Scaffolding Learning Activities for Reading Comprehension Skills Development of Reading-at-Risk Students at the Primary Level

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Abstract

The study investigated the use of scaffolding learning activities to support selected primary school students identified as reading-at-risk. There were three objectives: (1) to investigate the reading skills of primary school students in Darunaratchaburi Witaed Suksa School identified as having difficulty in comprehending English texts, (2) to use a scaffolding approach to develop reading comprehension lessons, and (3) to assess reading skills achievements of the participating students after using the scaffolding approach. The subjects of this case-study-based research were six students at the Primary 3 level. The eight research tools were (1) a vocabulary pre- and post-test , (2) a comprehension pre- and post-test, (3) five scaffolding vocabulary lessons, (4) five scaffolding comprehension lessons, (5) a teacher-student interaction observation tool, (6) a student-student interaction observation tool, (7) a scaffolding approach observation tool, and (8) a questionnaire on the teacher's and students' opinions toward the scaffolding approach.

The research results were (1) all students' vocabulary knowledge improved after completing 5 of the vocabulary scaffolding lessons; (2) all students' reading comprehension improved after completing 5 of the reading comprehension scaffolding lessons. It should be noted that the subjects were able to achieve the target performance on vocabulary knowledge and reading comprehension after 1-4 repeated practices via the scaffolding approach. The results of classroom observation on teacher-student interactions and student-student interactions were positive (Mean = 4.68, S.D. = 0.40; Mean = 4.57, S.D. = 0.50, respectively). The teacher's and the students' opinion of the scaffolding approach was correspondingly positive (Mean = 4.80, S.D. = 0.22; Mean = 4.72, S.D. = 0.39, respectively). These results promisingly support the use of the scaffolding approach with reading-at-risk learners at the primary level.

Keywords: *Scaffolding learning activities, Scaffolding approach, English comprehension, At-risk-Students*

1. Introduction

The word '*scaffolding*' has been recently used in education, but not widely used in primary education, especially in teaching English. Generally, the word 'scaffold' means a temporary structure used to support people and material in the construction or repair of buildings until the building is strong and stable. Then the scaffold will be removed as it is no longer useful, which is quite similar to the way a knowledgeable person helping and guiding learners step by step until the learners are able to achieve their goals by themselves successfully (Harman, 2002; Lawson, 2002; Culican and Milburn, 2006).

Van Der Stuyf (2002) said that scaffolding is a theory of the Zone of Proximal Development which is based on Lev Vygotsky's Social Development theory. This theory claims that social interaction is a basis of intellectual development as the process of learning

would occur though social interaction and cultural experience. Though learners may fail to fix problems by themselves, the social and environmental influences will enhance learners' learning abilities as interacting with a knowledgeable or a better competent person in a proper environment will result in learner's ability to develop their intellect and to be able to enhance their own thinking ability. Moreover, communications between learners and a knowledgeable or a better competent person such as parents, teachers, friends and others will also enhance the learner's cognition and conceptualization.

Vygotsky's Social Development theory explains that teachers can guide the learning process in the classroom by using a scaffolding approach which will temporarily support learners until they are able to gradually learn by themselves. At this stage the teacher will lessen his or her help until the learners can achieve their goals successfully by themselves.

2. Selected Literature Review as Background of the Study

Scaffolding and its application has been increasingly recognized among educational practitioners in the last decade. Churak (2009) is a good reference in this area; the researcher conducted a study on the use of scaffolding techniques in practice-based lessons in English as a second language for Thai primary school students. The results of the study pointed to relevancy and appropriateness of the tried techniques in that learners were assisted to learn at their own pace and able to achieve the target performance via scaffolding self-practice. There could have been a few more local studies on scaffolding at the primary level but they have not been reported in journals or public documents.

As for the international literature on scaffolding and its role in supporting reading-at-risk learners, Begeny and Martens (2006), Wilson et al. (2006) and Closs (2007) reported advantages of repeated reading practices for at-risk readers, particularly with the use of the scaffolding techniques that aim at supporting learners to make progress in reading at their own pace, and gradually become independent readers at their level. Harris et al (2009) emphasized development of reading lessons to support at-risk learners with factors that appeared to affect their literacy development. Rice (2009) pointed out that learners should be supported to make connections between reading comprehension skills and their effective learning strategies. Interestingly, two other researchers Wong and Hew (2010) reported in their study that students were well supported in their critical writing tasks via scaffolding techniques.

The Study

This research was initially responsive to far-from satisfactory English proficiency performed on the National Tests by Thai students at the primary and secondary school levels. (Institute of National Testing Thailand, 2014). In particular, the researcher would like to support or scaffold primary school students who are not able to perform at 50% of expected language achievement.   This research was to use a scaffolding approach with reading-at-risk learners to support their vocabulary knowledge and reading comprehension in English. The subjects were identified by the researcher as six Primary 3 reading-at-risk learners in one selected school with a permission from the authorities concerned.

As for *the research instruments*, they were eight: (1) a vocabulary pre- and post-test , (2) a comprehension pre- and post-test, (3) five scaffolding vocabulary lessons, (4) five scaffolding comprehension lessons, (5) a teacher-student interaction observation tool, (6) a student-student interaction observation tool, (7) a scaffolding approach observation tool, and (8) a questionnaire on the teacher's and students' opinions toward the scaffolding approach.

All scaffolding lessons were used with six subjects to practice toward the 100% performance via repetition as needed by individual learners. The research period was May 2013 to March 2014.

3. Research Objectives

Three research objectives were:
3.1 to investigate the reading skills of Primary 3 students in Darunaratchaburi Witaed Suksa School, identified as having difficulty in comprehending English texts,
3.2 to use a scaffolding approach to develop reading comprehension lessons, and
3.3. to assess the reading skills achievements of the chosen students after using the scaffolding approach.

4. Conceptual Framework

The study had its conceptual framework on how the scaffolding approach was to lead learners to make progress in reading comprehension with practices in the use of word knowledge in reading comprehension tasks, as shown below in Figure 1.
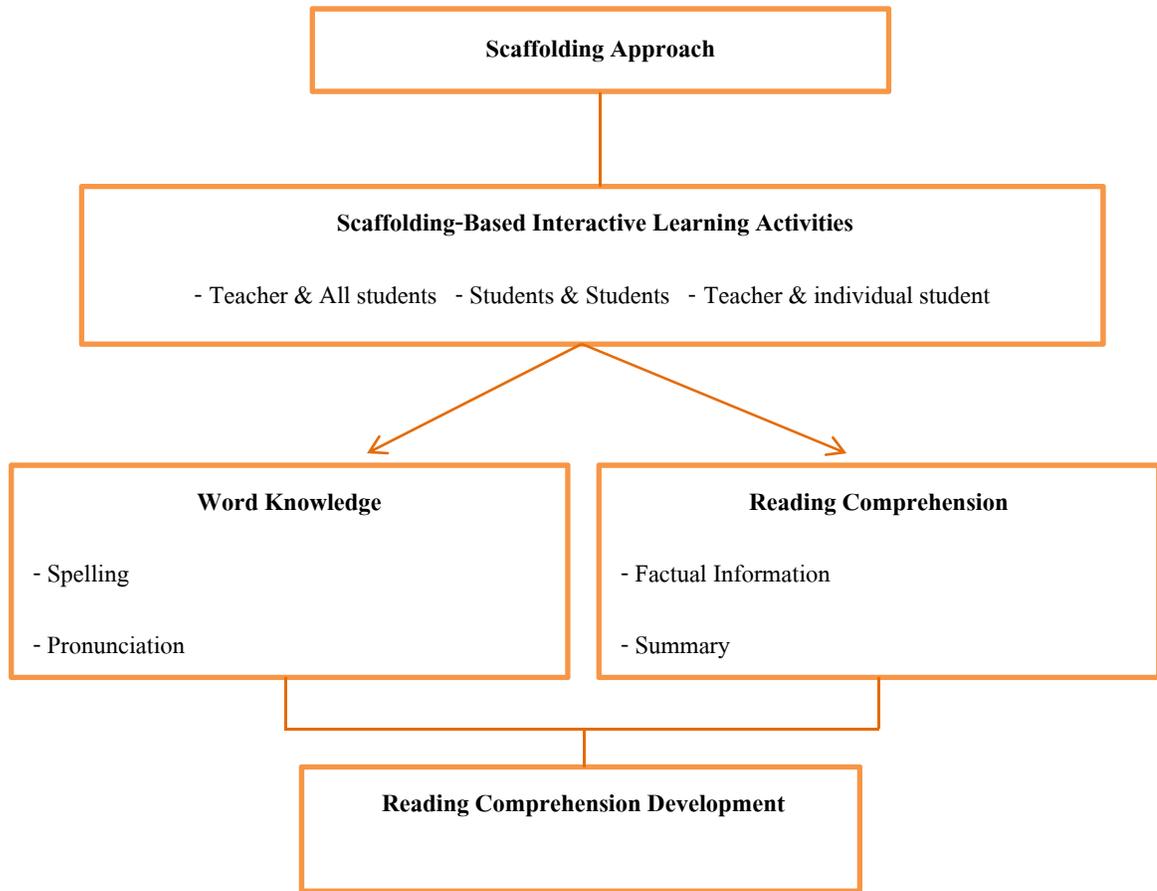
Figure 1: From Scaffolding to Reading Comprehension

5. Research Instruments

As mentioned earlier, the study had eight instruments: (1) a vocabulary pre- and post-test, (2) a comprehension pre- and post-test, (3) five scaffolding vocabulary lessons, (4) five scaffolding comprehension lessons, (5) a teacher-student interaction observation tool, (6) a student-student interaction observation tool, (7) a scaffolding approach observation tool, and (8) a questionnaire on the teacher's and students' opinions toward the scaffolding approach. These tools are described in detail in this section, particularly how they were used in the research procedure.

5.1 The first research tool was a vocabulary pre-test and post-test which was given to students before and after receiving the scaffolding approach. The content of the test was from the English subject in Primary 3 according to the Curriculum of the Thai Ministry of Education. There were 20 questions (1 point each) in the story entitled "camping," comprising 5 points for spelling, 5 points for pronunciation, and 10 points for word meaning separated into two parts: 5 points for matching and 5 points for interpreting. The test was supervised and revised by an English language specialist prior to the pre-test administration. The researcher

used the results of the pre-test to evaluate the aspects of scaffolding to be used in scaffolding exercises to reduce the students' vocabulary limitations.

5.2 The second tool was a test examining the limitations in reading comprehension before and after the use of the scaffolding approach. The content of the test from the story entitled "Chicken Life Cycle" in the English subject at the Primary 3 level according to the Curriculum of the Thai Ministry of Education. There were 7 questions with a total score value of 15 points. Questions 1 to 5 (score of 1 point each) were designed to test factual information. There was 1 question testing students' summarizing skills, which was valued at 5 points, and another question testing students' opinions of or reflections toward the story, which was also valued at 5 points. The test was evaluated by the English language specialist and given suggestions were used in the final version of the test. The researcher then used the test with the subjects to determine how to configure the scaffolding approach in the exercises in order to reduce students' reading comprehension limitations.

5.3 The third tool was a vocabulary exercise. The researcher used the information obtained from the test to produce a model lesson using a scaffolding approach for students at the level of Primary 3.

5.3.1 The first component consisted of (1) Unit title, (2) Target Skills which were spelling, pronunciation and word meaning, (3) Level, (4) Language of Instruction which was designed to be 50 % Thai and 50% English, (5) Time length, (6) Contents, and (7) Teaching – Learning media such as picture books.

5.3.2 The second component consisted of Lesson Objectives and Learning Outcome, and each unit's objectives were that students were able to (1) spell, (2) pronounce, and (3) know the meaning of, the target vocabulary.

5.3.3 The third component consisted of the teaching lessons using the scaffolding approach, which was designed to let the teacher develop students' intellect though interactive teaching. In the lesson, the scaffolding approach was used with an emphasis on *interactive teaching* between the teacher and students, and between students and students, in a way that 'assistance' could be provided during the lesson when the problems occurred. The scaffolding teaching approach aimed to assist students to accomplish the most positive outcome as possible. In the study, the researcher required 100 % learning outcome which was achieved by using *repetition practice* on the basis of the scaffolding approach in assisting students though interactive teaching.

The teacher's roles were:
(1) To assist students with their *spelling skills* by using the scaffolding approach through interactive teaching between teacher and all students, students and students, and teacher and individual students.

An example of the interactive teaching between teacher and all students

The teacher showed word cards with the words ***brother, child, dad, family, families, friends, kids, mum, parents,*** and ***sister***; then spelled these words and asked students to repeat after the teacher one by one until every word was spelled correctly. For example, the teacher spelled m – u – m and let students spell m – u – m; the teacher then chose another card and followed the same procedure.

(2) To assist students with their *pronunciation* by using the scaffolding approach through interactive teaching between teacher and students, students and students, and teacher and individual students.

An example of interactions between students and students

The teacher separated the students into 3 pairs. Then the teacher gave 10 word cards to each pair. The students took turn in showing a card while the other one spelling the word he or she saw on the card. The one who showed the card showed it for 5 seconds and then flipped the card down and let the other student spell the word. This was repeated until he or she finished all 10 cards. This method was meant to stimulate students' visual memory and hence expected to boost their spelling ability. In case that students were not able to spell the words correctly, it could be inferred that they were not able to memorize those words at that stage.

(3) To assist students' with learning about **word meaning** by using the scaffolding approach though interactive teaching between the teacher and students, students and students, and teacher and individual students.

An example of interactive teaching between teacher and individual student

If the teacher found that some of the students were not able to spell the word correctly, the teacher would teach that student individually to observe what letter or word the student was struggling with. If after showing the word to the student for one more time and the student was still not able to spell the word, the teacher would ask the student to write the word on a piece of paper and spell the word while he or she was writing it; the procedure was repeated until the student was able to remember it. This procedure would be used for every word the students appeared to struggle with.

5.3.4 The fourth component was a lesson plan on specific contents to make a series of five vocabulary lessons. Each lesson contained three parts as shown below:

Three parts in each lesson were: (1) the vocabulary part which covered ten vocabulary items found in the story and how to spell them; (2) the reading passage taken from a reading text of the English subject at the Primary 3 level in the Thai Ministry of Education Curriculum; and (3) flash cards and activity sheets. The learning objectives were for students to be able to spell, pronounce, know the meaning of the target vocabulary, and understand the meaning of the word in Thai as well.

An example of vocabulary lesson

Contents
1. **Vocabulary** from the passage: 10 English words: *brother, child, dad, family, families, friends, kids, mum, parents, and sister.*
2. **Reading Passage**
   The reading passage was taken from a reading text in the English subject at the Primary 3 level in the Thai Ministry of Education Curriculum. The learning objectives were for students to be able to spell, pronounce and know the meaning of the target vocabulary.
3. **Word meaning** such as:
   brother – พี่ชาย, น้องชาย   child – เด็กคนเดียว   dad – พ่อ

Teaching - Learning Media
1. A family picture   2. 3 sets of 10 flash cards
3. 10 picture-and-word cards   4. 10 word-meaning cards

5.3.5 Interactive Learning Activity through the scaffolding approach
The interactive vocabulary learning activity was as follows:

There were 4 parts in the interactive learning activity: (1) A warm up activity in which the teacher and students learned how to spell the word together from the word card, as detailed in Activity 1; (2) A development activity in which the teacher gave a passage to students to find and pronounce words from the passage as detailed in Activity 2; (3) Practice process in which the teacher and students learned the meaning of the vocabulary in Thai together.

An example of the passage
I come from a very small **family**. There are **mum, dad** one **brother** and me. I am the last **child**. My brother is called Joey. Joey is nine years old. My name is Jane and I am six years old. Joey is my big brother. I am his little **sister**. We both have dark brown hair. We like to spend time together in the weekend.

We ride our bikes to the park. …

An example of interactive teaching though scaffolding approach in learning vocabulary

Activity 1.1

Unit title: My Family   **Target Skill: Spelling**

Level: Primary   3   **Time Length: 10 minutes**

Name..**Date**…………………………………

Instruction: Choose and mark (x) on the correct spelling.

1. Which is the correct spelling?

a. das   b. dad   c. dat

5.3.6 The sixth component was the evaluation of learning outcomes. The evaluation was done in every sub-skill and was done after completion of all activities.

(1) The criterion for spelling was 5 points for the student who was able to choose all 10 correct spellings for the 10 pictures. Then that student would pass and continue to the next activity.

(2) The criterion for pronunciation was 5 points for the student who was able to pronounce all 10 words correctly. Then that student would pass and continue to the next activity.

(3) The criterion for word meaning was 5 points for the student who was able to match all 10 pictures with the meanings correctly. Then that student would pass and continue to the next activity.

5.4 The forth research tool on reading comprehension

For the reading comprehension exercises, the researcher used the reading comprehension texts at the Primary 3 level to design a model scaffolding exercise for the students as follows:

5.4.1 The first component consisted of (1) Unit Title, (2) Target skills such as factual information, summary and comment/reaction, (3) Level, (4) Language of Instruction--50% Thai and 50% English, (5) Time length, (6) Contents, and (7) Teaching media such as word cards, pictures and video clips.

5.4.2 The second component consisted of lesson objectives and learning outcomes which required students to (1) answer questions from the passage correctly, (2) summarize the passage, and (3) reflect their opinion upon the issue prompted by the teacher.

5.4.3 The third component consisted of the scaffolding teaching approach to develop students' understanding of the reading text by using interactive teaching. The exercise put an emphasis on interactive teaching between the teacher and students, and between students and students, in a way that it created an environment where '*assistance*' could be provided during the lesson for any problem that might occur.

The scaffolding teaching approach aimed to assist students to be able to accomplish the most positive outcome possible. The researcher required a 100 % learning outcome which was achieved by using repetition practice through interactive teaching. The teacher was to offer the students assistance through interactive teaching. The roles were as follows:

(1) To assist students in understanding factual information by using the scaffolding approach through interactive teaching between teacher and students and between students and students.

An example of interactive teaching between teacher and all students
The teacher showed a spider life cycle documentary to students so that they could see a real-time visual representation of the story. Then the teacher read every sentence of the passage explaining the video and let them repeat after the teacher sentence by sentence. After that the teacher and students learned the meaning of each sentence together by using the 5Ws 1H questions. They had to determine which question words like 'where', 'when' or 'what' they should use for each sentence. After doing this throughout the passage, the teacher and students summarized the main idea together in order to use this for answering the reading comprehension questions about factual information.

(2) To assist students with the method for summarizing the passage by using the scaffolding approach though student-student interactions.

(3) To assist students on how to reflect their opinion by using the scaffolding approach through student-student interactions.

5.4.4 The forth component 'Contents' carried a reading passage taken from a reading text at the Primary 3 level in the Thai Ministry of Education Curriculum. The learning outcomes were that students were able to comprehend, summarize and reflect their opinion about the given passage.

Contents
1. Reading passage
The contents were a reading passage taken from a reading text which covers the contents primary students need to study. Students had to learn 10 words from the passage.

Teaching - Learning Media
1. Two pictures of spiders,
2. Ten word cards; abdomen, catch, insects, kinds, lure, prey, spiders, spin, traps, venom, and
3. Spider life documentary video and activity sheet.

5.4.5 The fifth component was the interactive learning activity using the scaffolding approach.

There were 4 parts in the interactive learning activity: (1) A warm up activity in which the teacher and students learned about the passage together; (2) A development activity in which the teacher used questions 'what', 'when', and 'how' to help students understand the passage; (3) Practice process in which the teacher trained students how to capture the main idea by observing the first and last paragraphs for summarizing. Then the teacher used the questions 'why and why not' to help students reflect their opinions about the passage.

An example of the passage
Spiders are not **insects**. All spiders have eight legs and they don't have backbones. The body of a spider always has two parts, the head and the **abdomen**. Spiders come in many different sizes and colors. Some are black, and some have bright red stripes.

Most spiders eat other spiders and insects such as flies and moths….

An example of the interactive learning activity through the scaffolding approach for reading comprehension

Activity sheet 6.1

Unit title : Do You Know Spiders?   **Target skills : Answering question from the passage**

Level : Primary   **Time length : 10 minutes**

Name...Date…………………………………..

Instruction: Choose and mark (x) on the best answer in each question.

1. How do spiders catch their prey?

a. Make silk to spin their webs and traps.   b. Make web to spin their silk and traps.

c. Make silk to spin traps and prey.

5.4.6 The sixth component was the evaluation of learning outcomes. The evaluation was done in every sub-skill and was done after completion of all activities.

(1) The criterion for factual information was 5 points for any student who was able to answer all 5 questions correctly. Then that student would pass and continue to the next activity.

(2) The criterion for summarizing was 5 points for any student who was able to summarize all three important ideas. Then that student would pass and continue to the next activity.

(3) The criterion for Comment/ Reaction was 5 points for any student who was able to reflect their idea in Thai when questioned. Their reaction had to reflect 2 ideas correctly. Then that student would pass and continue to the next activity.

5.5 The fifth research tool was an observation on teacher-student interactions in the vocabulary and reading comprehension exercises.

The researcher created five stages in teacher-student interactions: (1) to assist and guide student individually, (2) to help and guide students collectively, (3) to use questions to stimulate students to participate in the lesson, (4) to explain the meaning of the vocabulary and use pictures and teaching aids to help students understand the lesson, and (5) to use body language and eye contact.

5.6 The sixth research tool was an observation on students-teacher interactions in the vocabulary and reading comprehension exercises.

5.7 The seventh research tool was an observation on the teacher using the scaffolding approach in the vocabulary and reading comprehension exercises.

There were five parts in the observation tool: (1) the teacher using teaching aids and material, (2) the student's learning by using teaching aids and material provided by the teacher, (3) the teacher asking questions to assess students' prior knowledge as a class, (4) the teacher asking questions to examine student's prior knowledge as individuals, (5) the teacher coaching individual students to do all exercises correctly.

5.8 The eighth research tool was a comment and reaction questionnaire on the teacher's and students' opinions toward the vocabulary and reading comprehension exercises.

There were seven questions in the eight research tool: (1) Was the worksheet written with easy-to-read letters?; (2) Were instructions easy for students to understandable at the Primary 3 level?; (3) Was the setting format for pictures and language use of the worksheet appropriate?; (4) Did the teacher's instruction help students to understand and know the purposes of the scaffolding exercises ?; (5) Could the teacher's suggestions help students to do the exercises and continue with the next task; (6) Were students able to use their

knowledge learned from the teacher to do the exercises?; and (7) Do students have a chance to know the teacher's reaction and comments after finishing each exercise.

6. Data Collection
The data collection procedure was in four stages:
6.1 A meeting was arranged with the teacher who was assigned to teach the scaffolding vocabulary and reading comprehension exercises in order to explain the scaffolding approach and its procedure. The teacher was given a manual of 10 units with their exercises one week prior to actual teaching.

6.2 The observer-researcher and the English teacher had 4 weeks for teaching. The typical schedule was 8 hours a week; the total period of teaching in the study was 30 hours. There were 5 units of vocabulary exercises and 5 units of reading comprehension exercises. The teaching procedure was in five stages:

1) The teacher set up activities to familiarize the students at the beginning of the lesson with an ice breaking activity. There were instructions for the unit exercises and worksheets.
2) The teacher explained the contents of the study, learning activities, and the criteria for evaluation to the students.
3) The teacher led students into each unit exercises and the researcher observed interactions between the teacher and students, the teacher's assistance for students, students' assistance to their peers in working on the exercises.
4) The teacher began the lesson and used the worksheet for each unit. All 6 students were in the same classroom and did the worksheet together. All students learned and were assisted when needed to attain 100% performance on the given task. The observer-researcher set the time for the teaching and learning process using the scaffolding approach in approximately two hours for vocabulary learning and reading comprehension--both per unit.
5) All 6 students did all worksheets in each unit together. The criterion for passing was 100% performance.

6.3 The obtained results were analyzed for averaged scores, frequency of responses and percentage.

7. Data Analysis
The researcher analyzed the obtained data as follows:
7.1 Scores obtained by the students on the vocabulary pre-test and the post-test.
7.2 Scores obtained by the students on the reading comprehension pre-test and the post-test.
7.3 The number of attempts the students used in achieving 100% vocabulary performance.
7.4 The number of attempts the students used in achieving 100% reading comprehension performance.
7.5 Mean and its standard deviation obtained from the interaction between the teacher and students during the vocabulary and reading comprehension exercises.

       7.6 Mean and its standard deviation obtained from the researcher's observation on the interaction between the teacher and students during the vocabulary and reading comprehension exercises.

       7.7 Mean and its standard deviation obtained from the researcher's observation on the teacher's assistance for students during the vocabulary and reading comprehension exercises.

       7.8 Mean and its standard deviation obtained from researcher's observation on students' assistance for their peers during the vocabulary and reading comprehension exercises.

       7.9 Mean and its standard deviation obtained from the teacher's comments and reactions to the use of the scaffolding approach.

       7.10 Mean and its standard deviation obtained from students' comments and reactions to the use of the scaffolding approach.

8. Research Results

       8.1 The students' limitations in vocabulary and reading comprehension before and after the use of the scaffolding approach are reported in Tables 1 and 2 as shown below.

Table 1: The students' limitations in vocabulary before and after the scaffolding approach

Students	Word meaning				
	Spelling (5 pts)	Pronun-ciation (5 pts)	Matching (5 pts)	Thai Translation (5 pts)	Total (20 pts)
1. Student 1 (F)	1/3	0/2	2/3	0/3	**3/11**
2. Student 2 (F)	1/3	0/2	1/3	2/3	**4/11**
3. Student 3 (M)	2/4	2/4	2/5	2/4	**8/17**
4. Student 4 (M)	1/3	0/3	2/3	2/3	**5/12**
5. Student 5 (M)	2/4	2/4	2/5	2/4	**8/17**
6. Student 6 (M)	1/3	2/3	0 /3	0/3	**3/12**

    Table 1 shows that three students were not able to pronounce the vocabulary in the pre-test, but later on showed improvement after the use of the scaffolding approach. As for reading comprehension, those two who were not able to translate vocabulary into Thai in the pre-test obtained a scores of 2 after the use of the scaffolding approach.)

    It was noted that one student who scored zero on the vocabulary pre-test was able to match the vocabulary with the picture and write the meaning of the vocabulary in Thai; this student was able to improve his score from 0 to 3 after being assisted in the scaffolding exercises.

Table 2: The students' limitations in reading comprehension before and after the scaffolding approach

Students	Factual information (5 pts)	Summary (5 pts)	Comment/reaction (5 pts)	Total (15 pts)
1. Student 1 (F)	1/3	1/3	1/5	**3/11**
2. Student 2 (F)	1/3	1/3	1/5	**3/11**
3. Student 3 (M)	2/4	1/3	2/5	**5/12**
4. Student 4 (M)	1/3	1/3	1/5	**3/11**
5. Student 5 (M)	2/4	1/3	2/5	**5/12**
6. Student 6 (M)	1/3	1/3	1/5	**3/11**

Table 2 shows that four students who had limitations in reading comprehension (factual information, summary, comment/reaction) at the score of 1 in their pre-test was able to improve their scores to 3-5. This table also shows that all 6 students, who scored only 1 in their summary skills were able to improve their scores to 3. The findings pointed to positive support in the use of the scaffolding approach.

8.2 The number of the students' attempts at the vocabulary and reading comprehension exercises using the scaffolding approach is shown in Tables 3 and 4, respectively.

Table 3: Frequency of the students' attempts at 100% performance on vocabulary exercises

Unit	Word Meaning																							
	Spelling						Pronunciation						Matching						Thai translation					
	Student No./Number of attempts						Student No./Number of attempts						Student No./Number of attempts						Student No./Number of attempts					
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
1. My Family	4	4	3	4	3	4	4	4	3	4	3	4	2	2	2	2	2	2	3	3	2	2	2	3
2. Family & Activities	4	4	3	4	3	4	4	4	3	4	3	4	2	2	2	2	2	3	3	3	2	3	3	3
3. We Love Ice Cream!	3	4	3	4	3	4	4	4	3	4	3	4	2	2	2	3	2	3	2	3	2	3	3	3
4. Helping Dad	3	3	2	3	3	3	4	2	3	2	4	2	2	1	2	1	2	2	2	2	2	2	2	3
5. My Birthday Party	3	3	2	3	2	3	3	3	2	3	2	3	2	2	1	2	1	2	2	2	2	2	2	2

Table 4: Frequency of the students' attempts at 100% performance on reading comprehension exercises

Unit	Factual information						Summary						Comments/Reactions					
	Student No./Number of attempts						Student No./Number of attempts						Student No./Number of attempts					
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
6. Do You Know Spiders?	3	3	3	4	3	3	4	4	3	4	3	4	4	4	3	4	3	4
7. Butterfly Life Cycle	3	3	2	3	3	3	4	4	3	3	3	3	3	3	3	4	3	3
8. They are Frogs!	3	3	3	3	2	3	3	3	2	3	2	2	4	4	3	4	3	3
9. I Love Dolphin!	2	2	2	3	2	2	3	3	2	3	2	2	3	3	3	3	2	2
10. Emperor Penguins	2	2	2	2	2	2	3	3	2	3	2	2	3	3	3	3	2	2

Table 4 shows four students were able to improve their reading for factual information skills after the use of the scaffolding approach in reading comprehension exercises. Their number of attempts decreased from 3 to 2, and particularly one student from 4 to 2.

It should be noted that one student (Student 3) needed scaffolding for comments/ reactions 3 times in units 1 to 5.

9. Discussion

From the study on the use of the scaffolding teaching approach to assist Primary 3 students having difficulty with reading English texts, the obtained results are discussed in four areas as follows:

9.1 The students' performances on the pre-test and post-test in vocabulary and reading comprehension before and after the use of the scaffolding approach

The obtained results suggested that the students' improved performance on the post-test could have stemmed from the students becoming aware of their learning potential with assistance and support from their teacher. When they were helped to fix their deficiencies in their basic reading skills, they could see for themselves that it was possible to overcome difficulties at their own learning pace by means of assisted repetition. In teaching reading comprehension, the teacher plays an important role in selecting teaching methods or techniques suitable to their needs: such selection definitely has impact on learners in guiding them to reach their full potential and thus to achieve their goals. The significance of such learning assistance was emphasized in the work of previous researchers like Begeny and Martens (2006), Wilson et al. (2006) and Closs (2007).

9.2 The scaffolding approach used in the vocabulary and comprehension exercises

As seen in the obtained results on 100% performance attempted by the students, the scaffolding approach used in the vocabulary and comprehension exercises gradually developed students' skills in target areas where they have problems. The researcher noted that a conversational method used to create a friendly learning environment appeared to motivate and engage students into the exercises with enthusiasm. Furthermore, as the researcher informed the students about the criteria for performance evaluation, they all knew what they were supposed to do in each activity in order to obtain a full score; they were ensured that with the teacher's assistance and support, they would not be left behind. The teacher was always there to guide them to explore, investigate and reflect their opinion on the learned point. It is obvious that learners, if assisted to make progress at their own learning pace, are likely to achieve well by scaffolding support from their teacher, as reported in the work of Churak (2009) and Harris et al (2009).

9.3 Observation of teacher-student interactions during the use of the scaffolding approach

Observation of interactions initiated by the scaffolding approach was important in this study. All interactions—teacher-students and students-students—were observed by the

researcher to see how the students were assisted and guided to repeat their vocabulary and reading comprehension exercises for 100% performance. Observation secured data on the learning atmosphere generated by the scaffolding approach whether it was friendly, whether the teacher and the students reacted positively to the assigned learning task, and whether the scaffolding approach used by the teacher was sufficient to support the students' learning outcome. Observation on pair work was meant to detect problems or obstacles for the teacher to take prompt actions as seen appropriate.

It should be noted that the teacher might switch a student's partner in pair work when observing that some students were able to help and guide their peers better. The teacher was to use pictures, word cards, flash cards, board writing, and especially video as teaching aids in class to help them understand and remember the target learning points. The use of questions was to stimulate students to get involved in the lesson as well. Furthermore the researcher noted that body language and eye contact with a friendly smile in teaching appeared to work well in lowering the students' inhibition and thus getting cooperation from them. Such learning support in this manner is definitely the strength of the scaffolding technique as pointed out by five researchers (Harman, 2002; Van Der Stuyf (2002); Lawson, 2002; Culican and Milburn, 2006). It should also be noted that time length of assisting and guiding each student to achieve their goal may differ depending on each student's limitations in perception and understanding, as these factors affect each student's learning ability. It is therefore important for the teacher to identify limitations in learners to be able to provide learning strategies, support and scaffolding as needed by learners (Harris et al., 2009; Rice, 2009; Wong and Hew, 2010).

9.4 The teacher's and students' opinions toward the scaffolding approach

The obtained results on the teacher's reaction to the scaffolding approach via the questionnaire and an interview reflected positive attitudes toward the approach. The teacher agreed that the students were well assisted with the use of the scaffolding exercises that carried clear-cut directions for specific performance objectives, and allowed both English explanation and Thai translation. The students became gradually familiar with the activity pattern and given instructions and were able to respond faster in the subsequent learning units on both vocabulary and reading comprehension. It should be noted that the selected stories or contents (family, personal things, insects and animals) helped sustain interest of young learners. It is important that that selected stories should progress from simple and close to students' familiar surroundings to relatively more difficult and remote to students' knowledge background.

As for the results obtained from the students' opinions and reactions to the scaffolding exercises, all students were positive and particularly liked the part that allowed them to use Thai to give reasons to support their viewpoint. They also enjoyed the visual parts—both illustrating pictures and video clips. The students felt that they were able to understand the story better after viewing video clips in the units; engaging pictures in the worksheet also

captured their interest. What seemed more important to the students was the opportunity for them to learn at their own pace and identify their own limitations for self-remedy with assistance from the teacher. Such an attempt as self-learning and its advantages were also pointed out in the earlier research by Culican and Milburn (2006) and Churak (2009) that learners can be assisted to handle their learning via mistakes made along the way to finally achieve the target performance via scaffolding self-practice.

10. Recommendations

The researcher would like to recommend to teachers who may consider the use of the scaffolding approach in two aspects. The first aspect is for the teacher to have a group size of 10-15 to be able to have sufficient interactions between the teacher and students, and among students themselves. The second aspect should be on a clear procedure for the scaffolding approach to be used in learning or scaffolding exercises. The teacher should prepare a detailed teaching-learning plan and spell out concrete learning outputs; this is for the teacher to create relevant lessons and corresponding learning activities effectively. From the researcher's experience in this study, the use of the scaffolding approach is truly rewarding in that the teacher can see how learners can be assisted to overcome their learning limitations toward the target learning achievements at their expected level.

11. Acknowledgements

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