INVENTOPIA 2025

FBM-SEREMBAN INTERNATIONAL INNOVATION COMPETITION (FBM-SIIC)

INNOVATION IN ACTION: TURNING IDEAS INTO REALITY



Chapter 67

QuizWhiz: A Grammar-Based Board Game for Interactive English Learning

Thevashini A/P Ganasen, Kareshma A/P Segaran, Krishna Thevar A/L Raveenthar, Safwan Siddiq Bin Mohd Arshad & Moganashwari Kandasamy

The English Department, Institute of Teacher Education Tuanku Bainun Campus, 14000 Bukit Mertajam, Pulau Pinang

g-ipgp24305402@moe-dl.edu.my

ABSTRACT

QuizWhiz is a fun and educational grammar board game that helps learners improve their English in an engaging way. Based on the QuizWhiz framework, it focuses on building grammar, vocabulary, and sentence-writing skills through interactive play. Instead of traditional worksheets or lectures, QuizWhiz encourages active learning through tasks, questions, and challenges. The game covers key topics like parts of speech (nouns, verbs, adjectives), sentence types, tenses, conjunctions, punctuation, and vocabulary at three levels (easy, medium, hard). As players move around the board, they answer questions, collect tokens, and build "houses" to show their progress, making learning rewarding and fun. Teachers can use it in class, group work, or even for quick reviews or assessments. It saves prep time and can be adjusted for different levels. QuizWhiz also supports writing skills by linking grammar to real writing tasks, especially for essays. With its colorful design and wide content range, QuizWhiz has strong potential as a digital app with features like progress tracking, voice input, and multiplayer play. Overall, QuizWhiz makes grammar learning fun, effective, and student-friendly; for classrooms and beyond.

Keywords: Gamified learning, grammar, academic writing, English proficiency, vocabulary

1.0 INTRODUCTION

Traditional grammar instruction often relies on memorisation, drills, and isolated exercises, which can disengage learners and limit real-world application. While such methods may support short-term recall, they often fail to sustain interest or deepen understanding, particularly among younger or less motivated students. In response, educators are turning to learner-centred approaches that emphasise interactivity and meaningful learning experiences.

Innovation in Action: Turning Ideas into Reality

2025 Inventopia FBM-Seremban International Innovation Competition (FBM-SIIC)

QuizWhiz is a game-based solution that makes grammar and writing instruction more engaging and effective. It transforms learning into an active, hands-on experience through colourful visuals, tiered challenges, and collaborative gameplay. The game aims to help learners master grammar, improve academic writing, build vocabulary at varying difficulty levels, and support both individual and group learning. By integrating essential language skills into one dynamic format, QuizWhiz offers a modern, inclusive approach to English grammar education.

2.0 LITERATURE REVIEW

Game-Based Learning (GBL) is transforming language education by offering an engaging alternative to traditional methods, enhancing learner motivation and retention (Halim et al., 2020; Filament Games, 2023). Game mechanics encourage active participation and collaboration, which are key for language acquisition (EJ Social, 2022). GBL is especially effective in grammar instruction, providing contextualized learning through real-life scenarios, rather than isolated rules (Alice in Methodologyland, 2019; Huang & Soman, 2020).

Platforms like Quizizz have shown positive effects on grammar learning, with ESL learners demonstrating improved skills due to increased motivation and participation (Pham, 2023; Alghamdi, 2024).

QuizWhiz, a board game combining grammar, vocabulary, and writing, reinforces these findings. Its colour-coded zones, task variety, and difficulty levels support inclusive learning, suitable for both solo and group play. Integrating tools like QuizWhiz into grammar teaching enhances motivation, enjoyment, and language outcomes (Aratea & Pasubillo, 2024; Alghamdi, 2024).

3.0 METHODOLOGY

3.1 Design Description

QuizWhiz is a circular, colour-coded board game designed to be both visually engaging and educational. The board is divided into zones, each representing a specific grammar or writing topic, easily identified by distinct colours. Players roll a die to move around the board and land on tiles featuring grammar questions, vocabulary tasks, or short writing prompts. These interactive activities reinforce grammar and vocabulary in context, supporting long-term retention.

The game's content is comprehensive, covering core grammar topics like nouns, verbs, adjectives, adverbs, pronouns, prepositions, conjunctions, tenses, and articles. It also includes comparative and superlative forms, sentence structure (simple, compound, complex), and writing tools such as punctuation, suffixes, and connectors. Vocabulary tasks are tiered across three difficulty levels like easy, medium, and hard, to support progressive learning.

3.2 Game Mechanics

QuizWhiz blends learning with progression and achievement. Players earn tokens for correct answers, which track progress and can be exchanged to "build a house" on the board, symbolizing mastery of topics like "Grammar Grove" or "Vocabulary Villa." This reward system motivates learners and provides visible, goal-oriented outcomes.

The board features special tiles, such as hint (\P) for clues, second chance (\P) for an extra roll, and rest (\P) for a gameplay break. These elements create an engaging, dynamic experience that reinforces learning. QuizWhiz can be used individually, in small groups, or in whole-class activities, and can be adapted into a digital version with features like voice input, multiplayer, and real-time progress tracking.

4.0 RESULTS & DISCUSSION

4.1 Visual Engagement and Learning Impact

QuizWhiz stands out with its vibrant design that enhances learner engagement and memory recall. The color-coded game board separates linguistic categories (e.g., grammar, vocabulary, sentence types) for easy topic recognition. Icons on special tiles like hints and bonus rolls increase clarity and accessibility, especially for visual learners. Tokens and "house building" serve as rewards and progress markers, boosting motivation. The design promotes repeated exposure to grammar topics, reinforcing knowledge through spaced repetition.



Figure 1: QuizWhiz Game Board Layout – A full view of the circular game board showing category zones, bonus icons, and directional flow.



Figure 2: Token Collection Mechanics – Illustrates how players gather and exchange tokens to construct themed houses, symbolizing mastery.



Figure 3: Category-Based Grammar Tiles – Displays color-coded tiles for each grammar topic (e.g., verbs, adjectives, sentence types), enabling quick topic recognition.



Figure 4: Special Squares (Hint, Gift, Challenge)

– A showcase of the icon-based special squares and how they influence gameplay mechanics.

4.2 Novelty and Benefits

QuizWhiz is a gamified learning tool that combines grammar, vocabulary, sentence construction, and writing skills in one format, making learning enjoyable and simplifying lesson planning for educators. Its adaptability allows customization for various age groups and proficiency levels, ideal for instruction, revision, or assessment. The game fosters both independent learning and collaborative problem-solving, enhancing peer support in classroom or group settings.

4.3 Benefits to Learners and Educators

QuizWhiz creates a low-pressure, engaging environment where learners can enjoy grammar practice, reducing anxiety and encouraging risk-taking with complex language structures. Its gamified format promotes critical thinking, contextual decision-making, and learning through trial and error, while adjustable difficulty levels ensure inclusivity and a sense of achievement. For educators, QuizWhiz offers a ready-to-use tool that fits easily into lesson plans or review sessions, supports informal assessment, and aligns with diverse teaching methods such as differentiated instruction and collaborative learning.

4.4 Survey on Student Feedback

To assess the effectiveness and appeal of QuizWhiz, a survey was conducted among students who participated in gameplay sessions. The questionnaire explored multiple dimensions, including learner engagement, perceived usefulness, ease of understanding, and overall enjoyment. Responses were gathered and analysed to provide both qualitative and quantitative feedback.



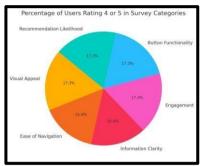


Figure 5: Feedback on QuizWhiz of 10 Respondents

The survey results, presented in the accompanying pie charts, indicate a generally favorable perception of the website across key areas. Visual appeal received high praise, with 90% of respondents rating it a 4 or 5, suggesting a professional and attractive design. Ease of navigation was also positively rated, with 80% awarding it a 4 or 5, although 20% gave lower scores, pointing to minor areas for layout or user flow improvements. Information clarity followed a similar trend, with 80% of users rating it highly, affirming that the content is clear and well-structured.

Other areas showed strong performance as well. Engagement with the questions earned high marks, with 90% of respondents rating it a 4 or 5, indicating that users found the interactive elements compelling. Button functionality also received a 90% positive rating, suggesting the site is technically reliable. Lastly, 90% of participants expressed a strong likelihood of recommending the site, reflecting high overall satisfaction, although a single low rating signals a need for further review. In summary, the feedback highlights strengths in design, clarity, and technical performance, with some room for minor refinements

5.0 CONCLUSION & RECOMMENDATION

QuizWhiz is a learner-centred, game-based tool designed to improve English grammar and writing by turning traditional lessons into engaging, interactive experiences. It tackles challenges like student disengagement, anxiety, and rote learning through contextual tasks, peer collaboration, and motivational rewards. With tiered vocabulary, diverse grammar topics, and writing activities, it supports holistic language development across various learning environments and proficiency levels. Looking ahead, developing a mobile or web version with adaptive learning, progress tracking, multiplayer options, and voice interaction would enhance accessibility and align with digital learning trends. Continued research, pilot testing in ESL programs, and collaboration with educators and developers will be key to evolving QuizWhiz into a leading resource in modern English language education.

Innovation in Action: Turning Ideas into Reality

2025 Inventopia FBM-Seremban International Innovation Competition (FBM-SIIC)

REFERENCES

- Alotaibi, M. S. (2024). Game-based learning in early childhood education: a systematic review and metaanalysis. *Frontiers in Psychology*, *15*.https://doi.org/10.3389/fpsyg.2024.1307881
- Carmona, M., De Los Santos-Roig, M., Mata, S., & Serrano, F. (2025). Effectiveness of a comprehensive game-based intervention for writing skills. *Reading and Writing*. https://doi.org/10.1007/s11145-025-10636-w
- Chan, S., & Lo, N. (2024). Enhancing EFL/ESL instruction through gamification: a comprehensive review of empirical evidence. *Frontiers in Education*, 9. https://doi.org/10.3389/feduc.2024.1395155
- Froehling, A. (2024, March 11). Research RoundUp: Game-based learning and Language Acquisition. Filament Games. https://www.filamentgames.com/blog/research- roundupgame-based-learning-and-language-acquisition
- Gamifying Language Learning: Enhancing primary school student engagement through the Giant Snake and Ladder Board Game International Journal of Research and Innovation in Social Science. (2024, October 22). International Journal of Research and Innovation in Social Science. https://rsisinternational.org/journals/ijriss/articles/gamifying-languagelearning-enhancing-primary-school-student-engagement-through-the-giant-snake-andladder-board-game/
- La Cruz, K. M. L., Noa-Copaja, S. J., Turpo-Gebera, O., Montesinos-Valencia, C. C., BazánVelasquez, S. M., & Pérez-Postigo, G. S. (2023, May 8). *Use of gamification in English learning in Higher Education: A systematic review.* Laura-De La Cruz | Journal of Technology and Science Education.https://www.jotse.org/index.php/jotse/article/view/1740/723
- Luo, Z. (2023). The Effectiveness of Gamified Tools for Foreign Language Learning (FLL): A Systematic review. *Behavioral Sciences*, *13*(4), 331. https://doi.org/10.3390/bs13040331
- Pham, A. T. (2023). The impact of gamified learning using Quizizz on ESL learners' grammar achievement. *Contemporary Educational Technology*, 15(2), ep410. https://doi.org/10.30935/cedtech/12923