Effectiveness of Murdoch Integrated Approach (MIA) on Reading Comprehension and Satisfaction of Mattayomsuksa 2 Students

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Abstract

The purposes of this research were: to compare proficiency of English reading comprehension of Matthayomsuksa 2 students and examine their satisfaction levels towards the learning procedure after learning reading lessons using the Murdoch Integrated Approach (MIA). The research samples were 32 Mattayomsuksa 2 students who were studying in the first semester of academic year 2009 at Bankhuan Khanun School, Khuankhanun District, Patthalong Province. The research instruments were 10 lesson plans (20 hours) for reading comprehension using the MIA reading procedure, an identical English reading comprehension pre- and post-test and a questionnaire on learners’ satisfaction. Descriptive statistics of percentage, arithmetic mean and standard deviations were calculated and a paired-samples t-test was performed to compare the data.

Results show that the students’ overall English reading comprehension ability and their reading comprehension at a separated level of translation, interpretation and extrapolation increased significantly at the .01 level after learning reading comprehension lessons using the MIA reading procedure. Students were satisfied with the teaching activities and procedure of the Murdoch Integrated Approach at a high level (X̄ = 4.03, S.D = 0.37).
1. Introduction

Language is used as a tool for exchanging of meaning and understanding among the world communities. In the year 2002 it was found that there were approximately 2,000 million web pages on the Internet. Among these, 1,100 million or 56 percent were in English and 53 countries around the world were using English as an official language (Martin Ebbertz, 2002). Davis Graddol, a British applied linguist states in his research “English Next” done for the British Council that the number of learners of English has increased gradually each year; and within 10-15 years (2015-2030) the number will grow up to 2,000 million learners of English language. This indicates the recognition of importance of English language in the world new era. (http://www.britishcouncil.org). English language is now used for obtaining, exchanging and transferring all knowledge, information and all advancement in technology. It is also used for transferring cultural and economical information. Precisely, English is widely used not only for gaining knowledge, information, it also served as a tool for better understanding among the world communities.

In the English as a foreign language (EFL) teaching context in Thailand where English is officially assigned as the first and most important foreign language learned in all levels of education, reading is comparatively considered as more essential for learners than the other three skills of speaking, listening and writing. Reading is taken as an essential tool for researching in education and for negotiating and competing in careers (Wisa Juttiwat, 2543:41). The reading skill is regarded as a very important learning skill in every educational level both in classes and outside classes. This is because other language skills of speaking, listening and writing skills are less possible and necessary than the reading skill in the communicating context of Thailand. Reading is therefore more focused in a formal learning so that learners can use the skill in acquiring further knowledge in all areas. Comprehension in reading is the first and foremost goal for formal teaching English in Thailand. Reading comprehension can be generally assessed by the ability of learners to be able to answer the questions of literal understanding, interpretation, and inference from what they have read Laiad Jutanan, 2540; Pornsawan Sripo, 2550; Samut Senchawanit, 2543). This means that the readers can grasp the meaning, know the writer’s objectives for writing, and understand the text structures and text coherence so they can follow the writer’s idea thoroughly.

The present situation of the English learning and teaching at the secondary school level, students have low achievement in the English language, especially in reading and writing skills. In Bankhuankhanun School where the researcher is teaching English language,
only 35 percent of the students passed the English exam (at 50 percent) while the school criterion is for 80% of the number of the students can pass in every subject area. The low English reading achievement is partly due to the students’ own attitude in reading and learning. That is the students do not realize the value of reading. They do not like to read and therefore they lack the skills for reading. Most of the students cannot understand what they have read; neither can they get the main ideas nor details of the reading text. The students are neither motivated nor trained to read. Precisely stated, they do not have the skills for effective reading. The low English reading achievement of the students found in Bankhuankhanun School is in accordance with the results gained from the national level test (O-NET). In the year 2551 the overall achievement English test score of Mattayomsuksa 3 students in schools in the Office of Basic Educational Commission was at 32.42 percent whereas that of the students in Phatthalung Educational Service Area Office 1 was at 32.88 percent and the students in Bankhuankhanun School was even lower at only 29.67 percent. (Phatthalung Educational Service Area office 1, 2551). In order to get a good result in the English achievement test, students need good skills in reading. Eighty percent of the English language test for secondary level students focuses on reading comprehension in short texts, time tables, labels and short stories. Without certain skills in reading such as getting main ideas of the reading passage, students will not be able to pass the test. Narin Phodhi (2549) and Rojana Chanwichit (2547) found that the students’ problems in reading English are that they are not able to get the main ideas and the supporting details of the reading passages and this diminish their interest in reading and even learning the English subjects at school.

Several research studies were conducted with students at different levels of Mathayomsuksa 3 (Narin Phodhi,2549), Mathayomsuksa 2 (Rojana Chanwichit, 2547), and Prathomsuksa 6 (Atchara Sinthidkote, 2543) to compare the reading achievement of students learned from the Murdoch Integrated Approach (MIA) and the normal or assigned methods in the teacher’s manual. Results of these studies confirmed effectiveness of the MIA reading procedure in teaching reading comprehension skills.

The Murdoch Integrated Approach (MIA) was introduced by George S. Murdoch. It is the teaching method that focuses on the learners’ involvements in the learning process using their thinking and solving problems skills, and. The learning activities are done by the students using the learning materials and activities well prepared by the teachers. The students do the most of learning activities by themselves or within groups with the teacher as a guide and facilitator. Most importantly, the learning activities are planned for an integration of all
four language skills of speaking, listening, reading and writing. The learning objective is for improving reading skill while the other three skills are developed in the same process of learning. Doing all the learning activities by themselves and within groups, students do not feel bored as when they take a long passive reading. The activities and learning process in the MIA make the students more active in learning and this helps them learn more (Narin Phodhi, 2549). The researcher is interested in using the MIA with a class of Mattayomsuksa 2 students at Bankhuankhanun School. The reason is not only because it is a reading method that promotes learners to be more active learners in thinking and problem solving skills, it also promotes practice of integrating all four language skills as well as the learners’ own experience in the reading procedure. The learning procedure of the MIA also served the learning objectives in learning a foreign language as stated in the National Education Act B.E. 2542. and adapted B.E 2545.

2. Objectives

The present experimental study aimed to determine effectiveness of the reading activities of Murdoch Integrated Approach (MIA) on the students’ reading comprehension ability and investigate their satisfaction toward the MIA reading method. This study, therefore, was conducted to:

1. compare the reading comprehension ability of the students before and after learning from the reading procedure of MIA
2. investigate the students’ satisfaction toward the MIA reading procedure after the experiment.

3. Scopes of the study

The study was a one group pre-and post-test design. The data collection comprised pre-test, treatment, and post-test. Prior to the treatment phase, the subjects were administered a pre-test so as to assess their English reading ability. The subjects were instructed by the researcher using the MIA reading technique for reading comprehension for twenty hours in ten weeks. After the treatment session the identical post-test and a 20-item satisfaction questionnaire constructed by the researcher were administered to the students to assess the students’ reading ability and their satisfaction toward the teaching and learning procedure based on the MIA.
The Murdoch Integrated Approach is a procedure in teaching reading comprehension introduced by George S. Murdoch (Murdoch, 1986:9-15 cited in Narin Phodhi, 2549: 54-57). The learning procedure is divided into seven stages as follow.

1. Priming questions: This learning activity is aimed to arouse the learners’ interest and discussion on the topic to be read. The teacher introduces the learners to the topic of the reading passage by asking a question or making a statement about the reading passage and class will then discuss about the topic and try to anticipate the answer and what they are going to read about. This priming question activity helps make the learners more focused when they are reading the reading passage.

2. Understanding vocabulary: This stage is to reinforce the learners’ confidence in reading when they know the meaning of all important words by which they will understand what they read. The teacher will give each group of students a list of key words for understanding the reading passage. The students will then look for the word meaning from dictionaries provided for them.

3. Reading the text: In this stage the teacher gives each group of the students a reading text with some detailed questions at the margin of the page so as to activate the learning and thinking skills while reading.

4. Understanding the text: To check reading comprehension the students are required to complete open-ended sentences to make a complete sentence about what they have read from the reading passage. In doing this sentence completion activities; however, students are not allowed to copy the sentences or phrases from the original reading passage.

5. Information transfer: This learning activity is aimed for the students to present information or details they have learned from the reading passage in another form, such as to present the information in a table, chart, graph or map as appropriate to show that they can get the important or necessary information.

6. Jigsaw exercise and paragraph structure: In this learning stage students will arrange sentences related to the reading passage to make a complete and coherence paragraph to practice understanding of the text content and text cohesion.
7. Evaluation and correction: This is the learning stage in which the overall reading comprehension of the reading passage will be assessed and some language mistakes will be corrected and explained to class so that the students learned the language from reading.

In brief, going through all these seven learning stages, students can integrate the reading skills with other three language skills. For example, in doing the first stage of priming question, students use both speaking and listening skills; and reading and writing skills are integrated all through the learning procedure. The students are taking part in an active learning procedure that is like the natural context of language use. Group work activities also enhance communicative competence, cooperative learning and autonomy in learning.

4. Research Methodology

This section describes research samples, research instrument and data collecting procedure.

4.1 Research sample: The samples of this study were a class of 32 Mathayomsuksa 2 (grade 8) students who were taking the fundamental English course in the first semester of the 2009 academic year at Bankhuankhanun School Khuankhanun District, Pattalung Province.

4.2 Research instruments: The researcher constructed three research instruments as described below.

1. Ten lessons and teaching plans, for the 32101 Fundamental English Course for Mattayomsuksa 2 students. Each plan is used for two hours, making a total of 20 hours in 10 continuing weeks.

2. The identical pre- and post-test for reading comprehension comprising 30 multiple-choice type questions. Ten of which asked for the reading comprehension questions at the levels of translation, interpretation and extrapolation. The test reliability (rtt) is 0.81, the degree of difficulty of the test (p) is .22-.77 and its discrimination ability (r ) is .20-.80

3. The 5 rating-scale type questionnaire ranging from most agreeable to least agreeable was used to determine the students’ levels of satisfaction toward the MIA learning procedure after the treatment.
4.3 Data Collecting Procedure

The experiment was conducted in twelve weeks in the first semester of the 2009 academic year at Bankhuan Khanun School Khuankhanun District, Patthung Province. The data collecting procedure comprised four stages as described below.

1. The 30-item pre-test for reading comprehension was conducted during the first week of the experiment taking 60 minutes.
2. The treatment of 10 reading comprehension lessons, a two-hour class for each week within the 10 continuing weeks during the months of July-October, 2552.
3. At the end of the experimental phase, the post-test for reading comprehension and the questionnaire for the students’ satisfaction toward the MIA reading procedure were administered.
4. All obtained data were calculated for percentage, arithmetic mean, standard deviations and a paired-sample t-test was performed to compare the pre and post-test results.

5. Results of the study

The results of this study will be presented in two section as follow.

5.1 According to research question 1, the students’ overall reading comprehension ability was found significantly higher after learning with the MIA reading procedure than before the treatment at a 0.01 level. In details, the students’ reading comprehension scores of the pre-test ranged from 13 to 3 with an arithmetic mean of 8.16 ($\bar{X} = 8.16$ S.D. =2.002) while the post test scores ranged from 23 to 12 with a mean of 16.84 ($\bar{X} = 16.84$, S.D. =2.795). See Table 1.
Table 1: Overall Reading Comprehension Ability of the Students Before and After the Treatment

<table>
<thead>
<tr>
<th>Test</th>
<th>Total Score</th>
<th>Maximum</th>
<th>Minimum</th>
<th>$\bar{X}$</th>
<th>S.D.</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>30</td>
<td>13</td>
<td>3</td>
<td>8.16</td>
<td>2.002</td>
<td></td>
</tr>
<tr>
<td>Post-test</td>
<td>30</td>
<td>23</td>
<td>12</td>
<td>16.84</td>
<td>2.795</td>
<td>15.46**</td>
</tr>
</tbody>
</table>

**Significant at a 0.01 level

To further investigate into the levels of reading comprehension, information in Table 2 shows that the students’ understanding at the different level of translation, interpretation and extrapolation increased significantly at the .01 level after learning reading comprehension lessons through the MIA reading procedure.

Table 2: Reading Comprehension Ability at Three Levels of Understanding Before and After the Treatment

<table>
<thead>
<tr>
<th>Levels of reading comprehension</th>
<th>Total scores</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$\bar{X}$</td>
<td>S.D.</td>
<td>$\bar{X}$</td>
</tr>
<tr>
<td>Translation</td>
<td>10</td>
<td>4.22</td>
<td>1.23</td>
<td>9.25</td>
</tr>
<tr>
<td>Interpretation</td>
<td>10</td>
<td>2.97</td>
<td>1.25</td>
<td>5.0</td>
</tr>
<tr>
<td>Extrapolation</td>
<td>10</td>
<td>0.97</td>
<td>0.86</td>
<td>2.59</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>8.16</td>
<td>2.002</td>
<td>16.84</td>
</tr>
</tbody>
</table>

**Significant at a 0.01 level

In details, the students’ reading comprehension at the level of comprehension increased significantly after the treatment, ranging form the translation level ($\bar{X}$=9.25, S.D. =1.98), interpretation level ($\bar{X}$=5.0, S.D. =1.41) and extrapolation level ($\bar{X}$=2.59, S.D. =0.87).

5.2 The students’ satisfaction toward the MIA learning procedure was reported at a high level ($\bar{X}$ = 4.03, S.D. =.63) When looking into different components of the learning procedure, the students reported that they were satisfied with the contents of the reading passages at a high level ($\bar{X}$ =3.94, S.D. =.93). The students’ satisfaction levels toward the stages of teaching procedure as divided into the three main learning stages of before reading,
while reading and after reading, results shown in Table 3 reveal that the students were satisfied with all the three stages at a high level (\( \bar{X} = 3.92, \text{S.D.} = .67 \), \( \bar{X} = 4.23, \text{S.D.} = .70 \) and \( \bar{X} = 3.92, \text{S.D.} = .74 \) respectively). The students were satisfied with the assessment procedure and group work activities at a high level (\( \bar{X} = 4.08, \text{S.D.} = .81 \) and \( \bar{X} = 4.20, \text{S.D.} = .71 \) respectively). See the criteria for rating scale interpretation in Table 4.

### Table 3: The Students’ Satisfaction toward the MIA Learning Procedure

<table>
<thead>
<tr>
<th>Learning components</th>
<th>Levels of Satisfaction</th>
<th>level of Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content of the reading passage</td>
<td>( \bar{X} = 3.94 )</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td>S.D. = .63</td>
<td></td>
</tr>
<tr>
<td>Reading activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Before reading</td>
<td>( \bar{X} = 3.92 )</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td>S.D. = .67</td>
<td></td>
</tr>
<tr>
<td>- While reading</td>
<td>( \bar{X} = 4.23 )</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td>S.D. = .70</td>
<td></td>
</tr>
<tr>
<td>- After reading</td>
<td>( \bar{X} = 3.92 )</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td>S.D. = .74</td>
<td></td>
</tr>
<tr>
<td>Learning assessment procedure</td>
<td>( \bar{X} = 4.08 )</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td>S.D. = .81</td>
<td></td>
</tr>
<tr>
<td>Group work activities</td>
<td>( \bar{X} = 4.20 )</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td>S.D. = .71</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>( \bar{X} = 4.03 )</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td>S.D. = .71</td>
<td></td>
</tr>
</tbody>
</table>

### Table 4: Criteria for Rating Scale Interpretation

<table>
<thead>
<tr>
<th>Ranges of Means</th>
<th>Levels of Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.51- 5.00</td>
<td>highest</td>
</tr>
<tr>
<td>3.51- 4.50</td>
<td>high</td>
</tr>
<tr>
<td>2.51- 3.50</td>
<td>medium</td>
</tr>
<tr>
<td>1.51- 2.50</td>
<td>little</td>
</tr>
<tr>
<td>1.00- 1.50</td>
<td>least</td>
</tr>
</tbody>
</table>

### 6. Discussion

Results to the two research questions proved the effectiveness of Murdoch Integrated Approach (MIA) on reading comprehension and satisfaction of Matthayomsuksa 2 students taking the fundamental English course in the first semester of the 2009 academic year at Bankhuankhanun School, Patthalung Province. Regarding reading comprehension, the reading comprehension of students at the overall comprehension level and at a separate level of comprehension- the translation level, interpretation level and extrapolation level were improved after the treatment at a significant level of 0.01. There are at least four reasons for this progress. Firstly, the learning process employed in the MIA focuses on learners and interaction between learners. Each of the learning stage emphasizes group work in which all members learn to take responsibility and get a meaningful involvement in the learning activities. They share ideas and help each other taking both leading and following roles in the
team. In other words, the MIA learning procedure activates teamwork, enthusiasm and creativity through the learning process. Secondly, the MIA learning procedure employs the integration of all four language skills in its learning activities and learning procedure. Learners are discussing, negotiating, taking notes, looking up word meaning from dictionary, transferring information from the reading to the written form of tables, graph and charts. All these represent the real life communicating of idea which naturally goes along with reading. Thirdly, all the seven stages in the MIA elevate the students’ reading comprehension ability. For example, in the second stage when students look for meaning of key words for the reading passage, they have a clear understanding of the contents or concepts of the reading passage. This clear understanding of key ideas of the reading passage content make students be more confident in their own understanding and help them to understand the reading text at a higher reading comprehension level of interpretation and extrapolation. Finally, the learning process of MIA involves learners in the learning by doing procedure. Students have a hand-on activity in almost all the seven stages and this makes them become active learners. With the MIA learning process the students’ learning behaviors have changed from passive learning to an active one.

The effectiveness of Murdoch Integrated Approach (MIA) on reading comprehension of Mattayomsuksa 2 students found in the present study supported the previous studies on the effectiveness of MIA done with other levels of students and in other contexts of learning. Rojana Chanwichit (2547) and Narin Phodhi (2549) found that the MIA learning procedure trained to Mattayomsuksa 2 and Mattayomsuksa 3 students resulted in a significant improvement on their reading comprehension ability. The other two MIA studies of Piyawan Thonganantiwong (2548) and Atshara Sinthikote (2543) were found to confirm the effectiveness of the MIA learning procedure with Mattayomsuksa 6 students. Piyawan Thonganantiwong (2548) found that the students’ ability in reading for main ideas and gist increased significantly after learning through the MIA while Atshara Sinthikote (2543) found that students trained with the MIA has more effective results in reading comprehension than those students who learned form the reading procedure assigned in the teaching manual.

The findings on learners’ satisfaction toward the MIA procedure in the present study has accorded the finding in Atshara Sinthikote’s (2543) study which reported that 82.59 percent of the students participating in a reading class using the MIA procedure were highly satisfied with the learning procedure. The students in the present study ranked their
satisfaction in all areas including contents of the reading text, the procedure done in all 7 stages of learning activities, the assessment process and the group work activities at the high level. The students found the involvement in every step of learning made them learn and use the language actively. They learned to help each other in learning and learn to be responsible for their own learning.

Findings in the present study that was added to the repertoire of effectiveness of the reading technique of MIA was that it also showed that the students who were at a relatively low English proficiency level had also significantly earned benefits of the learning process of the MIA and the students were highly satisfied with the learning procedure of MIA.

7. Recommendations and Implications from the study

Based on findings of this study, some recommendations for a more effective implementation of the MIA procedure in teaching and learning reading to enhance reading comprehension and satisfaction in learning are made as follow.

7.1 Recommendations for the effectiveness of the MIA procedure are listed as follow.

1. In the planning stage, in order to choose the reading passages to be used in the MIA learning procedure the teacher should have a thorough understanding of the students’ English background such as their English proficiency level, their personal and cultural or contextual factors in learning such as the learning objectives of the curriculum and their needs to learn or to use the language so that the reading passage are within the learners’ levels of language proficiency and their interests or related to the students’ daily activities or communities. In this way the students will learn effectively and with joy.

2. The teacher needs to make sure that grammars and text structure of reading passages are within the learners’ level. All difficult grammar points and structure, if there are some, must be taught or explained to the students before the seven-stage learning procedure. Understanding grammar and language structure appeared in the reading passage help learners get a better comprehension at the levels of translation and interpretation.

3. The teacher should prepare well for a good learning environment to facilitate the learning procedure. The worksheets and dictionaries should be provided to facilitate learning procedure.
4. The teacher should put students in a mixed ability group so that they can help and share in their learning procedure.

7.2 Recommendations for Directors of Educational Service Area Office and Administrators of the Provincial Learning and Teaching English Development Centers are as follow.

1. English language teachers in the Educational Region and administrators of the Provincial Learning and Teaching English Development Centers should be trained in different teaching techniques such as the Murdoch Integrated Approach in reading and other teaching methods.

2. The MIA reading technique should be introduced and trained to English language teachers at different levels of students.

3. An annually presentation of action research findings held in each Educational Region in Patthalung Province should be held to encourage classroom research and to improve effectiveness in English language learning and teaching in the province.

7.3 Recommendations for further research

1. The study on effectiveness of and the learners’ satisfaction toward the MIA reading procedure should be done with other levels of learners.

2. The study on effectiveness of and the learners’ satisfaction toward the MIA reading procedure should be done with other foreign language reading classes.

3. The study on effectiveness of and the learners’ satisfaction toward the MIA reading procedure should be compared to those of other learning and teaching techniques for reading comprehension such as SQ5R, KWL and Questioning techniques in reading comprehension.
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[http://www.britishcouncil.org/learning-research-englishnext.html](http://www.britishcouncil.org/learning-research-englishnext.html)