

The Impact of Using the Imagidice Board Game on Improving Basic Grammar Skills in EFL Learners

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Abstract

Grammar is a crucial yet challenging aspect of acquiring a second language. Many English as a Foreign Language (EFL) learners find grammar lessons overwhelming, especially when taught through traditional methods that rely heavily on rule explanation and repetitive drills. Disengagement or arrested language development may follow. To help address this, educators are increasingly incorporating interactive tools, such as board games, into lessons to create a more engaging learning environment. Board games have become increasingly diverse, with each game's functionality based on its specific design purpose. This original research investigates the effect of a solely image-based board game, Imagidice, on the basic grammar skills among some young EFL learners. The Imagidice game is a versatile and innovative tool for language instruction, offering flexible application across multiple grammar and speaking activities. The research was conducted with 18 learners aged 10 to 12 at a cram school in Taiwan. Over six weeks, participants engaged in 12 grammar-focused game activities, conducted twice weekly in 40-minute sessions. A mixed-methods approach was used, including pre- and post-tests, classroom observations, questionnaires, and teacher interviews. Results showed a statistically significant improvement in learners' grammar performance. Learners' mean scores increased from 57.06 (SD = 10.65) on the pre-test to 82.69 (SD = 8.77) on the post-test. Learners also expressed increased motivation and enjoyment during the lessons. The game facilitated natural interaction with grammar structures, stimulated creativity, and enhanced vocabulary retention. The visual prompts helped reduce language anxiety and supported more confident expression. To enhance generalisability, future research would benefit from increased sample size, varied classroom contexts, and duration of instruction. Further, comparative studies examining the effectiveness of Imagidice in relation to other games could help provide insights into best practices in gamified EFL instruction.

Keywords: board games, EFL learners, grammar instruction, imagidice, visual prompts

1. Introduction

Grammar in language learning plays a key role. It helps learners understand the structure and rules of language, enabling them to communicate more accurately, appropriately, and thoughtfully. Through a proper understanding of grammar, learners can identify and correct errors and develop greater control over their language choices. The rules of grammar can also help learners develop a habit of thinking logically and clearly. Therefore, while language use focuses on the communicative function of language, grammar involves analyzing how language is structured and formed. As Gustiani & Irwandi (2024) highlight, language learning is an amalgam of learners' being aware of and recognizing language patterns, understanding societal attitudes toward language, and appreciating the role language plays in communication.

Given its importance, the challenge then becomes how grammar can most effectively be taught and learnt. Many educators prefer the grammar-translation method, commonly known as the traditional or classical approach. Here, teachers tend to dominate classroom discussions, focusing on delivering instructions, while learners mostly take notes instead of actively participating and sharing their thoughts. This traditional method can hinder learners' opportunity or ability to speak English, thereby limiting participation and understanding. This conventional technique can often result in unmotivated, disengaged learners who may find the lessons dull and uninspiring. This suggests that it is pedagogically beneficial for teachers to consider and employ diverse methods of teaching grammar, so as to enable learners to have more opportunities to practice and articulate their thoughts in English accurately and clearly and to be engaged, focused participants.

Since teaching should be a dynamic interaction between teacher and learners, it is beneficial if teachers try to understand their learners' backgrounds and needs and try to find the most suitable teaching materials to accommodate these. They can adapt various teaching techniques to try and foster a positive and comfortable learning environment. This could include activities that build rapport and encourage discussions about the material. English teaching has significantly changed and improved with the adoption of a learner-centered approach. According to Hadiyanto (2024) learner-centered learning encourages learners to engage, collaborate in groups, and explore concepts actively. This approach minimizes traditional lecturing and prioritizes hands-on, learner-driven activities for deeper learning.

Another major factor in deciding on appropriate and effective teaching material is the age and experience of learners. It is widely accepted that young learners tend to learn languages faster than adults. They also learn best through fun activities because a more natural, friendly learning environment is created, and the learners are thus less conscious of the actual process of learning a language. Sari & Lestaria (2023) indicated that young learners often express themselves before fully understanding the meaning of what they are saying. They learn not just through theory, but also by observing behaviours. Positive reinforcement plays a key role in motivating them, as praise is essential for their growth. These traits require English teachers to be more innovative in crafting lessons that maintain their interest, enthusiasm, and energy.

It is now generally accepted that game activities can be used effectively in teaching grammar in an ESL/EFL classroom. Fun and effective learning is not confined to use in kindergarten; it has an equally important place and application in the English learning process for learners in junior high and senior high schools. It has been proven that there are several advantages in encouraging learners to 'play and learn.' At all academic levels, in many parts of the world, it is acknowledged that games make the most successful impact in English language classrooms. Indeed, they have become the most favoured means of instruction in second foreign languages. Young learners can grasp, internalize, practice, and understand grammatical structures through games. Furthermore,

integrating games into the learning process has significantly increased learners' motivation. Games provide an engaging aspect to language learning by creating a non-threatening environment for learners to acquire and practice new language skills.

This research explores whether the specific use of the board game Imagidice can enhance grammar learning in young EFL learners. This is unique in that there has been no previous published research on the use of this game. There is currently a diverse range of board games available, and each is designed with a specific purpose in mind, such as enhancing vocabulary, sentence structures, speaking, writing, or even storytelling. Imagidice sits apart as a unique game. It is a highly innovative image-associated board game uniquely characterized by the use of dice printed with symbols. The dice do not come with written instructions, and their use relies entirely on visual prompts to spark players' imagination and storytelling. Traditional board games typically depend on text, fixed rules, or specific goals. Imagidice does not. Instead, Imagidice emphasizes personal creativity and expressive language, making it a deeply inspirational form of gameplay. Imagidice has no fixed rules or winning conditions. Players are free to interpret the images however they choose, and no contribution is more valued than another. This open-ended design offers high flexibility and adaptability, ensuring that each session is a unique experience. Moreover, Imagidice de-emphasizes competition and instead promotes collaboration, co-creation, and individual expression. This makes it especially useful for language education, creative training, and group workshops. It encourages players to unlock their imagination, build narratives, and express themselves through imagery. This research is designed to present a detailed consideration of the use and effectiveness of Imagidice on the basic grammar skills of a group of young EFL learners.

2. Literature Review

2.1 Games for Teaching and Learning English

Generally, a game is considered a structured form of play, usually undertaken for entertainment, but sometimes used as an educational tool where the outcome is marked as an achievement or rewarded when done or played well. Board games are designed to provide hands-on skills and knowledge development for learners of different ages and can be used on different subjects. Additionally, they can enhance vocabulary acquisition, promote critical thinking, and engage learners in active problem-solving, all while integrating core language skills such as speaking, listening, reading, and writing (Ningrum, Harisa, & Umaroh, 2024; Wang, Chiu, & Liu, 2023). Recent studies highlight the effectiveness of games in offering flexible, hands-on experiences for learning languages (Kurbaniyazova, 2024; Nosirova, 2024). In particular, they support autonomous learning and present realistic scenarios that closely resemble authentic language use (Wang, Chiu, & Liu, 2023). A key advantage of using games is that students focus more on achieving the game's goal than on the language itself, which helps them use language naturally and purposefully (Dronova, 2021). These games generally operate within defined rules and contexts and foster structured interaction.

Learners often begin to understand their surroundings through play and interaction with peers. Chao and Fan (2020) highlighted how board games can boost students' engagement, motivation, and academic performance. The games offer engaging, hands-on experiences that support language learning in a fun and low-stress setting. Additionally, games encourage teamwork, allowing students to learn from one another and help to build supportive learning communities. According to Hidayatullah and Haerazi (2021), incorporating English-only instruction and board games in speaking classes helped students mimic expressions in the target language. Through pair work and group discussions, learners improved their speaking abilities. Teachers used a variety of communicative strategies, including games, to strengthen students' grammar skills. As a result,

board games supported a collaborative learning environment and improved students' oral fluency and pronunciation. Even within formal education settings, learners continue to engage in play before and after school. Simple games help them develop social-cognitive skills and encourage language use. In this way, games play a key role in first language development. Similarly, in second language learning, games are widely recognized as effective and engaging educational tools.

Games have long been incorporated into language education. A game-based learning environment is particularly effective in enhancing learners' interest and motivation in learning English. According to Stoimcheva-Kolarska (2020), integrating games into the educational process supports information retention by activating learners' cognitive functions and encouraging playful learning. It is therefore generally accepted that designing educational games for children can be a valuable tool for teachers, parents, and guardians to inspire learning through play. Such an approach offers multiple advantages that can positively impact future educational development. But it is important that games should play a meaningful role in language lessons, rather than being used merely as time-fillers. Language teachers must be thoughtful in choosing games that align with the lesson objectives. If not, learners might find them dull, too childish, or lacking educational value. Equally, educators have to focus on building a supportive and engaging classroom atmosphere where the learners and their development are prioritized. Such an environment not only supports effective learning but also sparks students' interest and motivation.

Mohan and Rajeshwari (2024) demonstrated that board games, when aligned with clearly defined learning outcomes, serve as effective tools for both instruction and assessment within the Content and Language Integrated Learning (CLIL) framework for EFL learners in Taiwan. By incorporating board games into their EMI course, they observed a significant improvement in both receptive (listening and reading) and productive (speaking and writing) language skills. The learners' participation and engagement levels were noticeably higher compared to previous sessions that lacked such materials, leading to a more successful achievement of the course goals.

Barbara (2017) defined board games as organized activities that feature a designated playing space, established rules, and game pieces, all of which promote interaction among players as they navigate the board. Learning becomes most effective when it is enjoyable, positioning games as a natural and engaging method for knowledge acquisition. These games have specific goals and require participants to take turns, adhere to rules, and use the target language in the process. In language education, games are valuable tools because they encourage learners to use the language more naturally and spontaneously. As Ali (2020) observed, games positively influence language learning by lowering anxiety levels, offering an enjoyable experience, and providing students with alternative approaches to language acquisition that differ from conventional classroom methods.

Ellis et al. (2021) highlight that games help reduce learner anxiety and provide meaningful opportunities for collaboration, allowing students to use the language more naturally through teamwork. While digital technologies are increasingly prevalent, board games continue to be a valuable resource due to their distinct advantages. Their interactive format promotes cooperation and communication, contributing to a more positive and engaging classroom environment (O'Neill & Holmes, 2022). Additionally, using board games in lessons can improve academic performance, boost student motivation, encourage active participation, and enhance discussion skills. According to Li et al. (2022), integrating board games into teaching practices can significantly improve the effectiveness of English as a Foreign Language (EFL) instruction.

Hence the detailed research on board game use in English language classes tends to coalesce around common themes of providing lower stressed learning environments, engaging learners in focused specific language skill acquisition, creating and maintaining learner interest, promoting,

where needed and appropriate, group learning and peer consideration and this all generally within the context of rule-based games with measurable outcomes.

2.2 The Role of Grammar in Teaching and Learning English

Games have for a considerable time been integrated into English language instruction, especially for teaching grammar. Zakaria et al. (2022) emphasized that grammar underpins all language use, enabling clarity and coherence in expression, and that without sufficient grammatical knowledge, messages may be misinterpreted or fail to convey the intended meaning, particularly in writing, where errors can disrupt the flow and diminish reader engagement. Similarly, Pham (2023) reinforced that grammar is the foundation that governs the formation of accurate and meaningful sentences. It encompasses the rules that explain how form relates to meaning. Without these rules, communication can become vague or nonsensical (Listia & Febriyanti, 2020). Delgado-Algarra (2020) further supports this view, describing grammar as a cornerstone of language acquisition closely tied to learners' ability to communicate effectively. Mastery of grammar enables individuals to convey their thoughts accurately and avoid common language errors (Jihad, 2021). A reasonable mastery of grammar is therefore essential in English language learning as it tends to form the basis for both understanding and producing comprehensible language.

Grammar is nonetheless difficult for learners to grasp, and this is compounded due to traditional teaching methods that tend to lack engagement and interactivity. Approaches that rely heavily on theoretical explanations and repetitive drills, without the integration of creative or practical strategies, often result in low student motivation. As noted by Diyessa and Woldearegawie (2025), conventional methods have fallen short in helping learners reach the desired proficiency in English. Grammar instruction, therefore, remains a key focus and concern in language education. All educators appreciate that a reasonable knowledge of grammar is needed to equip learners with the tools to articulate their thoughts and support their overall language development goals.

Educators are thus central in helping students make productive progress, and as Moncada et al. (2020) concluded, integrating games into grammar lessons not only enhances learners' grammatical knowledge but also fosters a more engaging and interactive learning environment. Additionally, platforms like Genially Academy (2021b) highlight that gamification enables educators to create, customize, collaborate on, and evaluate a variety of instructional resources. Therefore, the need for language teachers to explore innovative tools and game-based strategies to assist learners in improving grammar acquisition and maintaining learner motivation and participation is now ineluctable.

2.3. Game Integration into Language Learning Including Imagidice

The quest to find more innovative ways to engage learners in the difficult task of learning English as a Foreign Language has brought about some very detailed and focused research [concentrating on/bringing focus] on first, the dynamics of classroom language teaching; secondly, consideration and experimentation with the use of games in their very many facets in EFL teaching; and thirdly, the specific use and benefits of images in game play in the EFL classroom. It is on this latter aspect, through the use of the game Imagidice, that this research is engaged

On the dynamics of language teaching. It has been distilled that teaching a foreign language requires teachers who are creative, organized, enthusiastic, self-driven, and who can make lessons engaging, dynamic, and interactive. Further, they should be adept at using a range of instructional methods and techniques. According to Chauhan (2023), teaching is both an art and a science, combining imaginative approaches with structured planning and relying on meaningful interaction between teacher and learners. Khan (1996) highlighted the importance of teachers who choose to use games in their lessons to do so thoughtfully, considering their timing and relevance to the

curriculum or textbook and how each game might support different learning objectives. Nguyen, Nam, and Bon (2024) emphasized that teachers using educational games should make sure they contain the essential components of a clear learning objective tied to expected outcomes. There should be well-defined rules explained beforehand, and a competitive element to motivate learners.

On the use of games, much research and debate have taken place, both as to the type and purpose of the games used and the recorded effects of such use. As a general statement, the EFL Café (2024, August 29) highlighted the value of board games in EFL/ESL education for boosting student motivation and engagement. It was stated that choosing appropriate games, such as Scrabble or Pictionary, could effectively support vocabulary development. It was generally considered that it was important to match games to different proficiency levels and to customize them to target specific grammar points or functional language so that they were directly relevant to learners' learning needs. Games could be designed or adapted to meet specific objectives, like forming sentences with a particular tense or using new vocabulary in context. It was considered that every effort should be made to ensure they were educational rather than purely recreational. Further, to avoid time issues, it was considered that games should be well-planned and thoughtfully integrated into lessons and not be used as time-fillers.

More deeply, recent research has shown that games provide a myriad of EFL language learning benefits. These range from enhancement of learners' engagement, understanding, and retention to a series of specifically noted benefits depending on the particular games used and their methods of use. Comprehensively the following have been noted: (a) games can provide hands on skill and knowledge development; (b) enhance vocabulary and promote critical thinking and active problem solving; (c) support autonomous learning and present realistic scenarios that closely resemble authentic language use; (d) learners tend to focus more on achieving the game's goal than on the language itself which in turn enables them to use language more naturally and purposefully; (e) the rules and context of the games provide more structured interaction; (f) English only instruction on the use of the games help learners' mimic expressions in the taught language; and (g) the use of games supports information retention by activating learners' cognitive functions.

Ningrum, Harisa, and Umaroh (2024) and Wang, Chiu, and Liu (2023) concluded that board games are designed to provide hands-on skills and knowledge development for learners of different ages and can be used on different subjects. Additionally, they considered that they can enhance vocabulary acquisition, promote critical thinking, and engage learners in active problem-solving, all while integrating core language skills such as speaking, listening, reading, and writing. The effectiveness of games in offering flexible, hands-on experiences for learning languages was highlighted in research by Kurbaniyazova (2024) and Nosirova (2024). A key advantage of using games noted in research by Dronova (2021) was that learners focused more on achieving the game's goal than on the language itself, and that this helped them use language naturally and purposefully.

Chao and Fan (2020) highlighted how board games were able to boost learners' engagement, motivation, and academic performance. The games offered engaging, hands-on experiences that supported language learning in a fun and low-stress setting. Additionally, the games encouraged teamwork, allowing learners to learn from one another and thereby help build supportive learning environments. Hidayatullah and Haerazi (2021), in their research, found that incorporating English-only instruction for the use of board games in speaking classes helped the learners mimic expressions in the target language.

A game-based learning environment has, for a considerable time, been considered a particularly effective way of enhancing students' interest and motivation in learning English. Stojmicheva-Kolarska (2020) in their research concluded that integrating games into the educational

process also supported information retention by activating the learner's cognitive functions and encouraged more relaxed learning.

In a 2024 study, Mohan & Rajeshwari concluded that board games, when aligned with clearly defined learning outcomes, serve as effective tools for both instruction and assessment within the Content and Language Integrated Learning (CLIL) framework for EFL students in Taiwan. By incorporating board games into their EMI course, they observed a significant improvement in both receptive (listening and reading) and productive (speaking and writing) language skills. The learners' participation and engagement levels were noticeably higher compared to previous sessions that lacked such materials, leading to a more successful achievement of the course goals.

Barbara (2017) described board games as structured activities that involve a defined playing area, specific rules, and player pieces, encouraging interaction among participants as they engage with the game board. It was found that learning was most effective when it was enjoyable and that playing games was a natural medium for acquiring knowledge. The games should have clear objectives and require players to take turns, follow rules, and communicate in the target language during play. The games thus serve as practical tools in language education because they allow learners to use the language in a more instinctive and unforced way. Cross (2000) supported this view, noting that language is often absorbed in games as effortlessly as a first language, without learners being consciously aware of it. In a playful setting, learners tend to lose their fear of speaking and become less self-conscious, making it easier to grasp the language. Ellis et al. (2021) corroborated this view and also found that games lower learners' anxiety and provide meaningful contexts for collaboration, enabling learners to use the language naturally even while working in teams. Despite the rise of digital tools, board games appear to retain their place as valuable traditional resources. (O'Neill & Holmes, 2022) affirmed that the interactive nature of games fostered cooperation and communication among learners and created a supportive classroom atmosphere.

On the use and effect of images in game play, this study focuses on learning grammar through the board game "Imagidice," which is exclusively an image-based game. There has been some research on the use of images and visual tools, and it is useful to review that before consideration of Imagidice proceeds. Images play a crucial role in encouraging students to use their imagination, as the images can be interpreted in multiple ways. Pictures, icons, and images inspire communication and generally creativity. They are accessible to students regardless of their varying backgrounds, languages, and lexical knowledge. They promote connection by combining the learner's experiences and prior knowledge. Sjöberg (2024), found that effective teaching required resources that both supported and stimulated the learning process and that visual aids were especially important in this regard. It was also found that since vocabulary instruction is often limited to rote memorization of word lists, this tends to lack context and thereby hinders long-term retention. Incorporating visual resources into the process can help learners better retain and apply vocabulary in meaningful situations. Harris and Caviglioli (2003), through their research, found that visual aids significantly enhanced memory and comprehension. These visual aids could include images, posters, photographs, illustrations, icons, symbols, diagrams, presentations, and mind maps.

Yasin and Mohamad (2024) in their research again highlighted that visual resources—such as images, charts, diagrams, and concept maps—not only helped learners link words to their meanings, pronunciation, spelling, and grammatical roles, but they also enhanced learners' attention, motivation, and creativity.

Wright (1989) noted that pictures can depict everyday actions like eating, sleeping, or running, as well as thematic content such as food, transportation, animals, and common objects. A person's appearance can also visually express their thoughts and emotions. More recent research, including

Linde (2022), confirms that visual aids significantly support vocabulary learning by offering concrete imagery that makes word meanings easier to grasp and remember. Similarly, Sino (2024) emphasized the motivational value of visual tools, showing how they sustain learner interest, encourage peer collaboration, and foster communication through engaging, interactive activities in the EFL classroom.

Imagidice is an image-based game designed to give free rein to the imaginations and verbal capabilities of the players, whatever their age or experience. The images on the dice are designed to open up an infinite world of ideas conducive to the creation of stories and scenarios. This game was first released in 2000 by Emily Daily as Talking Dice, a storytelling device. The game features 12 dice with images on six sides of each dice, thus providing 72 pictures covering 12 categories, topics, and themes. Each dice represents a different theme, so the game can be changed as required. The themes are: *sky, places, food, emotions, actions, fantastic, human body, animals, hobbies, travel, everyday life, and history*. See Figure 1 below, which shows examples of the themes and their respective images. While initially developed to assist students with language learning, particularly a secondary language, variants now exist to transform this creative game into an educational and linguistic tool for enriching English learning through speaking, writing, vocabulary, and grammar knowledge. Although among the most straightforward tools, images can be used in various contexts, and learners are encouraged to use their imagination to produce different sentences and language structures.









































































1 SKY	2 PLACES	3 FOOD	4 EMOTIONS	5 ACTIONS	6 FANTASTIC	7 HUMAN BODY	8 ANIMALS	9 HOBBIES	10 TRAVEL	11 EVERYDAY LIFE	12 HISTORY
 Star	 Path	 Sweet	 Love	 To sleep	 Dragon	 Mouth	 Spider	 Cinema	 Plane	 Money	 Ship
 Moon	 Forest	 Mushroom	 Anger	 Have an Idea	 Ghost	 Hand	 Cat	 Writing	 Sea	 Broom	 Castle
 Snow	 Cavern	 Fruits	 Joy	 To walk	 Fairy	 Nose	 Horse	 Cooking	 Globe	 Ball	 Dinosaur
 Rain	 Labyrinth	 Cake	 Laugh	 To speak	 Wolf	 Eye	 Dog	 Music	 Clock	 Luck	 Enigma
 Sun	 Home	 Vegetables	 Surprise	 To think	 Pirate	 Ear	 Bird	 DIY	 Train	 Flower	 Magnifying glass
 Wind	 Mountain	 Meat	 Sadness	 To meet	 Witch	 Foot	 Snake	 Art	 Car	 Bed	 Volcano

Figure 1: An example of the themes and images

Young learners often experience difficulties understanding different grammar rules and their usage. Hence, so-called drilling activities are often used in order for young learners to be familiar with and confident in using accurate grammar. This study considered 12 grammar points: conjunctions, adjectives, comparatives, prepositions, sentence building, various tenses, verbs, conditionals, and making a story. "The Imagidice Teacher's Notes & Student Worksheets" were used to develop the activities. The young learners followed the teacher's instructions and made sentences according to the images indicated by the dice. For example, A student could throw three dice from three categories, such as actions, places, and sky, and would then be encouraged to talk by making up sentences relating to the revealed images.

Example:  "I walk in the forest under the rain."

For more advanced young learners, the verb tenses could be varied; for example, "*If it stopped raining, I would go walking in the forest.*"

2.4 Empirical study

This section critically evaluates five empirical studies that have implemented gamified tools for grammar instruction and places this current research, using Imagidice, within this research landscape. This evaluation review identifies the methodological patterns, research gaps, and underrepresented instructional contexts, particularly concerning learner demographics, grammar targets, game formats, and learning environments of each study. Thereby, the distinctive and pedagogical contribution that this research makes to the landscape can be more clearly identified, especially in its application within a cram school setting.

2.4.1 Overview of Prior Studies

The board games explored in previous research range from digital formats (e.g., WOLF) to analogue designs (e.g., Grammar Gambit, Snake and Ladder), with most aiming to enhance grammar acquisition. The grammar content covered spans basic sentence structures (e.g., simple tenses) to more complex elements such as demonstrative pronouns and subject-verb agreement. These studies predominantly focus on learners in primary or secondary education, often overlooking informal or high-pressure learning environments such as cram schools. Additionally, while many games were designed using instructional models like ADDIE or Latief's R&D framework, few underwent rigorous classroom validation or reported detailed statistical findings.

For example, Ash'ari et al. (2024) implemented a digital game (WOLF) targeting adjectives and pronouns among young Malaysian ESL learners. Although the study reported increased engagement, it suffered from a small sample size and a lack of inferential analysis. Purwati (2020) developed a physical board game for high school students focused solely on the Simple Future Tense, resulting in strong engagement but limited grammar coverage. Meidiastuti and Safitri (2021) designed a jumbled word game for Grade VIII learners, achieving high performance scores, yet the study lacked data on retention or transfer. Aziz et al. (2025) introduced Grammar Gambit, an AI-supported board game addressing multiple grammar points for struggling secondary and university learners; however, the tool remained untested in actual classrooms. Fitriyana et al. (2023) produced a Snake and Ladder game tailored for low-resource schools, validated through expert and student feedback, but it lacked structural complexity and did not explore more advanced grammatical features.

Notably, none of these studies investigated picture-based board games or storytelling as a core instructional strategy—an area where Imagidice presents a novel approach.

2.4.2 Comparative Analysis

A comparative review underscores that while each study adds value to the field of gamified grammar instruction, most are limited by either narrow pedagogical scope or insufficient empirical grounding. For instance, Ash'ari et al. (2024) and Meidiastuti and Safitri (2021) prioritized engagement metrics without providing longitudinal or statistically robust data. Purwatiani (2020) addressed a single grammar form, thus limiting broader applicability. Fitriyana et al. (2023), though validated qualitatively, did not engage with more complex grammar structures. Aziz et al. (2025) offered a theoretically sound framework but lacked real-world classroom testing to confirm its effectiveness.

In contrast, Imagidice offers a picture-based, storytelling-driven grammar game with broad instructional coverage, incorporating tenses, conditionals, comparatives, prepositions, and conjunctions. Grounded in a mixed-methods research design—including pre/post-tests, classroom observations, and interviews—this research provides both statistical validation and pedagogical insights. Its implementation in a cram school setting further distinguishes it from existing work, demonstrating both its adaptability and effectiveness in high-pressure learning environments. A detailed comparison is provided in Table 1.

Table 1: Comparative Overview of Grammar Game Studies

Study	Game Name / Tool	Grammar Focus	Research Tools	Findings & Contributions	Limitations
Ash'ari et al. (2024)	WOLF (Digital)	Adjectives, Pronouns	Questionnaires, Observation	Improved engagement, limited analytical depth	Small sample, no inferential statistics
Purwatiani (2020)	Custom Board Game	Simple Future Tense	Engagement Scores, Pre/Post Tests	High learner interest, narrow grammar focus	Limited scope, no cross-context application
Meidiastuti & Safitri (2021)	Jumbled Word Game	Sentence Structure	Performance Assessments	Effective in short-term use, limited in transferability	No long-term data, contextually narrow
Aziz et al. (2025)	Grammar Gambit	Multiple Grammar Points	AI-assisted Design, Expert Review	Wide grammar scope, strong theoretical base	Not yet implemented in a live classroom
Fitriyana et al. (2023)	Snake and Ladder	Basic Grammar	Expert Validation, Feedback	Effective for low-resource settings, moderate engagement	Low complexity, lacks depth in structure

In contrast to prior studies, the Imagidice intervention offers a comprehensive, multidimensional approach to grammar instruction. It targets a wide array of grammatical structures—including tenses, conjunctions, comparatives, prepositions, and conditionals—through a visually driven, storytelling-based format. Rather than relying on repetitive drills or decontextualized memorization, Imagidice fosters creative sentence construction in meaningful contexts, enhancing both foundational grammar skills and higher-order language use. This research using Imagidice employs a robust mixed-methods research design, incorporating pre- and post-assessments, classroom observations, and learner interviews. This methodological framework not only validates

the instructional outcomes quantitatively but also provides rich qualitative insights into learner experiences and engagement.

A key contribution of Imagidice lies in its potential to address an underexplored area in current grammar pedagogy: the need for engaging, research-backed tools suitable for high-pressure learning environments such as cram schools. Its demonstrated success in these settings reflects not only its instructional value but also its positive psychological impact, including reduced learner anxiety and enhanced motivation.

Additionally, Imagidice's flexible design makes it appropriate for a wide range of educational levels and learning contexts. It can be easily adapted for use in elementary, secondary, and university classrooms, as well as in informal or extracurricular programs. Its potential to support differentiated instruction allows educators to adjust the complexity of grammar tasks based on learners' proficiency, ensuring accessibility and challenge across age groups and skill levels.

Imagidice thus offers a pedagogically sound, learner-centered, and empirically validated tool. Its versatility, creative potential, and demonstrated effectiveness position it as making an important contribution in the evolving field of EFL/ESL grammar instruction.

3. Research Methods

3.1 Description of the Context

This study was conducted at an English language cram school (Buxiban) in Yualin City, Changhua County, Taiwan, between September and December 2024. The researcher selected this particular school as board games had not previously been used in grammar instruction, making it an ideal setting to explore the effects of an innovative teaching approach. The school administration supported the research, and the branch director granted approval for its implementation. The class involved in this study consisted of 18 EFL learners aged 10 to 12, all placed at level 5 of the school's proficiency framework. The learners attended the class twice weekly. The teaching team included a native English speaker from England with over a decade of teaching experience in Taiwan and the researcher, who acted as an observer. The selected class was identified as having relatively low motivation for grammar learning and weaker performance in grammar assessments compared to their peers. Learners faced persistent grammar challenges, which could be categorized into three main areas:

- a. **Parts of Speech:** Confusion in the use of conjunctions (e.g., mixing "but" with "because") and articles ("a," "an," "the"), as well as difficulty distinguishing countable and uncountable nouns.
- b. **Verb Tenses and Forms:** Frequent errors in using verb tenses (e.g., present vs. past simple, present perfect) and in forming regular and irregular past-tense verbs (e.g., saying "runned" instead of "ran").
- c. **Sentence Structure and Syntax:** Inconsistent application of comparative forms (e.g., "taller" vs. "more beautiful"), misuse of prepositions ("in the morning" vs. "on the weekend"), and trouble constructing grammatically correct sentences.

These issues adversely impacted the learners' language fluency and confidence. The lack of engagement with traditional grammar instruction further emphasized the need for alternative, more interactive strategies. Recognizing this, the researcher proposed supplementing textbook-based instruction with board games as a means to boost both grammatical proficiency and student motivation. Drawing on existing literature highlighting the educational benefits of games, this study aimed to explore the effects of game-based grammar instruction using the "Imagidice" board game.

The study was guided by the following research questions, which emerged from the observed challenges and instructional goals:

1. How does using a board game help learners retain grammar rules?
2. How do learners' attitudes toward grammar change after using the board game?

These questions framed the study's objective: to evaluate the effectiveness of game-based grammar instruction as a pedagogical tool for enhancing grammar acquisition and learner engagement in a low-motivation EFL classroom.

3.2 Planning and Teaching Materials

Prior to the intervention, the researcher conducted an initial visit to the cram school to engage in collaborative discussions with the English teacher regarding learners' difficulties in grammar acquisition. Classroom observations and informal assessments revealed that although students were able to recognize grammar patterns, they demonstrated hesitation and inconsistency when applying these rules in sentence construction and written exercises. These findings, along with placement test results, indicated recurring difficulties in specific grammar areas such as tense usage, prepositions, adjectives, and sentence structures. In response, an instructional framework was jointly developed to address these common areas of difficulty. The intervention incorporated the use of the "Imagidice" board game, which was selected for its visual and creative potential to support grammar practice through contextualized, interactive activities.

The grammar topics integrated into the study—such as verb tenses, comparatives and adjectives, conjunctions, prepositions, and conditionals—were selected based on three criteria: (1) alignment with the grammar curriculum prescribed in the learners' textbook, (2) patterns of errors identified through placement assessments, and (3) teacher observations of learners' struggles during lessons. These grammar points were considered foundational for intermediate-level EFL learners and commonly reported in the literature as challenging areas for this age group. A series of 12 grammar-focused game activities was then designed and mapped to these topics. For each activity, corresponding rules, materials, and assessment indicators were developed to ensure consistent instructional delivery and to evaluate learners' grammatical accuracy and engagement. The integration of Imagidice into grammar instruction was intended to create a supportive, student-centered environment that promoted meaningful language use.

Throughout the intervention, each lesson began with a 15-minute direct instruction segment, during which the teacher introduced and explained key grammar concepts. This was followed by 25 minutes of game-based practice using Imagidice activities aligned with the day's topic. This structure aimed to bridge explicit instruction with experiential learning, enabling learners to internalize grammar rules through repeated, contextualized use.

3.3 Game Activities Design

The instructional design of the grammar game activities was grounded in communicative language teaching (CLT) and cognitive learning principles. These activities were developed using the "Imagidice" board game, which provided visual prompts to support contextualized grammar use. The goal was to shift grammar instruction from rote memorization to meaningful communication, thereby promoting learner engagement and retention. Twelve game-based activities were developed to target specific grammar structures that had been identified as problematic through initial learner assessments and teacher observations. The selection of grammar topics—such as conjunctions, verb tenses, comparatives, conditionals, and prepositions—was informed by their frequency in the learners' errors and their foundational role in constructing

coherent sentences. Each activity was designed to provide repeated exposure and usage opportunities within a meaningful context.

The design of the activities was closely aligned with the grammar curriculum outlined in the learners' cram school textbook, with a particular emphasis on promoting meaning-focused output and fluency. Students were encouraged to apply target grammar structures within communicative and collaborative tasks. For instance, when working with conditional sentences, learners engaged in real-time interactions that involved negotiating meaning and imagining hypothetical scenarios, thereby fostering both grammatical accuracy and communicative competence. The activities were carried out in pairs or small groups, fostering peer scaffolding and cooperative learning. The aim is to reduce learners' anxiety and increase motivation through a low-stress environment. Each game session followed a structured format. Learners began with a brief review of the target grammar concept, followed by gameplay designed to elicit spontaneous sentence production using images from the dice. For instance, the activity on comparatives prompted learners to roll the dice with visual cues and form sentences such as "The wolf is scarier than the cat." In another, the past tense game asked learners to narrate sequences using regular and irregular verbs in the past, thus reinforcing tense formation through narrative use.

3.4 Research Design

This study adopted a mixed-methods approach, integrating both quantitative and qualitative research strategies to investigate educational challenges and develop practical solutions. The primary objective was to collect data on the outcomes of the instructional design, evaluate learner performance, and explore learners' perspectives on self-directed grammar learning. By employing a combination of methods within a single study, the researcher aimed to obtain a more comprehensive understanding of the intervention's impact. As Ahmed, Pereira, and Jane (2024) emphasize, mixed-methods research enables researchers to address complex issues more holistically by leveraging the strengths of both qualitative and quantitative data. Supporting this view, Poth and Munce (2020) argue that incorporating multiple data sources enhances the depth and reliability of findings, making it possible to explore the multifaceted nature of educational phenomena more effectively.

3.5 Research Instruments

To evaluate the effectiveness of the board game-based grammar instruction, six research instruments were employed. These tools were designed to capture both quantitative and qualitative data related to learner performance, instructional outcomes, and learner perceptions. **Table 2** provides an overview of each instrument, organized by objective, content focus, and method of implementation.

Table 2 Detailed descriptions of the tools and their explanations

1	Pre-course Questionnaire	Objective: To collect background information and measure learners' initial attitudes toward grammar learning and board game integration. Content: The questionnaire included six items—one yes/no question and five Likert-scale statements—exploring prior exposure to game-based grammar instruction, interest in grammar, perceived importance of grammar, expectations for improvement, motivation, and comfort with group activities. Implementation: Administered in Week 1 before the intervention began, completed in approximately 10 minutes.
2	End-of-course Feedback Questionnaire	Objective: To assess changes in learners' attitudes and gather feedback on the effectiveness of the instructional approach. Content: The post-course questionnaire retained two items from the pre-course version and added three new ones, addressing learner satisfaction, the practicality of

		the teaching method, perceived real-life application of grammar, and the motivational value of game-based learning. Implementation: Administered anonymously in Week 8 to ensure honest and unbiased feedback.
3	Pre-test	Objective: To establish a baseline for learners' grammar proficiency prior to the intervention. Content: The test assessed a range of key grammar structures, including parts of speech (e.g., conjunctions, prepositions), verb tenses (present, past, and future), conditionals (Types 1, 2, and 3), adjectives and comparatives, question formation, and narrative construction. Implementation: Delivered in Week 1, the test consisted of various item types such as multiple-choice, fill-in-the-blank, error correction, cloze, sentence completion, matching, and tense identification. Test duration: 50 minutes.
4	Post-test	Objective: To measure learning outcomes by comparing results with the pre-test. Content: The post-test mirrored the format and content areas of the pre-test to allow direct comparison of learner progress. Implementation: Administered in Week 8. Test results were analyzed using SPSS, employing descriptive statistics and paired sample t-tests to assess changes in performance.
5	Classroom Observation	Objective: To examine learner engagement, grammatical usage, and instructional delivery during gameplay. Content: Observational data focused on student behavior (e.g., participation, collaboration, error patterns), instructional dynamics, and the pedagogical influence of Imagidice. Implementation: Conducted continuously by the researcher across all sessions using an observation checklist. Observations were recorded and later reviewed for recurring patterns.
6	Semi-structured Interview	Objective: To gain deeper insights into the instructional process and the perceived impact of the board game intervention. Content: The interview explored themes such as pedagogical impact, implementation challenges, and comparisons with traditional grammar instruction. Implementation: Conducted in Week 8, lasting approximately 20 minutes. The interview was recorded, transcribed, and analyzed thematically.

Together, these instruments provided a multidimensional understanding of the study's impact, capturing both the statistical effectiveness of the intervention and the lived experiences of learners and the instructor. This mixed-instrument approach ensured that the research was grounded in both quantitative evidence and qualitative insight.

3.6 Data Collection and Analysis

The data for this study were collected over an eight-week period. In the first week, all 18 participants completed a pre-course questionnaire, which took approximately 10 minutes and was intended to gather background data and assess their initial perceptions of grammar learning. Immediately afterward, students completed a 50-minute pre-test to evaluate their baseline grammar skills. Both sets of responses were collected for subsequent quantitative analysis. Between Weeks 2 and 7, students engaged in grammar instruction twice weekly, with each session lasting 40 minutes. These sessions blended traditional grammar teaching with game-based learning using the Imagidice tool. Each session began with 15 minutes of explicit instruction, during which the teacher introduced the relevant grammar concept. This was followed by 25 minutes of gameplay, during which students applied what they had learned through targeted grammar activities. A total of 12

different game-based activities were implemented—two per week—carefully aligned with the grammar content outlined in the school’s syllabus.

The instructional routine remained consistent throughout the intervention. Each lesson began with an explanation of the game’s rules and objectives. The teacher then facilitated the game-based tasks, ensuring learners understood the grammar targets and applied them accurately during interaction. During gameplay, the teacher observed student engagement, monitored grammatical usage, and provided support or corrections as needed. This approach maintained a purposeful balance between structured grammar instruction and interactive, student-centered learning. In the final week, students completed a post-test that mirrored the pre-test, along with a follow-up questionnaire designed to capture their reflections on the instructional experience and self-perceived progress.

Quantitative data, including pre- and post-test scores and responses from the two questionnaires, were analyzed using descriptive statistics and a paired sample t-test. This analysis aimed to evaluate changes in learner performance and to assess the overall effectiveness of the Imagidice intervention in improving grammar acquisition.

Qualitative data were derived from classroom observations and a semi-structured teacher interview. Observational data were analyzed thematically to explore how the board game affected learner engagement, peer interaction, and grammar usage during activities. Three primary themes emerged from the observation data: *Learner Engagement and Motivation, Instructional Strategies and Classroom Interaction, and Development of Language Skills*.

The teacher interview was transcribed and analyzed using a thematic approach. Key themes identified from the interview included: *Pedagogical Impact, Implementation Challenges, and Comparative Reflections on Traditional vs. Game-Based Methods*.

To ensure consistency in the qualitative analysis, the researcher used a structured observation checklist and revisited the data multiple times for accurate coding. Although inter-rater reliability was not applied, given the small scale of the study and the single-observer model, methodological integrity was maintained through clear, predefined observational criteria and consistent procedures.

Overall, the integrated data collection and analysis framework enabled a comprehensive evaluation of the instructional intervention, providing both quantitative evidence of learner improvement and qualitative insight into the learning experience.

4. Results

As discussed in this section, the findings are based on the information obtained from the research instruments.

4.1 Results of the Pre-course Questionnaire

The responses from 18 learners provide insight into their initial attitudes toward grammar learning and the use of board games in the classroom. A large majority (87.3%) indicated they had never encountered grammar instruction through board games, while only 12.7% had previous experience. This lack of exposure suggests that most learners were engaging with a novel instructional method, which may have contributed to their openness to innovation in grammar teaching.

When asked whether they enjoyed learning grammar, responses reflected a predominantly negative perception. A combined 72.2% of learners either “Strongly Disagreed” (44.4%) or “Disagreed” (27.8%) with the statement, whereas only 11.1% expressed agreement. Despite this low enjoyment, 72.2% of learners agreed or strongly agreed that grammar is important, indicating that

while they may not enjoy it, they still recognize its value and are motivated to improve. Learners showed considerable optimism regarding the potential of board games as an instructional tool. A total of 77.7% either “Agreed” (44.4%) or “Strongly Agreed” (33.3%) that they expected board game activities to help improve their grammar skills. Only 5.6% disagreed, while the remaining participants were neutral.

On the statement “Board games can motivate me to learn grammar better,” responses were more varied: 27.78% strongly agreed, 22.22% agreed, and 50% remained neutral. This mixed response may reflect learners’ uncertainty due to their limited prior exposure to game-based learning, though the relatively high rate of agreement still suggests cautious optimism.

Regarding comfort with working in groups during game activities, 33.3% agreed and 22.2% strongly agreed, indicating a general comfort with collaborative learning. However, 33.4% were neutral or disagreed, and 11.1% strongly disagreed, suggesting that a portion of the class might require additional support to fully engage in group-based formats.

In summary, the findings revealed that while learners initially expressed low enjoyment of grammar, they acknowledged its importance and were generally receptive to the use of board games as a new method of instruction. Their limited prior experience with such tools appears to have fostered a willingness to explore more engaging and student-centered approaches to grammar learning.

4.2 Results of the End-of-Course Questionnaire

The post-course feedback revealed a significant improvement in learners’ perceptions of grammar instruction, particularly when delivered through interactive, game-based methods. A total of 88.89% of learners reported enjoying grammar lessons, indicating a substantial attitudinal shift compared to their pre-course responses. Learners responded especially positively to the instructional approach. All participants (100%) agreed that the teacher’s methods were both effective and motivating. This unanimous endorsement highlights the role of a well-structured and engaging instructional design in fostering a supportive learning environment.

Moreover, 88.89% of learners agreed that using board game activities created more opportunities to use English in real-life contexts. This reflects how the game-based format helped bridge the gap between abstract grammar rules and practical language use. Additionally, 94.44% of learners stated that the board games increased their motivation to learn grammar, and the same percentage believed these activities enhanced their understanding and practice of grammar concepts. These results suggested that the integration of the *Imagidice* board game had a transformative impact on learner engagement and confidence. The visual prompts and collaborative gameplay encouraged students to apply grammar in context, moving beyond rote memorization. The positive shift in learner perception underscores the effectiveness of the instructional intervention in promoting both affective and cognitive engagement with grammar content.

In summary, learners not only perceived the board game-based instruction favorably but also showed improved motivation, enjoyment, and practical application of grammar knowledge, outcomes directly tied to the interactive and student-centered nature of the intervention.

4.3 Results of Pre and Post-Tests

The analysis of the performance of the 18 learners employed descriptive statistics and a paired sample t-test to assess the statistical significance and pedagogical implications of the intervention.

4.3.1 Descriptive Statistics

Table 3 presents the mean scores, standard deviations, and standard errors for both the pre- and post-tests.

Table 3. Descriptive Statistics for Pre-test and Post-test Result

Test	N	Mean	Standard Deviation (SD)	Standard Error Mean (SE)
Pre-test	18	57.06	10.65	2.66
Post-test	18	82.69	8.77	2.19

The post-test mean score reflects a substantial improvement in grammar proficiency compared to the pre-test. In addition, the reduction in standard deviation from 10.65 to 8.77 indicates a narrowing of the performance gap among learners, suggesting that the intervention not only improved overall outcomes but also promoted greater equity in learning.

4.3.2 Paired Sample t-test Analysis

A paired sample t-test was conducted to determine whether the observed improvement was statistically significant. The results are as follows:

- t-statistic: -25.97
- p-value: 6.98×10^{14}

This extremely small p-value indicates that the likelihood of the results occurring by chance is virtually nonexistent. Therefore, the performance gains can be confidently attributed to the intervention. To further quantify the magnitude of this improvement, Cohen's d was calculated at 2.63, indicating a very large effect size. This level of effect is well beyond typical instructional interventions and demonstrates the substantial impact of the Imagidice board game on grammar acquisition.

These results offered very strong evidence that incorporating the Imagidice board game into EFL grammar instruction significantly enhanced learners' grammar skills. The intervention led to not only higher average scores but also more consistent learner performance across the group. The findings affirm the pedagogical value of game-based learning, especially in fostering both proficiency and inclusion in language classrooms.

4.4 Results of Observation

Classroom observations were analyzed to identify the impact of the Imagidice board game on learner engagement, interaction, and language production. Three key themes emerged: Learner Engagement and Motivation, Instructional Strategies and Classroom Interaction, and Development of Language Skills.

4.4.1 Learner Engagement and Motivation

Observation indicated that the Imagidice board game effectively sustained high levels of learner engagement. From the outset, learners actively participated in the activities, showing enthusiasm for both individual and group tasks. Competitive elements encouraged participation, with some students eager to respond even before being prompted. The game-based structure appeared to create a lively and supportive classroom atmosphere, reducing the monotony often associated with traditional grammar instruction. Learners who had initially been reserved gradually became more involved in activities. Their motivation increased as they became familiar with the game mechanics and started to enjoy the playful and low-pressure nature of the tasks. The visual and interactive format contributed significantly to this shift in attitude, reinforcing the idea that affective factors, such as enjoyment and confidence, are critical in successful grammar learning.

4.4.2 Instructional Strategies and Classroom Interaction

The teacher played a vital role in managing the learning environment. Clear explanations, modelling of gameplay, and real-time scaffolding ensured that learners understood the grammar points embedded within the tasks. Rather than relying solely on verbal instructions, the teacher used demonstrations to clarify expectations and procedures, enhancing comprehension for visual learners. To maximize collaborative learning, the teacher organized groups based on language proficiency, allowing more capable students to support their peers. This strategy promoted inclusive interaction and peer scaffolding. Continuous monitoring and targeted support enabled learners to stay on task and provided immediate feedback, especially when grammar errors occurred. The teacher's systematic approach and active facilitation contributed to a structured yet dynamic learning environment.

4.4.3 Development of Language Skills

The board game activities stimulated spontaneous use of target grammar structures. Learners transitioned from passive rule recall to active sentence formation. Visual prompts from the dice served as cognitive triggers, enabling students to recall relevant vocabulary and construct grammatically accurate sentences. Observation revealed a gradual but clear improvement in sentence complexity and grammatical accuracy over the sessions. For instance, learners who initially hesitated due to anxiety about making mistakes eventually demonstrated greater fluency and willingness to experiment with language. Imagidice helped reduce the cognitive load associated with grammar production by offering tangible and familiar image cues. The diversity of themes across the 12 dice also supported a range of grammatical forms—from comparatives to conditional sentences—offering repeated practice in meaningful contexts.

Overall, the observational data strongly supported the conclusion that Imagidice facilitated a shift from traditional, passive grammar instruction toward a learner-centered, interactive model. By integrating visual stimuli with collaborative gameplay, the intervention promoted active engagement, meaningful interaction, and confident language production. These findings reinforce the broader pedagogical value of multimodal and game-based approaches in EFL grammar instruction.

4.5 Results of the Semi-structured Interview from the Teacher

Insights from the teacher's semi-structured interview revealed rich perspectives on the use of the Imagidice board game in EFL grammar instruction. The findings have been synthesized into three key themes: *Pedagogical Impact*, *Implementation Barriers*, and *Comparative Reflections on Teaching Methods*.

4.5.1 Pedagogical Impact

The teacher consistently highlighted the Imagidice board game as a powerful tool for engaging learners in grammar practice. He observed that learners demonstrated increased enthusiasm, attentiveness, and motivation when using the game, particularly compared to traditional grammar lessons. The interactive nature of the activity allowed learners to apply grammar structures in a meaningful and enjoyable context, which helped reduce anxiety and build confidence. Notably, the visual prompts provided by the dice were instrumental in stimulating creativity and supporting vocabulary recall. The teacher reported that learners were better able to form grammatically accurate sentences, particularly in areas such as adjectives, tenses, comparisons, prepositions, and sentence construction. These improvements suggest that the game facilitated not just engagement but also internalization of grammar rules through contextualized use and repetition.

The playful environment enabled risk-taking and experimentation with language, which is often inhibited in conventional classroom settings. Learners reported feeling more comfortable expressing themselves and less concerned with making errors, indicating a shift toward more communicative and learner-centered grammar practice.

4.5.2 Implementation Barriers

Despite the positive outcomes, the teacher also identified several challenges in implementing the Imagidice game. A primary concern was ensuring equal participation. While some learners were quick to engage, more reserved students remained hesitant, resulting in unequal opportunities for practice. Time management was another critical issue, as balancing the game with other curricular goals required careful planning. Additionally, the competitive aspect of the game sometimes placed stress on certain learners, potentially undermining their focus or willingness to take part.

Another challenge involved managing linguistic accuracy. Learners occasionally reinforced incorrect grammar structures during gameplay when immediate corrective feedback was not provided. This highlights the importance of teacher facilitation in guiding language use and addressing errors in real-time. The teacher also noted that unfamiliarity with complex grammar points, such as subject-verb agreement, occasionally hindered learners' ability to construct accurate sentences.

4.5.3 Comparative Reflections on Teaching Methods

The teacher emphasized that compared to traditional grammar instruction, often characterized by drills and rote exercises, the Imagidice game offered a more dynamic and holistic learning experience. He described the game-based approach as particularly effective in simulating real-life communication, thereby promoting not just rule acquisition but functional grammar use in context.

While traditional methods may still serve important purposes, such as accuracy and structure, the Imagidice game offered an engaging alternative that better supported learner motivation, fluency, and collaborative learning. Importantly, however, the teacher acknowledged that not all students benefited equally and that some continued to require more structured scaffolding to fully grasp grammar concepts.

These observations are consistent with research suggesting that game-based learning enhances motivation and reduces language anxiety, thereby creating favorable conditions for second language acquisition. However, the variability in learner response underscores findings in the literature that game-based methods must be carefully integrated with structured support to ensure equitable learning outcomes. The teacher's reflections affirm that while games like Imagidice can enrich grammar instruction, their effectiveness depends on thoughtful implementation and responsive pedagogy.

5. Discussion

In this section, the findings of the study are discussed across five headings: (1) summary of key findings, (2) explanations for learning outcomes, (3) interpretation within broader pedagogical contexts, (4) comparison with prior research, and (5) theoretical and practical implications.

5.1 Summary of Key Findings

The study found that integrating the Imagidice board game into grammar instruction significantly improved young EFL learners' grammar performance. This improvement was supported by quantitative data from pre- and post-tests, which showed a statistically significant increase in scores, and by qualitative data from observations, questionnaires, and teacher interviews.

Learners became more confident, motivated, and engaged in grammar tasks, and their anxiety toward grammar learning decreased.

5.2 Explanation for Learning Outcomes

The significant gains in learners' grammar performance can be attributed to three interrelated factors drawn from the literature on board games, grammar learning, and the specific affordances of Imagidice:

5.2.1 Engagement through structured play

Section 2.1 highlights that board games offer a hands-on, goal-oriented context that shifts attention from abstract rules to meaningful language use. By focusing on game objectives rather than rote drills, learners become more intrinsically motivated and less anxious, which aligns with findings that game-based tasks activate cognitive functions and sustain interest through playful interaction. In our study, Imagidice's rule-based framework and competitive elements channelled this engagement, leading students to spend more time producing and negotiating grammar structures.

5.2.2 Contextualized grammar practice

As Section 2.2 emphasizes, grammar mastery depends on embedding rules within meaningful contexts rather than isolating form from function. Grammar underpins coherence and clarity (Zakaria et al., 2022; Pham, 2023), but traditional explanations often fail to connect form with communicative purpose. Imagidice's image prompts provided rich, multimodal contexts in which learners naturally applied conjunctions, tense forms, and conditionals to tell stories. This contextualization supported the noticing of target structures and encouraged learners to internalize rules through use rather than memorization.

5.2.3 Visual scaffolding and creative output

Building on Section 2.3, Imagidice combines visual aids and open-ended storytelling to scaffold learners' production. Research shows that visual tools—icons, photographs, and diagrams—enhance memory, comprehension, and vocabulary retention by linking form and meaning (Harris & Caviglioli, 2003; Linde, 2022). In this study's intervention, the twelve themed dice delivered diverse imagery that lowered anxiety, sparked imagination, and triggered peer-mediated scaffolding: more proficient students guided peers in sentence construction, reinforcing correct grammar use. The game's adaptability allowed activities to align with Bloom's Revised Taxonomy, ensuring each task targeted specific grammar points while maintaining learner autonomy (Nguyen, Nam, & Bon, 2024). Together, these factors explain why Imagidice produced robust, consistent improvements: learners were highly engaged in a low-stress environment, practiced grammar in meaningful contexts, and received both visual and social scaffolding that supported rule internalization.

5.3 Interpretation: Pedagogical Significance

Beyond grammar performance, the study highlights a shift in learners' attitudes and behaviors. Imagidice appears to have supported a transition from form-focused to meaning-focused grammar instruction. Learners were not only identifying correct forms but also using them to communicate ideas, indicating growth in language fluency and agency.

This suggests that game-based learning can mediate confidence-building and autonomy in language use. Learners took ownership of their language production and engaged in metalinguistic reflection—albeit implicitly—which is crucial for developing learner identity and long-term

motivation. The interactive format helped learners move from passive recipients of grammar instruction to active constructors of meaning.

5.4 Comparison with Previous Studies

A review of prior literature reveals a growing consensus on the effectiveness of board games in language education. Section 2.1 highlights how board games support vocabulary acquisition, foster learner motivation, and facilitate structured language use through engaging, hands-on experiences (Wang, Chiu, & Liu, 2023; Dronova, 2021). However, many previous studies used games with narrowly focused grammar targets or implemented general-purpose tools not explicitly tailored to grammar instruction. Likewise, Section 2.2 emphasizes grammar's centrality in language acquisition and notes that traditional approaches often fail to engage learners or provide practical usage contexts (Zakaria et al., 2022; Pham, 2023). While some research has integrated games to improve grammar learning, the activities were frequently limited to specific structures or lacked the multisensory stimulation shown to aid retention and motivation.

This study expands on that work by integrating Imagidice, a visually rich, storytelling-based board game, to simultaneously address a broad range of grammar points (e.g., conjunctions, comparatives, conditionals, tenses) in a cohesive framework. As discussed in Section 2.3, Imagidice is uniquely designed around image-based prompts that stimulate creativity and reduce language anxiety, making grammar learning more accessible to young learners. While previous studies used either rule-heavy or vocabulary-oriented games, this research offers greater specificity by examining Imagidice's visual storytelling mechanics and its ability to elicit meaningful grammatical constructions in a learner-centered setting.

Furthermore, most existing studies reviewed in Sections 2.1 and 2.2 were conducted in conventional classrooms or with older learners. This study contributes a novel perspective by focusing on young EFL learners in a cram school context, a setting where grammar instruction is often highly prescriptive and test-oriented. The current research responds to this gap by demonstrating that Imagidice can effectively engage young learners, even within time-constrained, performance-driven environments. By integrating game-based grammar activities with visual cues, this study not only enhances engagement but also supports grammatical accuracy and sentence fluency, as shown by significant gains in post-test results. In summary, the current study offers a further and constructive contribution by (a) introducing a picture-based board game (Imagidice) that differs in structure and cognitive demand from traditional board or card games; (b) targeting young learners (ages 10–12), an underrepresented group in grammar game research; (c) focusing on the interplay between visual stimuli and grammar learning, which adds a multimodal dimension not emphasized in earlier studies; and (d) addressing multiple grammar points in one framework, promoting integrative grammar learning rather than isolated drills. These elements mark a significant advancement over earlier research and offer practical possibilities for educators seeking to balance grammar accuracy with learner engagement.

5.5 Implications

This study supports communicative and constructivist approaches to grammar instruction, where learning occurs through interaction, meaning-making, and contextualized practice. It affirms that grammar can be learned not just through formal instruction but also through playful, experiential learning, aligning with contemporary views in second language acquisition.

Practically, the findings suggest that Imagidice can be a low-cost, adaptable tool for grammar instruction. Teachers can use it to supplement traditional methods, especially in settings where learner motivation is low. The game can be tailored to curriculum objectives and is especially beneficial in encouraging reluctant learners to participate. Moreover, it supports differentiated

instruction by allowing learners of varying proficiency to engage at their own level. However, implementation requires careful classroom management and teacher training. Ensuring equal participation, timely error correction, and integration with syllabus goals is crucial. Teacher development programs should consider incorporating modules on game-based language instruction and on how to manage group dynamics effectively.

6. Conclusion

Contrary to the prevailing assumption that grammar instruction necessitates rigid, rule-based methods and repetitive drills, this study demonstrates that a visually oriented, game-based approach can significantly enhance grammar acquisition among young EFL learners. The implementation of *Imagidice*, a board game utilizing image prompts to stimulate linguistic output, created an engaging and participatory learning environment. Findings indicate that learners not only expressed heightened motivation and enjoyment but also achieved measurable gains in their understanding and application of basic English grammar.

In addition to its affective benefits, *Imagidice* facilitated cognitive engagement by encouraging learners to construct meaning through visual cues and imaginative storytelling. This approach fostered the incidental acquisition of vocabulary, stimulated creative thinking, and provided opportunities for contextualized grammar practice. This study thereby contributes to the literature on game-based language learning by highlighting the pedagogical potential of visual stimuli in supporting grammar instruction. It extends existing frameworks by illustrating how multimodal, task-based activities can mediate the relationship between form and function in grammar learning, particularly within communicative and learner-centered paradigms.

Within the context of research, certain limitations must be acknowledged. The intervention was constrained by a relatively short implementation period—limited to 40-minute weekly sessions—and a small sample size, which affects the generalizability of the findings. Furthermore, the study focused on a single game format, limiting comparative insight into other forms of game-based instruction. Future research could examine the longitudinal impact of such interventions and assess their effectiveness across diverse learner populations and proficiency levels. Additional studies could also explore the integration of similar tools into broader curricular frameworks or their applicability in developing other linguistic competencies, such as writing fluency or spoken interaction.

In conclusion, while *Imagidice* is not intended to supplant traditional grammar instruction, it offers a viable, supplementary resource that aligns with contemporary pedagogical shifts toward interactive, learner-centered education. The findings support the integration of visually mediated, game-based strategies as a means of enhancing both the effectiveness and appeal of grammar instruction in EFL contexts.

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