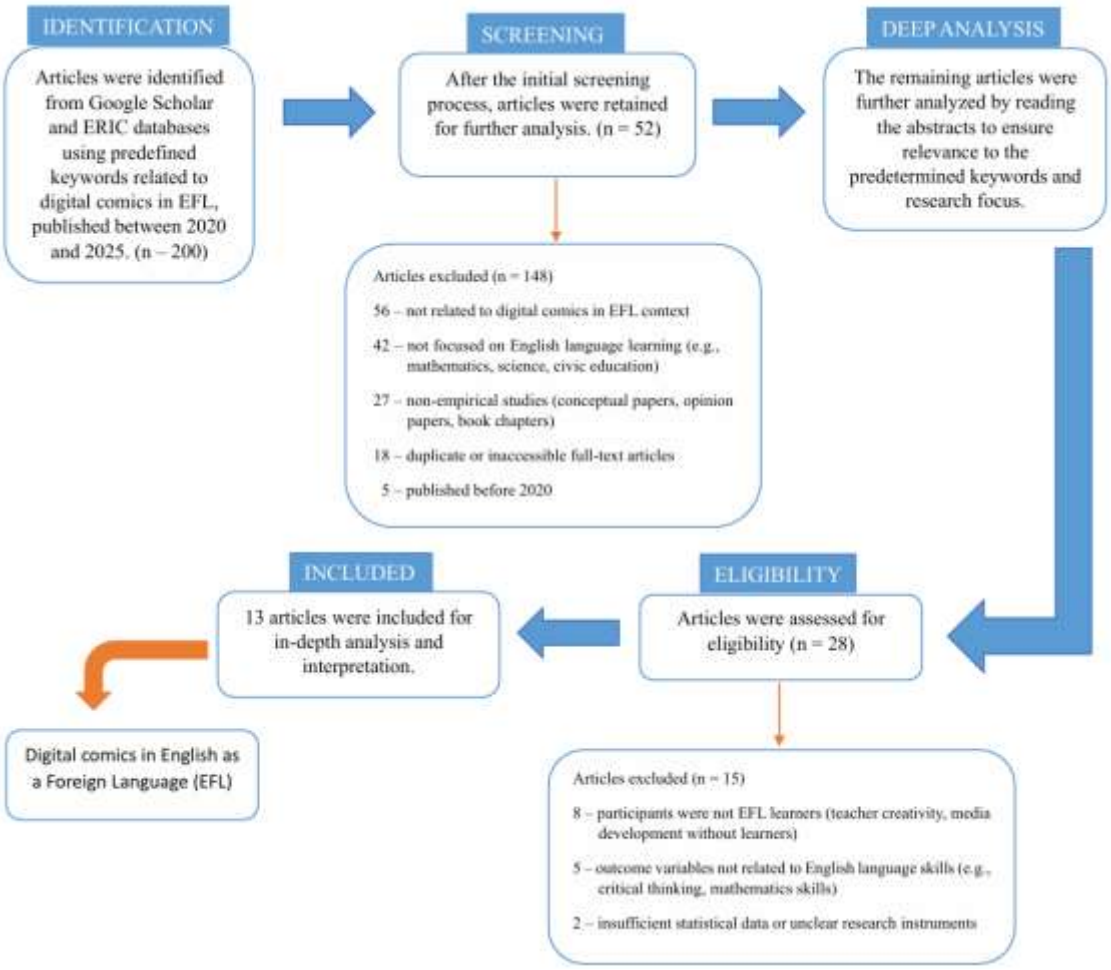


Figure 1. Process flow diagram for article exclusion and inclusion in the Systematic Literature Review stages (n = number of articles)
source: (Musdary et al., 2021)

RESULTS AND DISCUSSIONS

The research findings presented in this systematic review are derived from an analysis and synthesis of selected empirical studies examining the use of digital comics in English as a Foreign Language (EFL) learning contexts. The reviewed articles focus on the effectiveness of digital comics as instructional media in developing learners' language skills, learning motivation, and engagement across various educational levels. The following table provides a detailed overview of the research findings from the studies included in this review.

Tabel 1. The Use of Digital Comics in EFL Learning

No	Research Author	Journal	Research Result
1.	(Castillo-Cuesta & Quinonez-Beltrán, 2022)	International Journal of Learning, Teaching and Educational Research	This quasi-experimental study investigated the impact of digital comics (ToonDoo) on EFL vocabulary learning among 262 Ecuadorian public high school students during remote instruction. While both experimental and control groups received identical explicit instruction, only the experimental group practiced vocabulary using digital comics. Results showed a statistically significant improvement in vocabulary mastery for the experimental group compared to the textbook-based group. In addition, students expressed highly positive perceptions toward digital comics, reporting increased motivation, contextual understanding of vocabulary, creativity through character and scene design, and a strong willingness to continue using digital comics for learning.
2.	(Ahsanah & Utomo, 2020)	IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature	This study examined the effectiveness of digital comics in improving English competence among 42 pharmacy students at a university in Indonesia. Using a pre-test and post-test design with TOEFL scores, the findings revealed a significant improvement after 14 instructional sessions incorporating digital comics. Interview data further supported the quantitative results, indicating that students perceived digital comics as engaging, visually appealing, and helpful for faster comprehension, suggesting their suitability for online and blended English instruction.
3.	(Afandi & Degeng, 2025)	GEEJ: Getsempena English Education Journal	Through a survey-based study involving 100 Indonesian EFL learners from high school and university levels, this research explored students' perceptions of digital comics for reading activities. The results showed that Webtoon was the most frequently used digital comic platform. Most participants agreed that digital comics enhanced reading

			comprehension, vocabulary understanding, engagement, and motivation. Performance data also indicated that a majority of students achieved target comprehension scores after using digital comics, demonstrating both perceptual and measurable learning benefits.
4.	(Insam et al., 2025)	Jurnal Ilmiah Pendidik Indonesia	This quasi-experimental study focused on the use of digital comic strips to improve vocabulary mastery among eighth-grade students. The findings showed that students taught using digital comic strips demonstrated higher vocabulary retention, stronger motivation, and more consistent learning outcomes compared to those taught using conventional methods. The visual and narrative elements of digital comics were identified as key factors that helped students understand difficult vocabulary more easily.
5.	(Robbani & Khoirotunnisa, 2021)	European Journal of Educational Research	The study examined online English comics as reading materials and found that they contributed to improvements in vocabulary, grammar, reading comprehension, critical thinking, creativity, and reading motivation. The researchers also identified popular comic platforms used by students, such as Webtoon and various manga websites. The findings emphasize that engaging and comprehensible digital reading materials can effectively support EFL learning outside formal classroom settings.
6.	(Yuliandari, 2025)	IJODLLA: International Journal of Digital Learning on Languages and Arts	Using a quasi-experimental pre-test and post-test design, this study investigated the effect of digital comic strips on elementary school students' English reading skills. The results showed a significant difference between the experimental and control groups, with students taught using digital comics achieving higher post-test scores. The study concluded that digital comic strips are effective instructional media for improving reading performance at the primary level.

7.	(Puspitasari et al., 2024)	PROCEEDING International Conference of Technology on Community and Environmental Development	This study explored the effectiveness of online comic strips for grammar learning among seventh-grade students. After six weeks of instruction, students demonstrated a substantial improvement in grammar mastery, as evidenced by higher post-test scores. The researchers concluded that comic strips can serve as an effective and engaging medium for teaching English grammar in junior high school contexts.
8.	(Ramadhan et al., 2022)	J-ELLiT: Journal of English Language, Literature, and Teaching	Employing a survey and interview approach, this study investigated EFL students' perceptions of English-translated digital manga in developing reading habits. The findings revealed that most students believed digital manga helped them establish regular reading habits, utilize leisure time productively, and increase motivation to read English texts due to appealing visuals and accessible formats.
9.	(Tekin & İlhan, 2025)	European Journal of Education	This mixed-methods study examined Erasmus students' experiences using Pixton digital comics for foreign language learning. The findings indicated that digital comics supported vocabulary acquisition, grammar learning, writing skills, and real-life language use. However, some students reported challenges related to the time required to create comic strips, suggesting the need for careful instructional planning.
10.	(Prihatiningtyas & Seinsiani, 2025)	Book Chapter English Language Teaching, Literature, and Translation	The study highlighted that digital comics function as an enjoyable and effective medium for vocabulary learning by providing visual and narrative contexts. The findings emphasized that digital comics promote learner autonomy and contextual understanding, although teacher guidance remains essential to maximize their instructional value.

11.	(Novitasari et al., 2024)	Journal of Educational Sciences	This research examined the implementation stages of digital comics in vocabulary learning, including pre-reading, application, collaboration, and reflection. The results showed that digital comics improved students' vocabulary comprehension, concentration, critical thinking, and active participation, contributing to a more engaging and effective learning environment.
12.	(Utomo & Ahsanah, 2020)	JELTL: Journal of English Language Teaching and Linguistics	Through action research, this study investigated the use of digital comics in college grammar classes. The findings identified four instructional steps in implementing digital comics and revealed positive student responses toward their use. The study recommends digital comic applications as practical tools for addressing challenges in online English learning.
13.	(Alifah et al., 2025)	MyJCAM: Malaysian Journal of Computing and Applied Mathematics	This research and development study developed an interactive digital comic application and evaluated its effectiveness in improving students' speaking skills. The findings showed a high level of effectiveness based on N-Gain analysis, indicating that interactive digital comics with visual and audio features can significantly enhance learners' speaking performance and engagement.

This systematic review synthesised evidence from 13 empirical studies examining the use of digital comics in English as a Foreign Language (EFL) learning contexts. Overall, the findings indicate that digital comics consistently support language learning outcomes while simultaneously enhancing learner motivation and engagement. Across educational levels and language skills, digital comics emerged as a flexible instructional medium that integrates visual, textual, and narrative elements to facilitate meaningful learning.

A prominent finding concerns the effectiveness of digital comics in improving vocabulary acquisition. Several quasi-experimental studies reported statistically significant gains in learners' vocabulary mastery when digital comics were used as instructional media compared to traditional approaches (Castillo Cuesta & Quinonez Beltrán, 2022; Insam et al., 2025). These improvements are closely linked to the contextualised presentation of vocabulary through images and storylines, which allows learners to infer meaning and retain new words more effectively. This finding supports Dual Coding Theory, which suggests that combining verbal and visual information enhances memory and comprehension (Paivio, 2006). In addition to cognitive gains, learners consistently expressed positive attitudes, reporting increased motivation and enjoyment during

vocabulary learning activities (Novitasari et al., 2024).

Beyond vocabulary, digital comics also demonstrated a positive impact on reading comprehension and reading habits. Studies conducted at elementary, secondary, and tertiary levels showed that learners who engaged with digital comics achieved higher reading comprehension scores and displayed stronger reading engagement (Yuliandari, 2025; Afandi & Degeng, 2025). The visual support embedded in digital comics appears to reduce cognitive load and facilitate text comprehension, particularly for lower-proficiency learners. These results align with the Cognitive Theory of Multimedia Learning, which emphasises that well-integrated visual and verbal information can improve comprehension (Mayer, 2021). Furthermore, several studies reported that digital comics encouraged learners to read more frequently and view reading as an enjoyable activity, indicating their potential to foster sustainable reading habits (Ramadhan et al., 2022).

In relation to grammar learning, the reviewed studies indicate that digital comics provide meaningful contexts for grammatical structures, leading to improved learning outcomes. Research at junior high school and university levels revealed significant improvements in grammar mastery following comic-based instruction (Puspitasari et al., 2024; Utomo & Ahsanah, 2020). By embedding grammar within narrative contexts, digital comics help learners move beyond rule memorisation toward functional language use. Moreover, student-generated digital comics were found to promote active learning and language production, although some learners perceived the creation process as time-consuming, suggesting the need for careful instructional design (Tekin & İlhan, 2025).

Although fewer studies focused on productive skills, available evidence suggests that digital comics can also support speaking development. Interactive digital comics incorporating audio and dialogue features were shown to significantly improve learners' speaking performance (Alifah et al., 2025). These features provide learners with repeated exposure to pronunciation models and opportunities for oral practice in a low-anxiety environment, which is particularly beneficial in EFL contexts.

Across all language skills, learner motivation and engagement emerged as a consistent theme. Most studies reported that learners perceived digital comics as enjoyable, innovative, and more engaging than conventional learning materials (Ahsanah & Utomo, 2020; Afandi & Degeng, 2025). The widespread use of popular platforms such as Webtoon further indicates that digital comics align well with learners' digital literacy practices, increasing their relevance and accessibility in contemporary classrooms.

CONCLUSIONS

This systematic review demonstrates that digital comics are an effective instructional medium for EFL learning. They support multiple language skills including vocabulary, reading comprehension, grammar, and speaking while simultaneously enhancing learner motivation, engagement, and autonomy. The multimodal and interactive features of digital comics provide contextualized and meaningful input, which facilitates comprehension and retention across different proficiency levels.

The findings suggest that integrating digital comics into EFL classrooms can promote more engaging, inclusive, and student-centered learning environments, aligning with the principles of quality education. Educators are encouraged to adopt digital comics thoughtfully,

combining visual, textual, and interactive elements to optimize learning outcomes. Future research could explore long-term effects, the impact of student-created comics, and the integration of digital comics in blended and online learning contexts.

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