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PREFACE

The National and International Conference on “Shaping the Future of Education,” held on 1 April 2026, brings together educators, researchers, policymakers, and practitioners from diverse backgrounds to explore innovative approaches and emerging trends in education. In an era marked by rapid technological advancement, shifting societal needs, and global interconnectedness, education systems must continuously adapt to prepare learners for the challenges and opportunities of the future.

This conference serves as a platform for the exchange of knowledge, ideas, and best practices that contribute to the transformation of education across local and global contexts. The selected papers included in these proceedings reflect a wide range of perspectives, addressing key themes such as digital learning, educational equity, curriculum innovation, teacher development, and lifelong learning.

We extend our sincere appreciation to all authors for their valuable contributions, as well as to the reviewers and organizing committee for their dedication and commitment to maintaining the academic quality of this conference. Their collective efforts have ensured that these proceedings represent meaningful and impactful scholarly work.

It is our hope that the insights presented in this volume will inspire further research, foster collaboration, and support the ongoing development of education systems that are inclusive, resilient, and forward-looking.

Conference Organizing Committee
1 April 2026

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**DEVELOPING LEARNING ACHIEVEMENT AND ENGLISH READING
COMPREHENSION OF GRADE 5 STUDENTS
USING MURDOCH’S INTEGRATED APPROACH
(MIA) COMBINED WITH GAMIFICATION**

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Abstract:

This study aimed to: 1) compare students’ learning achievement before and after learning through Murdoch’s Integrated Approach (MIA) combined with gamification; 2) compare students’ learning achievement after the learning intervention with the 70 percent criterion; 3) compare students’ English reading comprehension before and after the learning intervention; 4) compare students’ English reading comprehension after the learning intervention with the 70 percent criterion; and 5) examine students’ satisfaction toward the learning activities. The sample consisted of 23 Grade 5 students selected through multi-stage random sampling. The research instruments consisted of: 1) lesson plans based on Murdoch’s Integrated Approach combined with gamification; 2) a learning achievement test; 3) an English reading comprehension test; and 4) a student satisfaction questionnaire. The data were analyzed using mean, standard deviation, and dependent t-test.

The results revealed that: 1) students’ learning achievement after the learning intervention was significantly higher than before the intervention at the .05 level, with mean scores increasing from 7.17 to 16.39; 2) students’ learning achievement after the learning intervention was significantly higher than the 70 percent criterion at the .05 level; 3) students’ English reading comprehension after the learning intervention was significantly higher than before the intervention at the .05 level, with mean scores increasing from 9.65 to 16.48; 4) students’ English reading comprehension after the learning intervention was significantly higher than the 70 percent criterion at the .05 level; and 5) students’ overall satisfaction toward the learning activities was at a high level ($M = 4.67$, $SD = 0.58$). The findings indicate that Murdoch’s Integrated Approach combined with gamification effectively enhances students’ learning achievement and English reading comprehension.

Keywords: Murdoch’s Integrated Approach, Gamification, Learning Achievement, Reading Comprehension

1. Introduction

English plays a crucial role as a global language for communication in the contemporary world. It is spoken as a first language by more than 360 million people worldwide and used as a second language by approximately 750 million individuals. Due to its extensive use in international communication, education, and business, English proficiency has become an essential competency for learners in the era of globalization (Crystal, 2019; Ministry of Education, 2017). Consequently, the four fundamental language skills—listening, speaking, reading, and writing—are widely recognized as essential for academic development and effective communication in the twenty-first century.

In the context of Thai education, English has been designated as a core foreign language subject in the Basic Education Core Curriculum. The Ministry of Education (2008) emphasizes that English learning should begin at an early stage in order to build a strong linguistic foundation and foster positive attitudes toward language learning. Among the four language skills, reading plays a particularly important role in language learning. Reading comprehension is a complex cognitive process that involves constructing meaning from written texts and integrating new information with prior knowledge (Grabe & Stoller, 2020). It enables learners to access information, interpret meanings, and develop higher-order thinking skills. Furthermore, reading comprehension not only enables learners to understand written texts but also to analyze information and connect new knowledge with prior experiences, thereby promoting meaningful learning (Afflerbach, 2022; Pressley & Allington, 2015).

Nevertheless, despite the recognized importance of English reading skills, many Thai students continue to experience difficulties in reading comprehension. Evidence from the Ordinary National Educational Test (O-NET) indicates that students' English achievement remains relatively low. In the 2024 academic year, the average English score of primary school students was 33.49%, which is considerably below the expected standard (National Institute of Educational Testing Service [NIETS], 2024). Similarly, the average English score of students in Songkhla Primary Educational Service Area Office 1 was reported at 32.52%, which is also lower than the national average. These findings highlight that the development of English reading comprehension and learning achievement among students remains a significant educational challenge.

Several studies have suggested that English instruction in Thailand often emphasizes grammar memorization and translation practices rather than meaningful reading processes and the development of analytical thinking (Khammanee, 2017; Kowtrakul, 2018). As a consequence, many students may lack the ability to interpret texts, identify main ideas, and apply effective reading strategies. Therefore, there is an increasing need for innovative instructional approaches that can enhance both students' learning achievement and their reading comprehension.

One instructional approach that has been widely recognized for improving reading comprehension is Murdoch's Integrated Approach (MIA), which integrates several stages of reading instruction to promote learners' active engagement with texts (Murdoch, 1986). This approach consists of seven instructional stages: priming questions, vocabulary development, reading the text, understanding the text, jigsaw exercises and paragraph structure, transferring information, and evaluating and correcting. Through these structured stages, the MIA approach promotes active learning and encourages students to actively construct meaning from texts. Previous studies have also reported that Murdoch's Integrated Approach can effectively enhance students' reading comprehension and learning achievement (Eksin, 2015; Poolsawat, 2021; Wongyai, 2020).

In addition to instructional approaches, gamification has been increasingly applied in educational contexts to enhance learners' motivation and engagement. Gamification refers to the application of game design elements in non-game contexts to encourage participation and sustain users' motivation (Deterding et al., 2011). In educational settings, gamification commonly incorporates elements such as points, rewards, badges, and leaderboards into learning activities to stimulate students' interest and participation in learning. These game-based elements can create a more interactive and enjoyable learning environment, which may positively influence students' learning experiences. Previous studies have indicated that gamification can enhance learners' motivation, engagement, and academic performance in various educational contexts (Hamari et al., 2014; Sailer & Homner, 2020).

Although previous studies have examined the effectiveness of Murdoch's Integrated Approach and gamification separately, limited research has explored the integration of these two approaches in English reading instruction. In particular, few studies have investigated how the combination of Murdoch's Integrated Approach and gamification can support the development of students' reading comprehension and learning achievement at the primary school level. Therefore, integrating Murdoch's Integrated Approach with gamification may provide a more engaging and meaningful learning environment that enhances students' reading comprehension and learning achievement.

Therefore, this study aims to investigate the effectiveness of learning management using Murdoch's Integrated Approach combined with gamification in improving the learning achievement and English reading comprehension of Grade 5 students.

2. Objective

The objectives of this study were as follows:

1. To compare the learning achievement of Grade 5 students before and after the implementation of Murdoch's Integrated Approach (MIA) combined with gamification.
2. To compare the post-learning achievement of Grade 5 students with the 70 percent criterion after the implementation of Murdoch's Integrated Approach (MIA) combined with gamification.
3. To compare the English reading comprehension of Grade 5 students before and after the implementation of Murdoch's Integrated Approach (MIA) combined with gamification.
4. To compare the post-learning English reading comprehension of Grade 5 students with the 70 percent criterion after the implementation of Murdoch's Integrated Approach (MIA) combined with gamification.
5. To examine the satisfaction of Grade 5 students toward learning through Murdoch's Integrated Approach (MIA) combined with gamification.

3. Methodology

3.1 Population and Sample

1. Population: The population of this study consisted of Grade 5 students enrolled in schools under the Songkhla Primary Educational Service Area Office 1 during the 2025 academic year. There were 134 schools located across seven districts, namely Krasae Sin District, Na Mom District, Ranot District, Sathing Phra District, Singhanakhon District, Hat Yai District, and Mueang Songkhla District. The total population comprised 15,313 students. The population data were obtained from the

Educational Information System of the Songkhla Primary Educational Service Area Office 1 (Songkhla Primary Educational Service Area Office 1, 2025).

2. Sample: The sample group consisted of 23 Grade 5 students from Ban Nam Krachai School in the second semester of the 2025 academic year. The participants were selected through multi-stage random sampling. One classroom was selected as the representative sample to participate in the learning activities using Murdoch's Integrated Approach (MIA) combined with gamification.

3.2 Research Instruments

The research instruments used in this study were as follows:

1. **Lesson plans** based on Murdoch's Integrated Approach (MIA) combined with gamification. A total of four lesson plans were developed to enhance students' learning achievement and English reading comprehension. Each lesson plan required two hours of instruction, resulting in a total instructional time of eight hours.

2. **A learning achievement test in English**, which consisted of 20 multiple-choice items with four alternatives. The test was used to assess students' learning achievement before and after the implementation of the instructional activities.

3. **An English reading comprehension test** consisting of 20 multiple-choice items with four alternatives. This test was administered as both a pre-test and a post-test to measure students' English reading comprehension.

4. **A students' satisfaction questionnaire** toward the learning activities using Murdoch's Integrated Approach (MIA) combined with gamification. The questionnaire was designed in the form of a five-point Likert scale to measure students' levels of satisfaction with the learning management.

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 (Revised Edition B.E. 2560) and the school curriculum of Ban Nam Krachai School in the Foreign Language Learning Area (English) for Grade 5.

2. Relevant theories, research studies, and instructional approaches related to Murdoch's Integrated Approach (MIA), gamification, English learning achievement, and reading comprehension were reviewed.

3. The lesson plans, learning achievement test, reading comprehension test, lesson plan evaluation form, and students' satisfaction questionnaire were constructed according to the learning objectives and expected learning outcomes.

4. All research instruments were examined by three experts in English language teaching, curriculum, and educational measurement and evaluation to assess content validity using the Index of Item-Objective Congruence (IOC).

5. The instruments were then piloted with Grade 5 students at Ban Klang School who were not part of the sample group to determine their quality.

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

7. The reliability of the learning achievement test and reading comprehension 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 revisions based on the analysis results, the finalized instruments were used in the actual research with Grade 5 students at Ban Nam Krachai School during the second semester of the 2025 academic year.

3.4 Data Collection Procedures

The researcher conducted the instruction personally with the sample group, which consisted of 23 Grade 5 students at Ban Nam Krachai School during the second semester of the 2025 academic year. The instruction was implemented using lesson plans based on Murdoch's Integrated Approach (MIA) combined with gamification. The procedures were carried out as follows:

Step 1: The researcher explained the objectives, procedures, and learning process of Murdoch's Integrated Approach (MIA) combined with gamification to the students.

Step 2: The students completed the pre-test of English learning achievement and reading comprehension.

Step 3: The researcher implemented the lesson plans using Murdoch's Integrated Approach (MIA) combined with gamification for 4 weeks, with 2 hours per week, totaling 8 hours of instruction.

Step 4: After the instructional intervention, the students completed the post-test of English learning achievement and reading comprehension.

Step 5: The students completed the satisfaction questionnaire regarding the learning activities conducted through Murdoch's Integrated Approach (MIA) combined with gamification.

Step 6: The collected data from the tests and questionnaire were analyzed using statistical methods with the assistance of statistical software.

3.5 Statistics Used for Data Analysis

The statistics used for data analysis in this study were as follows:

1. Percentage (%), Mean (*M*), and Standard Deviation (*SD*) were used to analyze the students' scores from the learning achievement test, reading comprehension test, and satisfaction questionnaire.

2. Dependent Samples t-test was used to compare the students' pre-test and post-test scores of English learning achievement.

3. Dependent Samples t-test was also used to compare the students' pre-test and post-test scores of English reading comprehension.

4. The results of the students' satisfaction questionnaire were analyzed using mean and standard deviation, and interpreted according to the predefined criteria.

4. Results and Discussion

4.1 Comparison of Students' Learning Achievement Before and After the Instruction

The comparison of students' learning achievement before and after learning through Murdoch's Integrated Approach (MIA) combined with gamification was analyzed using a dependent t-test. The results are presented in Table 1.

Table 1 Comparison of Students' Learning Achievement Before and After the Instruction (n = 23)

Test	Full Score	<i>M</i>	<i>SD</i>	<i>t</i>
Pre-test	20	7.17	3.42	11.35*
Post-test	20	16.39	2.04	

* Significant at the .05 level

From Table 1, the results show that the learning achievement test had a total score of 20 points. The students' pre-test mean score was 7.17 ($SD = 3.42$), while the post-test mean score increased to 16.39 ($SD = 2.04$).

The comparison of students' learning achievement before and after the implementation of Murdoch's Integrated Approach (MIA) combined with gamification revealed that the post-test scores were significantly higher than the pre-test scores at the .05 level of statistical significance.

4.2 Comparison of Students' Learning Achievement After the Instruction with the 70 Percent Criterion

The comparison of students' learning achievement after learning with the 70 percent criterion was analyzed using a one-sample t-test. The results are presented in Table 2.

Table 2 Comparison of Students' Learning Achievement After the Instruction with the 70 Percent Criterion ($n = 23$)

Test	Full Score	70% Criterion	<i>M</i>	<i>SD</i>	Mean Percentage	<i>t</i>
Post-test	20	14	16.39	2.04	81.95	5.61*

* Significant at the .05 level

From Table 2, the results show that the mean score of students' learning achievement after the instruction was 16.39 ($SD = 2.04$), which was higher than the 70 percent criterion (14 points).

The analysis revealed that the students' learning achievement after the instruction was significantly higher than the 70 percent criterion at the .05 level of statistical significance.

4.3 Comparison of Students' English Reading Comprehension Before and After the Instruction

The comparison of students' English reading comprehension before and after learning through Murdoch's Integrated Approach (MIA) combined with gamification was analyzed using a dependent t-test. The results are presented in Table 3.

Table 3 Comparison of Students' English Reading Comprehension Before and After the Instruction ($n = 23$)

Test	Full Score	<i>M</i>	<i>SD</i>	<i>t</i>
Pre-test	20	9.65	4.48	7.59*
Post-test	20	16.48	2.83	

* Significant at the .05 level

From Table 3, the results show that the English reading comprehension test had a total score of 20 points. The students' pre-test mean score was 9.65 ($SD = 4.48$), while the post-test mean score increased to 16.48 ($SD = 2.83$).

The comparison revealed that the students' English reading comprehension after the instruction was significantly higher than before the instruction at the .05 level of statistical significance.

4.4 Comparison of Students' English Reading Comprehension After the Instruction with the 70 Percent Criterion

The comparison of students' English reading comprehension after the instruction with the 70 percent criterion was analyzed using a one-sample t-test. The results are presented in Table 4.

Table 4 Comparison of Students' English Reading Comprehension After the Instruction with the 70 Percent Criterion (n = 23)

Test	Full Score	70% Criterion	<i>M</i>	<i>SD</i>	Mean Percentage	<i>t</i>
Post-test	20	14	16.48	2.83	82.40	4.21*

* Significant at the .05 level

From Table 4, the results show that the mean score of students' English reading comprehension after the instruction was 16.48 (*SD* = 2.83), which was higher than the 70 percent criterion (14 points).

The analysis indicated that students' English reading comprehension after the instruction was significantly higher than the 70 percent criterion at the .05 level of statistical significance.

4.5 Students' Satisfaction Toward Learning through Murdoch's Integrated Approach (MIA) Combined with Gamification

The results of the satisfaction survey among Grade 5 students toward learning through Murdoch's Integrated Approach (MIA) combined with gamification were analyzed using descriptive statistics, including mean (*M*) and standard deviation (*SD*). The results are shown in Table 5.

Table 5 Students' Satisfaction Toward Learning through Murdoch's Integrated Approach (MIA) Combined with Gamification (n = 23)

Item	<i>M</i>	<i>SD</i>	Level
1. Teacher			
The teacher explained the lesson clearly and understandably.	4.61	0.72	Highest
The teacher used interesting and engaging teaching methods.	4.48	0.73	Highest
The teacher provided opportunities for students to ask questions and express opinions.	4.74	0.54	Highest
The teacher appropriately used games in the learning activities.	4.78	0.52	Highest
The teacher always encouraged students in their learning.	4.70	0.63	Highest
Total	4.66	0.63	Highest
2. Content			
The learning content was appropriate for Grade 5 students.	4.87	0.34	Highest

Item	<i>M</i>	<i>SD</i>	Level
The content was diverse and interesting.	4.65	0.65	Highest
The content helped improve students' English reading comprehension.	4.65	0.65	Highest
The content was consistent with the learning objectives.	4.57	0.66	Highest
Total	4.69	0.58	Highest

Item	<i>M</i>	<i>SD</i>	Level
3. Learning Activities			
The activities were enjoyable and motivating.	4.78	0.42	Highest
Gamification helped students understand the lesson better.	4.70	0.56	Highest
Group work promoted collaborative learning.	4.78	0.42	Highest
Students had opportunities to participate in hands-on activities.	4.65	0.57	Highest
The activities encouraged students to speak and express themselves more confidently.	4.74	0.54	Highest
Students practiced English reading through various activities.	4.65	0.57	Highest
Total	4.72	0.51	Highest
4. Evaluation			
The teacher used various evaluation methods.	4.61	0.66	Highest
The evaluation was consistent with the learning content.	4.65	0.49	Highest
Feedback was provided after the evaluation.	4.74	0.45	Highest
Students clearly understood the evaluation criteria.	4.35	0.88	Highest
The evaluation helped students improve themselves.	4.74	0.54	Highest
Total	4.62	0.60	Highest
Overall Satisfaction	4.67	0.58	Highest

From Table 5, the results indicate that the overall satisfaction of Grade 5 students toward learning through Murdoch's Integrated Approach (MIA) combined with gamification was at the highest level ($M = 4.67$, $SD = 0.58$).

When considering each aspect, the highest level of satisfaction was found in learning activities ($M = 4.72$, $SD = 0.51$), followed by content ($M = 4.69$, $SD = 0.58$), teacher ($M = 4.66$, $SD = 0.63$), and evaluation ($M = 4.62$, $SD = 0.60$), respectively.

5. Suggestions

Based on the findings of this study, several suggestions for instructional practice are proposed.

1. Teachers should carefully plan learning activities and prepare the necessary technological tools before implementing gamification-based activities, particularly platforms such as Kahoot and Wordwall, to ensure smooth and effective classroom implementation.

2. Reading materials should be selected according to students' age, proficiency level, and interests. Engaging texts that relate to students' real-life experiences can increase motivation and encourage active participation in reading activities.

3. In the pre-reading stage, teachers may employ various stimulating activities such as games, songs, or digital media to activate students' prior knowledge before engaging them in reading tasks following the steps of Murdoch's Integrated Approach (MIA), particularly the Priming Questions stage.

4. Group learning activities should include periodic changes in group membership in order to promote collaborative learning and develop students' teamwork skills.

6. Recommendations

For future research, the following recommendations are suggested.

1. Future studies may apply Murdoch's Integrated Approach (MIA) combined with gamification to develop other English language skills such as listening, speaking, or writing.

2. Further research should involve larger sample sizes or different educational contexts to enhance the generalizability of the findings.

3. Future studies may integrate Murdoch's Integrated Approach (MIA) with cooperative learning strategies such as Jigsaw, STAD, or TAI to compare their effects on students' academic achievement and reading comprehension.

7. References

- Afflerbach, P. (2022). *Understanding and using reading assessment, K–12* (3rd ed.). Routledge.
- Crystal, D. (2019). *English as a global language* (2nd ed.). Cambridge University Press.
- Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: Defining gamification. In *Proceedings of the 15th International Academic MindTrek Conference: Envisioning future media environments* (pp. 9–15). ACM.
- Eksin, B. (2015). The effect of the Murdoch integrated approach on students' reading comprehension. *Journal of Educational Research*, 8(2), 45–53.
- Grabe, W., & Stoller, F. L. (2020). *Teaching and researching reading* (3rd ed.). Routledge.
- Hamari, J., Koivisto, J., & Sarsa, H. (2014). Does gamification work? A literature review of empirical studies on gamification. In *Proceedings of the 47th Hawaii International Conference on System Sciences* (pp. 3025–3034). IEEE.
- Khammanee, T. (2017). ศาสตร์การสอน: องค์ความรู้เพื่อการจัดกระบวนการเรียนรู้ที่มีประสิทธิภาพ [The science of teaching: Knowledge for effective learning management]. Chulalongkorn University Press.
- Kowtrakul, S. (2018). จิตวิทยาการศึกษา [Educational psychology]. Chulalongkorn University Press.
- Ministry of Education. (2008). *Basic education core curriculum B.E. 2551 (A.D. 2008)*. Ministry of Education.
- Ministry of Education. (2017). *English language education policy for basic education*. Ministry of Education.
- Murdoch, G. (1986). *A more integrated approach to the teaching of reading*. SEAMEO Regional Language Centre.
- National Institute of Educational Testing Service. (2024). O-NET test report for the academic year 2024. <https://www.niets.or.th>
- Poolsawat, P. (2021). The development of English reading comprehension using Murdoch's integrated approach. *Journal of Education Studies*, 49(2), 112–128.
- Pressley, M., & Allington, R. L. (2015). *Reading instruction that works: The case for balanced teaching* (4th ed.). Guilford Press.
- Sailer, M., & Homner, L. (2020). The gamification of learning: A meta-analysis. *Educational Psychology Review*, 32(1), 77–112.
- Songkhla Primary Educational Service Area Office 1. (2025). *Educational information system report for the academic year 2025*. Songkhla Primary Educational Service Area Office 1.
- Wongyai, W. (2020). Developing reading comprehension using Murdoch's integrated approach. *Journal of Curriculum and Instruction*, 12(1), 65–79.