Article
Gamification in a News English Course

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Abstract: Studies examining the link between gamification and News English learning are scant. This study explored the effects of a gamified learning activity using the card games, slides, and learning sheets (CSCL) model on News English learning performance through a quasi-experimental mixed-methods study design. Pretests and post-tests and students' self-reflections were employed to determine the students' learning performance and responses to the activity. Gamification significantly and positively affected the experimental group's (EG) News English learning performance, with the learning performance of both lower and higher achievers improving significantly. Furthermore, the EG participants regarded the activity to be a fun and interactive hands-on experience. Gamification was considered useful for content comprehension and vocabulary acquisition. The mechanisms through which the activity affected News English learning were analyzed, and implications for gamification application in News English and further research are presented.

Keywords: gamification; news English; card games; slides; and learning sheets model; English as a second language; English-language teaching

1. Introduction

Interest in gamification in education and game-based learning has increased worldwide. Gamification has attracted the attention of numerous educators and scholars because it increases student engagement and motivation during the learning process [1,2]. Learning English as a second language (ESL) through games was reported to be more effective than nongame learning [3]. However, despite its effectiveness, several scholars have showed concerns with the use of gamification in educational settings. For example, Hamari et al. [4] reviewed studies on gamification and indicated that the positive effects of gamification are considerably influenced by the context in which gamification is being implemented as well as the individuals participating in the activity. In addition, associations between various gamification features and several ESL learning outcomes remain unclear [5]. There is no conclusive finding regarding the use of gamification for ESL.

News English has long been considered a key component of the courses in English for specific purposes by both ESL instructors and learners. Although most individuals are familiar with news and consider it to be commonplace, the unique characteristics of News English, which involves vocabulary, special newspaper terms, and unique structuring of headlines and discourse, may increase the difficulty of language comprehension and production in ESL learners [6,7]. However, unique challenges associated with News English have not attracted considerable attention from instructors or researchers. Most studies with subjects related to News English have focused on discussions of using English news articles as learning materials in ESL classrooms [8]. Few studies have explored teaching methods to enhance learners' News English learning performance [9].

An effective method for teaching News English is warranted. Moreover, a research gap exists in gamification applied in different contexts and participants, and the effects of gamification on News English learning outcomes stay unclear. This study explored the application of gamification in a university News English course. Students participated in

a gamified learning activity to become familiar with newspaper terms in News English. Their learning performance and responses to the gamification were analyzed.

2. Literature Review

2.1. Gamification and ESL Instruction

Gamification refers to the use of game designs and game principles in nongame contexts [10,11]. In educational settings, gamification involves the application of game elements to the designs of learning activities. These gamification elements are generally game mechanics and dynamics [12]. Game mechanics are fundamental mechanisms through which learning activities are 'gamified' and include points, levels, badges, leader boards, charity and gifts, challenges, space, storytelling, and virtual goods [13]. Game mechanics may comprise rules guiding students through gamified learning activities and rewards they receive for performing well. The immediate feedback derived from game mechanics can engage and empower students [14]. On the other hand, game dynamic elements include status, achievement, rewards, self-expression, competition, altruism, challenges, fun, and satisfaction, which are related to students' emotions [15]. Both the mechanic and dynamic elements of gamification in learning can increase student motivation and interest [16], reduce student anxiety and fear [17], and lead to learning enjoyment [18].

Because of the aforementioned characteristics, gamification has become popular and frequently incorporated into ESL education. Dehghanzadeh et al. [5] conducted a systematic review of studies published from 2008 to 2019 on gamification in ESL learning at various educational levels and observed that the number of published studies on the topic increased in the final 3 years of the study period, with most studies published after 2014. The increase in the popularity of gamification in education may be because gamification involves envisioning educational objectives [14]; in gamified learning environments, learning goals are designed to be challenges guiding students through a game. Therefore, completing a challenge becomes a learning outcome. Accordingly, gamification has developed into an alternative and innovative pedagogy for effective lesson planning in language instruction.

Gamification can enhance ESL teaching in many aspects. First, gamification can provide second language (L2) learners with engaging, effective, and interactive learning experiences and opportunities [14]. Students generally have positive impressions of gamified ESL learning and often express that the experiences are enjoyable, fun, engaging, interactive, and interesting [19]. With respect to L2 learning outcomes, gamification was reported to be highly effective in facilitating vocabulary development [5]. In addition, gamified ESL environments improved grammar, pronunciation, speaking, writing, and listening learning performances [20]. For example, for gamified grammar instruction, students in a game play setting with just-in-time corrective feedback were reported to have a higher retention of grammatical information than did those who received traditional, teacher corrective feedback instruction [21]. Furthermore, ESL gamified learning activities strengthen students' motivation, engagement, and satisfaction [22,23]. Several studies have reported that students were motivated to self-learn and exhibited enhanced problem-solving abilities when they participated in gamified learning activities that emphasized enjoyment while learning [24,25].

However, the benefits of gamification in language education have been challenged. Students' involvement in gamification may not be proportional to their overall learning performance. In Domínguez et al.'s [26] empirical study, students who completed a gamified task performed poorly on written assignments and participated less in class activities. Similarly, gamification may not be beneficial to all types of learners. Sanchez et al. [27] indicated that higher-achieving students benefited more from gamification than did lower-achieving students. The results further indicated that gamification may not be suitable for low achievers in several contexts. In addition, the effects of competition resulting from gamification may have undesired effects on student behaviors [28]. Students may choose speed over carefulness to obtain rewards for completing tasks early. Although

competition, an element of game dynamics, is initiated to motivate students, student behaviors may change if they feel increased pressure to complete tasks and win rewards. Moreover, not all students enjoy competing with classmates for rewards or a rank on a leaderboard [26]. Therefore, meaningful gamification that involves cooperative and social mechanisms instead of competition and rewards should be considered. Teachers may encounter difficulties in using gamification in education as well. According to Sánchez-Mena and Martí-Parreño [29], the four main barriers to teachers applying gamification in courses are a lack of resources, student apathy, subject fitness, and classroom dynamics. Teachers expressed that they had insufficient resources, including insufficient preparation time and classroom resources, to implement gamification in their classrooms. Additionally, they reported that some students lacked interest in gamified courses because they did not perceive gamification to be useful. Moreover, teachers were worried that they lacked the knowledge required to incorporate gamification into their teaching subject. Furthermore, teachers showed concerns regarding the high-energy and playful atmosphere of gamified classrooms; they were worried they would be criticized by colleagues in neighboring classrooms as well as by managers who preferred traditional teaching approaches. In summary, both students' and teachers' perspectives should be considered when implementing gamification in learning.

2.2. Gamification Teaching Model: Card Games, Slides, and Learning Sheets

Several models have been proposed to maximize the benefits of gamification in education and language learning [6]. The card games, slides, and learning sheets (CSLS) teaching model, which is specific and easy to follow, was developed on the basis of game mechanisms and cognitive theory [30]. The CSLS model enables teachers to integrate slides and learning sheets commonly used in class instruction with card games. The simplicity of materials required in the model may counter worries regarding insufficient resources for gamification [29]. Each of the three components—namely card games, slides, and learning sheets—plays a critical role in the model. Wang et al. [31] explained that card games can increase student motivation, peer interaction, and cognitive scaffolding, and slides gain students' attention and provide them with context and essential information. Learning sheets enable scaffolding and serve as formative evaluation criteria. The CSLS teaching model indicates that teachers can design gamified learning activities that employ the four cognitive mechanisms of gamification: clue giving, matching, combination, and sequence [32]. The ultimate goal of the CSLS model is to create an enjoyable learning environment to promote self-learning and to motivate students to develop higher-level thinking skills.

Several studies have evaluated the CSLS model [31,33–37]. In these studies, scholars have applied the model to various subjects—such as English, geography, and chemistry—to explore its flexibility and efficacy. The model was discovered to positively affect students' flow state, technology acceptance, and learning performance. However, several problems with respect to the methodology of these studies have led scholars interpret the findings with caution. For example, most of the studies mainly adopted quantitative research methods. Few analyses adopted a qualitative approach and obtained participant responses to gamified tasks. In addition, the participants were mainly primary school or secondary education students. Furthermore, few learning subjects were investigated. Future research should investigate the application of this model for participants in different learning contexts through mixed research methods and under more stringent conditions to obtain robust findings on students' learning processes, which can enable refinement of the CSLS gamification model.

On the basis of the findings of previous studies, in this study, the application of the CSLS model in higher education in a News English course was evaluated using a quasi-experimental research design. The students in the experimental group (EG) participated in a gamified learning activity to become familiar with the newspaper terms of News English. Their learning performance and responses to gamification were analyzed and compared with those of control group (CG) participants who received lecture-based instruction in an-

other News English course. To obtain a clearer understanding of the effects of gamification on EG participants, the group was further divided into lower and higher achievers, and the learning performance of the two subgroups was analyzed. The results of this study can provide English teachers with pedagogical insights into gamification-assisted News English learning. Three research questions were addressed:

- Would the News English learning performance significantly differ between the EG and CG?
- Would the News English learning performance significantly differ between the lower-achieving and higher-achieving EG participants?
- What feedback would the EG participants provide on gamified learning activity?

3. Methodology

3.1. Participants

Participants were sophomores majoring in Applied English, from two classes at a university in northern Taiwan. Both classes had a 2-hour News English course each week, taught by the same instructor. The objectives of the course were to introduce students to the basic aspects of journalism, including the structure and terminology of news, through contemporary news articles. Based on the TESOL International Association's research guidelines [38], participants were well informed about the research purpose and their anonymity was protected throughout the research process. It was explained to them that participation was voluntary and they could withdraw at any time without penalty. They were also aware that the research results would be used in academic publications and were told to contact the researcher if they had further questions. Before the treatment, all the students in both classes signed the consent form, indicating they understood these issues and agreed to participate in the study. All the students had participated in EFL learning for at least 11 years before joining the study. They were low–intermediate level EFL learners, with average TOEIC scores 375.7 and 383.3, respectively, by each class. No significant difference in English proficiency between the two classes was found (independent sample t test; t = −0.323, p = 0.654 > 0.05). Accordingly, the students' average Common European Framework of Reference for Languages: Learning, Teaching, Assessment [39] level was A2. However, none of the students had received formal instruction on News English. In addition, a pretest was conducted before the study to evaluate the students' competence with respect to newspaper terms. The test, which comprised 20 items (10 matching items and 10 multiple-choice items) covering the knowledge of newspaper terms, was designed by the instructor (see Appendix A). No significant differences were identified in the News English pretest performance between the two classes (independent sample t test; t = −1.607, p = 0.247 > 0.05). Therefore, the two classes were randomly assigned to the EG (n = 35; 10 male participants and 25 female participants; average age = 20.33 years) and CG (n = 40; 18 male participants and 22 female participants; average age = 20.03 years). The EG participated in the gamified activity, and the CG received traditional lecture-based instruction.

3.2. Instructional Design and CSLS-Based Gamified Learning Activity

This study examined the participants' learning of newspaper terms taught in one specific 2-hour session of the News English course. In this session, both the EG and CG participants were taught newspaper terms in News English, for example, flag referring to the printed title of a newspaper on page one, lead referring to the first paragraph of a news article, cutline referring to any descriptive or explanatory material under a picture, etc. After the lecture-based instruction given by the instructor, the EG participants participated in an additional gamified learning activity. On the basis of the CSLS model [30], a newspaper terminology bingo game learning activity was designed to match the learning goals of the News English lesson. Before the game commenced, the EG participants were divided into groups of 4–5 students. Each group had to first collaborate to design a bingo card (using a 3 × 3 grid) independently of the other groups. That is, the groups selected nine terms and arranged them on a bingo grid. During this preparation time, the participants

were required to familiarize themselves with the terms and strategically design the grid to ensure they would win the game. The groups then exchanged bingo cards and played the bingo games designed by their peers. To play the game, the groups were required to match the terms with corresponding examples from an English-language newspaper. The participants were allowed to consult a terminology bank on a handout provided during the matching phase of the game. The final answers were verified by the instructor. The first group who obtained three lines composed by consecutive terms either in a row, column, or diagonal won the game and gained an extra three points for their final grade in the course as a reward. The aim of the bingo card game was to increase motivation, peer interaction, and cognitive scaffolding, and the slides provided the participants with essential information. The learning sheets, that is, the bingo cards, served as formative evaluation criteria. The three aspects of the activity constituted a CSLS-based gamified learning activity (Figure 1).

Figure 1. CSLS-based gamified learning activity (newspaper card game, a sample slide, and a sample learning worksheet).

After the activity, a post-test containing the same 20 items identical to the pretest was administered to the EG and CG to evaluate their post-lesson learning performances. In addition, self-reflections were collected from the EG participants to understand their experiences with and opinions on the gamified learning activity and its use in News English learning.

3.3. Instruments

The data-gathering tools used in this study were News English pretests and post-tests and the EG participants' self-reflections. The participants' News English learning performance was measured using pretest and post-tests designed by the instructor. The two tests were identical, comprising the same 20 items for evaluating the participants' understanding of newspaper terminologies in News English. The Cronbach alpha coefficient for the 20 items is 0.827, suggesting that the items have relatively high internal consistency. The pretest and post-test results were significantly correlated (Pearson correlation coefficient = 0.815). The EG participants' opinions of the gamified learning activity and of its use in News English learning were collected from their responses to two open-ended questions in a questionnaire: "what are your reflections on the gamified learning activity?" and "Was the gamified learning activity beneficial to your News English learning? Why or why not?".

3.4. Data Analysis

To determine the effects of gamified learning activities on students' News English learning performance, quantitative and qualitative analyses were performed. Two-way analysis of variance (ANOVA) was performed to determine the extent to which gamified learning activities enhanced the students' News English learning performance. Moreover, paired *t* tests were used to identify differences between lower and higher achievers in the EG in the pretests and post-tests. In addition, data collected from the EG par-

ticipants' self-reflections were an additional source of information for validating statistical results. The EG participants' opinions on gamified learning activity and the activity's effects on their News English learning performance were the primary research outcomes. The participants' reflections were read, categorized, and coded, which can enable a numerical value to be assigned to difficult-to-quantify information, such as an idea [40]. All reflections were coded by the primary researcher and an experienced English instructor. The inter-reliability of the codes was 85.73%, which was considered acceptable. During coding, the categories were re-evaluated to ensure that they precisely reflected the participants' opinions.

4. Results

4.1. News English Learning Performance Analysis

The following statistical analyses were performed to investigate the effects of the gamified learning activity on News English learning performance with respect to the newspaper terms. The descriptive statistics for their learning performance between the EG and CG in pretests and post-tests are listed (Table 1).

Table 1. Descriptive Statistics of Pretest and Post-test results for CG and EG.

	Group	**M**	**S.D.**	**n**
	CG	32.40	13.832	40
Pretest	EG	37.83	15.421	35
	Total	34.93	14.749	75
	CG	32.98	13.283	40
Post-test	EG	54.00	17.703	35
	Total	42.79	18.668	75

Before the two-way ANOVA was conducted, Box's test of equality of covariance matrices was run. The result showed that the observed covariance matrices of the pretest and post-test scores were equal across two groups (Box'M = 3.408, F = 1.102, p = 0.347). Two-way ANOVA was, therefore, performed to test for interaction effects between the two groups (EG and CG) and the two testing times (the pretests and post-tests) with respect to News English learning performance (Figure 2). A significant interaction effect was identified between the groups and the testing times (F = 23.088, p = 0.000), indicating a significant difference in the pretest and post-test scores between the two groups (Table 2).
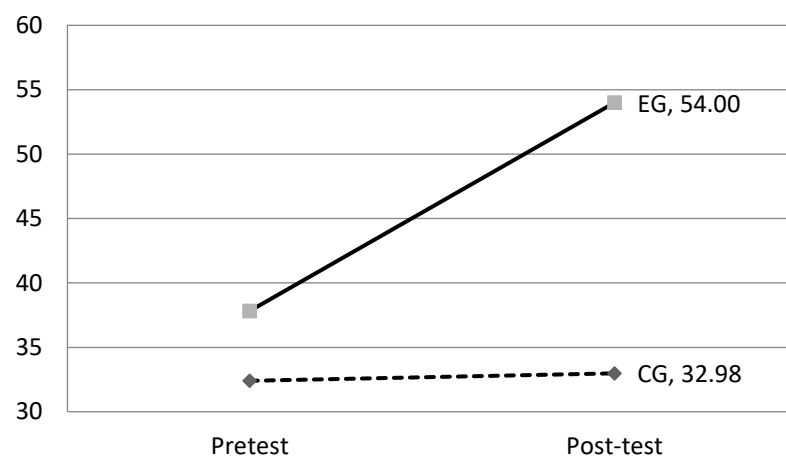

Figure 2. Pretest and post-test results of CG and EG.

Table 2. Summary of Two-Way ANOVA for Groups and Testing Sessions.

Source of Variance	SS	df	MS	F	η^2
Group (A)	6531.387	1.000	6531.387	18.405 *	0.201
Testing session (B)	2617.467	1.000	2617.467	26.618 *	0.267
Group * testing session (A * B)	2270.320	1.000	2270.320	23.088 *	0.240
Within group (error)	33,083.546	146.000	453.199		
Group area (between subjects)	25,905.173	73.000	354.865		
Residual	7178.373	73.000	98.334		
Total	44,502.720	149.000			

* $p < 0.05$.

To further investigate the interaction effect, the simple main effect on News English learning performance was analyzed. The paired-sample *t* test was performed to investigate whether a statistically significant difference in News English learning performance at different testing times existed in each group. The result showed the significant difference to be found in the EG (t = −6.256, *p* = 0.000) but not in the CG (t = −0.284, *p* = 0.778). Therefore, the analysis of post hoc comparison was run for the EG. The post hoc result for the EG showed a statistically significant difference between pretest (M = 37.83) and post-test (M = 54.00).

The independent sample t test was applied to examine whether a statistically significant difference in the News English learning performance for the two groups existed in each testing time. The Levene's test for equality of variances was performed to confirm whether the variances in each testing time were equal. The results revealed that the data in both the pretest (F = 1.361, *p* = 0.247) and post-test (F = 2.534, *p* = 0.116) showed homogeneity between the two groups. In addition, a significant difference with moderate effect size was found for the post-test (t = −5.861, *p* = 0.000, Cohen's *d* = 0.372) but not for the pretest (t = −1.607, *p* = 0.112). Therefore, the analysis of post hoc comparison was run for the post-test. Post hoc results for the post-test showed a statistically significant difference between the CG (M = 32.98) and the EG (M = 54.00).

As illustrated, unbalanced gender distribution was found in both groups. There were more male participants in CG compared to EG. However, from the analysis of independent sample *t* test, no significant differences of News English learning performance were found between genders for the two groups in both the pretest (CG: t = −1.425, *p* = 0.066; EG: t = −1.703, *p* = 0.265) and post-test (CG: t = −0.060, *p* = 0.288; EG: t = −2.832, *p* = 0.302). The number of male and female participants in each group did not affect the results of this study. In other words, the participants' News English learning performance with respect to newspaper terms before and after the study solely depended on gamification or lecture-based instruction.

The EG participants were categorized as lower and higher achievers according to their average scores and overall learning performance in the previous course of General English during the first year of university. The participants scoring in the 60th percentile and above were considered as higher achievers and the rest were considered as lower achievers in this study. Significant changes were identified for both the groups after the study (Table 3; for lower achievers, *p* = 0.008 < 0.05; for higher achievers, *p* = 0.000 < 0.05). Both groups performed more favorably after participating in gamified learning activities.

Table 3. Paired-Sample *t* test Results for EG Lower and Higher Achiever Pretest and Post-test Scores.

	Mean (S.D.)		df	t	p
	Pretest	Post-Test			
Low achievers	32.00 (16.79)	42.76 (12.06)	16	−3.00	0.008 *
High achievers	43.33 (12.01)	64.61 (15.64)	17	−6.31	0.000 *

* $p < 0.05$.

4.2. Participant Feedback

The qualitative data obtained from the EG participants' reflections revealed several notable features of their opinions on the gamified learning activity and News English practice. The EG participants considered the gamified learning activity to be fun (77.14%), peer interactive (71.43%), to enable content learning (34.29%), and hands-on (34.29%). The following excerpts from the EG participants' reflections illustrate their positive opinions on the gamified learning activity: 'The activity was more interesting than ordinary lecture-based classes' (EG #8); 'By participating in the activity, I could brainstorm and have discussions with my classmates' (EG #5); 'Everyone in the group worked together to complete the activity' (EG #19); 'I fully understood the terms used in each part of a news article through the examples from the real newspaper' (EG #18); and 'This activity left an impression on me because it was the first time I had looked closely at an English newspaper' (EG #23).

In addition, most participants (97.14%) responded positively to the gamified activity. Three themes were identified: the activity made the course interesting (48.57%); the activity left an impression, enabling the EG participants to easily remember the content (34.29%); and the activity enabled the participants to learn and practice vocabulary (28.57%). The following excerpts from the EG participants' reflections illustrate their positive response to the gamified activity: 'Playing the game increased my enjoyment of the class' (EG #4); 'When I participated in the bingo game, I felt it helped me understand the news terms easily' (EG #6); 'I could easily understand the learning content presented through the game' (EG #18); 'The bingo game left an impression on me because it helped me to focus on the terms and vocabulary' (EG #17); and 'I learned some new terms while participating in the activity' (EG #35).

5. Discussion

The results of this study demonstrated that the CSLS-model-based gamified learning activity affected the EG participants' learning performance with respect to journalism terminology; the EG outperformed the CG who received lecture-based instruction. An explanation for this finding might be that the activity involved both peer scaffolding and cognitive scaffolding, which maximized learning effectiveness [41]. That is, the newspaper terminology bingo game promoted interactive discussions with teachers and peers (peer scaffolding) and presented the learning material in a word bank (cognitive scaffolding) that provided the students with immediate guidance and feedback. This process is similar to that of Vygotsky's [42] theory of scaffolding in L2 acquisition, which focuses on students developing their skills through proper support from teachers or more competent peers. The scaffolding elicited by gamified learning activity in this study improved the students' News English learning. Furthermore, the effects of the gamified learning activity may support the involvement load hypothesis, which suggests that the retention of unfamiliar words is affected by the degree of involvement in processing the words [43]. A learner's ability to retain words increases with their involvement load in performing a task. On the basis of the EG participants' responses, the gamified learning activity involved a high involvement load. For example, when the students played the newspaper terminology bingo game, they were allowed to consult a terminology bank to verify the definitions of terms after they had identified them in English-language newspapers. This may have provided the students with more chances to review the terms during the activity. The high involvement load involved in this gamified learning activity may have promoted the participants' acquisition of newspaper terms. These results are in line with the findings of other studies reviewed by Dehghanzadeh et al. [5], in which vocabulary learning was reported to have the most positive learning outcomes in ESL gamification. The results also support Razali et al.'s [44] claim that a gamified learning activity enhanced students' learning of theme-based vocabulary. In this study, the vocabulary used in the activity was journalism themed; therefore, the EG participants practiced theme-based vocabulary. The quantitative results are consistent with the EG participants' qualitative responses, in which they indicated that the activity enabled them to expand their vocabulary.

Although no significant statistical difference between the pretest and post-test was found in CG who received traditional lecture-based instruction, their average grade slightly improved, suggesting traditional lecture still has effects to some extent on students' News English learning. However, as Bonwell [45] stated that students in lectures are often passively listening to the instruction with little engagement and short attention spans, the CG participants might not acquire the newspaper terms as efficiently as EG participating in the gamified learning activity with scaffolding and vocabulary practice opportunities discussed above.

Significant differences were identified in the News English learning performances of both the lower-achieving and higher-achieving EG participants. This result may suggest that gamified learning benefits all types of learners, regardless of their overall learning performance. This contrasts with the findings of Sanchez et al. [27], who indicated that the benefits of gamification may be limited to higher achievers only.

Regarding the EG participants' responses to the newspaper terminology bingo game and the News English learning practice, they expressed overall positive opinions. Most of the EG participants considered the gamified learning activity to be fun to participate in and expressed satisfaction with the chance to interact with their peers. As reviewed, the mechanic and dynamic elements of gamification can increase students' motivation and lead to learning enjoyment [16,18]. Similarly, the game mechanics and dynamics of the gamified learning activity in this study, such as rules, rewards, and challenges, improved the EG participants' motivation and learning interest, leading to learning enjoyment. These results are consistent with the findings of other studies, which have suggested that the CSLS model offers an enjoyable learning atmosphere that motivates students to learn and thereby promotes their learning performance [33–37]. In addition, the results of this study support that gamification promotes interaction among learners [19]. The game of this study enabled students to interact with their peers and instructors by exchanging and verifying information. Specifically, before completing the bingo game, the EG participants were asked to work together and strategically design the bingo card for other groups. The game design process fostered the interaction and cooperation of students [46] and increased academic success in the course [47]. Moreover, the EG participants reported that the gamified activity enabled them to learn the newspaper terms and to pair them with real-life examples in a newspaper. Partovi and Razavi [48] reported that games play a vital role in learning abstract concepts. The game used in this study, which was based on matching and the cognitive mechanisms of gamification, enabled the EG participants to visualize the abstract, news-related terms through concrete examples in a newspaper, which also provided them with practical experience with an English-language newspaper. A few EG participants reflected that they felt time passed quickly during the session, suggesting immersion in the experience, which is consistent with Csikszentmihalyi's [49] theory of a flow state, in which an individual focuses deeply on something beyond the point of distraction. The students' immersion experiences may have contributed to their learning outcomes. Overall, the EG participants' qualitative responses complement the quantitative results, indicating significant differences in pretest and post-test performance.

6. Conclusions

Through this study, an innovative gamified activity was developed to assist university students' News English learning and to evaluate their learning performance and obtain their opinions on the activity. The application of the CSLS model was extended to the subject of News English and to the level of higher education in this study. The primary findings are as follows: (a) the gamified activity positively affected the students' learning performance in the News English course; (b) both lower and higher achievers benefited from participating in the gamified activity; (c) the students considered the CSLS gamified learning activity to be an enjoyable learning experience and opportunity for peer interaction, content learning, and practical experience; and (d) the students' comprehension of the learning content and vocabulary was developed through the gamified learning activity.

These findings demonstrate that an appropriately designed gamified activity can enhance News English learning and increase learning motivation.

The findings have several pedagogical implications. First, students' News English learning should not be limited to lectures and rote learning [9]. Gamification can increase student engagement and motivation [1,2]. Accordingly, News English learning can be achieved in an enjoyable and interactive gamified learning environment. Second, appropriately designed gamified activities can be employed in News English learning. The CSLS teaching model may serve as a useful framework for teachers. The essential elements of the model (card games, slides, and learning worksheets) are easily available and adapted to various subjects [30]. Applying gamification to learning may become easier for teachers if they have sufficient resources [29]. Third, gamification may enable gaining hands-on experience. Playing games involves active, experiential, and problem-based learning, which can contribute to learning achievement [50].

Although the present study offers valuable insights into gamification in News English learning, it has some limitations. This was a short-term and small-scale study conducted in Taiwan. The learning content of the gamified learning activity was limited to newspaper terms, and the gamification was limited to matching because of the learning goal of the News English lesson. The learning performance between higher and lower achievers was only compared in EG. Future research into gamification should cover a longer period of time and employ a larger sample with balanced individual characteristics such as gender, cognitive skills, etc.; additionally, further comparison of the learning performance between higher and lower achievers could be investigated in CG as well, which may clarify the effects of gamification on students' News English learning performance. More relevant studies of gamification should also be conducted in other areas to provide additional evidence and verify the results of this study in the future. Furthermore, the extent to which other gamification mechanisms, such as clue giving, sequence, and combination [30], affect News English learning performance should be further investigated in News English teaching. The current study may serve as a reference for additional investigations into developing gamified learning activities for News English learning to increase ESL learners' News English proficiency.

Institutional Review Board Statement: Ethical review and approval were not required for this study due to the reason that this research was to explore the effectiveness of a specific teaching method in an educational environment.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

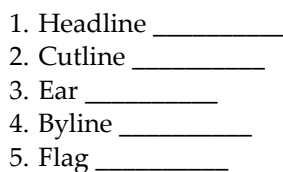**Data Availability Statement:** The data presented in this study are available on request from the corresponding author. The data are not publicly available due to the participants' privacy.

Conflicts of Interest: The author declares no conflict of interest.

Appendix A

Journalism Terminology Test (Pretest/Post-test)

I. Matching (Locate the following terms in a newspaper by filling the corresponding number.) (25%)

1. Headline _____
2. Cutline _____
3. Ear _____
4. Byline _____
5. Flag _____

II. Matching (Match the following terms to the corresponding definitions.) (25%).

1.	Article	a. An organization that supplies news to newspaper, radio and TV stations.
2.	Local news	b. A person's words which are directly recorded and written down.
3.	Column	c. News that happened in the area where the newspaper is published.
4.	Quotation	d. A series of articles by a particular writer or on a certain subject, which appears regularly.
5.	News agency	e. A piece of writing in a newspaper.

III. **Multiple-Choice** (Choose a correct answer for each question.) (50%)

【 】 1. What can we learn from the "lead" in a news story?
(A) The main idea. (B) The detail information.
(C) The extra information. (D) The reporter's interpretations.

【 】 2. Sam likes to express his personal opinions by writing articles in the newspaper. What type of news story does he write?
(A) Fact. (B) Feature. (C) Straight. (D) Editorial.

【 】 3. What do we call a news story which is printed by only one newspaper?
(A) Copy. (B) Streamer. (C) Exclusive. (D) Follow-up.

【 】 4. What is true about the "double headline"?
(A) They contain a quotation from people.
(B) They report major events for emphasis.
(C) They are the most common type of headline.
(D) They are used to report unusual or amusing news.

【 】 5. What is true about the news headlines that ask a question?
(A) They are typical questions.
(B) They report impossible events.
(C) They may only use the present tense.

(D) There is some doubt about the truth of the story.

【　】 6. Tom is in charge of local news and distributes assignments to reporters. What is Tom in a newspaper office?

(A) A reporter. (B) A columnist.

(C) A city editor. (D) A news agent.

【　】 7. Lisa likes to read news stories emphasizing the human or entertaining aspects of an event. What type of news story does she like?

(A) Fact. (B) Feature. (C) Editorial. (D) Column.

【　】 8. What is true about the "lead" of a news story?

(A) It is written in special language.

(B) It is the conclusion of a news article.

(C) It is usually composed by one sentence.

(D) It allows the reporter to express opinions.

【　】 9. What can the reporter write about a news event in the "lead"?

(A) Provide details of the story.

(B) Tell the source of the story.

(C) Add personal interpretations.

(D) Ask questions about the story.

【　】 10. What is true about the headlines?

(A) Articles a/an or the should appear in headlines.

(B) And is often replaced by a colon in headlines.

(C) Infinitive in headlines is used to show futurity.

(D) Pronominal adjectives must be kept in headlines.

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