

An Analysis of Blooket Performance in Intermediate Mandarin Reading Course

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ABSTRACT

This study aims to analyze the effectiveness of using a *Blooket* as a gamified learning tool in an intermediate-level Mandarin reading class. Using a descriptive quantitative approach based on User Experience (UX), additional data were collected through questionnaires, interviews, and non-participatory observations. The findings reveal that the highest scores were seen in the stimulation and efficiency aspects, indicating that *Blooket* improves student motivation and facilitates a faster learning process. Conversely, the reliability aspect obtained the lowest score, primarily due to network instability and students' inaccuracy in reading Chinese characters. Overall, *Blooket* demonstrates great potential as a foreign language learning tool. However, its implementation should be supported by a comprehensive pedagogical strategy to optimize the benefits of gamification and further develop learners' language proficiency.

KEYWORDS

blooket; Gamification; Mandarin language; reading skills;
second language acquisition

INTRODUCTION

Technological advancements in education have brought about significant transformations in learning methods and strategies, particularly in the field of foreign language education. One leading approach is gamification, which integrates game elements into non-game contexts to enhance learner engagement and motivation (Hamari et al., 2014). In the language education field, gamification is not only used to strengthen vocabulary or grammar proficiency, but is also applied to improve reading skills, which are often considered tedious by most students due to their dense and passive nature.

Gamification significantly influences learning outcomes from both cognitive and behavioral perspectives. It also has the potential to increase learning engagement among students, which is essential for promoting higher motivation across various disciplines, including language and STEM education (Sailer & Homner, 2020; Zainuddin et al., 2024). In line with technological and digital advancements, an increasing number of educators are implementing gamification in their teaching and receiving positive feedback from students.

One digital platform that supports gamified learning is *Blooket*. This web-based application enables educators, particularly lecturers, to create interactive mini-quizzes with a various game mode, such as Tower Defense, Racing, and Crypto Hack. Not only does it present questions in an engaging format, *Blooket* also provides real-time scoring and a competitive environment, which can enhance student learning enthusiasm. In addition to these features, *Blooket* offers analysis and reporting features for student performance, which enable lecturers to discover alternative methods of assessment (Blooket, 2023). This platform has been performed in various fields of study, including mathematics, science, and languages, illustrating strong potential to enhance user experience and encourage active student participation.

In the context of foreign language learning, using games to enhance the ability to recognize Chinese characters is believed to help students identify and memorize characters more effectively, while also increasing their motivation to learn. Mandarin characters, often considered difficult, can thus become more enjoyable to study (Chen et al., 2023). The use of technology in Mandarin, particularly at the intermediate level, makes reading comprehension a crucial yet challenging skill for students. They are faced with more complex texts, difficult vocabulary, and complicated sentence structures. Challenges such as unfamiliar vocabulary and characters, which can slow down the reading pace, may negatively affect learning motivation. To address these challenges, *Blooket* offers an innovative alternative by transforming the classroom atmosphere into a livelier and more enjoyable environment, while simultaneously promoting comprehension of reading materials through an interactive approach that students find engaging.

Based on this idea, this study formulates research questions regarding how students perceive the use of *Blooket* in intermediate Mandarin reading classes and the obstacles they experience while using it. The study aims to describe students' perceptions of *Blooket*, primarily through the User Experience (UX) Questionnaire. This approach enables the researcher to focus on aspects such as attractiveness, perspicuity, efficiency, dependability, stimulation, and novelty. By understanding students' perceptions, educators can assess the effectiveness of *Blooket* as a learning platform and optimize its use to support students' learning outcomes.

RESEARCH METHODS

This study adopted a mixed-methods approach to combine the complementary strengths of quantitative and qualitative data in understanding the implementation of *Blooket* gamification in an intermediate Mandarin reading class. This approach was applied because the researchers aimed not only to examine outcomes in terms of numerical data but also to explore how *Blooket* was used and the challenges students encountered while interacting with the platform (Creswell & Clark, 2017). The research subjects consisted of 52 students enrolled in an intermediate-level Mandarin reading class (equivalent to HSK 3-4). All students participated as research samples and completed the questionnaire. For the qualitative approach, 8-10 students who were willing to participate in interviews were selected, based on their level of class participation and the analysis of challenges identified in the questionnaire responses.

Data collection was conducted using three research instruments: first, a Likert-type questionnaire (ranging from 1 to 5) to assess User Experience, with one section specifically designed to document students' challenges. Second, a non-structured in-depth interview with selected students to explore their challenges and experiences while using *Blooket*. Third, non-participatory observations were conducted by the researcher during the learning process, with the researcher acting as both observer and lecturer. Data were analyzed separately and later integrated. Quantitative data were evaluated using Microsoft Excel, a basic statistical

software, by calculating the average score for each aspect of User Experience, while qualitative data were analyzed through transcripts to enable further analysis.

RESULTS AND DISCUSSION

The following section presents the results of data analysis of the User Experience (UX) questionnaire.

Table 1. Results of the User Experience (UX) Questionnaire Analysis

No	Indicators	Student's perception	
		Total Score	Average
a. Attractiveness			
1.	<i>Blooket</i> is easy to use.	240	4.61
2.	I enjoy using <i>Blooket</i> during the learning process.	238	4.57
3.	<i>Blooket</i> is comfortable to use during learning.	239	4.59
Average		717	4.59
b. Perspicuity			
1.	The use of <i>Blooket</i> during learning is understandable.	225	4.32
2.	<i>Blooket</i> is quite simple to use.	197	3.78
Average		422	4.05
c. Efficiency			
1.	<i>Blooket</i> is efficient to use.	241	4.69
2.	<i>Blooket</i> is convenient to use.	235	4.51
Average		476	4.6
d. Dependability			
1.	The use of <i>Blooket</i> is predictable.	140	2.69
2.	The use of <i>Blooket</i> supports learning session.	230	4.42
Average		370	3.55
e. Stimulation			
1.	I find <i>Blooket</i> entertaining to use during learning.	247	4.75
2.	<i>Blooket</i> is engaging to use.	252	4.84
Average		499	4.79
f. Novelty			
1.	<i>Blooket</i> is a leading platform	208	4
2.	<i>Blooket</i> is quite innovative.	213	4.09
Average		421	4.045

The results of the questionnaire above are processed and can be presented in a bar chart as follows.

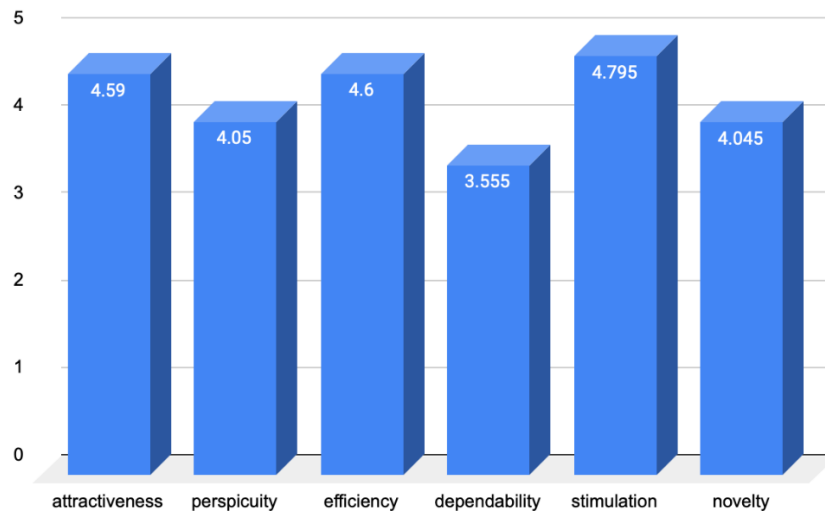


Figure 1. Graph of Blooket Use in Intermediate-Level Mandarin Reading Class

The graph above presents the average scores of five aspects measured in the User Experience (UX) questionnaire. Among these aspects, stimulation received the highest score of 4.795, indicating that it is the most prominent, and that students perceive a considerable positive impact. The next highest-scoring aspect is efficiency, with a score of 4.6, suggesting that students consider *Blooket* highly effective for use in their intermediate Mandarin reading class.

The perspicuity and novelty aspects received average scores of 4.05 and 4.045, respectively, indicating that students find *Blooket* relatively easy to use and appreciate its innovative features. The reliability aspect received the lowest score of 3.55, suggesting that students perceive a need for improvement in the platform's stability. Overall, these results indicate that the stimulation and efficiency aspects are the most noticeable and beneficial features experienced by students while using *Blooket* in intermediate Mandarin reading classes.

The high score for the stimulation aspect indicates that the use of *Blooket* can improve student motivation during the learning process, which aligns with foreign language learning theories that emphasize the importance of motivational factors in improving learning outcomes (Dörnyei, 2001). With high stimulation, students became more motivated to participate actively, leading to increased engagement in learning. During classroom observations, the use of *Blooket* in reading classes encouraged students to prepare more thoroughly before classes, such as reviewing the material and memorizing new vocabulary, so that they could perform more confidently and smoothly in the *Blooket* games.

One of the students mentioned in the interview, "We always look forward to the moment when the teacher uses Blooket at the end of the class, because review activities that are usually difficult for us become enjoyable with Blooket." This shows the segment using *Blooket* at the end of the class to review material was highly anticipated. They explained that review session, which had initially felt difficult, became enjoyable, and concluding the lesson with *Blooket* made the learning experience more exciting.

The efficiency aspect also gained a relatively high score, showing that *Blooket* effectively facilitates the learning process and supports students in reviewing material with ease. This finding aligns with cognitive load theory in second language learning, which suggests that efficient learning tools can enhance cognitive processing and improve the

understanding of presented material (Sweller, 1988). It can be argued that efficiency is closely related to stimulation aspect, which improves student motivation and encourages better preparation before class. For students, reviewing material with *Blooket* is highly engaging, while for educators, the post-lesson reporting feature simplifies the learning assessment. Therefore, *Blooket* demonstrates to be efficient innovative learning platform not only for students but also for instructors.

On the other hand, the perspicuity score indicates that *Blooket* is perceived as relatively clear and easy to use, which is essential for ensuring that students can follow classroom activities smoothly. The novelty aspect also received a positive score, as students considered *Blooket* to be quite innovative tool in Mandarin classes. According to Krashen's theory, the presence of innovative elements in learning process may provide more engaging and meaningful input for students. (Krashen, 1982). *Blooket* is a platform offering various game types for students to choose. Generally, the researcher invited students to vote for their preferred game mode, allowing them to take an active role in the learning process. Based on classroom observations, the games provided by *Blooket* are far from monotonous. The platform continuously innovates by introducing games aligned with current phenomena or seasonal themes. For instance, in October, *Blooket* features Halloween-themed games. This new type of activity received a warm welcome from students, who were curious to try games they had never played before. Although the practice questions created by the instructor were different, the introduction of new game formats offered a fresh and engaging learning experience.

The aspect with the lowest score was reliability, implying that students viewed *Blooket* as somewhat unstable or not yet fully dependable. This finding should be taken into account, as high-tech reliability is an essential factor affecting the overall effectiveness of a digital learning platform (Huang et al., 2016). Based on the researcher's observations, several factors contributed to this perception. First, unstable internet connections on students' devices often hindered their participation in *Blooket* games. Second, many students were hesitant or reluctant to try new things. This was evident when the researcher, who also acted as the lecturer in the Mandarin reading class, needed to provide detailed instructions to certain students on how to play the game, while others were adapting smoothly.

Based on interviews and observations conducted by researchers, there are several challenges experienced by students when using *Blooket* in intermediate-level Mandarin reading classes. The primary issue concerned network instability, which frequently interrupted students' participation. Poor internet connections often hindered students from joining the game immediately or caused them to be disconnected midway. Such interruptions affected the accuracy of their responses, as students had to restart the game from the beginning. Moreover, their previous progress was not recorded, and no additional time was provided to compensate for the network issues, which many students expressed dissatisfaction with. Students with stable internet connections often had to wait for their peers, while those struggling with connection problems reported feeling less prepared and anxious as being unable to join the game immediately. "Sometimes, when we are already excited to join the game, the internet connection becomes very poor, causing us to be kicked out of the game. I feel frustrated when that happens, and playing the game anxiously because I worry about falling behind my classmates," one student expressed.

Second, several students acknowledged that they tended to rush through the questions and failed to read the Chinese characters attentively, resulting in incorrect answers. This finding highlights challenges related to concentration, which is key aspect in foreign language acquisition. (Ellis, 1994; Gass et al., 2020). This inaccuracy can negatively impact students' comprehension and understanding of the language. In some *Blooket* games, students are given limited time to complete the tasks or collect as many points as possible.

For students with low concentration, this time pressure can lead to inattentiveness. Besides, Chinese characters, as a pictographic writing system (Perfetti & Liu, 2005), are innately complex, with many characters appearing similar, especially at the intermediate level. This poses a particular challenge, as students must read and distinguish characters quickly under less-than-ideal conditions. Some effective strategies for learning a foreign language are repetition and extensive practice (DeKeyser, 2007). Although this approach is sometimes perceived as outdated or monotonous, repeated practice substantially supports second language acquisition. In the context of Mandarin, researchers suggest that practicing the recognition and reading of Chinese characters can overcome difficulties in identifying characters. Increased practice enables students to distinguish and read characters more quickly, ultimately leading to more effective learning outcomes.

According to these overall results, *Blooket* is a digital learning platform with robust potential to enhance student motivation and improve the effectiveness of intermediate-level Mandarin learning through an interactive and innovative approach. The external and internal challenges discussed above can be further evaluated, and relevant solutions can be implemented to optimize the use of *Blooket*, thereby creating more positive outcomes in the development of students' Mandarin reading skills.

CONCLUSION

The use of *Blooket* in intermediate Mandarin reading classes has had a positive impact, particularly on stimulation and efficiency, revealing that gamification can enhance student engagement and accelerate learning. However, several challenges remain, including cognitive and concentration difficulties, as well as errors in reading accuracy, especially when recognizing complex Chinese characters within limited time frames. This finding supports foreign language learning theories, which emphasize that attention level and repeated practice are necessary for effective second language acquisition (Ellis, 1994; Schmidt, 1990)

Other challenges, such as technical limitations caused by poor internet connectivity, also influence students' perceptions of platform reliability. This issue should not be overlooked, as it can negatively influence students' learning motivation. (Hassenzahl & Tractinsky, 2006). Despite certain challenges, *Blooket* remains a valuable learning tool, particularly when integrated with pedagogical approaches that support second language acquisition and provide students with opportunities to practice complex Chinese reading and character recognition. Its use should be complemented with supportive strategies, such as providing students with orientation or training to familiarize them with the digital platform, as well as extended practice to strengthen character recognition. With this comprehensive approach, gamification serves not only to increase student motivation but also to effectively enhance overall language skills.

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