

## **CHAPTER V**

### **CONCLUSION AND DISCUSSION**

#### **5.1 Conclusions of the Study**

The objectives of this study were (1) to develop an English critical thinking syllabus for the students at the kindergarten level; and (2) to compare the critical thinking skills of kindergarten students before and after being taught through the English critical thinking syllabus. The subjects of this study were eleven students at K. 3 level of Baan Dek Kindergarten School, Chiang Mai, who attended the summer class of 2002 that lasted for a period of 7 weeks from March to May, 2002. Two types of instruments used were 29 lesson plans and data collecting instruments. The result of the needs survey and the National Curriculum for prathom level were used to construct the protosyllabus and the 29 lesson plans. Data collecting instruments used were the lesson plan evaluation forms, student performance assessments during the syllabus implementation and pretest and posttest in the form of oral assessments.

The data obtained were analyzed by using the SPSS. The statistics employed were arithmetic mean, standard deviation and t-test.

The results of the lesson plan evaluation forms and the performance assessments during the course implementation reveal that the English critical thinking syllabus for the students at kindergarten level was effective. Regarding the pretest and posttest result, it shows that there was a significant improvement of students' critical thinking skills at 0.01 level.

## **5.2 Discussion of Results**

### **5.2.1 The effectiveness of the English critical thinking syllabus of the kindergarten level**

The effectiveness of the English critical thinking syllabus is assessed by the external observers using the lesson plan evaluation forms and by the researcher assessing student performances during the syllabus implementation. The results of the lesson plan evaluation forms reveal that half of the lessons were very effective and the other half were effective. This interprets that the lessons suited the learners needs and potential of thinking capability. There are various factors that support the success of this syllabus. These are discussed below:

### 5.2.1.1 Steps in developing the syllabus

There are many factors linked to the organization of the lesson plan.

They are:

1. The guidelines of the National Curriculum for the prathom level and the results of the needs analysis were used for designing the critical thinking syllabus. A needs analysis that included the parents' and the teachers' point of views and the student behaviors helped the teacher to know students' learning styles, their likes and dislikes, their exposure to English language, their attitude towards English language and their background knowledge. This helped the researcher in arranging the appropriate teaching methodology and assessment tools in order to increase students' motivation level and learning potential. Bernard (1972, p. 55) supports the fact that motivation can increase students' learning.
2. The lessons were effectively linked to each other so that students had the required schema and a continuous interest for the next lesson. This made the students feel more confident of themselves when they learned a new lesson. The lessons were organized and sequenced for students to make use of the skills

and knowledge again and again. Donato R. (2002) supports the fact that the contents of a young learner syllabus should be connected.

3. Students were able to use abstract ideas when they were exposed to the right environment or materials. Students were able to think critically based on the realia or the picture that they saw. Although Getswicky (1995, p.254) does not agree that children at this level can use abstract ideas, Evertson (1997) states this is possible through the use of pictures, realia and content related to students' everyday lives.
4. Continuous performance assessment of students assisted the researcher in adjusting the lesson plans according to the students strengths, weaknesses and interests etc. During syllabus implementation, students were continuously assessed at least once in every unit. After every lesson, the researcher adjusted the next lesson based on the results of student evaluations of the previous lesson(s) and the results of the teacher evaluation forms. Continuous assessment and improvement of the curriculum is supported by Evertson (1997, p.76).

### 5.2.1.2 Teaching approaches and teaching models

Various techniques were employed that suited each lesson, each critical thinking level and each stage of students' critical thinking and language ability. Students' language ability is also a factor for choosing the right method because certain methods or approaches require complex critical thinking ability or language ability. The use of each approach and each model for fostering each critical thinking skill is presented below. There were four major approaches and four models used in this study. The approaches will be discussed before the teaching models. First, the audiolingual approach fosters the development of critical thinking skill of 'knowledge' because it involves repetition where students repeat after understanding the meaning of words through pictures, signs or realia. It also involves the learning of pronunciation and structures. However, this approach is used as a ladder to build other more complex critical thinking skills.

Second, the natural approach is used extensively in this study because it favors the use of realia and strategies the same as of the mother tongue to increase students' communication. Through this approach, students apply and analyze concepts and then link them with each other (synthesis). The natural approach focuses on the meaning, not form, that

is, communication. Under this approach, communicative language teaching (CLT) was used and this method allows students to practice real conversations. This develops the skill of 'giving reasons' because students practice expressing opinions. Group work is a strategy used on this approach. Group work allowed students to practice giving opinions and reasons and judging other people's opinions based on some criteria. Furthermore, group work develops critical thinking because it gives opportunities for students to express opinions and analyze and evaluate their friends' opinions. This fosters the critical thinking skill of 'evaluation'.

Third, the whole language approach, allows students to relate their experiences and makes language learning easier. Here, students practice the critical thinking skills of 'application', and 'synthesis' by relating their experiences to new knowledge.

Fourth, in the total physical response method allows the students to move around. This approach suits young children because they possess kinesthetic learning style, that is, they like to move around. In this study, this approach was incorporated when students created or investigated something. This increased their attention spans because they were able to move around. The critical thinking skills of 'problem-solving', 'analysis',

'synthesis' and 'evaluation' are practiced through creating and investigating.

There were four models used in this research. First, the direct instruction model teaches particular skills or structures and focuses on the critical thinking skill of comprehension. Students are required to practice the skills and structures and understand them until mastery is achieved. Second, the concept attainment model teaches abstract ideas to the students by asking them to compare and contrast concepts and ideas. Students learn to view things from a wider perspective. This supports the critical thinking skill of 'analysis'. Third, the concept development model prepares students for the critical thinking skills of 'application', 'analysis', 'synthesis' and 'evaluation'. Students group, name and give reasons for their groups; regroup; and evaluate the groups. In this study, there are two or more lessons that focus totally on this model. Finally, the classroom discussion model is used. This model requires the teacher to cluster questions and ask the students. In this study, questions based on each level of critical thinking were clustered so that they build on each other.

### **5.2.2 The improvement of the learners' critical thinking skills**

The result of the t-test shows that the learners' critical thinking skills have been improved significantly. Apart from the statistical results, the results of teacher's observations of student performances of each unit and of the pretest and posttest prove that students' performances improve regularly. This will be described below:

#### *Pretest*

The results of the teacher's reflection of each question of the pretest will be discussed accordingly. In the first question, all students except one student gave wrong answers in part 'a', stating that all of the items belong to the same category. The student who answered correctly answered in Thai. In part 'b' of the same question, 2-3 students answered correctly in Thai but could not name the categories. The students used about 2 minutes to answer. Out of five groups, only two groups could name more than five items of the categories in English. Students were not able to evaluate their friends, they followed their friends' evaluations. The result of the students' creation of items were as follows:



Student pairs/ groups	Number of items created
1, 5, 10	7
2, 4	2
3, 11	5
6, 9	2
7, 8	0

Only one group came up with more than five items.

In the second question, students were very eager to answer when the teacher asked them to choose between the two objects. However, they were quiet when the teacher asked them to give reasons for their answers. After the teacher asked about ten times, some students answered in Thai. Other students shifted from one object to another when asked why they liked it. This showed that students lacked confidence.

In the third question, students used likes and dislikes to answer the question rather than what they would need in that situation. They used about one minute to think of a solution.

In the fourth question, there were four students that scanned quickly with wrong answers sometimes. These students took approximately three seconds. Other students took approximately five seconds. Most of the students did not know how to scan and just followed their friend's answers.

In the fifth question, eight students answered correctly and three students answered incorrectly. Students took approximately three seconds to answer this question. Students were not able to give reasons for their answers. During the pretest, students needed a lot of time to think for each part. They did not dare to speak their answers out loud because they were scared that their answers would be wrong.

### *Unit 1*

In the first lesson, students could not follow all the English instructions. The teacher had to repeat in English several times and demonstrate the exercise. Some students explained to their friends in Thai. Many students realized that there were other countries that had flags. As found in the needs survey, students enjoyed drawing. When students were asked to express opinions at the end of the lesson, they were reluctant and shy. At times, they would look for their friends answers and copy them.

### *Unit 2*

It was clearly observed that student responses in this unit changed instantly from the first unit. The students participated well, became more confident and expressed their opinions freely, although, many students still copied their friend's answers. Also, students discussed with their

friends and shared opinions more freely. In this unit, students could perform only very basic thinking skills.

### *Unit 3*

Comparing to the posttest, students were better at assessing their friends in this lesson. For this, the teacher moved around to let students evaluate their peers. Ten out of eleven students were able to evaluate their friends correctly. However, the critical thinking of evaluation was introduced in the syllabus through this lesson but students were assessed on the critical thinking skill of application.

### *Unit 4*

#### *Lesson 1-3*

A tool that kept students' interests in this lesson was dividing them into two teams. Students practiced the skill of evaluation by evaluating their friends' answers. As students were unable to divide responsibilities, the teacher assisted them in doing so. The teacher had to explain the steps again and again so that students understood them. All students were able to sequence the book correctly, although, the teacher asked them to find the smallest animal their groups had drawn, the one a little bigger than that etc. In order to get the message across, examples were very helpful.

#### *Lesson 4*

Since the students work as groups and discuss before evaluating other groups, they create a lot of noise and disorder in the classroom. This is also because the students sit on the floor to listen to other groups. Therefore, they should be given behavior points that would be added to their scores. For instance, if they behave well, they get 1, if not, they get 0. This is not the same as the student's group score. Due to the fact this was the first lesson in which students presented in front of the class, they spoke very softly and were quite shy. In addition, students should be seated as suggested in the recommendations section below (5.3).

#### *Unit 5*

In this unit, all students did not remember all the months; rather, the students helped each other name each month one by one. The purpose of this unit is to get students familiar with months, not to let them remember the months. Students were evaluated on whether they surveyed their friends' birthday months correctly. The exercise that required students to read the dates on the newspaper was successful to some extent. Students matched the months on the headlines and on the board correctly. Some could even read the months correctly. Students were given dates that were between 1-10 so that they could say them in

English. This exercise was not evaluated. It was used to boost students' self-esteem that they are able to read newspaper headlines in English.

### *Unit 6*

This unit is an integration various models and approaches. In the beginning, students need enough time to learn the new vocabulary through the direct instruction model. Later, students related the vocabulary with their experience through whole language approach. Also, they answered teacher's questions using classroom discussion model. Finally, they performed group work, that is a part of the communicative approach. The students enjoyed this unit because they watched a song in the video. Even in other units, students were humming 'Mr. Sun' song that they learned in this unit. All students were able to create correct categories for clothes in different seasons through the critical thinking skills of analysis and synthesis. Relating months to this unit was helpful for the students to review the months.

### *Unit 7*

Students were able to follow the example of the teacher to use he/she to report their surveys. The use of song in this unit also boosted students' interest and they hummed the song throughout the unit. At times, the teacher hummed and sang with students, developing good

attitude towards English language. Students needed some guidance in calculation and the teacher gave it, where necessary. However, students were not evaluated for this. It was a preparation for Unit 10.

### *Unit 8*

In unit 8, students used all levels of thinking very well and were very active in their thinking processes. For recognition purposes, the teacher called out the names of students who answered correctly and most of the students' names were announced. The presentation time of the vocabulary by the teacher could take very long because all the vocabulary and their category names have to be reviewed. The students took around 5-8 minutes just to remember the category names. The teacher kept the students' attention in this unit by asking each student to name a picture or a category, asking the naughtiest student to be the monitor, and writing down the names of the attentive students on the board for rewards, such as, stickers and sweets. Students' participation in this unit was very active. The student wrote each team's marks after they answered each question and this held their attention very well. Students chose their team's representative and cooperated to think of items in their teams and other teams.

### *Unit 9*

The vocabulary of this unit was quite new to the students. The students were familiar with most of the phrases but could not memorize all of them. Some students did not perform some activities in the morning, so they did not number them in the exercise. In case a student did not number an activity and said that he/she does not do it in the morning, the teacher counted that activity as numbered so that the students' performance results are not biased. 10 students could sequence the activities. The students learned that there was not one answer to the exercise and that their answer depended on their experiences.

### *Unit 10*

Students enjoyed their experiences with the realia that gave them clear concepts of each item of food. They were more eager to say the food names because the teacher asked them to say it before they touched the food. In lesson 2, students could evaluate other teams correctly. They also helped other teams. This reflects students' cooperation rather than competition. Students felt that these menus of restaurants were theirs because they gave names to their restaurants by themselves. In lesson 3, the teacher reviewed colors while distributing colored papers for menus and students remembered them well. The teacher assisted students in

arranging the pictures. Students' pictures were not the same as that of the teacher's. The students' used their own experiences and imagination to draw the food items. During menu presentation, some students were so interested in the presentation that they stood in front of the presenter and the teacher asked them to sit close to the presenter. In the last lesson, students had problems in calculating although they were better than in unit 7. However, they needed teacher's assistance with how much money they have used and how much they have left. The students' were able to successfully compare the better menu on the basis of price and what they like to eat.

### *Unit 11*

The students answered the questions that the teacher had prepared using the classroom discussion model. Their answers about modes of transport included the use of more complex thinking skills and reasoning, when compared to the earlier lessons. Their answers were also realistic and reflected real life experiences. The students felt proud of the boats that they were drawing because the teacher asked everyone what color their boat was. The students felt that the teacher was interested in their boats. The teacher went to the students to ask them to practice naming the things that they will take with them in the boat before they present in



front of the class. This was helpful to decrease students' anxiety and increase good attitude towards the English language.

### *Unit 12*

In this unit, students' answers were even more realistic than in the previous unit. They were less based on students' likes and dislikes but more on their imagined needs when they would face that situation. The teacher has to spend some time to make students feel that they are really in that situation by narrating the surrounding environment. According to Piaget (cited in Evertson, 1997, p.75), children are unable to plan ahead. However, the students were able to plan ahead to a certain extent when the teacher helped them to imagine.

### *Unit 13*

Here, the teacher explained each word in the phrase for the students. The teacher did this because the students were confused with phrases like 'swimming suit', 'swimming cap' etc. that contained similar words. Hence, the vocabulary was taught through direct instruction model and extended to whole language approach. All students got full marks (2 marks) in critical thinking skills in this last unit.

### *Posttest*

In the first question, all students could give the answer correctly to part 'a' and 'b', name the category and the pictures, and take out the item that did not belong to that category. Also, they could name the category of the item that they pulled out. Students were paired for this question. Students were able to evaluate other pairs. The result of the students' creation of items were as follows:

Student pairs/ groups	Number of items created
1, 5, 10	8
2, 4	7
3, 11	11
6, 9	8
7, 8	7

All students were able to create more than five items in a category. Moreover, all answers were in English.

For the second question, students were asked what they liked and why. They were not assessed on the academics use of the objects. All students could name both the objects. Three students chose 'pencil' because they could write and study with it. The other eight students chose 'train' because it can go fast or slow, its door can be opened, and they

could sleep in it. Unlike the pretest, students' attitude to this question was very positive. They answered after the teacher asked only once.

The third question required students to choose one item that they would take to the school and give their reasons. All the students named the items in English. Two students also gave reasons in English, that was student numbers one and eleven. Students number two, three, five, and eleven chose umbrella because it might rain at school. In addition, students number four, six, seven, eight and nine chose to take a torch to school. Student numbers three and six needs a torch if the toilet has no light. Also, student number six would take batteries for the torch. Student numbers seven, eight and nine would use the battery if they come to school at night so that they can see the thief. Moreover, student numbers one and ten chose to take a pencil to school in case they were not enough at school.

In the fourth question, all students were involved in scanning the newspaper and shouting out the answer, including the shy students who hardly spoke or expressed opinions in the beginning lessons and had no input in the pretest. All students responded in less than one second after the teacher announced the alphabet to be scanned.

In the fifth question, ten out of eleven students answered correctly.

The student who answered wrong was student number three. Three students gave reasons why the answer was 'girl' and not 'banana'.

During the posttest, students became confident of their answers, expressed opinions openly, and knew that there was not only one correct answer to all the problems.

The above results of the teacher's reflections of each unit and pretest and posttest imply that the students' critical thinking skills improved throughout the syllabus implementation. The reasons for this improvement are discussed as follows. First, students were taught through many techniques, such as, speaking, decision making, giving reasons, problem solving, group work and individual work, etc. They were also assessed according to the contents and activities given. They had opportunities to express opinions in many ways and this allowed them to express their critical thinking skills to their best. Teaching students through various techniques is supported by Nerbovig and Klausmeier (1956, p.43). Second, students' improvement in their critical thinking skills is also due to constant practice of thinking skills during syllabus implementation. This is proved by the students' performance

assessment scores during syllabus implementation that were improved constantly.

### **5.3 Recommendation**

Based on this study, the researcher makes the following recommendations:

#### **5.3.1. Recommendations for teaching and learning**

The English critical thinking syllabus for kindergarten level developed in this research is effective with small classes. The syllabus helps the teacher observe each student's progress more clearly. Also, students get more time to express their opinions or perform activities that express their critical thinking skills. However, this syllabus is also usable with bigger classes of 40 to 50 students. To make the syllabus effective with bigger classes, the teacher should focus on student groupings, classroom management and student presentations.

##### **5.3.1.1 Student grouping**

The teacher can divide students into groups, so that they can communicate and share ideas to use higher order critical thinking skills. Students should be grouped by taking into consideration students' abilities, their behavior and their attitude towards English language.

Students should be grouped with different ability level students so that they can teach and learn various skills from each other. Two misbehaving students should not be put together in order to avoid chaos and encourage smooth group work. Students who have a bad attitude towards English language should be grouped with students who have a good attitude towards the language. Otherwise, they would not think and their attitude could be harmful to their English learning for the rest of their lives. Also, the teacher should not aim for a very quiet classroom because students will make noise when they discuss. The teacher should make sure whether the students are discussing by circulating around.

#### 5.3.1.2 Classroom management

When students lose their attention, the teacher should know what the students' needs are in order to regain their attention. If the students need approval, giving approval to the well-behaved student will make the rest of the students behave well. If the students are interested in sweets or stickers, giving out some to the well-behaved students is a wise strategy. Asking the group of students to create something would be a good way to start critical thinking for the students. The teacher should create an atmosphere of cooperation rather than competition, so that students enjoy learning and feel comfortable to think.

### 5.3.1.3 Student presentations

While presentations, the teacher should ask all the members to help in the presentation. This will encourage them in giving opinions in class and in their groups. Behavior points should be allotted if students do not concentrate on their friend's presentations because they will learn a lot from their friends, than their teacher. The teacher should be patient because it would take more time to finish a task with more number of students. She should allow the tasks to finish and then move on because this would give students the feeling of satisfaction, which is useful to build their positive attitude towards the language. Moreover, asking the students to discuss about their own experiences is beneficial since young children love to talk about their experiences. They might discuss in Thai but their final presentation, after they have used the critical thinking skills, should be in English.

### 5.3.1.4 Teacher presentations

1. The teacher should use bigger and more attractive visuals for young students compared to other levels of students. This helps to retain their attention.
2. Children are not as organized as adults are. Therefore, asking them to sit in certain grouping and then moving them to another grouping

consumes a lot of time. Hence, for one lesson the teacher should arrange the activities that require one particular setting so that there is no chaos caused due to change of seating.

3. At the beginning of syllabus implementation, the students might use some Thai language. The teacher should, however, respond in English or clarify students' questions or doubts through the use of signs, pictures or realia along with speaking in English. After some time, the students will increase the use of English language and decrease the use of Thai language when they talk to the teacher.

4. When students are working in groups, the teacher should circulate and ask the students to discuss together so that students do not get off the task. Young learners tend to move away from a task easily due to their short attention spans and their shifts of interests.

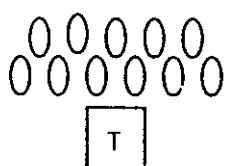
5. With kindergarten level students, full cooperative learning tasks cannot occur because students have never been exposed to them and do not know how to take responsibility for their tasks. They have to be guided by the teacher and be told their responsibilities.

6. It is better if during presentations a microphone is available for students. This helps the shy students because forcing them to speak loudly is not beneficial for them. Other students would also be more



attentive to the speech if they are able to hear it better. Also, students should be asked to sit on the floor or near the presenter while presentations are in progress. The following seating arrangement can be used.

(T- teacher, a circle- 1 student)



7. The teacher should let the students repeat the vocabulary in turn or as a group rather than one individual repeating by himself/herself for a long time because students are eager to listen to their friends and remember more from them. However, the teacher should say the word at least 3 to 4 times for students to get the right pronunciation.

Through this method, the students practice evaluating their friends by judging whether they are right or wrong. This makes them more attentive.

8. The teacher should create an environment of cooperation rather than competition and ask the students to help each other, not only their friends.

9. Some lessons of this critical thinking syllabus can be used with other age groups who study English at the beginner levels. Certain activities and lessons are exclusive for young children but the teacher can adapt them to other levels based on the respected needs.

10. Students should be continually exposed to other critical thinking syllabuses after being exposed to the critical thinking syllabus developed in this study. This will make their critical thinking skills improve more compared to the traditional syllabus again.

### **5.3.2 Recommendations for further research**

5.3.2.1 This study should be replicated with a bigger sample group in order to judge the effectiveness of the syllabus with a bigger number of subjects.

5.3.2.2 This study should be done with other critical thinking skills apart from the seven critical thinking skills mentioned in this research.

5.3.2.3 Critical thinking syllabus for other levels should be developed and implemented.