

THE EFFECTS OF COOPERATIVE LEARNING MANAGEMENT USING CIRC AND KWL PLUS TECHNIQUES WITH LOCAL SONGKHLA TEXTS ON GRADE 4 STUDENTS' ABILITY OF ENGLISH READING FOR MAIN IDEAS

Fitree Piamjaiji¹, Juraisiri Choorak², Urarat Panrod³

Program in Curriculum and Instruction Faculty of Education Songkhla Rajabhat University

Abstract:

The purposes of this research were: 1) to compare the ability English reading for main ideas of grade 4 students between before and after learning through cooperative learning using CIRC and KWL Plus technique with local Songkhla texts; 2) to compare the English for main ideas of grade 4 students between after the learning with the 70 percent criterion; and 3) to investigate the students' satisfaction toward the learning management. The sample consisted of one classroom of 40 grade 4 students from Anuban Songkhla School during the second semester of the 2025 academic year, selected by cluster random sampling. The research instruments included: 1) lesson plans, 2) an English for main ideas test, and 3) a satisfaction questionnaire. The data were analyzed using percentage, mean, standard deviation, dependent samples t-test, and one-sample t-test.

The findings revealed that: 1) the students' ability of English reading for main ideas after the learning management was significantly higher than that before the intervention at the .05 level; 2) the students' ability of English reading for main ideas after the learning management was significantly higher than the 70 percent criterion at the .05 level; and 3) the students' satisfaction toward the learning management was at a high level, with a mean score of 4.36.

Keywords: Cooperative Learning using CIRC , KWL Plus Technique, Local Songkhla Texts, English Reading for Main Idea

1. Introduction

At present, English is widely recognized as a global language and is commonly used for international communication among people from different cultural backgrounds. Therefore, developing effective English language skills is essential for enhancing individuals' ability to participate confidently in society and the global workforce (Suthinee Rattanasri, 2016). Proficiency in English also provides advantages in education and career opportunities, as it enables individuals to access various sources of information, expand learning opportunities, and work effectively in international environments. Consequently, continuous development of English language skills plays a crucial role in increasing individuals' potential and future opportunities.

English language learning is important because it is a fundamental subject that supports further education and future careers. English instruction should focus on developing the four essential language skills: listening, speaking, reading, and writing. Among these skills, reading is particularly important as it enables learners to access information, expand knowledge, and understand various types of texts encountered in daily life. Therefore, developing reading skills is essential for effective learning and the practical use of knowledge (Patcharin Naowsrisorn, 2015).

Reading for main ideas is an essential skill that supports both learning and daily life, as it helps learners understand various types of texts. When learners can identify the main ideas accurately, they are able to distinguish important information, develop deeper understanding, and apply

knowledge effectively (Sutira Pongpan, 2021). In addition, reading comprehension promotes critical thinking and supports learning across different subjects, as much academic information is presented in English. Therefore, this skill plays a crucial role in accessing knowledge and supporting lifelong learning (Suchat Wongphraphaisan, 2017; Preecha Pongpheng, 2020; Rattana Saengbuaphuean, 2019).

From interviews with English teachers at Anuban Songkhla School, it was found that many students still lack confidence in reading, speaking, and writing in English. In addition, data from the National Institute of Educational Testing Service (NIETS) indicated that the results of the Ordinary National Educational Test (O-NET) in English for Grade 6 students in the 2023 academic year showed that the national average score was 37.32 out of 100, while the school's average score was 55.91 out of 100. In the 2024 academic year, the average scores decreased, with the national average at 33.49 out of 100, the affiliated-level average at 29.82 out of 100, and the school-level average at 50.78 out of 100 (National Institute of Educational Testing Service, 2024). When students are unable to read and understand basic content accurately, they tend to encounter difficulties in learning grammar, reading comprehension, and academic writing. This problem may hinder the development of students' language abilities and discourage them from practicing or further improving their language skills. As a result, their interest and motivation in learning may decline, which may eventually lead to long-term neglect of English language learning.

Based on these problems, teachers should seek instructional methods that can improve students' English reading comprehension skills. One effective approach is group work, which plays a significant role in English language learning as it promotes reading skills and comprehension alongside communication and collaboration with others—skills that are essential in the 21st century. Group work allows students to exchange ideas (Porntip Sirirat, 2018). It also provides opportunities for students to practice analytical thinking, planning, and decision-making in reading activities, which can enhance their understanding of English texts. Furthermore, collaborative learning can increase students' motivation because they feel responsible for working together with their peers, which encourages them to continuously develop their English reading skills (Ratchaneekorn Suphawatt, 2022).

Cooperative learning using the Cooperative Integrated Reading and Composition (CIRC) technique is an instructional approach that integrates the development of reading and writing skills (Watchara Laolearndee, 2002: 178). In this method, students work in small groups with mixed abilities, allowing higher-achieving students to support those who need improvement. Learners collaborate in reading activities and review each other's work, while individual test scores are combined with group scores to encourage motivation and shared responsibility. Therefore, the CIRC technique is considered an effective approach for improving students' reading skills (Johnson & Johnson, 1987: 14).

The CIRC technique has been shown to enhance students' reading skills, as supported by the research of Patcharee Promsen (2020), who studied the development of cooperative learning using the CIRC technique combined with supplementary exercises to promote English reading and writing skills for students in Grades 4–6. The results indicated that learning through the CIRC technique together with supplementary exercises effectively improved students' English reading skills. In the first research cycle, students achieved an average score of 66.88 percent, while in the second cycle, the average score increased to 78.75 percent, which exceeded the established criterion. Similarly, Warisa Chanlee (2017) conducted research on the development of English reading and writing

comprehension abilities using cooperative learning with the CIRC technique among Grade 4 students. The results revealed that the cooperative learning activities using the CIRC technique achieved an efficiency level of 83.74/74.60, which was higher than the predetermined criterion.

The KWL Plus technique is a learning strategy that supports the development of English reading comprehension by connecting learners' prior knowledge with new information. In this technique, students identify what they already know (K), what they want to know (W), and what they have learned (L), followed by the "Plus" stage, which involves reflecting on and summarizing the information (Jittiporn Wattanasorn, 2019). This method promotes analytical and critical thinking, enhances reading comprehension, and helps learners better understand the content. Previous research also found that students' reading for main idea achievement improved after learning through the KWL Plus technique (Somruedee Sarakhot, 2021).

Local reading materials reflect the importance of local knowledge, which serves as a foundation for the development of individuals and society. Integrating local knowledge into education not only enhances students' learning but also helps preserve and transmit local wisdom to future generations. Local reading materials therefore serve as instructional media that incorporate content related to ways of life, culture, traditions, and community resources into the teaching and learning process. This approach connects learning with students' immediate environment, enabling them to understand the content more easily, find meaning in learning, and apply knowledge appropriately in daily life. Furthermore, local reading materials promote contextual learning and experiential learning while also playing an important role in developing language skills, particularly reading skills. Since the content is familiar to learners, it increases their motivation to read, improves reading for main idea, vocabulary understanding, and interpretation skills, and fosters a sense of love and pride in their local community while promoting desirable characteristics of good citizenship (Prawase Wasi, 2007).

Therefore, incorporating local reading materials into basic education is highly important because it enhances students' reading skills and learning while simultaneously instilling values and preserving local knowledge for sustainable transmission to future generations. This is consistent with the research of Suphawadee Kamsaen (2021), which found that reading materials developed from local contexts significantly improved students' reading comprehension and analytical thinking skills at the basic education level. Similarly, Phakathorn Pilatan (2023) indicated that local reading materials also play an important role in fostering local pride and preserving community knowledge alongside the development of language skills.

Considering the importance of developing English reading comprehension among Grade 4 students, cooperative learning using the CIRC technique combined with the KWL Plus technique is considered an effective approach. In addition, the use of Songkhla local reading materials can enhance students' interest and support the development of reading comprehension skills. Therefore, this study aims to investigate the effects of cooperative learning using the CIRC technique combined with the KWL Plus technique and Songkhla local reading materials on the English reading comprehension abilities of Grade 4 students. The findings are expected to provide guidelines for improving the effectiveness of English language teaching.

2. Objective

The effects of cooperative learning management using CIRC and KWL Plus techniques with local Songkhla texts on grade 4 students' ability of English reading for main ideas. The objectives of this study were as follows:

1. To compare the ability English reading for main ideas of grade 4 students between before and after learning through cooperative learning using CIRC and KWL Plus technique with local Songkhla texts
2. To compare the English for main ideas of grade 4 students between after the learning with the 70 percent criterion
3. To investigate the students' satisfaction toward the learning management.

3. Methodology

3.1 Population and Sample

1. Population: The population in this study consisted of Grade 4 students at Anuban Songkhla School, Mueang District, Songkhla Province, during the second semester of the 2025 academic year. The population included 7 classrooms with a total of 258 students.

2. Sample: The sample in this study consisted of 40 students from Grade 4/5 at Anuban Songkhla School, Bo Yang Subdistrict, Mueang District, Songkhla Province, during the second semester of the 2025 academic year. The sample was selected using cluster random sampling, with the classroom used as the sampling unit.

3.2 Research Instruments

The research instruments used in the study entitled “The effects of cooperative learning management using the CIRC and KWL Plus techniques with local Songkhla texts on grade 4 students' ability to identify main ideas in English reading” consisted of three types of instruments as follows:

1. Lesson Plans: The cooperative learning lesson plans using the CIRC technique combined with the KWL Plus technique and Songkhla local reading materials aimed at developing Grade 4 students' English reading comprehension ability. The lesson plans consist of the following steps: 1) Preparation stage 2) Content presentation using the KWL Plus technique and Songkhla local reading materials 3) Group activity stage using the KWL Plus technique and Songkhla local reading materials 4) Work checking and testing stage 5) Individual and group evaluation stage. There was 1 learning unit consisting of 5 lesson plans with a total of 10 instructional periods.

2. English Reading for main idea Test: The English reading comprehension test for Grade 4 students was a multiple-choice test consisting of 40 items. Twenty items were selected for actual use, with each item worth 1 point, making a total score of 20 points.

3. Satisfaction Questionnaire: The satisfaction questionnaire on cooperative learning using the CIRC technique combined with the KWL Plus technique and Songkhla local reading materials for improving English reading comprehension ability was designed as a five-point rating scale. The questionnaire consisted of three aspects as follows: 1) Content 2) Learning management 3) Instructional media.

3.3 Development and Validation of Research Instruments

The development and validation of the research instruments were conducted as follows:

1. The researcher analyzed the Basic Education Core Curriculum B.E. 2551 in the Foreign Languages Learning Area (English) for Grade 4 students.

2. Relevant documents, concepts, theories, and research studies related to Cooperative Learning using the CIRC technique, the KWL Plus technique, and Songkhla local-content reading passages were reviewed.

3. The lesson plans and research instruments were developed in accordance with the learning objectives and expected learning outcomes.

4. All instruments were submitted to three experts, specializing in curriculum, English language content, and educational measurement and evaluation, to examine the content validity using the Index of Item–Objective Congruence (IOC).

5. The instruments were piloted with 40 students who were not part of the sample group in order to determine the quality of the instruments.

6. The test items were analyzed to determine the item difficulty (p) and the discrimination index (r).

7. The reliability of the objective test was calculated using the Kuder–Richardson Formula 20 (KR-20), while the reliability of the satisfaction questionnaire was analyzed using Cronbach’s Alpha coefficient.

8. After revising the instruments based on the results of the analysis, the finalized instruments were used in the actual research.

3.4 Data Collection Procedures

The research of The effects of cooperative learning management using the CIRC and KWL Plus techniques with local Songkhla texts on grade 4 students’ ability to identify main ideas in English reading were conducted according to the following procedures:

Step 1: The researcher administered a pre-test to measure the students’ English reading for main idea ability using the conventional teaching method. The test was a multiple-choice test with four options developed by the researcher. The results were recorded as the pre-test scores.

Step 2: The researcher implemented the cooperative learning approach using the CIRC technique combined with the KWL Plus technique and local Songkhla texts. The instruction was conducted 2 hours per week for 5 weeks, following the lesson plans based on the CIRC technique combined with the KWL Plus technique and local Songkhla texts reading passages.

Step 3: After the instruction, the researcher administered a post-test to measure the students’ English reading for main idea ability. The test was the same four-option multiple-choice test developed by the researcher. The post-test scores were then compared with the pre-test scores obtained from the conventional learning method.

Step 4: The students’ satisfaction toward the cooperative learning approach using the CIRC technique combined with the KWL Plus technique and local Songkhla texts reading passages was evaluated according to the established evaluation criteria.

Step 5: The collected data were then analyzed using appropriate statistical methods.

3.5 Statistics Used for Data Analysis

The statistical methods used in this research were as follows:

1. Descriptive Statistics

The descriptive statistics used in this research included: Percentage, Mean, Standard Deviation

2. Statistics for Hypothesis Testing

2.1 A comparison of students’ English reading for main idea ability before and after learning through cooperative learning using the CIRC technique combined with the KWL Plus technique and Songkhla local-content reading passages was conducted using the Dependent t-test (t-test for Dependent Samples).

2.2 A comparison of Grade 4 students’ English reading for main idea ability after learning through cooperative learning combined with the KWL Plus technique and Songkhla local-content reading passages with the 70 percent criterion was conducted using the One-Sample t-test.

2.3 The level of students' satisfaction was analyzed using the mean and standard deviation.

4. Results and Discussion

4.1 Results of the comparison of Grade 4 students' ability of English reading for main idea between before and after learning through cooperative learning management using CIRC and KWL Plus techniques with local Songkhla texts.

Table 1 Comparison of Grade 4 students' ability of English reading for main idea between before and after learning through cooperative learning management using CIRC and KWL Plus techniques with local Songkhla texts. (n = 40).

Experiment	Total Score	$\bar{x}$	SD	t
Pretest	20	8.25	2.17	21.80*
Posttest	20	14.63	1.81	

*Statistically significant at the .05 level

From Table 1, it was found that the comparison of Grade 4 students' ability of English reading for main idea before and after learning through cooperative learning management using CIRC and KWL Plus techniques with local Songkhla texts showed that the post-instruction scores were higher than the pre-instruction scores at a statistically significant level of .05. The mean score before the instruction was 8.25 with a standard deviation of 2.17, while the mean score after the instruction was 14.63 with a standard deviation of 1.81.

4.2 Results of the comparison of Grade 4 students' ability of English reading for main idea after learning through cooperative learning management using CIRC and KWL Plus techniques with local Songkhla texts with the 70 percent criterion.

Table 2 Comparison of Grade 4 students' ability of English reading for main idea after learning through cooperative learning management using CIRC and KWL Plus techniques with local Songkhla texts with the 70 percent criterion (n = 40).

Experiment	Total Score	70 percent criterion	$\bar{x}$	SD	Percentage Mean	t
Posttest	20	14	14.63	1.81	73.15	2.20*

*Statistically significant at the .05 level

From Table 2, it was found that the comparison of Grade 4 students' ability of English reading for main idea after learning through cooperative learning management using CIRC and KWL Plus technique with local Songkhla texts with the 70 percent criterion showed that the full score was 20 points, with a mean score of 14.63 and a standard deviation of 1.81. The 70 percent criterion of the total score of 20 points is 14 points. The results indicated that the students' mean score was higher than the 70 percent criterion at a statistically significant level of .05.

4.3 Results of the analysis of Grade 4 students' satisfaction toward learning through cooperative learning management using CIRC and KWL Plus techniques with local Songkhla texts.

Table 3 Analysis of Grade 4 students' satisfaction toward learning through cooperative learning management using CIRC and KWL Plus techniques with local Songkhla texts. (n = 40).

Item	Statement	$\bar{x}$	SD	Level of Satisfaction
Content Aspect				
1	Accuracy of the content	4.15	0.58	High
2	Consistency with learning standards and indicators	4.45	0.64	High
3	Appropriateness for the learners' level	4.50	0.72	High
4	Continuity and coherence of the content	4.20	0.79	High
Total		4.33	0.68	High
Learning Management Aspect				
5	Clarity of the instructional activity procedures	4.43	0.75	High
6	Variety of learning activities	4.48	0.88	High
7	Promotion of students' participation	4.35	0.86	High
8	Connection between the content and students' experiences	4.30	0.72	High
Total		4.39	0.80	High
Instructional Media Aspect				
9	Appropriateness of the media with the content	4.48	0.68	High
10	Clarity and quality of the media	4.38	0.84	High
11	Consistency with learning activities	4.43	0.75	High
12	Attractiveness and engagement for students	4.18	0.96	High
Total		4.38	0.80	High
Grand Total		4.36	0.76	High

From Table 3, it was found that the analysis of Grade 4 students' satisfaction toward learning through cooperative learning management using CIRC and KWL Plus techniques with local Songkhla texts was at a high level overall, with a mean of 4.36 and a standard deviation of 0.76.

When considering each aspect of satisfaction, the results showed that the learning management aspect had the highest mean score ($\bar{x} = 4.39$, S.D. = 0.80), which was at a high level of satisfaction. This was followed by the instructional media aspect ($M = 4.38$, S.D. = 0.80), also at a high level of satisfaction, and the content aspect ($\bar{x} = 4.33$, S.D. = 0.68), which was likewise at a high level of satisfaction.

5. Suggestions

The research of The effects of cooperative learning management using CIRC and KWL Plus techniques with local Songkhla texts on grade 4 students' ability of English reading for main ideas can be discussed according to the research objectives as follows:

5.1 The English reading for main ideas ability of Grade 4 students after the implementation of cooperative learning using the CIRC and KWL Plus techniques with Songkhla local reading passages was significantly higher than before the instruction at the .05 level. This indicates that the instructional approach effectively improved students' reading comprehension.

The improvement may be attributed to the CIRC technique, which promotes collaborative learning, discussion, and joint summarization of main ideas, leading to better understanding of the texts. The KWL Plus technique also helps students connect prior knowledge with new information and organize their learning systematically. In addition, the use of Songkhla local reading passages increases students' motivation and interest because the content is familiar and meaningful to them.

These findings are consistent with the study of Patcharee Promsane (2020), which reported that cooperative learning using the CIRC technique improved students' English reading skills, with average scores increasing from 66.88% to 78.75%, and students' satisfaction at a high level ($\bar{x} = 4.36$, S.D. = 0.40).

5.2 The English for main idea reading ability of Grade 4 students after the implementation of cooperative learning using the CIRC technique combined with the KWL Plus technique and Songkhla local content reading passages was significantly higher than the 70 percent criterion at the .05 level of statistical significance. This result indicates that the learning management approach was effective in improving students' reading comprehension skills beyond the established criterion.

The effectiveness of this approach may be attributed to the cooperative learning process through the CIRC technique, which allows students to work collaboratively, exchange ideas, and jointly summarize the main ideas of the texts, leading to a deeper understanding of the content. In addition, the KWL technique helps students connect prior knowledge with new knowledge and organize their learning more systematically. Furthermore, the use of local content reading passages related to Songkhla enhances students' motivation and interest in reading, as the content is familiar and relevant to their experiences.

These findings are consistent with the study of Rohdearni Wati Sipayung (2019), which reported that students' average scores increased from 40.66 in the pre-test to 73.33 in the post-test, indicating that the CIRC technique is effective in improving students' reading comprehension skills.

5.3 The satisfaction of Grade 4 students who learned through cooperative learning using the CIRC technique combined with the KWL Plus technique and Songkhla local content reading passages toward their English reading comprehension ability was at a high level ($\bar{x} = 4.36$, S.D. = 0.76). This indicates that students were satisfied with the learning management process.

This result may be attributed to cooperative learning activities, which encourage students' participation, social interaction, idea sharing, and collaborative problem-solving, leading to greater learning satisfaction compared with teacher-centered instruction. In addition, the integration of the CIRC and KWL Plus techniques helps students become more engaged in the reading process and improves their understanding of the texts.

Furthermore, the use of Songkhla local content reading passages makes the learning content more meaningful and interesting, as it relates to students' real-life experiences. These findings are consistent with the study of Maliwan Suranit (2022), which reported that students who learned through the KWL Plus technique showed a high level of satisfaction ($\bar{x} = 4.06$, S.D. = 0.82).

6. Recommendations

Recommendations for the Application of the Research Findings

1. Future studies should investigate the effects of cooperative learning using the CIRC technique combined with the KWL Plus technique on other language skills, such as writing, speaking, and analytical thinking, to determine whether this approach can improve other aspects of English language proficiency.

2. The sample group should be expanded to students at other educational levels, such as Grades 5–6 or secondary school students, in order to compare learning outcomes and examine the suitability of this instructional approach for learners at different age levels.

3. Further studies should compare cooperative learning using the CIRC technique combined with the KWL Plus technique with other instructional methods to examine the effectiveness of different learning approaches in improving students' English reading comprehension ability.

7. References

- Johnson, D. W., & Johnson, R. T. (1984). **Circles of learning: Cooperation in the classroom**. Alexandria, VA: ASCD.
- Laolearndee, W. (2002). **Instructional techniques and supervision**. Nakhon Pathom: Faculty of Education, Silpakorn University.
- Naorisorn, P. (2015). **Strategies for developing English reading skills at the primary education level**. Bangkok: Srinakharinwirot University.
- Pilantananon, N. (2000). **Cooperative learning**. June Publishing Co., Ltd.
- Pongpan, S. (2021). **Developing reading comprehension skills to promote learners' analytical thinking in the 21st century**. Chiang Mai: Chiang Mai University.
- Promsane, P. (2020). **The development of cooperative learning management using the CIRC technique with supplementary exercises to enhance English reading and writing skills for students in Grades 4–6**. Master's thesis, Mahasarakham University, Mahasarakham.
- Rattanasri, S. (2016). **The importance of English in the era of globalization**. Bangkok: Academic Publishing House.
- Saengbuaphuean, R. (2019). **The role of English reading in promoting lifelong learning**. Khon Kaen: Khon Kaen University.
- Sipayung, R. W. (2019). **Improving the students' ability in reading comprehension by using cooperative integrated reading composition**. Budapest International Research and Critics Institute (BIRCI-Journal), 2(2), 247–253.
- Sirirat, A. (2006). **The development of English reading and writing exercises for communication using local information of Kanchanaburi for Grade 9 students**. Master's thesis, Silpakorn University, Bangkok.
- Suranit, M. (2022). **Learning management using the KWL Plus technique to enhance analytical reading skills of Grade 9 students**. Master's thesis, Mahasarakham University, Mahasarakham.
- Wasi, P. (2007). **Human and social development based on local knowledge**. Bangkok: Moh Chao Ban Publishing House.