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(IJEPC)<https://gaexcellence.com/ijepe>FOSTERING 21ST-CENTURY LEARNING SKILLS IN
TERTIARY ESL: AN ASSESSMENT OF GAMIFICATION'S
ROLE IN ENHANCING CRITICAL READING AND
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Abstract:

The tertiary English as a Second Language (ESL) instruction context is often challenged by the need to harmonize traditional teaching approaches to meet the competency requirements of the 21st century, especially when it comes to teaching critical reading skills and promoting genuine collaboration. Although gamification is believed to have great potential in promoting motivation and collaboration in learning, the way in which it is applied is often rather superficial without proper alignment with higher order reading skills development. In view of this challenge, exploratory qualitative research has been conducted to determine the effectiveness of the "Reading Blockbuster", a group gamification strategy intended to help develop reading and 21st century collaboration simultaneously. The results show that the activity proved highly motivating, leading to observable improvements in the development of reading skills, namely, scanning, systematic notetaking, and time management. Peer interdependence, interaction, and emerging critical thinking skills were effectively promoted through collaboration and mutual correction of mistakes. Nevertheless, these advantages were limited by strict time limits, heterogeneity of text difficulty, distracting noise in the classroom, and sometimes even competition, with the preference for immediate reactions rather than careful analysis. This

research is valuable both theoretically, integrating Self-Determination Theory with approaches to cooperative learning, and practically, providing an effective and low-resource teaching strategy for ESL courses that emphasizes the need for flexible pacing, appropriately levelled texts, and collaborative dynamics within games.

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Keyword:

21st-Century Skills, Academic Motivation Collaborative Learning, Critical Reading, Gamification



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Introduction

Indeed, today's higher education environment increasingly emphasizes the need for students to develop such key competencies of the 21st century as critical thinking, digital skills, and collaborative problem-solving (Voogt & Roblin, 2012; OECD, 2019). In the context of post-secondary education ESL courses, these abilities cannot be considered additional but should rather form the core for success in a particular discipline. Reading skills have shifted from mere decoding to a much more complicated process of analysis and evaluation of scholarly papers (Grabe, 2009; Wallace, 2003). Collaborative work is another area, which has long been recognized as necessary for successful study in modern conditions, since it resembles both an academic and workplace environment (Johnson & Johnson, 2018; Dillenbourg, 1999). Even though the requirements are obvious, adapting ESL courses to them poses a considerable challenge.

Gamified pedagogies have therefore been employed to mitigate this gap, with gamification proving particularly effective as an intervention. As a pedagogy where game design features are incorporated into educational processes for enhancing motivation, engagement, and structuring interactions, gamification has been proven to contribute towards improving the educational experience (Deterding et al., 2011; Sailer & Homner, 2020). Gamified tasks in language education, in particular, make use of elements such as point systems, increasing difficulty levels, narratives, and cooperation to create engaging learning tasks out of academic ones (Reinhardt, 2019; Huang et al., 2019). In this context, "Reading Blockbuster" can be said to be a purposefully designed gamified intervention which makes use of gamification for academic reading tasks.

Nonetheless, there still exist many educational challenges in teaching ESL learners in tertiary environments. First, the current practice in traditional reading curricula emphasizes linguistic precision and literal comprehension rather than the development of higher cognitive skills in terms of critical analysis. The result is that tertiary learners have difficulties in coping with the analytical requirements of academic communication (Hyland, 2019; Benesch, 2009). Second, language classes often fail to engage students in collaborative activities where they develop their communicative abilities and collaborate as a team because such tasks lead to unequal contribution, distribution, or even to free riding (Li & Zhu, 2017; Springer et al., 2020). Although gamification helps to solve this problem due to the inclusion of structured collaboration and motivational components, its application in the domain of ESL studies lacks systematization.

Empirical studies of the use of gamification in language learning have shown overall positive effects, though with certain distinctions. According to meta-analyses and systematic reviews of literature, appropriately incorporated game features like instant feedback, progress visualization, and cooperative challenges help increase intrinsic motivation and minimize language anxiety (Sailer & Homner, 2020; Dichev & Dicheva, 2017). Gamified vocabulary and comprehension tasks for the teaching of reading skills in secondary and tertiary education settings have also been shown to increase students' retention rates and sustain engagement (Chen & Wang, 2021; Liu et al., 2020). Similarly, empirical studies of collaborative learning have stressed the importance of establishing positive interdependence and individual accountability to promote peer collaboration and academic language acquisition (Johnson & Johnson, 2018; Storch, 2005). Nevertheless, research on gamification and collaboration in language learning operate separately. Current research in either field mostly considers academic achievements and does not explore socio-affective or collaborative aspects, thereby failing to examine comprehensively how gamified learning supports development of academic skills (Zou et al., 2021; Reinhardt, 2019).

It thus becomes clear that one of the important gaps in current research lies in the lack of attention given to studying the potential of designing gamification for developing critical reading skills, as well as collaborative skills required in the 21st century, as a combined phenomenon. Specifically, students' perspectives on the cognitive and motivational benefits of such interventions have not been sufficiently considered in relation to how learners may understand the underlying gaming mechanics from a metacognitive and social interaction standpoint. To address this gap, the present study empirically assesses the pedagogical efficacy and perceptual impact of the “Reading Blockbuster” gamified activity among tertiary ESL learners. Generally, this study investigates the impact and perceptions of the gamified “Reading Blockbuster” activity on the academic reading. Specifically, the objectives of this study are:

1. To explore tertiary ESL students' perceptions of how the gamified “Reading Blockbuster” activity enhances their academic reading skills and overall learning motivation.
2. To evaluate the extent to which the group-based structure of the “Reading Blockbuster” game fosters 21st-century collaborative skills

This study is guided by two research questions:

1. How do tertiary ESL students perceive the role of the gamified “Reading Blockbuster” activity in enhancing their academic reading skills and overall motivation?

2. To what extent does the group-based nature of the game foster 21st-century collaborative skills among tertiary ESL learners?

In terms of substantive contributions to applied linguistics and language pedagogy, this research contributes on both theoretical and practical fronts. On the theoretical front, it develops a unified framework through which gamification design, critical reading theory, and collaborative learning pedagogy are integrated for understanding the ways in which game mechanisms help develop higher order academic skills. In terms of practical contribution, it gives ESL teachers an evidence-based model for instruction through which game-mediated interaction can be explicitly aligned with critical reading and collaboration skills that have largely been overlooked in traditional approaches to language teaching.

The remainder of this article is structured as follows. Section 2 reviews the theoretical foundations and empirical literature on gamification, critical reading, and collaborative skill development in ESL contexts. Section 3 details the research design, participant profile, instrumentation, and analytical procedures. Section 4 presents the empirical findings aligned with the two research questions and discusses the implications of the results in relation to existing scholarship, pedagogical practice, and theoretical models. Finally, Section 5 concludes with a synthesis of key findings, acknowledges study limitations, and proposes directions for future research in gamified language education.

Literature Review

Theoretical Foundations of Gamification in Language Education

Gamification can be considered a scientifically proven pedagogical approach that deliberately includes game design elements into non-game learning settings for the purpose of increasing motivation and enhancing learner engagement (Deterding et al., 2011). SDT provides the primary theoretical basis for the efficacy of gamification-based methods in language learning, as it suggests that learners exhibit higher intrinsic motivation due to their psychological needs being satisfied within such learning settings – namely, autonomy, competence, and relatedness (Deci & Ryan, 2000; Sailer & Homner, 2020). In gamified English-language instruction, autonomy is ensured by choice systems and pace control, competence through feedback and progressive task structures and skill mastery, while relatedness can be achieved through cooperative goals, peer-dependency and collaborative storytelling (Reinhardt, 2019; Huang et al., 2019).

In conjunction with SDT, the theory of Flow posits that an optimally constructed gamified assignment provides a harmonious combination of difficulty level and player ability, resulting in an engaging psychological state, free of any language anxiety and conducive to maintaining focus (Csikszentmihalyi, 1990; Dichev & Dicheva, 2017). This balance becomes crucial when dealing with language acquisition since students' affective filters tend to block the processes of comprehension and expression of their thoughts. Indeed, meta-analysis reveals that the inclusion of gamified components into the curriculum, including point systems, collaborative projects, and gradually increasing difficulty levels, leads to greater engagement and reduced affective barriers in secondary and tertiary ESL classrooms (Sailer & Homner, 2020; Zou et al., 2021). Nevertheless, theoretical perspectives recommend against the instrumental use of extrinsic motivators, leading only to temporary compliance without the internalization of

metacognitive techniques or further academic skills (Dichev & Dicheva, 2017; Reinhardt, 2019).

Critical Reading in Tertiary ESL: Cognitive and Metacognitive Demands

In higher education ESL settings, critical reading goes beyond mere understanding of meaning as it requires students to read, analyze, synthesize, and question the content of specialized texts in relation to the social context and rhetoric involved (Grabe, 2009; Wallace, 2003). Theories on L2 reading have defined it as a metacognitive and interactive activity that involves ongoing monitoring, strategic inferencing, and meaning construction through various text and contextual features (Grabe, 2009). In educational contexts, critical reading entails even more challenging work as learners have to locate authors' positions, interpret implications, and evaluate evidence in their texts (Hyland, 2019).

Frameworks for critical reading pedagogies include the transition of the reader from passive consumption to a dialogic relationship where questioning, annotating, and analyzing are employed by the learner as he/she examines the text (Wallace, 2003; Benesch, 2009). The application of the various taxonomies of reading comprehension such as the Barrett's Taxonomy of Reading Comprehension is one way in which such a process can be achieved, since it is possible for question prompts to be created in terms of moving the learner from literal to inferential, evaluative, and finally to appreciative levels. Theoretically, there is agreement that critical literacy is an essential skill for learners, but practice reveals that ESL learners in tertiary education are not provided with the necessary preparation for such reading skills as a result of focus on vocabulary/grammatical drilling and surface-level comprehension tasks.

Collaborative Skill Development and 21st-Century Competencies

There are theoretical underpinnings for collaborative learning within English language teaching as well. Such theories as socio-cultural learning theory and cooperative learning theory emphasize the social nature of knowledge production and peer mediation (Dillenbourg, 1999; Johnson & Johnson, 2018). Cooperation is seen by contemporary higher education as one of the major skills for the 21st century, involving communication, interdependence in thinking, conflict management, and collective responsibility (Voogt & Roblin, 2012; OECD, 2019). As part of cooperative learning approaches, cooperation should be accompanied by positive interdependence, individual accountability, and interpersonal processing to avoid any free-riding or hierarchy problems (Johnson & Johnson, 2018; Springer et al., 2020).

Empirical evidence from studies conducted in ESL settings has shown that collaborative task assignments encourage the development of academic language skills through meaningful negotiation of language, peer-to-peer scaffolding, and co-construction of discourse (Storch, 2005; Li & Zhu, 2017). Nevertheless, the implementation of collaboration as a teaching methodology for the development of 21st-century skills is not always consistent. When students work on a task assignment without any structural scaffolding, the emphasis tends to be more on task completion than the learning process, leading to unequal participation and underutilization of cognitive potential (Li & Zhu, 2017; Springer et al., 2020).

Empirical Convergence: Gamification, Critical Reading, and Collaboration

While recent empirical investigations have started to converge on topics such as gamification, reading teaching practices, and cooperation, the research field is still marked by a certain compartmentalization. In all empirical research focused on gamifying foreign language learning, positive results were found in the form of increased vocabulary acquisition, reading comprehension, and motivation, provided that there was a connection between game mechanisms and explicit learning goals combined with feedback (Chen & Wang, 2021; Liu et al., 2020). However, according to systematic reviews, while collaborative games promote positive peer interactions and help lower language-related anxiety levels, most studies fail to investigate the influence of game-based cooperation on academic skills development (Zou et al., 2021; Dichev & Dicheva, 2017).

Concurrently, parallel research on collaborative ESL tasks highlights the importance of interdependence to achieve effective academic discourse, but the research on how gamified interventions can help achieve this end while also teaching critical reading skills remains underdeveloped (Johnson & Johnson, 2018; Storch, 2005). Existing studies that link these fields are very few and usually assess the efficacy of gamified learning using engagement measures alone rather than considering multiple aspects of the development of students' thinking skills and interpersonal collaboration (Reinhardt, 2019; Zou et al., 2021). Hence, one of the important gaps in empirical research is the lack of insight into the potential of carefully designed gamified group activities to not only develop critical reading skills but also collaborative competencies among tertiary-level ESL students. Closing this gap requires pedagogical approaches that integrate game mechanics with metacognitive thinking about reading as well as collaborative practices.

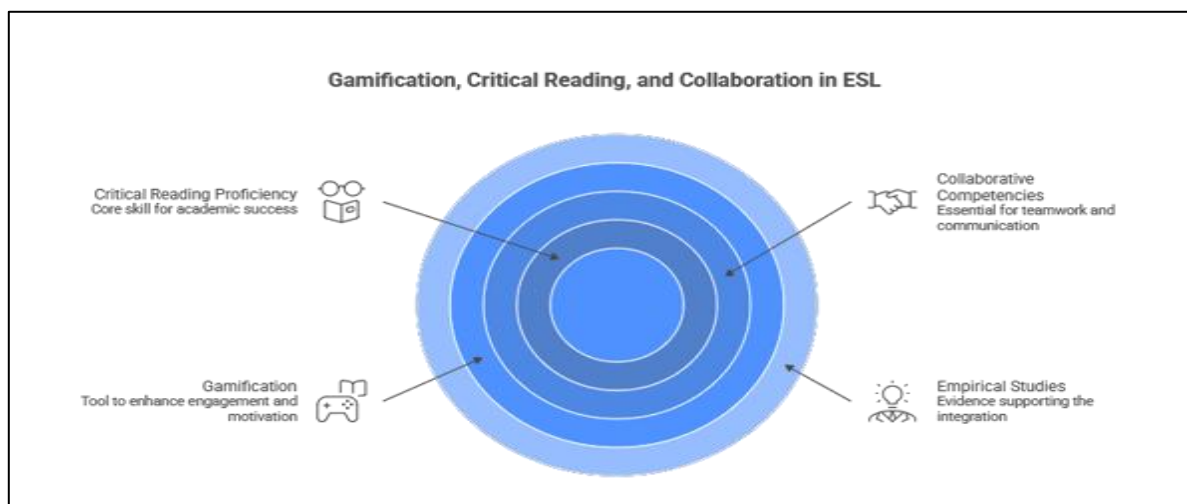


Figure 1: The Conceptual Framework of Gamification in Reading Blockbuster

Source: Napkin

Research Methodology

This is an explorative study in which a qualitative method was used. The researchers collected the data through classroom observation and students' responses in interviews. The respondents were from a diploma class consisting of 20 semester three students who were of heterogeneous

group. They varied in their language proficiency from weak to competent user of English. The game was played during a normal ESL class. The whole session was observed closely. All the 20 participants were grouped and interviewed for 20 – 30 minutes to gather information on their experience participating in the game. The raw data was then analysed.

The game – “Reading Blockbuster”

The following is the description of the innovative project “Reading Blockbuster”. In order to play the game, the students are put into groups of 4 to 5 persons. Then, a student is picked (from any group) to choose an alphabet from A to Z. Each alphabet has a reading text which begins with the chosen letter (i.e. Letter A, students will read a text on Airasia, if Letter B, students will read a text on BoBoiBoy, and so on). Once the student has chosen an alphabet, the lecturer will then show the reading text on the screen. All students begin to read the text (Time given: 10 minutes). The same student (the one that picked the alphabet) tosses the dice. Once thrown, the dice will reveal number 1 to 6. Whichever number that is shown by the thrown dice will be the specific question that the students have to attempt (Figure 1). Different number represents different question level in Barrett’s Taxonomy of comprehension skills. The fastest group that answers the comprehension question correctly, the group will be awarded point. Then, repeat the game by giving the turn to the winning group.

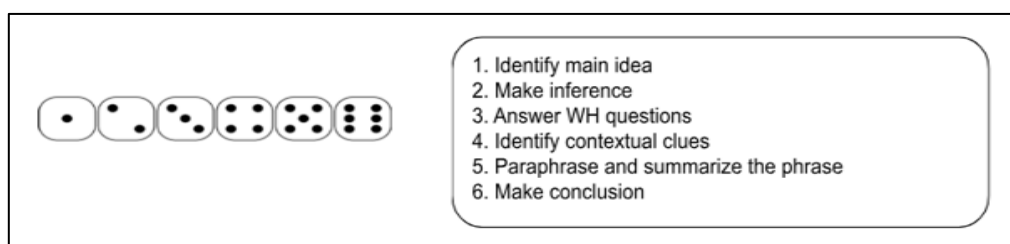


Figure 2: Shows Number 1 – 6, Different Number Represents Different Question Based on Barrett’s Taxonomy of Comprehension Skills.

Results and Discussion

The findings from the observations done in the classroom and the interviews held with 20 tertiary level ESL students after the intervention are discussed in this section using the two research questions as a basis for organizing the findings. The discussion is based on the interpretation of the themes identified within the data with regard to theories and concepts relating to gamification, academic reading skills, and collaborative learning in the 21st century. From the findings gathered during the interviews concerning the “Reading Blockbuster” game, the findings can be categorized into two broad categories, namely positive responses and negative responses.

Table 1: Students' Responses

Students' Responses		
I can work with friends	It improves my reading	Noisy
I learn the strategy in taking notes	Learn to manage my time	It may encourage fighting
It Improves my communication skills	Able to know team mates better	I argued with my friends
We can contribute a lot of ideas	Strengthen the relationship among classmates	We don't have enough time to brainstorm
I tried my best to win the game	We cooperate to get better answer	No teamwork
I learn to always be alert	I use scanning technique to get the answers	I need more time to check the answer
We can correct each other	We have the chance to choose our own article	I cannot concentrate
I had so much fun	Articles are good and up to date	To me some articles are difficult
Interesting game	Improve my answering technique	I don't know the meaning of certain words
I feel relax	It is very entertaining	Some texts are quite long
I feel excited to play the game again	I feel motivated	Too many groups and some groups might not have the chance to play the game
The game increases my general knowledge	I tried to be the quickest to answer	Have to alert others to answer questions
It improves my listening skills	There should be more articles	I could not understand some texts
I write faster		

Research Question 1: Perceptions of Academic Reading Skills and Overall Motivation

According to students, the activity known as the "Reading Blockbuster" was seen to have a strongly positive impact on reading skill development and motivation, although there were some limitations associated with the process.

Strategic Skill Acquisition and Cognitive Engagement

The participants agreed that gamification had turned reading from a static, linear activity into a dynamic process involving a set of cognitive strategies. Specifically, they highlighted the development of real-life academic strategies such as skimming for information, keeping notes on what is read, time management while reading, and answering techniques improvement. As one of the students expressed, "*I use scanning technique to get the answers... I learn to always be alert.*" This statement reflects a higher level of metacognition during the reading activity, and it supports the theory of second language reading as an active and interactive strategy-based process involving constant monitoring and inference creation (Grabe, 2009; Wallace, 2003). Incorporating Barrett's Taxonomy using dice rolls provided additional scaffolding for comprehending the texts on different levels. However, as observed by some of the students involved in the study, the lack of time hindered their full participation in the process of asking

higher order questions. This reveals that although the game facilitated the process of engaging students in strategic reading activities, there were times when the timing of the process gave precedence to quick responses over thoughtful ones. In other words, gamifying the reading exercise could possibly put a premium on quick recall over reflective response.

Motivational Drivers and Gamified Engagement

Moreover, the intervention has been found to have been extremely motivating in the classroom context. Students referred to it as “*fun*,” “*interesting*,” and “*very entertaining*,” claiming that it made them feel more relaxed and excited about taking part in the activity in the future. The use of game features, such as competing for being the quickest in answering questions and awarding players with points for their achievements, led to observable improvements in their persistence in doing the tasks and willingness to take part in them. These results coincide with the postulates of Self-Determination Theory (SDT) where gamification meets the psychological needs of individuals in terms of competence (instant performance feedback), autonomy (freedom to choose reading topics), and relatedness (team goals) (Deci & Ryan, 2000; Sailer & Homner, 2020). Furthermore, the use of up-to-date and relevant texts, such as those that focus on cultural issues of the target language and that begin with particular letters of the alphabet, increases intrinsic motivation, contributing to greater engagement, a proven determinant of successful gamified learning experiences in the field of English language acquisition (Chen & Wang, 2021; Liu et al., 2020).

Perceived Barriers: Temporal, Linguistic, and Environmental Constraints

While receiving good feedback from their peers, students revealed three main factors hampering skill acquisition and motivation: the level of difficulty of texts used, time constraint, and classroom noise. As indicated by several students, some of the materials used were too “*difficult*,” “*quite long*,” or contained “*new words*” that did not make them easy to comprehend or read. Apparently, there was a mismatch between the complexity of the text and the varying language proficiency levels in the group, which remains one of the typical problems encountered by college teachers using reading games in Teaching English as a Second Language (ESL; Hyland, 2019). Moreover, the 10-minute time period set to complete the task proved to be insufficient as students said that “*I don't have enough time to brainstorm*” or “*check my answer*.” This limitation could have interfered with the establishment of flow due to an excess of pressure caused by the time constraint (Csikszentmihalyi, 1990). The noisy classroom environment could not but negatively impact students' concentration, making the task more challenging for them to accomplish successfully.

Research Question 2: Extent of Fostering 21st-Century Collaborative Skills

Architecture of the “Reading Blockbuster” Group had high potential in developing 21st Century skills when viewed in light of the Four Cs model (Collaboration, Communication, Critical Thinking, and Creativity). Nevertheless, development levels varied due to design aspects and dynamics that developed in groups.

Collaboration and Cognitive Interdependence

Collaboration became the skill that was most extensively nurtured. Participants observed that through their teams, they were able to “*work with friends*,” “*offer many ideas*,” and

“cooperate to achieve better results.” The competitive nature of the scoring system required positive interdependence since participants understood that their ability to act together impacted results directly. Such an observation is consistent with the principles of cooperative learning where structured group goals are used as means for promoting responsibility and support within teams (Johnson & Johnson, 2018; Dillenbourg, 1999). Interpersonal relations were improved too, and the game provided participants with an opportunity to *“strengthen the relationship with classmates.”* However, there were situations when collaborative efforts were hampered by competition. Namely, some participants complained about *“arguments with friends,” “lack of teamwork,”* and *“too many groups.”* Such observations are congruent with empirical claims according to which unfettered competition may lead to dominance structures or free riding, thus undermining cognitive interdependence (Springer et al., 2020; Storch, 2005). Therefore, although the game provided ample opportunities for collaboration, its extent was sometimes limited due to lack of control.

Communication and Negotiation of Meaning

The enforced reliance on one another was responsible for the regular use of dialogue, negotiations, and corrections between peers. Students have confirmed an improvement in both their communication and listening skills, since the requirement to present results fast necessitated a clear articulation as well as listening skills. The observation corresponds with sociocultural approaches to second language acquisition, in accordance with which communicative tasks become conducive to pragmatic competence through negotiated meaning (Li & Zhu, 2017; Voogt & Roblin, 2012). Yet the noisy atmosphere of the class environment always prevented students from engaging in concentration, since they claimed not being able to do so in discussions. In other words, the discussed pedagogical issue demonstrates that effective communicative skills can only be developed in gamification if adequate attention is paid to acoustic planning (OECD, 2019).

Critical Thinking and Metacognitive Processing

Critical thinking skills were achieved by combining the mechanics of Barrett’s taxonomy, which involved analyzing, evaluating, and synthesizing information within the given timeframe by all team members. Students exhibited their metacognitive abilities by *“correct[ing] each other”*, using scanning methods, and ensuring joint watchfulness (*“I learn to always be alert”*). Thus, we can conclude that this game successfully distributed the burden of cognition among peers and encouraged them to engage in reflective practices. Yet, the achievement of deep critical thinking was restricted by limited time available for the completion of the task. As some students pointed out, there was not enough time for brainstorming and verifying one’s answer, which made them focus on promptness. This concern is consistent with the literature warning about the potential of promoting procedural fluency when designing gamified activities that involve reading unless they are aimed at promoting reflection (Zou et al., 2021; Wallace, 2003).

Creativity, Autonomy, and Pedagogical Limitations

While direct proof of creativity was lacking, this was due to the focus on understanding and answering questions correctly, rather than encouraging creative processes. However, divergent thinking was indirectly encouraged by engaging in brainstorming sessions as a class, along with being given complete freedom to choose what reading material they would be reading.

The ability to “*choose our own article*” allowed for learner autonomy, which, according to studies, has been known to foster innovation and enhance learning skills (Reinhardt, 2019; Huang et al., 2019).

Synthesis and Pedagogical Implications

Indeed, the outcomes show that the “Reading Blockbuster” gamification exercise is able to promote effective academic reading strategies among tertiary level ESL learners, motivate them to engage in their tasks, and develop significant levels of cooperation, communication, and critical thinking ability. Nevertheless, the levels of skills developed will depend on factors like time, text availability, environmental control, and group management. The findings confirm that while gamification is an excellent pedagogical support tool, its success will be determined by the purposeful integration of cognitive and socio affective learning objectives. As such, when designing gamification activities, ESL teachers should make sure that there are appropriate time structure, text availability, acoustic management, and collaborative guidelines. In this way, gamification in reading can go beyond merely engaging learners to developing the essential skills required in 21st century learning contexts.

Conclusion

The aim of this exploratory qualitative research was to determine the perceptions of tertiary level ESL students about the gamified “Reading Blockbuster” task in the acquisition of academic reading skills and motivation, as well as to what degree the gamified task’s collaborative nature contributed towards the development of 21st century skills. The results revealed that the gamification intervention had been effective in shifting the reading experience from a static and solitary one to an active and cognitive strategy based one. The learners had experienced significant progress in using reading strategies such as skimming, note taking, time management, and answering techniques along with higher intrinsic motivation. On the other hand, the group-based design significantly facilitated cooperation and communication among participants, fostering better interpersonal relations as well as requiring frequent discussions on meanings. Critical thinking skills were stimulated via peer feedback and questioning using the Taxonomy developed by Barrett, whereas divergent thinking and independence were promoted indirectly through brainstorming and reading of articles. Nonetheless, such positive impacts were compromised by certain limitations, including the time pressure that limited analytical thinking, the difference in text difficulty levels that complicated learning tasks for less proficient students, and the noisy atmosphere of the classroom that impeded effective concentration and equal participation.

Theoretical Implications

From a theoretical perspective, this paper links Flow Theory and Self-Determination Theory (SDT) with cooperative learning theories to explore how game-like mechanics can be used as a framework for scaffolding advanced level academic skills in L2 reading tasks. The results support the notion that appropriately designed game features can help fulfil basic psychological requirements of autonomy, competence, and relatedness, which helps sustain intrinsically motivated learning and reduces affective filters (Deci & Ryan, 2000; Sailer & Homner, 2020). Yet, the conflict between competition based pacing and prolonged critical analysis raises questions regarding the assumption that gamification will necessarily enhance cognitive processes. Rather, this paper suggests that gamification serves as a contingent pedagogical tool

which effectiveness relies on the maintenance of challenge skill balance to prevent Flow-induced stress. In addition, the study takes the idea of using random dice games to incorporate Barrett's Taxonomy into an understanding taxonomy model into the social realm, thus showing how gaming pedagogy is effective in terms of distributing cognitive load and triggering higher-order thinking from peers. Finally, the study provides a comprehensive theoretical framework for gamification pedagogy, as well as metacognitive reading theory and collaborative frameworks, showing the processes involved in implementing gamification as effective learning methods.

Practical Implications

From an educational perspective, "Reading Blockbuster" provides an effective, low-tech teaching template for ESL educators, whereby game-based interaction is specifically linked with the learning of critical reading strategies as well as cooperative skills. The research results highlight the importance of the careful calibration of instruction in order to increase effectiveness. Educators need to adopt adaptive timetables that will allow for the necessary competition in the context of answering simple questions while ensuring sufficient reflection on more complex ones; select level-based text collections corresponding to the various proficiency levels of their learners; and control acoustics and space to ensure proper peer negotiations. Besides, teachers need to include guidelines that foster collaboration, differentiate roles and incorporate reflective phases to reduce any competitive tension, discourage hierarchical dominance and encourage equal participation (Johnson & Johnson, 2018; Springer et al., 2020). Through such modifications, gamified reading exercises may be upgraded from simple means of engagement to effective pedagogical devices that help develop the skills required by today's society (OECD, 2019; Voogt & Roblin, 2012).

Limitations

While having many advantages, the current research still has several limitations associated with methodology and context. First, due to the qualitative and exploratory approach, the sample size is rather small and homogeneous, with only 20 participants involved and all coming from one diploma program. Second, the research has used qualitative data only, including self-reporting and observation, without collecting any baseline or follow-up quantitative information regarding reading skills, critical thinking, and collaboration ability. Third, the short duration of the intervention period has limited the possibility of assessing longitudinal outcomes of playing games in terms of motivation maintenance, strategies usage, and changes in group dynamics after multiple game sessions. Finally, various environmental factors associated with classroom practice, such as noise level, inflexibility of schedule, and size of groups, could interfere with participants' performance.

Suggestions for Future Research

In terms of future research directions, it would be wise to adopt a mixed-methods or quasi-experimental research design using a more cross-institutional sample size to increase external validity and allow for statistical analysis of gamification effects on reading comprehension and collaboration skills. The inclusion of quantitative measures, such as validated reading tests, motivation scales, and discourse analyses, would add another dimension to the perception-oriented data collection methods used in the current study. Future research is required to determine if longitudinal effects can be found when implementing similar gamified reading

techniques in order to evaluate metacognitive strategy implementation, affective resiliency, and the transferability of 21st century skills from the gaming domain. Adaptive gamification design that adjusts parameters like timing constraints, level of text difficulty, and the cooperative-competitive balance based on student performance would also be an interesting avenue of future research to pursue in this field. Lastly, cross-cultural and cross-proficiency comparative studies are also required to see whether the results obtained in the present study remain consistent in other populations.

To summarize, the current research study is an effective illustration of how intentionally crafted gamification-based approaches have great potential to invigorate tertiary ESL reading instruction by simultaneously addressing both strategic literacies and 21st century competences. Yet, in order to fulfil its true potential, the application of gamification principles must be carried out in a mindful fashion, whereby motivational systems are successfully integrated with cognitively based learning support frameworks.

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