

CHAPTER 2

REVIEW OF RELATED LITERATURE

This study has three major sections. At the very beginning, grammar is briefly reviewed to establish relevant theoretical background including the importance of learning grammar, methods in teaching grammar, and Thai university students' grammatical errors and their causes. Secondly, L1 in the EFL classroom is discussed. Finally, computer-assisted-language learning is reviewed into two minor sections: effectiveness of grammatical CALL packages and features of well-designed CALL lessons.

2.1 Grammar

2.1.4 Importance of Learning Grammar

Using language efficiently requires many skills, and to perform those skills, students should possess a certain level of grammatical knowledge. It helps them to use language not only as senders, but also receivers. As senders, grammatical knowledge helps them combine words into sentences (Harmer, 1995, 1997). Rea Dickins and Woods (1988) state that when students communicate, they want to convey their meaningful messages to be interpreted as effectively as possible. Thus, their language should be grammatically correct in order that their interlocutors can understand what they want to say. With the grammatical knowledge they possess, it is believed that students eventually avoid making mistakes (Bowen et al., 1985; Harmer, 1995, 1997). This statement is in harmony with Krashen's monitor hypothesis, which posits that students can edit their language before or after producing it when they know grammar rules (Krashen and Terrell, 1983). As receivers, grammatical knowledge helps them to understand senders' messages. As pointed out by Scarcella and Oxford (1992) that students construct their meaning by paying attention to content words that they understand, their background knowledge, and word order when they get messages. At

the same time, they can understand sentences more accurately when they have relevant grammatical knowledge.

2.1.5 Methods in Teaching Grammar

Two methods that have been widely used in teaching grammar are: overt/deductive/explicit and covert/inductive/implicit (Cross, 1991; Harmer, 1997). The former means that teachers present and explain grammar rules explicitly to students. Students then practice using the rules and in the end, they can apply the rules when they use the language. The latter refers to a way of teaching grammar by encouraging students to use and acquire grammar rules subconsciously through activities provided by their teachers. While students are participating in the activities, they focus on the activities not on the rules and then they can discover the rules themselves. Choosing an appropriate method to teach grammar depends on many factors such as students' proficiency levels, time available, students' needs, learning styles and grammar aspects to be presented (Cross, 1991; Fortune, 1992).

Those who favor the deductive teaching method believe that teaching grammar deductively is easy because it does not take much time for teachers to explain (Cross, 1991; Hedge, 2000). As a result, they can spend more time on having students work on communicative activities to practice using language within limited class time (Harmer, 1997). Adult learners prefer learning grammar explicitly because they want to understand how language works in order to apply the rules when they produce language (Cross, 1991). For low proficiency students, this way of learning grammar explicitly provides them with a sense of security because they know what they are expected to do with the language they are learning (Fortune, 1992).

Those who favor the inductive teaching method accept that teaching grammar inductively enhances learning because it challenges students, especially high proficiency students, to discover the rules themselves, which makes them feel successful (Fortune, 1992). For young students, it is more appropriate to teach grammar inductively because they can practice and use the language as much as possible in class so that they can acquire language subconsciously (Harmer, 1997). In addition, learning the language subconsciously makes young learners perceive the language as a whole (function of

language) not as a separate part (form of language). This method is appropriate for young learners as stated by Phillips (1997) that the younger the students are, the more holistic learners they will be.

Choosing a particular method to teach a certain group of students does not mean that once a teacher adopts one teaching method, he has to stick to that method as the only one to be used. Both deductive and inductive methods can be used alternatively depending on learning circumstances because in some instances the deductive teaching method might be more suitable and vice versa.

In the present study, the deductive teaching method seems to be more appropriate because the subjects are not proficient in English. Besides, as the grammatical CALL lessons used in this study are presented in a form of self-study, it is more suitable to provide students with explicit grammatical explanations.

2.1.6 Thai University Students' Grammatical Errors and their Causes

Much research on Thai university students' errors in writing English has been conducted. Some focused only on students' errors while some focused on both errors and their causes. Sukamolsun (1980), Rujikiatgumjorn and Chiewkul (1987), Lukanawanich (1988), Torut (1997), and Lush (2002) analyzed Thai university students' compositions for their errors. They found that the most frequent errors were grammatical ones, such as: articles, tenses, prepositions, and subject-verb agreement.

Interestingly, Ubol (1979) and Srichai (2002) also analyzed the compositions written by students at Prince of Songkla University, at Pattani and Hat Yai Campus respectively. Ubol (1979) analyzed the compositions of 150 first-year students and 30 third-year students majoring in English. The first group of students was assigned to write a free composition of about 200 words within a 50-minute class period in the third week of the first semester. Four months later, both groups of students were asked to translate a 200 word Thai text into English. The findings showed that the most frequent errors made by the subjects were grammatical errors such as verbs, nouns, prepositions, articles, and determiners. Srichai (2002) analyzed the compositions of 59 first year students. The students were given a series of pictures and then assigned to write a composition of 150 words based on it within 50 minutes. It was found that the most frequent errors made by

her subjects were grammatical errors such as determiners, verb tenses, pronouns, and prepositions.

The results of these two studies were in line with the above studies in that the frequent grammatical errors made by students were articles, tenses, prepositions and subject-verb agreements. The two main causes of the students' errors were language transfer and overgeneralization (Rujikiatgumjorn and Chiewkul, 1987; Lukanawanich, 1988; Torut, 1997; Lush, 2002).

Based on the aforementioned studies, it is important to highlight the fact that Thai university students make the same grammatical errors repeatedly. From my teaching experience, I have found that students have persistent problems in the use of grammatical aspects like the subjects in the studies mentioned above, especially the use of "Articles" and the use of "There is/There are and Have/Has." Mastering grammatical points, especially problematic ones, does not occur over night. Students should have sufficient time to learn and internalize them. Admittedly, the limitation of formal teaching is that teachers have very limited class time to cover all aspects they are supposed to teach. As a result, grammar points are taught in a hurried manner and students do not have enough time to fully understand them and be able to use them appropriately.

Consequently, in this study, two problematic grammatical points: the use of "Articles," and the use of "There is/There are and Have/Has" were chosen to teach students in the form of self-study.

2.2 Using L1 in EFL Classroom

Teachers' explanations play a vital role in teaching because they help explain or clarify points that students do not understand. Languages used in explaining grammar are important. There is no doubt that in L2 classrooms, the use of L2 should be maximized because the more exposure students have to L2, the more they will know the language (Krashen, 1981). However, it can be argued that there are times when L1 can be used and it does not decrease students' exposure to English (Atkinson, 1987, 1993; Auerbach, 1993; Schweers, 1999; Tang, 2002). On the contrary, it can assist in the teaching and learning process, especially in explaining grammar rules. Two advantages of using L1 to explain the rules are that it enhances students' motivation and saves classroom time.

Atkinson (1987, 1993), Auerbach (1993) and Gardner and Gardner (2000) assert that students, particularly low proficiency ones, are discouraged and unmotivated when they do not understand the teacher's explanations in L2. As a result, their ability to learn is lowered (Krashen, 1981). By contrast, when teachers explain grammar rules in L1, students are more comfortable and consequently they can get more input in the learning process. As for saving classroom time, once the time used to explain grammar rules is reduced, the class time can be devoted for students to practice using the language. In contrast, using L2 in this case is time consuming because teachers have to explain the same issue several times and finally discover that the students do not understand the grammar explanations given in English.

There are several studies confirming the advantages of the use of L1 in an L2 classroom. Schweer (1999) conducted a study to investigate the use of Spanish (L1) at the University of Puerto Rico, Bayamon campus, by observing three English classes at the beginning, middle, and end of the semester to determine how frequently and for what purposes the teachers used L1 in their classes. To obtain data on this, he also distributed two sets of questionnaires. The first set was distributed to 19 teachers including the three he observed. The purpose of the first set of questionnaires was to get information concerning teachers' attitudes towards the use of Spanish in the English classroom. The second set of questionnaires contained similar items but it was handed out to the students in the classes he observed and in his own three Basic English classes. Results showed that the three teachers sometimes used L1 to aid students' comprehension in explaining difficult concepts. Most students (88.7%) agreed that L1 should be used in L2 classrooms to explain difficult concepts and to define new vocabulary. Both the teachers and students had positive attitudes towards the use of Spanish because it saved classroom time for the explanation. The students also said that they felt more comfortable and confident in learning the language, especially when learning difficult concepts. They also felt less confused in their learning process.

Similarly, Tang (2002) conducted a study to investigate the use of Chinese (L1) in three English reading classrooms in a university in Beijing, China. He observed three classes conducted by three teachers at the same university in order to find out how frequently and on what occasions Chinese was used. He also interviewed the three teachers about the reasons they switched to Chinese. After the interview, he distributed

questionnaires to 20 teachers and 100 first-year English major students with the purpose of discovering their attitudes towards using Chinese in their English classroom. Findings revealed that within a 50-minute reading class, Chinese was used ten, seven, and twelve times by the first, second, and third teacher respectively. They used L1 to give instructions and explain the meaning of words, complex ideas, and complex grammar points. They also used L1 when their English explanation failed to work. The students agreed that L1 should be used to explain complex grammar points and define new vocabulary. Both teachers and students had positive attitudes towards the use of L1 because it made students understand the lesson better and saved classroom time.

The review above indicates that there is a place for L1 in L2 classrooms, especially for explaining grammar rules as it helps students understand the rules more clearly. Since the purpose of this study is to teach certain English grammatical aspects, which are problematic to Thai students, the language used as a medium of instruction should be Thai in order to facilitate students' understanding of grammatical aspects.

2.3 Computer-Assisted Language Learning

2.3.1 Effectiveness of Grammatical CALL Packages

Recently, computers have been playing an important role in teaching and learning. When a computer is used to help students learn languages, it is called Computer-Assisted Language Learning or CALL. It has great potential for educational purposes, not incidentally, for interactivity and student control (Hoffman, 1996). Studies investigating the effectiveness of CALL lessons in teaching grammar confirm that CALL lessons can be used to teach English, especially grammar, as effectively as traditional instruction for many reasons (Nagata, 1996; Nutta, 1998; Suppasetsee, 1998).

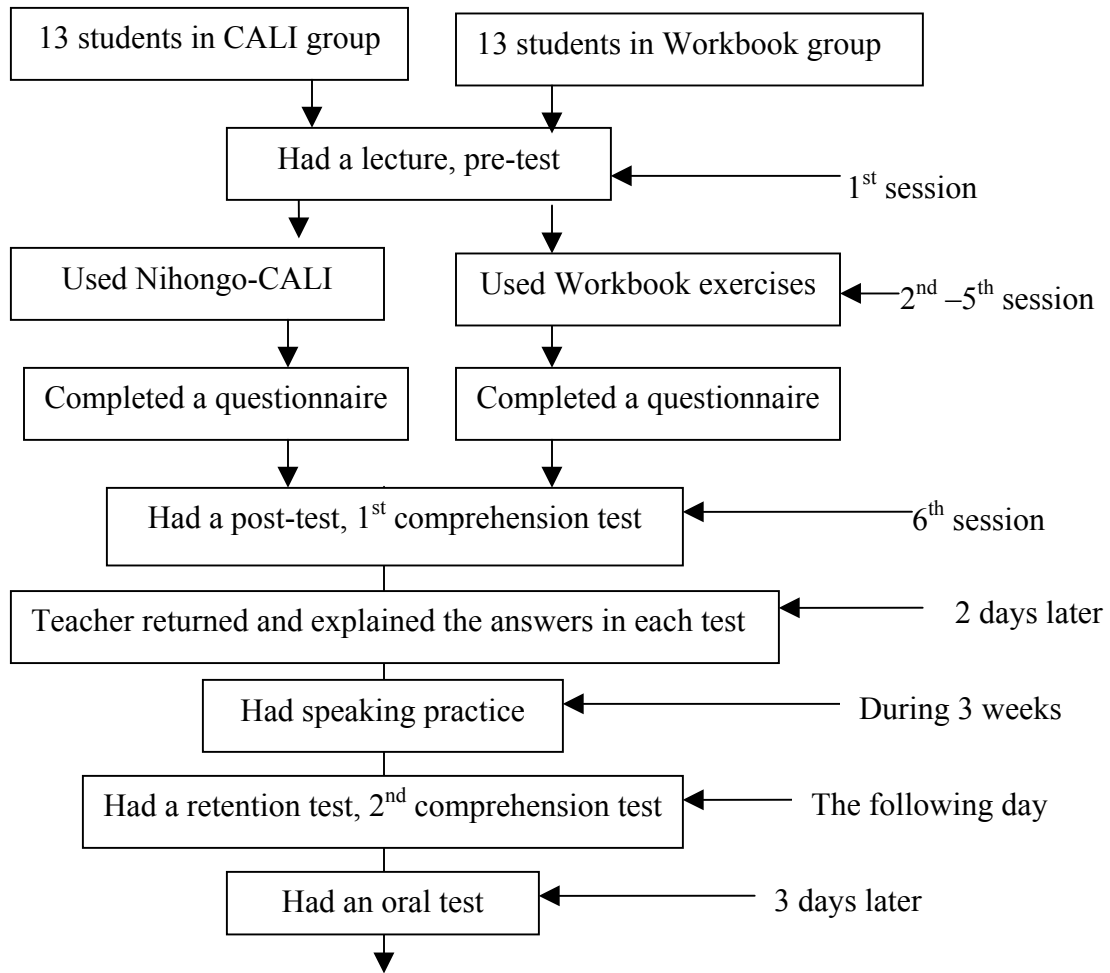
First, when learning a language with CALL packages, students are by and large motivated and active in their learning process because of the interactive nature of CALL lessons. That is, CALL lessons can provide individual students with clues, explanations, answers or feedback spontaneously and repeatedly on demand. In addition, computers convey negative feelings about students' repeated mistakes or misunderstandings but teachers or friends might not because they may weary of repeating the same answers

several times (Garette, 1991; Sokolik, 2001). Therefore, students are not afraid of making mistakes or losing face because the responses they receive from CALL lessons are directed to them individually and positively, which in turn makes them feel less stressed and increases their confidence in participating in the learning process (Bickel and Truscello, 1996; Hoffman, 1996). Learning through CALL lessons is also enjoyable since it can provide textual, audio, and visual information at the same time (Torut, 1999).

Secondly, students can control their pace of learning as well as the sequence. That is to say, they can choose what they want to learn first, spend more time on certain parts, or skip the parts they do not want to learn (Garette, 1991; Karl, 1991; Hoffman, 1996; Torut, 1999). In addition, they can check their progress after finishing each lesson and then they can make their decision as to whether they want to do the same lesson again or move on to the next lesson (Hoffman, 1996). Students can also review the lessons as many times as they want (Garette, 1991; Nutta, 1998; Sokolik, 2001). Another advantage is that students can learn through CALL packages at any time because teachers can assign them to learn with CALL lessons in a form of self-study lessons themselves (Garette, 1991; Torut, 1999).

Due to these advantages, CALL lessons have been widely used to assist teachers in teaching languages. Many studies have been conducted to determine the effectiveness of grammatical CALL packages and students' attitudes towards using them. Nagata (1996) compared the effectiveness of Nihongo-CALI (the CALL package used to teach Japanese particles and sentences) with non-CALI workbook instruction, which were in the form of self-study lessons as summarized in **Figure 2.1**. She also investigated students' attitudes towards CALI versus workbook instruction.

Figure 2.1 Summary of Nagata's (1996) Research Design



The subjects were twenty-six students attending two Japanese classes at the University of San Francisco. They were assigned randomly to either a CALI group or a workbook group. All took part in six experimental sessions conducted by the same instructor. The first session aimed to determine the student's performance level in producing Japanese particles and sentences before starting the computer or workbook session. Students in both groups had the same grammatical instruction and exercises. The main difference was that Nihongo-CALI provided ongoing detailed grammatical feedback in response to the students' errors, while workbook instruction provided answer sheets to have students check their responses without any detailed feedback about individual errors. At the end of the fifth session, the subjects in both groups responded to the questionnaire, which asked for their attitudes toward using CALI and workbook

instruction. In the sixth session, they were assigned to do a post-test and a first comprehension test in the classroom to discover the students' respective abilities in producing Japanese particles and basic sentences, and their comprehension of basic Japanese sentences including the target particles.

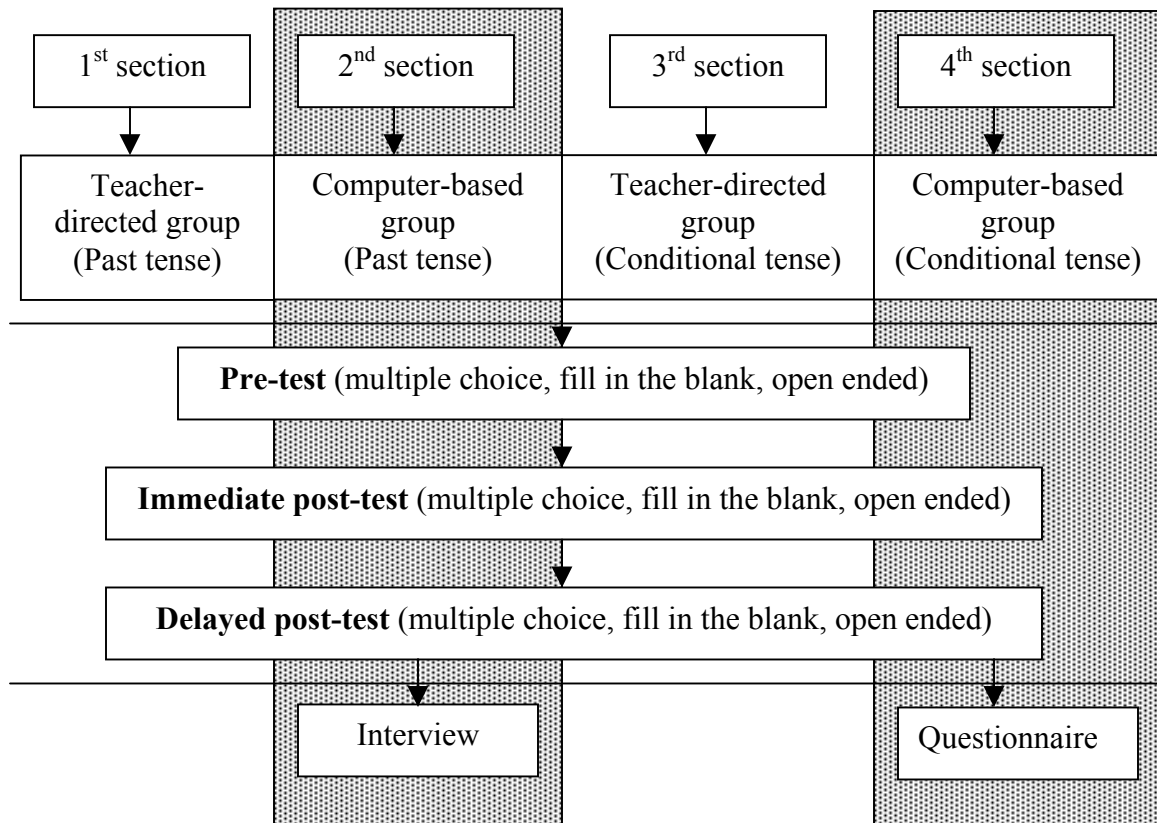
Two days later, both tests were returned to the students. The instructor explained the answers in each test and collected the tests back as they would be used as a retention test later. The students had practiced speaking for three weeks after the sixth session, and then did the retention test and the second comprehension test. The objective of the test was to find out the long-term effects of Nihongo-CALI when compared to that of the workbook instruction. Three days later, the instructor administered an oral test to individual students, requiring them to apply the rules they had learned about particles to construct sentences to see whether they could use these rules correctly.

It was found that students in both groups had the same performance level in producing the Japanese particles and sentences before the experimental sessions based on the pre-test scores and that they were able to understand Japanese sentences referring to both comprehension tests. However, the results of the post-test, retention test, and oral test revealed that the students in the CALI group performed better than those in the workbook group. As for the results from the questionnaire, the students in the CALI group had very positive attitudes towards Nihongo-CALI, whereas the students in the workbook group did not show significant positive attitudes towards the workbook instruction.

Another study on the effectiveness of CALL packages conducted by Nutta (1998) compared the effectiveness of CALL packages against teacher instruction as well as investigated students' attitudes towards CALL packages. Forty-three students attending an intensive academic ESL course at a university in Florida were the subjects of her study. They were divided into four sections according to their scores on the Comprehensive English Language Test: the first and third sections were in teacher-directed groups and the students in the other two groups were in computer-based groups (see **Figure 2.2**). The purpose of using two main groups was to examine the acquisition of discrete structures at different levels of proficiency. The students in the former groups were taught by five different teachers using a variety of activities emphasizing

interactive, meaningful, and creative expressions, while those in the latter groups received computer-based instruction outside the classroom.

Figure 2.2 Summary of Nutta's (1998) Research Design



Due to the students' level of proficiency in English, the students in the first and second section were considered as low proficiency students in using English. They were taught the past tense covering past simple, past continuous and present perfect. On the other hand, the other two sections were considered as high proficiency students in using English. They were taught the conditional tense covering the factual, unreal and unlikely conditional. All subjects had to complete three tests: a pre-test, immediate post-test, and delayed post-test. After the test, students in the second section were interviewed and the students in the fourth section were asked to complete the questionnaire to find out students' attitudes towards learning through CALL packages. Both sections were computer-based groups.

The results of the tests showed that all students performed similarly on multiple choice and fill-in-the-blank tests whereas the students in the computer-based groups got higher scores than the students in the teacher-directed groups on open-ended tests. It revealed that with CALL packages, students at all levels of English proficiency developed their grammar skill. The results from the interview and the questionnaire revealed that the students were satisfied with learning through CALL packages because they could repeatedly review the tutorial lessons, proceed at their own learning pace, record their voices and compare them with the models, and get immediate feedback on the exercises.

In Thailand, Suppasetsee (1998) conducted his study on the effectiveness of communicative English grammar courseware. The purposes were threefold: to determine the efficacy of the lessons based on the 80/80 standard, to examine students' achievement in learning English conditional sentences, and to find out students' attitudes towards learning English through courseware. There were thirty engineering students from Suranaree University of Technology in the academic year 1997 in the study. The subjects took a pre-test before using the courseware, which included: future possible, present unreal and past unreal. They were required to finish the exercises in each lesson. After completing the lessons, they took a post-test, and responded to a questionnaire asking about the students' attitudes towards the courseware. His experiment had taken one week. He found that his courseware was effective in teaching grammar since it had the efficacy of 95.13/95.75. This was higher than the 80/80 standard level. In other words, the students' average scores on the exercises in each lesson and the post-test were higher than the scores he determined. Also, the scores on the post-test were higher than those in the pre-test.

The study revealed that the subjects improved their abilities in using conditional sentences after learning with the courseware. Referring to the questionnaire, it was found that the subjects had positive attitudes towards the courseware since they stated that they understood the contents more clearly and they could learn the lesson without any anxiety.

The above studies produced similar results in that grammatical CALL packages can be as effective as traditional instruction (teachers, workbooks) in teaching grammar. Students also have positive attitudes towards learning grammar through CALL packages. However, it is noticeable that in Nagata's research design, returning and explaining the

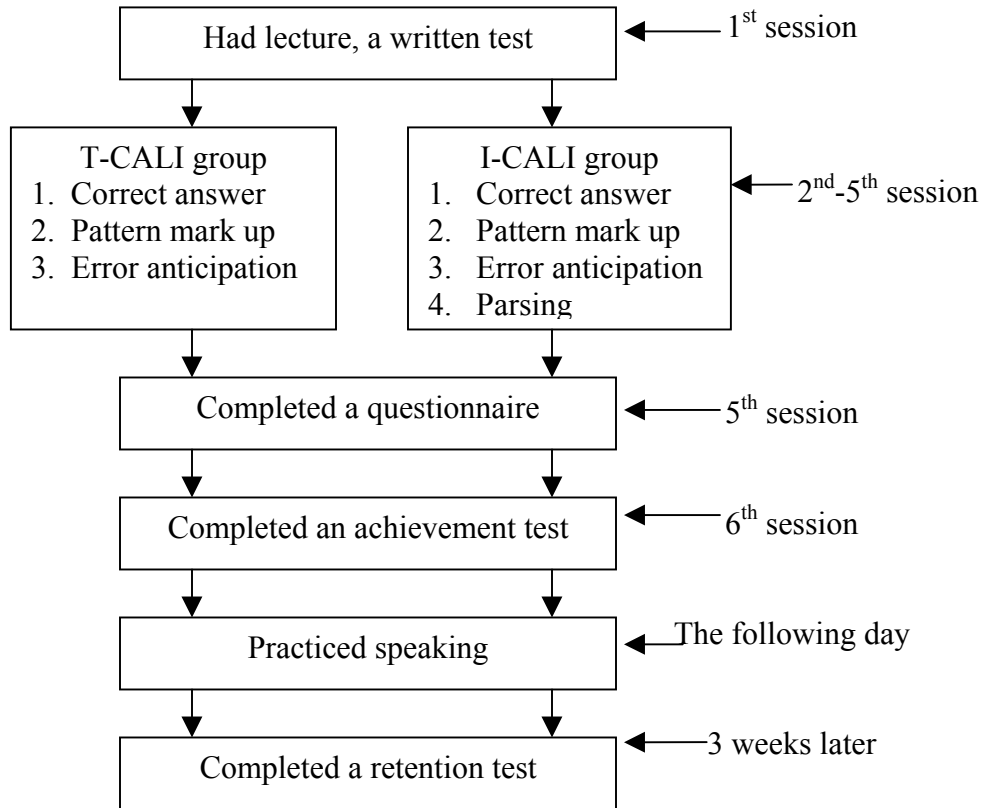
post-test and the first comprehension test may have affected the students' scores on their retention test and the second comprehension test since the input at this stage was neither from CALI nor workbook instruction, but from teacher instruction. Also, the students got the input from their teacher before the oral test. Interestingly, students in the CALI group performed better than those in the workbook group.

Also, in Nutta's research design, the subjects in the second section were interviewed whereas those in the fourth section completed the questionnaire to find out their views in learning with CALL lessons. The students in each group had different input: past tense and conditional sentences respectively. This may have been intended to show whether students of different abilities benefit equally from CALL packages. In Suppasetserree's study, he did not consider other features, which may have influenced the efficacy of his courseware such as their background knowledge, and level of English proficiency.

2.3.2 Features of Well-Designed CALL lessons

To achieve high effectiveness, Nagata (1993, 1996) indicates that CALL packages are most effective when they can provide students with individual immediate feedback. Nagata (1993) compared the effectiveness of the feedback of traditional CALL with Intelligent CALL instruction. The focus was specifically on differences in amount and quality of feedback associated with the traditional CALI (T-CALI) and the intelligent-CALI (I-CALI) exercises (see **Figure 2.3**). That is to say, T-CALI exercises provided feedback about what was wrong, for example: what word was missing, incomplete, or not expected to be used, while I-CALI exercises provided not only the above information but also detailed explanations of why responses were wrong. These two types of CALL exercises aimed to develop students' grammatical competence in Japanese passive sentences. Also, the study determined the students' attitudes towards the CALL packages.

Figure 2.3 Summary of Nagata's (1993) Research Design



The subjects in this study were thirty-four students in a second-year Japanese language course at the University of Pittsburgh. In the experiment, there were six sessions. In the first session, the subjects were given brief explanations about Japanese passive structures and they were asked to finish the written test in order to assess their knowledge of basic grammar. Based on the results of the written test, the subjects were paired and randomly assigned to either the T-CALI group or the I-CALI group. From the second to the fifth session, the subjects learned and practiced the passive structure using computers. A questionnaire administered at the end of the fifth session was used to find out the students' views in using the packages. The subjects took an achievement test in the sixth session conducted in the classroom. After the experimental session, the students had speaking practice in using passive sentences for thirty minutes. Three weeks later, they took a retention test.

With regard to the achievement test, the students in the I-CALI group made fewer errors than those in T-CALI group, likewise in the retention test. On the questionnaire, the students exhibited very positive reactions to both packages, regardless of whether they had used I-CALI or T-CALI since the lessons were clear and easy to use, the exercises were interesting, and they could work on the exercises at their own pace. It can be seen that an effective CALL lesson should provide detailed explanations with feedback because it helps students develop their grammar skills.

Apart from feedback, CALL experts (Hoffman, 1996; Herrell, 1998; Boonarayakul, 1999; Sokolik, 2001) suggested on the basis of their studies that many features should be taken into account when designing a screen display to achieve effectiveness such as font, color, navigation, the amount of text, and graphics. The suggestions are as follow:

Font

1. Use simple and easy-to-read fonts to read.
2. Use a combination of upper-and lower-case letters rather than all upper-case letters to enhance legibility.
3. Avoid using unusual type styles such as underlining, reverse, shadowed text, and so on.
4. Use bold letters for emphasis or cues on-screen but do not overuse them because that can decrease their effectiveness.
5. Recommend using the following fonts: Bookman, New Century Schoolbook, Angsana UPC, CordiaUPC, BrowalliaUPC, JasmineUPC, Arial, and Hetvetica.
6. Do not use more than two different fonts on a single-screen display.
7. Use the same font types throughout the lesson.
8. Use font sizes larger than 12-point as headings and titles, and 10 or 11 point body text.

Color

1. Do not use more than 3 colors on a single-screen display to minimize eyestrain.

2. Use low glare hues such as grays, soft whites, and browns, instead of bright yellow, red, or green.
3. Contrast font colors with background colors so the text is easy to be read.

Navigation

1. Be easy and clear to students.
2. Be inside the normally visible area on an average computer monitor.
3. Give students opportunities to go back and forth or exit any time they want to by providing effective navigations.

The amount of text

1. Avoid putting too much text on the screen because it can overwhelm students and it may cause eyestrain. The amount of text on one screen should not be more than 8-10 lines.
2. Avoid putting too little text on the screen like a sentence or a line at a time because it can bore students since they have to click the mouse more often.

Graphics

1. Put only two and three dimensional cartoons, video clips, and comics on one screen.
2. Do not put more than three pictures on a single-screen display.
3. Be careful when providing feedback for incorrect responses. Students may pay more attention to incorrect response feedback because of its stimulating effects. That is to say, sometimes students intentionally give wrong answers, just to see what will happen. If graphics in feedback for wrong answers are particularly interesting or motivating they may continue to give wrong answers deliberately.

Harrell (1998), Boonarakul (1999), and Sokolik (2001) point out that the most important thing to keep in mind when designing the screen display is harmony and consistency. That is to say, whatever is presented on the screen such as font color and background color should harmonize. The screen should maintain the same patterns and styles. For example, the color scheme should be consistent. If a blue font is used for a

link, it should be used throughout lessons so that it is easy for students to recognize that they can click the blue font for the link.

Apart from the features mentioned above, there may be other variables, which enhance the efficacy of CALL packages. Explanation styles are also important features found in CALL packages and they have not been studied to see what students' attitudes towards explanation styles are and whether explanation styles can affect students' learning outcomes. Consequently, it is necessary to investigate explanation styles in grammatical CALL packages.