

ENHANCING PRIMARY SCHOOL STUDENT READING ABILITY AND ATTITUDES WITH MOBILE BLENDED READING CIRCLE MODEL

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ABSTRACT

Cooperative learning-based reading circles are integral in developing learners all-around skills and attitudes toward reading. Meanwhile, technology has become a key driver in education, providing teachers and students with innovative learning methods, tools, and resources. The organic integration of the two is crucial in shaping the future shape of education. This study aims to develop, revise, and clarify a Mobile Blended Reading Circle Model (MBRC Model) through expert evaluation and examine the effects of the model on students reading ability and attitude.

The model has four major components: pre-analysis, mobile application, reading circle, and evaluation.

In this study, two sixth-grade classes were selected through cluster sampling and divided into an experimental (n = 38) and a control (n = 36) class, where the students in the experimental class studied with an MBRC model. In contrast, the control class was instructed in the traditional reading method. These two classes studied in a seven-week instructional experiment. Research instruments used included lesson plans for the model, reading ability tests (both pre-test and posttest), and a reading attitude scale.

The MANOVA results indicated significant differences between the two classes reading ability and attitudes. The class that used the MBRC model was significantly higher than traditional reading instruction in terms of reading ability and reading attitudes at 0.05 level. Therefore, the model is effective for reading classes in primary schools.

Keywords: Mobile Blended Reading Circle Model (MBRC Model), Reading ability, Reading attitude, Primary School, English as Foreign Language

1. Introduction

Throughout the long history of human society, there has been an uninterrupted search for more advanced teaching methods and a more sophisticated educational system. Therefore, integrating Internet technology and education is an inevitable result of the current trend. In the context of the lack of external language communication opportunities, English as a language subject, reading plays a crucial role in developing students English language proficiency (Wang & Tuya, 2017). However, because of various practical factors, English reading teaching in China, especially for primary school students, is often neglected. Currently, the main challenges facing English reading for primary school students center on the following: students limited time to read in English, which leads to a lack of an English reading atmosphere; teaching that focuses too much on the explanation of vocabulary, syntax, and grammar (Jin, 2021), which leads to students resistance; the primary school stage is the best stage to stimulate students interest in learning English (Cao, 2020), and the need for more necessary opportunities for out-of-class extension due to the constraints of the teaching content. The support of the Internet and technology makes the teacher no longer the only knowledge transmitter, and appropriate strategies should be selected and adapted to arouse students enthusiasm for learning English reading.

In China, in response to the Education Informatization 2.0 Action Plan's request to "promote the innovation of education concepts, models, and the reconstruction of the system, as well as to implement and execute specific programs for the deep integration of subject teaching and technology" (Chinese Ministry of Education, 2018), schools have tried to explore and introduce new teaching approaches. Especially after the ravages of COVID-19, the blended learning model, which integrates offline face-to-face teaching with online teaching, is becoming increasingly mature for primary education in China. This means that not only teachers and students need to communicate and learn with each other in face-to-face offline environments, but online learning activities make up for learning needs outside the classroom, and students likewise need to complete tasks posted by teachers online after class (Alsowayegh et al., 2019; Gulnaz et al., 2020). Meanwhile, schools are applying mobile learning applications in their daily teaching to help students have a better experience in the learning environment and improve their learning efficiency. (Carvalho et al., 2015; Connolly et al., 2012). In this environment, mobile blended learning emerged, which combined traditional offline forms of learning with online forms of learning using mobile applications in informal settings.(Klímová & Pražák, 2019).

Especially in language teaching, with the help of mobile devices and applications, there is no need to be limited by time and space. It can fully utilize the advantages of blended and mobile

technologyassisted language learning, greatly facilitating language exposure and practical use (Pyo & Lee, 2022). In the field of reading teaching, there is also a need to experiment and innovate new ways to better integrate with the school curriculum and help students stimulate their interest in reading, improve their reading ability, and enjoy reading (Karatay, 2017). A reading circle teaches reading (Luo & Zhang, 2018), the flexible nature of reading circles enables teachers to adjust and modify their teaching programs according to students needs (Herrera & Kidwell, 2018). At the same time, based on students perspectives, the interactions between teachers and students and students through their participation in reading circles help students to understand the structure and connotation of the text in greater depth, which in turn improves their reading ability (Blum et al., 2002) and cultivates the ability of students to become readers with autonomy, self-confidence, self-awareness, and willingness to read proactively (Sheltol-Strong, 2012).

Blended learning and reading circle methods supplement each other, and the blended learning approach helps to share the complex and laborious cognitive processes involved in reading in a second language (Schoonmaker, 2014). The qualities exhibited by mobile blended learning help to offset the shortcomings of traditional teaching, making it imperative to conduct a mobile blended reading circle model. Based on this study, poses the following two research questions:

- 1) What are the components of an MBRC model to enhance primary school students reading ability and attitude in English?
- 2) Does the MBRC model enhance students reading ability and attitude compared to the traditional reading instruction method?

Based on the above two research questions, the study identified research objectives:

- 1) To develop, revise, and clarify the MBRC model through expert opinions.
- 2) To determine whether the MBRC model enhances students reading ability and attitude compared to the traditional reading instruction method.

2. Literature Review

2.1 Mobile Blended Learning

In order to optimize student learning outcomes, Han et al. (2017) combined the concepts of mlearning, blended learning, and the flipped classroom to construct an integrated learning model (MBLM) based on the WeChat Public Platform (WPP), which consisted of three key components: pre-class analysis, activity resource design, and instructional assessment design. In the pre-class analysis section, they believed that the suitability of the course conducted could be determined by evaluating the current learning environment, content requirements, and learner characteristics (Han et al., 2017). The activity resource design section was a vital part of blended learning for its advantages to be fully utilized, and it was divided into preparation, teaching, after-school review, extracurricular activities, and training and implementation (Han et al., 2017). Evaluation was achieved by assessing the course, teaching process, and the organization of activities (Han et al., 2017). Suartama et al. (2019) divided the activity resource design component into three detailed phases: before, during, and after the class. Almazova et al. (2019) proposed the critical components of blended learning: analyzing, goal-setting, developing, implementing, and evaluating in the five essential steps.

2.2 Reading circle

Reading circles are also referred to as literature circles or book clubs (Widodo, 2016), and the term reading circle is used in this study for consistency of terminology. The reading group usually consisted of four to six students in a reading circle. Each member was given a role at the beginning of the activity to ensure that each member had an equal opportunity to participate in the reading activity, share ideas, comprehend the information in the text, and respond to other's questions (Herrera & Kidwell, 2018). The typical division of roles in reading circles included discussion leader, word master, summarizer, cultural collector, passage person, and connector (Furr, 2004; Shelton-Strong, 2012). Daniels (2002) identified 11 distinguishing characteristics of reading circles, including student independence in selecting reading materials, dividing into reading groups, having regular discussions, recording important ideas, raising discussion topics on their own, teachers facilitating the discussion, multiple methods of assessment, relaxed classroom atmosphere, sharing insights, and forming new groups to continue the activity. These features emphasized the importance of student participation, independent learning, and collaboration. To better meet the needs of second language learners, Furr (2004) adapted the first four features by proposing that the teacher selects the texts, the teacher and students work together to identify groups that will read the same texts together, and the teacher provides additional information to fill in the gaps. Reading circle activities are designed to be very flexible and can be integrated appropriately to suit the classroom situation and needs. For example, Karatay (2017) simplified the activities of reading circles into four key steps: preparation stage, individual reading, discussion, and sharing to improve reading effectiveness.

2.3 Mobile Blended Reading Circle Model

Based on the above, this study selected pre-analysis, mobile application, reading circle, and evaluation as the key elements of mobile blended learning, which is the basis of the mobile blended reading circle model. At the same time, the reading circle's reading groups, individual reading, discussion, and sharing were integrated into the specific process of designing learning activities to construct the mobile blended reading circle model. The original MBRC model was obtained, as shown in Figure 1.

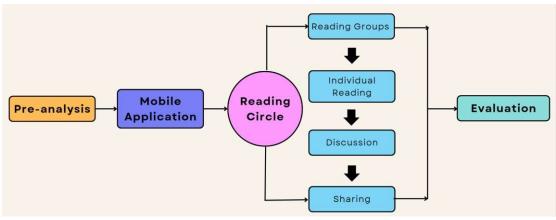


Figure 1 The MBRC Model (First draft)

2.3 Reading Ability

Reading ability is a concentration of one's linguistic ability and life experience (Barnett, 1989) and an activity that involves vision, memory, intellect, and comprehension (Syakur & Azis, 2020). In the process of reading, students acquire information and construct new meanings by learning and mobilizing what they have learned, and through reading, they also develop cross-cultural understanding, promote pluralistic thinking, gain aesthetic experience, and form positive attitudes and good habits of correct values (Wang & Chen, 2016).

Assessing reading ability was usually done through testing (Dogan et al., 2015; Chinese Ministry of Education, 2022). The assessment of reading ability included phonological awareness, word learning, vocabulary, fluency, and comprehension (Tindall & Nisbet, 2010). In addition, various aspects such as reasoning, perspective comprehension, feature recognition, and language conventions could be considered (Turnbull et al., 2003; Yudhana, 2021).

2.4 Reading Attitude

Reading attitude is one of the determinants of reading (Chotitham & Wongwanich, 2014). It responds to the affective and sensory systems associated with reading, directly shapes the learners interest and desire to read, and is influenced by their dispositions and environment (Alexander & Filler, 1976). A good reading experience usually helps learners develop positive attitudes toward reading, leading to a greater willingness to read and actively acquire knowledge and experience (Kiziltas, 2018).

Questionnaires are one of the most widely used methods for collecting attitudes and opinions (Kocaarslan, 2016). The Elementary Reading Attitude Survey Scale(ERAS) included recreational and academic, constructed by McKenna and Kear (1990), this scale was used to assess students attitudes toward reading and has been widely used and validated in several studies (Lee, 2014; Chow et al., 2018; Nootens et al., 2019). In addition, the Reading Attitude Scale created by Stokman (1999) was a classic instrument for assessing reading attitudes, which covered different aspects of enjoyment, escape, development, and utility.

3. Methodology

3.1 Development of the MBRC model

MBRC model (first draft) was revised and improved based on experts comments to develop the final draft of the model.

3.1.1 Participants

Five experts were invited to this study, with the criterion of having at least five years of teaching experience. Two of the experts were from the field of educational technology, and three were from English teaching. The experts participated in a focus group discussion to provide feedback on the first draft of the model, during which the quality of the model was assessed.

3.1.2 Instruments

1) Model Evaluation Form

The model evaluation form consisted of 10 questions on a five-point Likert scale, with 5 for strongly agree and 1 for strongly disagree. This evaluation form was validated by experts through IOC, with results between 0.60 and 1.00. 2) Lesson Plan

Two sixth-grade classes conducted weekly English reading instruction courses with three phases: before, during, and after class. The lesson plans were assessed regarding objectives, teaching model and resources, and teaching structure and steps. The IOC also validated this evaluation form with final results between 0.60 and 1.00. Meanwhile, the experts gave high ratings to the lesson plan, with the mean value of all three aspects exceeding 4.5 points. Therefore, the curriculum plan was recognized. 3) Pre-test and post-test of reading ability

The pre-test and post-test contained 25 questions, were scored out of 100, and covered the areas of reasoning, summary, and reading comprehension. Both tests were validated for IOC (between 0.60 and 1.00), KR-20 of pre-test ($\alpha = 0.85$, greater than 0.7), and KR-20 of post-test ($\alpha = 0.89$, greater than 0.7) validity.

4) Reading attitude scale

The Reading Attitude Scale was based on the Elementary Reading Attitude Survey Scale (ERAS) developed by McKenna and Kear (1990). It consisted of 20 questions divided into two areas: recreational and academic reading attitudes. The scale was assessed on a four-point scale (4 = very happy, 3 = happy, 2 = not happy, 1 = very unhappy). The attitude scale passed the IOC (between 0.60 and 1.00) and Cronbach's a reliability test ($\alpha = 0.78$, greater than 0.7).

3.2 Effectiveness of the MBRC model

Implement the model to verify its effectiveness and evaluate its application in English reading teaching.

3.2.1 Participants

The study was conducted through cluster sampling by selecting two out of four sixth-grade classes as experimental and control classes, with 38 students in the experimental and 36 in the control class. Details are shown in Table 1.

Student level	Grade 6	-
Ages	12-13 years old	-
Sampling approach	Cluster sampling	Chosen 2 classes from 4 classes
Number of experimental students	74	Experimental class (n = 38) Control class (n = 36)

Table 1 Demographics

3.2.2 Experimental Procedures

Before the commencement of the experiment, the study had obtained the necessary permissions and approvals from the experimental school for the successful conduct of the study. Before the experiment began, the two classes completed a pre-test of reading ability to ensure that they were at comparable reading levels and to lay the groundwork for a successful follow-up experiment. This experiment lasted seven weeks. During the first week, the teacher introduced the model and the application rules to the students in detail. The formal implementation phase lasted from the second to the sixth week, during which the experimental class used the mobile blended reading circle model. In contrast, the control class continued to use traditional reading instruction. In the seventh week, both classes took a post-test of reading ability and filled out a reading attitude scale to assess the new model's effect on the effectiveness of reading instruction.

4. Result

4.1 Results of Model Evaluation

Through the focus group, the experts made the following recommendations for the design of the model:

 Emphasize students time management skills for mobile device use during instruction. 2) Teachers should be a mentor for students learning by providing guidance and feedback to ensure that students use the mobile blended reading circle model correctly according to the lesson plan.
 To help students understand the direction and goals of their learning, experts also recommend that specific learning activities be designed with more detail.

Number	Questions	Mean	SD	Meaning
1.	The MBRC model is suitable for teaching English reading to primary school students.	5.00	0.00	Strongly Agree

 Table 2 Experts model evaluation

	I		1	11
2.	The MBRC model is suitable for improving reading ability and attitudes in English.	5.00	0.00	Strongly Agree
3.	The mobile applications selected in the MBRC model (Coco Baby, Ding Talk) are easy to use and suitable for primary school students.	4.60	0.55	Strongly Agree
4.	The MBRC model selects reading materials that match the learning difficulty of primary school students.	4.80	0.45	Strongly Agree
5.	The specific components of the MBRC model, which are divided into the following four phases, integrate the four phases into a new instructional model:	4.80	0.45	Strongly Agree
	Component 1: Pre-analysis;	5.00	0.00	Strongly Agree
	Component 2: Mobile Application;	5.00	0.00	Strongly Agree
	Component 3: Reading Circle;	5.00	0.00	Strongly Agree
	Component 4: Evaluation.	4.80	0.45	Strongly Agree
6.	In phase 3 of the MBRC model for reading circle, the specific steps of the reading circle process are divided into the following four steps:	5.00	0.00	Strongly Agree
	Step 1: Reading groups (form reading groups);	5.00	0.00	Strongly Agree
	Step 2: Individual reading (complete the individual reading according to the reading roles);	4.80	0.45	Strongly Agree
	Step 3: Discussion (discuss with peers in the reading group);	4.80	0.45	Strongly Agree
	Step 4: Sharing (share the results of the reading discussion).	4.80	0.45	Strongly Agree

	Students will have deepened their understanding and learning of the reading material through reading circles.	4.80	0.45	Strongly Agree
7.	In the MBRC model, students use mobile applications (Coco Baby, Ding Talk) to check learning assignments, materials and to communicate better with their peers.	4.60	0.55	Strongly Agree
8.	In the MBRC model, teachers use mobile applications (Coco Baby, Ding Talk) to check on students' assignment completion and to understand the problems they are encountering.	4.60	0.55	Strongly Agree
9.	In the MBRC model, student roles are as leaders, and each reading group member shares a common reading purpose, improving reading ability and attitudes through cooperation and communication.	5.00	0.00	Strongly Agree
10.	In the MBRC model, the teacher roles are to support, guide and assist students in learning activities, and help to solve problems.	5.00	0.00	Strongly Agree
	Model evaluation	4.86	0.15	Strongly Agree

Meanwhile, from Table 2, the data analysis showed that the experts were highly consistent in evaluating the model, with a mean of 4.86 and a standard deviation of 0.15. Therefore, they considered the model suitable for the current teaching and learning environment. Based on this, this study established a final MBRC model, as shown in Figure 2, with the following details:

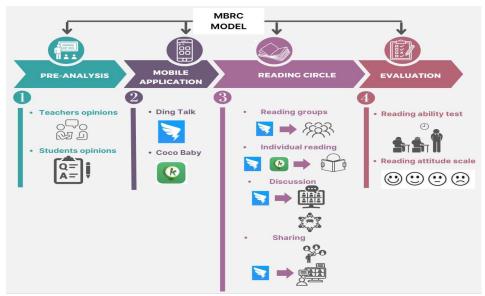


Figure 2 The MBRC Model (Final draft)

More details of the final model are as follows:

Pre-analysis

As a pre-analysis of instructional preparation, the feasibility of the model's implementation was determined by studying students and teachers perceptions of current English reading instruction.

Mobile Application

In this study, Coco Baby and Ding Talk were selected as aids for conducting mobile blended learning by searching the current Chinese mobile application market and incorporating the current popularity.

Reading Circle

The reading circle is divided into three parts: before, during, and after class. The learning activities are designed as shown in Table 3.

 Table 3 Reading circle learning activity design

	Pre-class	
	Teacher's roles	Publish reading guides, clarify reading groups and role assignments, provide role sheets, reminders of online discussion and guidance, and collect student questions before class through Ding Talk. Release of reading materials through Coco Baby.
Reading Circle	Students' roles	Check reading guides, clarify reading groups and role assignments, role sheets, Start an online discussion, and ask questions before class through Ding Talk.

	Check reading material and finish individual reading through Coco Baby.
In class	
Teacher's roles	Provide an offline overview of reading material knowledge and present classroom tasks, lead reading group discussions, evaluate group presentations, and summarize the class.
Students' roles	Listening to the teacher's review, discussing classroom tasks in reading groups, and sharing the results of the discussion with the class
After-class	
Teachers' roles:	Summarize in-class activities through online discussions through Ding Talk. Push additional reading materials through Coco Baby.
Students' roles	Participate in online discussions through Ding Talk. Complete reading homework and engage in independent learning through Coco Baby.

Evaluation

Evaluation was measured by tests designed to assess students reading ability and attitudes toward reading in English.

4.2 Results of the the MBRC model on students reading ability and attitude .

Since both classes were less than 50 students, a normality test was performed on the pre-test results of both classes in this study. As indicated in Table 4, the p-values in Shapiro - Wilk for the control and experimental classes were 0.26 and 0.15, respectively. These values exceeded the commonly used significance level of 0.05. Therefore, the pre-test of both classes conformed to the assumption of normal distribution.

n	$\Box \mathbf{X}$	SD	Shapiro- Wilk	Levene's Test t		Levene's Test		t	df	Sig.
			Sig.	F	Sig.					
36	61.94	11.13	0.26	0.03	0.86	0.38	72	0.35		
38	60.95	11.29	0.15							
	36	36 61.94	36 61.94 11.13	Wilk Sig. 36 61.94 11.13 0.26	Wilk Leven Sig. F 36 61.94 11.13 0.26 0.03	Wilk Levene's Test Sig. F Sig. 36 61.94 11.13 0.26 0.03 0.86	Wilk Levene's Test Sig. F Sig. 36 61.94 11.13 0.26 0.03 0.86 0.38	Wilk Levene's Test Sig. F Sig. 36 61.94 11.13 0.26 0.03 0.86 0.38 72		

Remark: CG means Control Group; EG means Experimental Group

Table 4, an independent samples t-test was conducted to ensure that the two classes had the same level of English reading ability. Levene's test showed that homogeneity of variance was established (Sig = 0.86 > 0.05). The result of the t-test was Sig = 0.35 > 0.05, indicating no significant difference between the two classes on pre-test results. Specifically, the control (mean = 61.94, SD = 11.13) and the experimental class (mean = 60.95, SD = 11.29) had similar levels of pre-test reading ability before the experiment began, providing a consistent basis for the experiment.

The post-test results and reading attitude results were also tested for normality, see Table 5. The pvalues in the Shapiro-Wilk test for the post-test results of the control and experimental classes were 0.15 and 0.50, respectively, and the p-values for the reading attitude were 0.35 and 0.52, respectively.

Therefore, both classes post-test and reading attitudes satisfy the assumption of normal distribution.

Group		Shapiro-Wilk
		Sig.
Reading ability	CG	0.15
	EG	0.50
Reading attitude	CG	0.35
	EG	0.52

Table 5 Normality test results: Post-test of reading ability and attitude

Remark: CG means Control Group; EG means Experimental Group

To assess whether there was a significant difference between the two classes regarding reading ability and attitude, this study used multivariate analysis of variance (MANOVA) to examine the two dependent variables. First, based on the data provided in Table 6, Box's M-test showed Sig = 0.16, which exceeded the significance level of 0.05, indicating that the covariance matrix difference was equal. Meanwhile, in Bartlett's Test of Sphericity, Sig = 0.00, which was less than 0.05, indicates a correlation between these dependent variables.

Table 6 Testing the dependent variables

	Box's Test	Bartlett's Test
Reading ability and	Sig.	Sig.
reading attitude	0.16	0.00

In Table 7, the Wilks' Lambda significance level was less than the usual significance level of 0.05. Therefore, there was a significant difference in at least one of the dependent variables between the experimental and control classes.

Table 7 MANOVA test result	able 7 MANOVA test results						
Effect	Value	F	Sig.				
Wilks' Lambda	0.46	42.29 ^b	0.00				

b Exact statistic.

In Table 8, the results of Levene's test showed that the significance of 0.08 and 0.13 for the two classes was greater than 0.05 for the post-test and reading attitudes, respectively, indicating that homogeneity of variance.

DV	IV	V n	$\Box \mathbf{X}$	SD	Levene's test		F	Sig.
			W	Sig.				
Reading ability	CG	36	66.39	11.64	3.26	0.08	5.63	0.02
-	EG	38	72.11	8.98				
Reading attitude	CG	36	60.28	5.06	2.42	0.13	83.60	0.00
	EG	38	69.74	3.78				

 Table 8 Result: Post-test of reading ability and attitude

Remark: CG means Control Group; EG means Experimental Group

Table 8 shows the significance of the post-test and reading attitude were 0.02 and 0.00, respectively, which were less than 0.05, indicating significant differences between the experimental and control classes regarding reading ability and attitude. Specifically, in reading ability, the experimental class

(mean = 72.11, SD = 8.98) was significantly better than the control class (mean = 66.39, SD = 11.64). Meanwhile, the experimental class (mean = 69.74, SD = 3.78) also performed significantly better than the control class (mean = 60.28, SD = 5.06) in reading attitude. These data results emphasized the significant advantages of the experimental class in reading ability and attitude and supported the effectiveness of the MBRC model in primary school English reading teaching. Based on the data results, the mobile blended reading circle model significantly influenced students reading ability and attitude, and supported the effectiveness of the MBRC model in teaching English reading in primary schools when the two classes were at similar pre-test levels.

5. Conclusion, Discussion and Recommendation

In this study, the MBRC model developed based on the literature review and the analysis of the current situation of reading teaching was validated by experts, who had high expectations for the model and optimized it based on the experts suggestions and evaluation results. The model was divided into four phases: pre-analysis, mobile application, reading circle, and evaluation. In particular, reading circle activities were integrated throughout the instructional process of designing learning activities. This model synthesized several vital elements and fully integrated with Han et al. (2017), Suartama et al. (2019), Almazova et al. (2019), Herrera & Kidwell (2018), Daniels (2002), Furr (2004), Karatay (2017), and other studies in theory and methodology, this synthesis and integration ensured coordination and articulation between the various components of the model, thus ensuring comprehensive and effective teaching and learning. It provides students with a more prosperous, interactive, and personalized learning experience that helps them to improve their English reading ability and attitudes.

Two classes, the experimental class (n = 38) and the control class (n = 36), were selected for this study for a seven-week instructional experiment. A mobile blended reading circle model was utilized in the experimental class, while the control class used the traditional reading instruction model. The results of the data indicated that the two classes had similar levels of reading ability prior to the start of the experiment. After seven weeks of study, significant differences were observed, and students in the experimental class improved their reading ability significantly compared to the control class. Also, the students in the experimental class showed a trend toward a more positive attitude towards reading. Therefore, the mobile blended reading circle model enhanced reading ability and attitudes.

In terms of studying second language learners, Hosseinpour et al. (2019) showed that applying mobile technology in a blended learning environment significantly improved ELF learners academic collaboration skills. In addition, Yin's (2020) findings showed that applying the mobile terminal Superstar Learning Platform to higher-level English education positively impacted students speaking skills. In addition, Chou's (2022) study found that students who underwent reading circle intervention performed better by comparing the effects of graded reading, reading circles, and reading strategies on the reading ability of Taiwanese college students. These findings are consistent with the findings of this study and further support the effectiveness of the MBRC model in teaching English reading in primary schools.

In the future, the model will enable flexible instructional design based on the characteristics of students, instructors, and courses while promoting harmonious and positive student-teacher relationships. This study expects that the positive effects of the model in English reading education can be further explored in the future, thus promoting the continuous development and improvement of the model.

References:

- 1. Alexander, J. E., & Filler, R. C. (1976). Attitudes and Reading. Reading Aids Series.
- Almazova, N., Rubtsova, A., Krylova, E., Barinova, D., Eremin, Y., & Smolskaia, N. (2019). Blended Learning Model in the Innovative Electronic Basis of Teacal Engineers Training. *Annals of DAAAM & Proceedings*, 30.
- 3. Alsowayegh, N. H., Bardesi, H. J., Garba, I., & Sipra, M. A. (2019). Engaging students through blended learning activities to augment listening and speaking.

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- 4. Arab World English Journal, 5(1), 267–288. https://doi.org/10.24093/awej/call5.18
- 5. Barnett, M. A. (1989). *More Than Meets The Eye: Foreign Language Reading. Language and Education: Theory and Practice*. Prentice-Hall Regents, Englewood Cliffs, NJ 07632.
- 6. Blum, H. T., Lipsett, L. R., & Yocom, D. J. (2002). Literature circles: A tool for selfdetermination in one middle school inclusive classroom. *Remedial and special education*, 23(2), 99-108.
- 7. Cao, S. J. (2020). Exploring the transformation of primary school English education mode under the new situation. Academic Weekly, 2020.
- Carvalho, M. B., Bellotti, F., Berta, R., De Gloria, A., Sedano, C. I., Hauge, J. B., & Rauterberg, M. (2015). An activity theory-based model for serious games analysis and conceptual design. Computers & education, 87, 166-181.
- 9. Chinese Ministry of Education. (2018, April 13). Education informatization 2.0.
- 10. Chinese Ministry of Education. (2022, April). Compulsory education curriculum plan and curriculum standards (2022 edition).
- 11. Chotitham, S., & Wongwanich, S. (2014). The reading attitude measurement for enhancing elementary school students' achievement. *Procedia-Social and Behavioral Sciences*, *116*, 3213-3217.
- 12. Chou, M. H. (2022). Using literature circles to teach graded readers in English: an investigation into reading performance and strategy use. *Innovation in Language Learning and Teaching*, *16*(2), 144-163.
- 13. Chow, B. W. Y., Hui, A. N. N., & Chui, B. H. T. (2018). Creative literacy activities promote positive reading attitude in children learning English as a foreign language. *Journal of Research in Reading*, 41(2), 278-289.
- 14. Connolly, T. M., Boyle, E. A., MacArthur, E., Hainey, T., & Boyle, J. M. (2012). A systematic literature review of empirical evidence on computer games and serious games. *Computers & education*, *59*(2), 661-686.
- 15. Daniels, H. (2002). *Literature circles: Voice and choice in book clubs and reading groups*. Stenhouse Publishers.
- 16. Dogan, E., Ogut, B., & Kim, Y. Y. (2015). Early childhood reading skills and proficiency in NAEP eighth-grade reading assessment. *Applied Measurement in Education*, *28*(3), 187-201.
- 17. Furr, M. (2004). Literature circles for the EFL classroom. In *Proceedings of the 2003 TESOL Arabia Conference*. Dubai, United Arab Emirates: TESOL Arabia.
- 18. Gulnaz, F., Althomali, A. D. A., & Alzeer, D. H. (2020). An investigation of the perceptions and experiences of the EFL teachers and learners about the effectiveness of blended learning at Taif University. *International Journal of English Linguistics*, 10(1), 329-344.
- Han, Y., Tian, L., & Cheng, W. (2017). Design and implementation of mobile blended learning model based on WeChat public platform. In *MATEC Web of Conferences* (Vol. 100, p. 02020). EDP Sciences.
- 20. Herrera, L. J. P., & Kidwell, T. (2018). Literature Circles 2.0: Updating a Classic Strategy for the 21st Century. *Multicultural Education*, *25*(2), 17-21.

- 21. Hosseinpour, N., Biria, R., & Rezvani, E. (2019). Promoting academic writing proficiency of Iranian EFL learners through blended learning. *Turkish Online Journal of Distance Education*, 20(4), 99-116.
- 22. Jin, X.L. (2021). A literature review of primary school English reading teaching in the context of core literacy. New Wisdom, (32), 72–74.
- 23. Karatay, H. (2017). The Effect of Literature Circles on Text Analysis and Reading Desire. International Journal of Higher Education, 6(5), 65-75.
- 24. Kızıltaş, Y. (2018). Reading attitudes of 4th grade students in primary school: an evaluation on different school levels. *Journal of Pedagogical Research*, *2*(3), 212.
- 25. Klímová, B., & Pražák, P. (2019). Mobile blended learning and evaluation of its effectiveness on students' learning achievement. In *Blended Learning: Educational Innovation for Personalized Learning: 12th International Conference, ICBL 2019, Hradec Kralove, Czech Republic, July 2–4, 2019, Proceedings 12* (pp. 216-224). Springer International Publishing.
- Kocaarslan, M. (2016). An Exploratory Study of the Relationships between Reading Comprehension Competence, Reading Attitude and the Vividness of Mental Imagery among Turkish Fourth-Grade Students. *International Electronic Journal of Elementary Education*, 8(4), 675-686.
- 27. Lee, Y. (2014). Promise for enhancing children's reading attitudes through peer reading: A Mixed method approach. *The Journal of Educational Research*, *107*(6), 482-492.
- 28. Luo, S. Q., & Zhang, Y. M. (2018). Using reading circle tasks to evaluate students' English subject core literacy. *Foreign Language Teaching in Schools*, (7).
- 29. McKenna, M. C., & Kear, D. J. (1990). Measuring attitude toward reading: A new tool for teachers. *The reading teacher*, 43(9), 626-639.
- Nootens, P., Morin, M. F., Alamargot, D., Gonçalves, C., Venet, M., & Labrecque, A. M. (2019). Differences in attitudes toward reading: A survey of pupils in grades 5 to 8. *Frontiers in Psychology*, 9, 2773.
- 31. Pyo, J., & Lee, C. H. (2022). Students' Perspectives of Mobile-Assisted Blended Learning (MABL) in L2 Listening Classes at the University Level. *Korean Journal of English Language and Linguistics*, 22, 1175-1198.
- 32. Schoonmaker, R. G. (2014). A blended learning approach to reading circles for English language learners. *Second Language Studies*, 33(1), 1-22.
- 33. Shelton-Strong, S. J. (2012). Literature circles in ELT. ELT journal, 66(2), 214223.
- 34. Stokmans, M. J. (1999). Reading attitude and its effect on leisure time reading.
- 35. Poetics, 26(4), 245-261.
- 36. Suartama, I. K., Setyosari, P., Sulthoni, S., & Ulfa, S. (2019). Development of an instructional design model for mobile blended learning in higher education. *International Journal of Emerging Technologies in Learning (Online)*, 14(16), 4.
- 37. Syakur, A., & Azis, R. (2020). Developing reading learning model to increase reading skill for animal husbandry students in higher education. *Britain International of Linguistics Arts and Education (BIoLAE) Journal*, 2(1), 484-493.

- 38. Tindall, E., & Nisbet, D. (2010). Exploring the Essential Components of Reading.
- 39. Journal of Adult Education, 39(1), 1-9.
- 40. Turnbull, M., Hart, D., & Lapkin, S. (2003). Grade 6 French immersion students' performance on large-scale reading, writing, and mathematics tests: Building explanations. *Alberta Journal of Educational Research*, *49*(1).
- 41. Wang, Q., & Chen, Z. (2016). The development and content overview of graded english reading standards for primary and middle school students. *Forgien Language Teaching in Schools*, (9).
- 42. Wang, Q., & Ona, R. (2017). Ways and means of teaching English picture books in primary and secondary schools. Curriculum-Materials-Teaching, (4), 69–73.
- 43. Widodo, H. P. (2016). Engaging students in literature circles: Vocational English reading programs. *The Asia-Pacific Education Researcher*, 25(2), 347-359.
- 44. Yin, S. (2020). Research on blended teaching of vocational English oral communication in the context of mobile technology-assisted learning: A case study of civil aviation English oral communication. *China Educational Technology*, (24), 55-61.
- 45. Yudhana, S. (2021). The Implementation of Blended Learning to Enhance English Reading Skills of Thai Undergraduate Students. *English Language Teaching*, 14(7), 1-7.