

# Active and Passive Voices through Concept Attainment Model (CAM) : a Case of Mathayom 1 Students

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## Abstract

This article investigates whether Concept Attainment Model (CAM) can help Mathayom 1 students of different proficiency levels learn active and passive voices in the simple past tense. The effectiveness of learning grammar through the CAM was examined. In this study, the participants were 26 Mathayom 1 students at Hua Qiao Ubon Ratchathani 2, Ubon Ratchathani. They were divided into three proficiency groups: high, intermediate and low. There were 10, 4 and 12 participants in each group, respectively. The pre-test was administered to the participants in the first period. The following periods were for the treatment which the exemplars were presented to the participants to study in order to specify the concepts. The last period, the participants took the post-test which the scores were used to compare to those of the pre-test using t-test and ANOVA. The results revealed that although CAM did not help the intermediate group learn the passive voice, it could overall help students of different proficiency levels learn active and passive voices in the simple past tense. It was most helpful for the high proficiency level students. CAM is, therefore, a suitable teaching tool for all proficiency levels students, especially the high group.

**Keywords:** Concept Attainment Model, active voice, passive voice,  
Mathayom 1 students

## Rationale of the Study

English is used as an international language. People around the world study English in order to use it as a communication tool or for their further studies. Learning English grammar is necessary for gaining the knowledge about English in order to use it as an effective tool. Richards, Gallo, & Renandya (2001) pointed out that most teachers believed in the role of grammar in language teaching. The English grammar is needed at the early stage of language learning. Consequently, how teachers teach English grammar is the key point in teaching.

Active and passive voice is important for students to learn as it is an English grammar feature which is needed in formal written discourse (Hinkel, 2004). Students should be able to form correct structures of voices. However, there are students who cannot use voices correctly especially using passive voice. Li & Thompson (1976) found that EFL learners encountered problems of using active and passive voice. Also some Thai students made a lot of passive voice errors in the basic essays (Abdulsata, 2000).

From several class observations, the researcher has found that a number of students have problems memorizing and understanding the concept of grammar including the structures of tenses and voices, that most of the time they have been taught by lecturing. Most of the observed students have problems in distinguishing the structures of active and passive voices, and in understanding the readings that contain the structures of active and passive voice. The outcome was that only some students could remember and understand the concepts or the structures of sentences they had learned while others did not. Thus teaching active and passive voice for Thai students is necessary; and using appropriate teaching methods is also important.

The causes of the above problem can vary. They may include teachers, students, classroom atmosphere and teaching methods. According to Noisaengsri (1981), poor teaching, uncertainty about teaching methods and shortage of

adequate teaching method were the reasons of students' inability in using English. Some research about teaching models was found interesting and a lot of teaching models can help students learn more effectively (Shamnad, 2005). The researcher is interested in examining a teaching method that can assist EFL students in learning grammar. Concept Attainment Model (CAM) was developed from the work of Jerome S. Bruner and his associates (1956) on the cognitive activity called categorizing. It is a teaching method that helps students learn step by step to build their own concept which can be recalled later. CAM is a teaching model that is designed to help students clarify the attributes of given examples so that they can formulate a concept of the lessons and help them make connections between what they know and what they will be learning.

Students should be able to figure out language structures in order to have a long-term memory, where the information they want becomes completely permanent in brain for subsequent recall. From this, the researcher has been interested in CAM that helps equip a semi permanent memory for students to retain a concept. Scott (2007) stated that strategies or figuring out a problem can be the priorities to be processed first and later transferred into the long-term memory by a component of the working memory. Thus, the students who are engaged in figuring out the structures of sentences would be able to retain the concept of the structures they have learned. Kalani (2009) found that Concept Attainment Model was more effective than conventional method in the retention of concept.

### **Purpose of the Study**

This study investigated whether CAM could help M1 students of different proficiency levels learn active and passive voices in the simple past tense. The effectiveness of learning grammar through the Concept Attainment Model (CAM) would be investigated.

### Research Questions

1. Can CAM help students of different proficiency levels learn active and passive voices in the simple past tense?
2. If yes, is CAM equally helpful for all groups of different proficiency level students?

### Research Hypotheses

1. CAM helps students of different proficiency levels learn active and passive voices in the simple past tense.
2. CAM is equally helpful for all groups of different proficiency level students.

## IMPORTANCE OF LEARNING VOICES

The importance of using voice correctly was emphasized in a number of studies. This is partly because English learners may have to produce written discourse by using tenses and voices. It is especially important to teach the usage of tenses and voices to non-native speaking (NNS) students more intensively than to native speaking (NS) students since even the basic NS writers can much better use tenses and passive voice than the advanced and trained NNS university students (Hinkel, 2004). Hinkel (2002) and Master (1991) as cited in Hinkel (2004) also found that the usage of passive voice in constructing formal written discourse needs to be taught thoroughly because English passive is difficult for non-native speakers. Many researchers (e.g. Michaelis (1994), Nehls (1988, 1992), Pica (1994), Pfaff (1987), Rutherford & Sharwood Smith (1985) and Swales & Feak (2000)) also claimed that, in English academic writing, all NNS university students must be able to use some important grammar features, such as tenses, aspects and specifically passive voice. Moreover, understanding active and passive voices is important as English textbooks contain them (Raimes,

1992, 1999; Swales & Feak, 1994). Learners should be able to change the active to passive voice and vice versa because it is sometimes more appropriate to use the passive voice in sentences (Smally, Ruetten & Kozyrev, 2000).

## PROBLEMS IN USE OF ACTIVE AND PASSIVE VOICES

Many research studies (Abdulsata, 2000; Chen Wanxia, 2002; Li & Thompson, 1976; Olson & Nickerson, 1977; Perera, 1987; Somkul, 1995) investigated the problems of using active and passive voice. Li & Thompson (1976), for instance, found that EFL learners may have problems if their L1 is different from English. To these researchers, languages are grouped into topic-prominent and subject-prominent. The two groups influence how the passive construction is learned. First, topic-prominent languages which what the speaker/ writer wants to talk about is important. Besides, the topic does not need to be the subject of the sentence. Second, subject-prominent languages which the subject of a sentence is important and the speaker/ writer needs to fill in subject position.

Thai is a topic prominent language (Jogthong, 2001). For example, in Thai, if we want to talk about the weather condition that it is very hot, we will say, “ร้อนจัง” which can be translated directly into ungrammatical English, “very hot.” Normally, Thais do not say “มันร้อนจัง, ” which can be translated into English as “It is very hot” because the topic is the state of being hot; the subject is not important and the speaker wants to emphasize on the topic. This comparison of Thai and English shows that, in Thai, a description can be made without inserting the subject in the sentence. On the other hand, English is a subject-prominent language. Hence, the subject position must be filled.

Li & Thompson (1976) observed that passive construction is normally found in subject-prominent languages. In topic-prominent languages, passive construction is rarely used. Thus, a problem of using the L2 passive voice results

from the rare use of passive sentence in L1. For example, in Thai, the passive construction is used only when the verb is negative in terms of meaning e.g. hate, punish, hit, blame. For example, in Thai language we can only say “ฉันถูกรังเกียจ” meaning, “I am hated” in English. Unlike the verbs that have positive meaning e.g. love, admire, like etc. In Thai we cannot say “ฉันถูกรักโดยคนหลายคน” or, “I am loved by many people.” Thus, most Thai learners of English may have problems with the use of passive voices.

Other research studies found that learners have problems of using active and passive voices. Chen Wanxia (2002) completed a corpus-based research on the acquisition of English passive by Chinese learners. They investigated the mistakes made by the Chinese learners of different English proficiency levels (senior high school students, non-English majors of intermediate and higher proficiency levels, and English majors of intermediate and higher proficiency levels). The finding showed that the learners of different proficiency levels have a similar problem which is the poor understanding of verb usages.

In Thai students' case, Somkul (1995) studied 236 Mathayom 3 students at secondary schools in Sukhothai province. He hypothesized that their level of grammatical structure awareness (e.g. active and passive voices, question tags, tenses) was very poor. He found that, after checking the students' 3 writing tests, the hypothesis was true. Also, Abdulsata (2000) studied the basic essays of the second-year English major Thai students of Srinakharinwirot University. She found at the sentence level, errors of using passive voice occurred for 80.55% of all passive construction.

Perera (1987) found that primary level students have difficulty in understanding passive voices. Confusion arose when both subject and object of the preposition “by” can possibly perform the verb. For example, in the sentence “Michael was murdered by Christian, ” students have problems identifying the doer, the subject or the object of the preposition “by”. This is



probably because in the real world both Michael and Christian can commit the murder.

Olson & Nickerson (1977) also investigated children's understandings of the relations between active and passive. The researchers found that 5-year-old children understood sentences by assimilating the sentences into their existing knowledge base. That is, children use their background knowledge or what they know to help them understand the sentence.

### **ACTIVE AND PASSIVE VOICES: *Past Simple Active and Passive Voices***

Grammatically, voice shows whether the subject of a sentence does the action, or is done by the action. Voice is a grammatical category which is used to display the action of a sentence in two ways by remaining the facts reported (Quirk, Greenbaum, Leech, & Svartvik, 1972, pp. 801-811). When we refer to "voice" in a sentence, it is related to verb placement which involves in the action of a transitive verb in the sentence and also the function of the subject which can be either a doer or a receiver. There are two types of voices: active voice and passive voice.

It is the active voice if the subject of the sentence does the action or it is called the doer. A sentence is written in the active form when we give importance to the doer. Passive voice is also used when the doer is unknown or unimportant and when we want to focus on the receiver being acted upon. In other words, the passive is used when the subject of the active voice sentence mentioned is an indefinite or vague pronoun or noun (Wren & Martin, 1990: 70).

### **CONCEPT ATTAINMENT MODEL (CAM)**

CAM is one of the teaching models belonging to the family of Information Processing Model which helps increase students' ability to acquire and organize information by handling inputs from the environment, build and test their own

generated hypotheses.

The book, *A Study of Thinking*, developed by Bruner, Goodnow, and Austin (1956), presents Bruner's theory that after receiving information from which humans scrutinize items to find common attributes, they group the items into categories and name them. A concept, or a cognitive structure, means each category, its name and the shared characteristics of items. Humans can add more similar items to those existing categories and can build up new categories when they are exposed to information items. This is the pattern recognition and categorizing process that is useful for human thoughts. However, it had not been a teaching model until Joyce and Weil transformed it into a teaching model in their book, *Model of Teaching*. They set up a syntax or description of the teaching model used in the classroom from Bruner's theory of concepts.

CAM is an inductive model which was designed to teach concepts and to assist students learn concepts effectively. The method is to present relevant information or attributes of a concept as a number of exemplars to students from which they can analyze to generate a hypothesis of the concept. Then the student will test their concept hypotheses with additional exemplars in order to confirm whether or not their thinking is on the right track. Finally, students testify to concept attainment by giving their own exemplars of the concept and also by explaining what steps they go through to attain the concept.

### ***The Syntaxes of CAM Based on Reception Strategies***

#### **Phase 1 Presentation of data and identification of the concept**

- Teacher presents labeled exemplars.
- Students consider the attributes of positive and negative exemplars and compare them.
- Students generate and test hypotheses.

- Students specify a definition from the critical attributes of the exemplars.

### **Phase 2 Testing attainment of the concept**

- Teacher presents more unlabeled exemplars for students to identify if they are positive or negative ones by saying ‘yes’ or ‘no’.
- Teacher approves students’ hypotheses.
- Teacher gives the name of the concept.
- Teacher restates the definition.
- Students create their own exemplars.

### **Phase 3 Analysis of thinking strategies**

- Students explain their understanding
- Students report how they generate hypotheses and how they improve or change them when they are not confirmed by teacher.
- Teacher evaluates the strategies.

CAM has been used as a part of several studies conducted to investigate its effectiveness in assisting learning and teaching and to compare it to other teaching methods. Some research studied CAM and other models or approaches about how they assisted learners to learn. It was found that CAM was more effective in helping learners define concepts and supporting teachers to develop their teaching (Ahmed, Gujjar & Ali, 2011; Das, 1986; Gangrade, 1987; Kalani, 2009; Kulachit, 1993; Lamm, 1993; Peters, 1973; Polchai, 2003; Singh, 2011; Sreelekha & Ajitha, 2004; Sushama & Singh, 1987; Tongaht, 2007; Zacharia, 1989).

## METHOD

### Participants

The participants were 26 different English proficiency level students of Mathayom 1 students at Hua Qiao Ubon Ratchathani School 2, Ubon Ratchathani. In this study, the participants were divided into three proficiency groups: high, intermediate and low. The high proficiency students included students who received 75-100 out of 100 scores in the previous English subject in the first semester. The intermediate proficiency students were the students who received 60-74 out of 100 scores. The low proficiency students were the students who received 0-59 out of 100 scores. There were 10, 4 and 12 participants in each group, respectively.

### Materials

The pre- and post-tests were the same test. It had 20 gaps which were composed of 10 gaps for active constructions and 10 for passive ones. The participants had to read the story carefully, and changed the verb given in the parenthesis for each gap into the correct form of either active or passive voice in the simple past tense, and write the form down in the gap. The participants had 50 minutes to finish the test.

There were five sets of exemplars used to teach four concepts. The exemplars were divided into positive and negative ones. The positive exemplars contained all attributes of the concepts which are the characteristics of past forms of verbs and past participle forms of verbs, and structures of affirmative sentences of active and passive voices in the simple past tense. The negative ones contained some or none of the attributes of the concepts. Furthermore, PowerPoint and handouts were made up to present the sets of exemplars to the students.

## Procedure

The first period was for the pre-test. In each class, teacher led into the lesson by telling the students the objectives of the study and the characteristics of positive exemplars. Then the teacher presented the exemplars for the students to study so that they could generate hypotheses. After that the teacher had to present unlabeled exemplars for testing the students' attainment of the concepts. The students could see if their hypotheses were correct or not and the teacher stated the name of the concept. Then the teacher asked the students to create their own exemplars and checked them. In the last step of the treatment, the teacher had representative of each group discuss their understanding and explained how they had helped each other in the group to generate hypotheses and change them when they were incorrect. After the instruction, the students took the post-test. They were not allowed to use the dictionary, but they could ask the teacher about the meanings of unknown words, the same as the pre-test.

## ANALYSIS

### Analysis of Scores of Pre- and Post-Tests

The scores of the pre- and post-tests of the participants were collected. Each item in the test was equaled one point. The scoring criteria were set as follows: 1) 1 score was given to the correct tense, form of voice, and agreement of subject and verb, e.g. she *watched* TV last night; TV *was watched* by her last night. 2) 0.5 score was given to the correct tense, form of voice, but incorrect agreement of subject and verb or spelling, e.g. many rooms *was cleaned* yesterday; the homework *were finished* by her last night. 3) 0 score was given to the wrong tense, form of voice, and agreement of subject and verb, e.g. many rooms *cleans* yesterday; the homework *finished* by her last night.

The pre- and post-tests were scored and statistically compared using t-test and ANOVA. First, the pre-test mean score of each group was compared with that of the post-test using the t-test to see if CAM helped them learn. Then, the gained mean scores of the two tests were compared using the ANOVA to see if the three groups of the participants equally benefited from learning through CAM.

## Analysis of Thinking Strategies

The performance of the participants was observed by the researcher and video recorded to see whether the way they discussed their thinking and helped each other in group was consistent with their scores of the pre- and post-tests or not.

## RESULTS

The results of whether CAM can help students of different proficiency levels learn active and passive voices in the simple past tense will be presented first. They will be shown in three tables which were calculated using t-test.

**Table 1**

Pre- and Post-Test Scores of All Groups of Proficiency Levels

Groups of proficiency levels	N	$\bar{X}$		S.D.	t	p
		Pre-test	Post-test			
High	10	1.35	14.35	3.42	12.007	0.000*
Intermediate	4	0.25	7.50	3.43	4.230	0.012*
Low	12	0.17	8.83	3.17	9.465	0.000*

\*Significantly different ( $P \leq 0.05$ )

Table 1 shows that the post-test mean score of each group was higher than that of the pre-test. There were significant differences between the means of the post- and pre-test scores of the high, intermediate and low groups at  $p = 0.000$ ,  $0.012$  and  $0.000$ , respectively. This appears that in general CAM could help the students of three different proficiency levels learn the active and passive voice in the simple past tense.

**Table 2**

Pre- and Post-Test Scores of Active Voice Items of All Groups of Proficiency Levels

Groups of proficiency levels	N	$\bar{X}$		S.D.	t	p
		Pre-test	Post-test			
High	10	1.35	9.50	2.81	9.174	0.000*
Intermediate	4	0.25	6.13	2.25	5.222	0.007*
Low	12	0.17	6.92	2.01	11.658	0.000*

\*Significantly different ( $P \leq 0.05$ )

Table 2 shows that the post-test mean score of active voice items of each group was higher than that of the pre-test. There were significant differences between the means of the post- and pre-test scores of the high, intermediate and low groups at  $p = 0.000$ ,  $0.007$  and  $0.000$ , respectively. This seems that CAM could help the students of different proficiency levels learn the active voice in the simple past tense.

Table 3

Pre- and Post-Test Scores of Passive Voice Items of All Groups of Proficiency Levels

Groups of proficiency levels	N	$\bar{X}$		S.D.	t	p
		Pre-test	Post-test			
High	10	0.00	4.85	3.06	5.005	0.001*
Intermediate	4	0.00	1.38	1.70	1.616	0.103
Low	12	0.00	1.92	1.83	3.624	0.002*

\*Significantly different ( $P \leq 0.05$ )

Table 3 shows that the post-test mean score of passive voice items of each group was higher than that of the pre-test. However, the differences between the means of the post- and pre-test scores were statistically significant only for the high and low group ( $p = 0.001$  and  $0.002$ , respectively). There was no significant difference between the post- and pre-test scores of the intermediate group ( $p = 0.103$ ). This appears that CAM could help only the students of high and low proficiency levels learn the passive voice in the simple past tense.

In order to answer the research question regarding whether CAM is equally helpful for all groups of different proficiency level students, ANOVA was used to compare the means of the gained scores of the three subject groups. The data are shown in the table below.



Table 4

Gained Mean Score of Pre- and Post-Tests of All Groups of Proficiency Levels

Groups of proficiency levels	N	$\bar{X}$		$\bar{X}$ gained score	F	p
		Pre-test	Post-test			
High	10	1.35	14.35	13.00	6.46	0.006**
Intermediate	4	0.25	7.50	7.25		
Low	12	0.17	8.83	8.66		

\*\*Significantly different ( $P \leq 0.05$ )

Table 4 indicates that the means of the gained scores of the three groups were significantly different at  $p = 0.006$ . This means that CAM was not equally helpful for all of the groups. According to the means of the gained scores, CAM seems to be most helpful for the high proficiency students, followed by the low and intermediate groups, respectively. However, when the means of the gained scores of the three groups were compared statistically, it was found that the low and the intermediate groups had learned the concepts equally well. (See Table 5.)

Table 5

Comparisons of Gained Mean Scores between Each Pair of All Groups of Proficiency Levels

(I) GROUP	(J) GROUP	Mean Difference (I-J)	Sig.
High	Intermediate	5.75	0.007**
	Low	4.33	0.006**
Intermediate	High	-5.75	0.007**
	Low	-1.42	0.466
Low	High	-4.33	0.006**
	Intermediate	1.42	0.466

\*\*Significantly different ( $P \leq 0.05$ )

Table 5 shows that the means of the gained scores of the high and intermediate groups and the high and low groups are significantly different at  $p = 0.007$  and  $0.006$ , respectively. This means that CAM was more helpful for the high group than the other two groups. It helped the high proficiency group learn the most. In contrast, there is no significant difference between the intermediate and the low groups ( $p = 0.466$ ); therefore, CAM seemed to help the intermediate and low proficiency level students learn the concepts at the same degree.

From the overall observation of the students' performance on thinking strategies, it was evident that the students of all proficiency levels had similar thinking strategies. However, it was often the high proficiency ones who understand more and took a leading role in group discussions. And this is consistent with their gained scores after the treatment. That is, this teaching method seemed to work best for high proficiency level students. When generating hypotheses, they explained that they started with noticing the presented exemplars and shared their ideas in group about how the positive and negative ones were different.

Furthermore, the intermediate and the low students who were not certain of their thought tried to discuss with the high ones to assure or to check theirs. Sometimes a high proficiency student who took a leading role within group asked each of them what their opinions were, gathered the others' thoughts, created the hypotheses, and finally tested them. The low proficiency ones seldom led the group. Then they discussed and selected only one hypothesis which was from most of the members to define the studied concept and presented it to the class. Finally, when the generated hypotheses were not correct, the high proficiency students usually played a role of helping other students. They would start thinking once again about the incorrect hypothesis and ask for the others' opinions. Some low proficiency students gave their ideas on this after checking it out with the exemplars. Some used the other hypothesis which they had generated from the beginning to explain the exemplars. They did this until they finally could generate the correct hypotheses.

## DISCUSSION

The hypothesis that CAM helps students of different proficiency levels learn active and passive voices in the simple past tense is supported by the significant difference between the pre- and post-test scores reported. We can infer that CAM is a choice to help students of all groups of proficiency levels understand how to use the two voices because the participants were clearly able to perform better in their post-test. CAM can be helpful for the students in using active and passive voices. It enables learners to define the studied concepts (Abushihab, El-Omari & Tobat, 2011; Ahmed, Gujjar & Ali, 2011; Das, 1986; Gangrade, 1987; Kalani, 2009; Kulachit, 1993; Lamm, 1993; Peters, 1973; Polchai, 2003; Singh, 2011; Sreelekha & Ajitha, 2004; Sushama & Singh, 1987; Tongaht, 2007; Zacharia, 1989). There are at least two possible reasons to explain why CAM was beneficial for the students. First, it may be because the help that

the students needed was contained in Phase 2 of the syntax of the model, where the teacher had to approve of the students' hypotheses to correct their answers. From this, the students were certain about their hypotheses confirmed by the teacher which helped them in making decisions about using active and passive voices later. Another possible reason may be that the steps of analyzing the concept and preparing examples when planning the CAM lesson (Shamnad, 2005) were so well adjusted that the positive and negative exemplars presented were created accurately. Thus, the students could learn the concepts from these exemplars to generate their own hypotheses.

In addition, group discussion may have helped promote the students' learning of active and passive voices in the simple past tense. This is because the students had to give their ideas when considering the attributes of the exemplars, generate hypotheses, specify concept definitions, and improve or change the unconfirmed hypotheses. Based on the researcher's observation, during the activities, the students performed well. Most of them played active roles in participating with each step of learning. They helped each other in the group figure out the concepts. The high proficiency level ones, in particular, tried to answer the questions from the intermediate and low students. They came to present their understanding, and how they formed hypotheses in front of the classroom. This was beneficial for the students who paid attention to the representative of each group because they could compare what the representatives said to their ideas. Nevertheless, there were some students who did not actively join both group discussion and class activities. Even some high

proficiency level students did not pay enough attention to the activities and some were not confident to present their ideas in front of the classroom. This might be the reason why some low proficiency level students had higher gained scores than some high ones in the post-test.

However, the attainment of the active and passive voice of each group of proficiency level students was different. According to Table 2, it is shown that there is significant difference between the pre- and post-test scores of active voice items of all groups. This shows that the students were better at using active voice. When it comes to the result shown in Table 3, however, the difference between the pre- and post-test scores of passive voice items of the intermediate groups is not statistically significant. It appears that CAM did not effectively help this group of learners learn the target passive voice. As Hinkel (2002) and Master (1991), cited in Hinkel (2004) said, English passive voice is very difficult for non-native speakers to use correctly. Some students did not perform better in their post-test. They still had problems using passive voice. The learning of the subjects of this study may have been affected by their L1, which is a topic-prominent language, in which passive constructions are rarely used (Li & Thompson, 1976). But why did this only happen to the students of intermediate proficiency level? The answer might be about the number of the students in this group which might not be high enough.

The data affirmed that although CAM was beneficial for all groups of learners, it was not equally helpful for all of the groups as the gained mean scores of each group were significantly different (See Table 4). CAM appeared to be most helpful for the high proficiency level students who received the highest gained score in the three groups. In other words, this group benefited from CAM the most. It might be then concluded that when CAM is used, the teachers may need to focus more on helping the other two groups.

From the researcher's class observation, the intermediate and low

proficiency level students paid less attention to and were less engaged in the teaching. They seemed to be passive learners. Also, they were different from the high proficiency level ones who were thoughtful when answering whether the unlabeled exemplars were positive or negative. This resulted in similar performance of both intermediate and low proficiency students in the post-test. As the two groups were not adequately engaged in figuring out the structures of the sentences, they therefore might not be able to retain the concept of the structures they had learned (Scott, 2007). However, CAM appears to be helpful for all groups of different proficiency level students. It can be employed as a teaching method for teaching a new concept in a mixed proficiency levels class. Also, grouping students with different proficiency levels in a second language class is a good way of learning together because the students of high proficiency level can help the lower ones by discussing. This will make the high proficiency group increase their awareness of what they know, and conversely, this will help the low proficiency ones reduce their anxiety and learn from the better ones through the discussion about their thinking (Kessler, 1992). This is evident in this study. The students of all proficiency levels seemed to benefit from class activities. They helped each other learn.

In the aspect of students' thinking strategies, as shown in the results, the different proficiency level students' thinking processes were similar. The students of all groups here compared and contrasted between the positive and negative exemplars. Then they generated hypotheses from what they had studied, and finally tested them by answering if the unlabeled exemplars were 'yes' or 'no'. All groups of students have learned the target grammar through CAM.

## Pedagogical Implications

CAM may be a good choice for teachers who teach a multi-proficiency level classroom. However, the teacher should put more emphasis on the passive voice, particularly with the intermediate group. Meanwhile, mixing students of different proficiency levels in a class is good. In this study, it was clear that the students of all groups could gain benefit, and learn. Group discussions also helped low learners reduce learning anxiety, which could increase learning motivation. In addition, when using CAM, the teacher should closely observe students' roles during the activities to see how they discuss and help each other. The teacher should encourage students to give opinions in their own group and inspire students to have confidence to present their hypotheses and to help each other when making presentations. Furthermore, the teacher has to play the key role in facilitating every step and approve the learners' generated hypotheses.

This study has provided variations of strategies, elements of the model, and steps of planning a Concept Attainment Lesson for ones who are interested in using CAM to teach a new concept to arrange a lesson consistently with the determined objectives.

## Recommendations for Further Studies

First, the duration of the study should be longer for teaching concepts so that the higher number of presented labeled and unlabeled exemplars will be given to the students to consider and practice, and also the students will have more time to compose active and passive sentences. Especially the time for teaching and practicing passive voice should be longer.

Second, the students should be encouraged to join group activities because their ideas may be useful for their friends to figure out the concepts. The teacher may have the students form their own group to increase their

learning motivation. The teacher should also provide appropriate questions to guide the students in describing their ideas.

Next, the number of participants should be larger. There should be at least five participants in each group of proficiency level.

Finally, a long-term assessment of understanding active and passive voices in the simple past tense is useful to see if the method can help learners learn in the long run.

## REFERENCES

- Abdulsata, P. (2000). **An error analysisi of Srinakharinwirot University second year English major students' compositions.** Master's Thesis: Srinakharinwirot University, 2000.
- Ahmed, I., Gujjar, A.A. & Ali, A. (2011). "A comparative study of effectiveness of Concept Attainment Model and Advance Organizer Model in teaching of English in teacher education course", **Strength for Today and Bright Hope for Tomorrow.** 11: 216-231.
- Bruner, J.S., Goodnow, J. J. and Austin, G. A. (1956). **A Study of Thinking.** New York: Wiley.
- Das, B. (1986). "The effectiveness of CAM in terms of teacher competency of pre-school student teachers", In **Trend report and abstract.** Indore: India. Devi Ahilya Visihwavidyalaya.
- Gangrade, A. (1987). "Comparison of combination of CAM and lecture method with traditional method for teaching science to class VIII and VII students", In **Trend report and abstract.** Indore: India. Devi Ahilya Visihwavidyalaya.
- Hinkel, E. (2004). "Tense, aspect and the passive voice in L1 and L2 academic texts", **Language Teaching Research.** 8(1): 5-29.



- Jogthong, C. (2001). **Research article introductions in Thai: Genre Analysis of Academic Writing**. Virginia: West Virginia University.
- Kalani, A. (2009). "A study of the effectiveness of concept attainment model over conventional teaching method for teaching science in relation to achievement and retention", **Shodh, Samiksha aur Mulyankan (International Research Journal)**. 2(5): 436-437.
- Kessler, C. (1992). **Cooperative language learning**. New Jersey: Englewood Cliff, Prentice-Hall.
- Kulachit, N. (1993). **A comparative study of English achievement and retention of prathom suksa V students using the two approaches : Bruner's concept attainment and the conventional approach**. Master's Thesis: Khon Kaen University.
- Lamm, H.A. (1993). **Comparison of two teaching strategies on post-secondary developmental mathematics students**. Dissertation Abstracts Online. [http:// / proquest.umi.com/ pqdweb?](http://proquest.umi.com/pqdweb?). October 8, 2011.
- Li, C. N. and Thompson, S. A. (1976). "Subject and Topic: A New Typology of Language", In Charles N. Li (ed.), **Subject and Topic**. New York: Academic Press.
- Michaelis, L. (1994). "The ambiguity of the English present perfect", **Journal of Linguistics**. 30(1): 111-57.
- Moolkai, V. (2005). **The development of instructional activities on social studies, religion, and culture by using concept attainment model for Mathayomsuksa two students**. Master's Thesis: Udon Thani Rajabhat University, 2005.
- Nehls, D. (1988). "Modality and the expression of future time in English", **International Review of Applied Linguistics in Language Teaching**. 26(4): 295-307.

- \_\_\_\_\_. (1992). "An analysis of verbal aspect", *International Review of Applied Linguistics in Language Teaching*, 30(4): 255-280.
- Noisaengsri, P. (1981). *Teaching English for Thai students: A transformational Approach*. Bangkok: Thailand. Ramkhamhaeng University.
- Olson, D.R. and Nickerson, N.G. (1977). "The contexts of comprehension: on children's understanding of the relations between active and passive sentences", *Journal of Experimental Child Psychology*, 23(3): 402-414.
- Perera, K. (1987). *Understanding Language*. London: NAAE.
- Peters, C.W. (1973). "A comparison between the Flayer model of concept attainment and the textbook approach to concept attainment", *Dissertation Abstract International*, 34(7): 3390.
- Pfaff, C.W. (1987). "Functional approaches to interlanguage", In Pfaff, C.W., (ed.), *First and second language acquisition processes*. Cambridge, MA: Newbury House.
- Pica, T. (1994). "Questions from the language classroom: research perspectives", *TESOL Quarterly*, 28(1): 49-79.
- Polchai, Y. (2003). *Effects of using the Concept Attainment Model in organizing mathematics instructional activities on mathematics concepts and learning retention of eighth grade students in Udon Thani province*. Master's Thesis: Chulalongkorn University, 2003.
- Quirk, R., Greenbaum, S., Leech, G. and Svartvik, J. (1972). *A Grammar of Contemporary English*. London: Longman.
- Raimes, A. (1992). *Exploring through writing*, second edition. New York: St Martin's Press.
- \_\_\_\_\_. (1999). *Keys for writers: a brief handbook*. Boston: Houghton Mifflin.
- Richards, J. C., Gallo, P. B. and Renandya, W. A. (2001). *Exploring teachers' beliefs and the processes of change*. [http:// www.professorjackrichards.com/pdfs/explo ring-teacher-change.pdf](http://www.professorjackrichards.com/pdfs/explo ring-teacher-change.pdf). September 25, 2011.

- Rutherford, W. and Sharwood Smith, M. (1985). "Consciousness-raising and universal Grammar", In Rutherford, W. and Sharwood Smith, M., (eds.), **Grammar and second language learning**. New York: Newbury House.
- Scott, G.G. (2007). **Thirty days to a more powerful memory : How your memory works**. New York: AMACOM.
- Shamnad, N. (2005). **Effectiveness of Concept Attainment Model on achievement in Arabic grammar of standard IX students**. Master's Thesis: School of Pedagogical Sciences Mahatma Gandhi University, 2005.
- Singh, T. (2011). "Effectiveness of Concept Attainment Model on Mental Process and Science Ability", **Recent Research in Science and Technology**. 3(6): 22-24.
- Smalley, R., Ruetten, M. and Kozyrev, J. (2000). **Refining composition skills**, fifth edition. Boston: Heinle and Heinle.
- Somkul, S. (1995). **A study of the relationship between grammatical structure awareness, lexical meaning recognition, and English listening ability of grade nine secondary school students in Sukhothai province**. [http:// www.thaiedresearch.org/ thaied/ ?q=thaied\\_results&action=list&table=access&op=search&-search=สมเกียรติ%20สมกุล](http://www.thaiedresearch.org/thaied/?q=thaied_results&action=list&table=access&op=search&-search=สมเกียรติ%20สมกุล). September 25, 2011.
- Sreelekha, S. and Ajitha N. (2004). **The effectiveness of concept attainment model (CAM) in learning chemistry at secondary level**. [http:// ncert.nic.in/ sites/ publication/ j3sch\\_sc\\_4.htm](http://ncert.nic.in/sites/publication/j3sch_sc_4.htm). October 8, 2011.
- Sushma. (1987). **Effectiveness of Concept Attainment Model and Biological Science Inquiry Model for teaching Biological Science to VIII class students**. Varanasi: India. Banarus Hindu University.
- Swales, J. and Feak, C. (1994). **Academic writing for graduate students**. Ann

Arbor: The University of Michigan Press.

\_\_\_\_\_. (2000). **English in today's research world**. Ann Arbor: The University of Michigan Press.

Tongaht, C. (2007). **Effects of a Concept Attainment Model on learning achievement of Thai language principles and usage and conceptual thinking ability of eighth grade students**. Master's Thesis: Chulalongkorn University, 2007.

Wanxia, Chen. (2002). "On Acquisition of English Passive Voice from CLEC", **Foreign Language Teaching and Research**. 2002(3): 198-202.

Wren P.C and Martin. (1990). **High School English Grammar and Composition**. New Delhi: S. Chand and Company Ltd.

Zacharia, R. (1989). **Effect of CAM in teaching economics in standard VIII**. Master's Thesis: University of Kerala.