CHAPTER 4

FINDINGS AND DISCUSSION

This chapter presents the findings with discussion in two sections. The first section reports and discusses students' attitudes towards the grammatical CALL packages and the explanation styles used in the grammatical CALL packages. The second section presents and discusses the effects of different explanation styles in the grammatical CALL packages on students' learning outcomes.

4.1 Students' Attitudes

4.1.1 Students' Attitudes towards the Grammatical CALL Packages

To examine students' attitudes towards the grammatical CALL packages, data obtained from the questionnaires was used. There were two sets of questionnaires used in the study. The first set was administered after the students finished the first experiment and the second set was administered after the second experiment (after students had been exposed to two explanation styles). The first two parts of both sets of the questionnaires were identical in that they aimed at gaining information related to CALL lessons in general. The second part of the questionnaires probed the students' attitudes towards the grammatical CALL packages and the explanation styles used in the packages. A seven-point Likert scale was employed in the second part of the questionnaires. There were 22 items; 13 items (items 1-11, 14 and 22 see **Appendix F**) concentrated on the grammatical CALL packages and 9 items (items 12, 13 and 15-21 see **Appendix F**) focused on the explanation styles used in the packages.

The data from part two of the questionnaires in both experiments was analyzed by the SPSS to determine the reliability of the questionnaires. In the first experiment, the reliability of the questionnaires when students were exposed to a formal explanation style was 0.99 while students exposed to the conversational one was 0.77. In the second experiment, the reliability of the questionnaires from the students exposed to the formal explanation style was 0.89 and the conversational one was 0.89. These results indicate

that the questionnaires from students in both groups in each experiment were within acceptable limits, which is ≥ 0.60 (Harris, 1969; Cohen, 1994; Kijpreedaborisuthi, 2000).

Focusing on the second part of the questionnaires, which largely referred to the grammatical CALL packages, the data from 13 items (items 1-11, 14 and 22 see **Appendix F**) as mentioned earlier, was also examined to determine questionnaire reliability. In the first experiment, the reliability of the questionnaire on the students' attitudes towards the package containing a formal explanation style was 0.85 while the one containing a conversational style was 0.51. In the second experiment, the reliability of the questionnaire on the students' attitudes towards the package containing the formal explanation style was 0.86 and the one containing a conversational style was 0.80. These reliabilities (excluding the questionnaire on the package containing the conversational explanation style presented in the first experiment) were acceptable (Harris, 1969; Cohen, 1994; Kijpreedaborisuthi, 2000). The low reliability of the questionnaire completed by the students studied with a conversational explanation style in the first experiment may have been influenced by the students' lack of proper motivation or factors beyond the researcher's control (Harris, 1969). In other words, this part of the questionnaire may have been hurried through since the students had to be ready for their final examination.

To determine the students' attitudes towards the grammatical CALL packages, the mean values from the second part of the questionnaires, emphasizing students' attitudes towards the grammatical CALL packages from both groups, were compared. The results of the analysis are presented in **Table 4.1**.

Table 4.1 The Students' Attitudes towards the Grammatical CALL packages

Experiment	Formal		Conversational		t	df	Sig (2-tailed)
	Mean	S.D.	Mean	S.D.			
1st Experiment (Articles)	4.82	.75	5.25**	.47	-2.678	48.646	.010
2nd Experiment (There is/There are and Have/Has)	5.06*	.67	4.70	.72	-1.981	58	.052

N.B. **significant at the .01 level
*significant at the .05 level

Table 4.1 presents the mean scores of the students' attitudes towards the grammatical CALL packages. In the first experiment, the mean of the students' attitudes towards the package containing the formal explanation style was 4.82 and that containing the conversational one 5.25. The differences between the means in both groups were statistically significant at the .01 level ($t = -2.678$, $p = .010$). In the second experiment, the mean of the students' attitudes towards the package containing the formal explanation style was 5.06 and that containing the conversational one 4.70. The differences between the means in both groups were statistically significant at the .05 level ($t = -1.981$, $p = .052$). Overall, it can be concluded that the students in both groups had positive attitudes towards the grammatical CALL packages with both explanation styles.

This finding is in concordance with the studies conducted by Nutta (1998) and Amonpinyokiet (2002) who found that students had positive attitudes towards the grammatical CALL lessons since the lessons promoted the students' learning by allowing the students to learn at their own pace and the students enjoyed the lesson (see **Table 4.2 – 4.3** items 3-6, 10 and 22).

Table 4.2 Students' Attitudes from the Questionnaire Focusing on the Grammatical CALL Packages in the 1st Experiment

Statements	Formal		Conversational		df	t	Sig. (2-tailed)
	Mean	S.D.	Mean	S.D.			
1. You understand this lesson.	4.40	1.16	4.67	.76	58	-1.052	.297
2. You are computer literate.	5.00	1.20	5.07	1.01	58	.232	.817
3. You would like to learn this lesson.	4.73	1.26	4.87	1.31	58	-.403	.689
4. This lesson is boring.*	5.10	1.09	5.20	1.65	50.39	-.277	.783
5. If you have free time, you would like to learn this lesson again.	4.17	1.42	5.43	1.14	58	-3.822	.000
6. You like this CALL lesson.	4.97	.93	5.80	.92	58	-3.484	.001
7. You like the colors used in this lesson.	5.07	1.23	5.57	.94	58	-1.772	.082
8. You like the pictures and animations used in this lesson.	5.37	1.16	5.93	.87	53.75	-2.143	.037
9. You like typing exercises or tests.	4.37	1.45	5.27	1.46	58	-2.395	.020
10. I t is useless to learn this lesson.*	5.53	1.25	5.90	1.56	58	-1.003	.320
11. You like the sounds used in this lesson.	4.13	1.33	4.57	1.25	58	1.299	.199
14. You like this lesson because it can provide feedback whether the answer is correct or not.	4.90	1.42	5.10	1.54	58	-.523	.603
22. When you completed the progress test, you would like to study the "Articles" lesson again.	4.83	1.05	4.87	1.33	58	-.108	.915

N.B. * negative statements which were recoded before calculating for mean values.

Table 4.3 Students' Attitudes from the Questionnaire Focusing on the Grammatical CALL Packages in the 2nd Experiment

Statements	Formal		Conversational		df	t	Sig. (2-tailed)
	Mean	S.D.	Mean	S.D.			
1. You understand this lesson.	4.97	.93	4.57	1.04	58	-1.572	.121
2. You are computer literate.	5.07	1.01	4.87	1.11	58	-.730	.468
3. You would like to learn this lesson.	5.07	1.11	4.47	1.33	58	-1.894	.063
4. This lesson is boring.*	5.10	1.49	4.73	1.14	58	-1.068	.290
5. If you have free time, you would like to learn this lesson again.	4.90	1.32	4.57	1.25	58	-1.003	.320
6. You like this CALL lesson.	5.40	1.00	5.00	1.11	58	-1.461	.149
7. You like the colors used in this lesson.	5.53	.90	5.10	1.24	58	-1.548	.127
8. You like the pictures and animations used in this lesson.	5.40	1.07	5.20	1.03	58	-.737	.464
9. You like typing exercises or tests.	4.57	1.65	3.83	1.76	58	-1.661	.102
10. I t is useless to learn this lesson.*	5.60	1.13	5.57	1.25	58	-.108	.914
11. You like the sounds used in this lesson.	4.57	1.14	3.97	1.27	58	-1.927	.059
14. You like this lesson because it can provide feedback whether the answer is correct or not.	5.07	1.23	4.70	1.49	58	-1.040	.303
22. When you completed the progress test, you would like to study the "Articles" lesson again.	4.40	1.43	4.60	1.43	58	.542	.590

N.B. * negative statements which were recoded before calculating for mean values.

In addition, the finding is also in agreement with the study investigated by Nagata (1996) who found that the students had positive attitudes towards grammatical CALL lessons because of the meaningful feedback provided in the exercises (see **Table 4.2-4.3** item 14). However, in the second experiment, the students studying with the conversational explanation style did not show positive attitudes towards the fill-in the-blank exercises (see **Table 4.3** item 9) as the students were required to type their answers such as 'there is', 'there are', 'there isn't', 'have', 'has', doesn't have', and so on. When the students typed the answers incorrectly or did not leave a space between two words, their answers were considered wrong. This may have frustrated them.

Furthermore, the result is in harmony with the studies examined by Suppasetseree (1998) and Wannakarn (1999) who found that the students had positive attitudes towards CALL lesson because of the presence of pictures, animations, colors and sound (see **Table 4.2-4.3** items 7-8 and 11). However, the sound in the CALL package did not appeal to the students studying with the conversational explanation style in the second experiment (see **Table 4.3** item 11). This may have been because there was no distinct variation of sounds in the exercises. For example, when the students answered correctly, there would be a ringing sound, and when the students answered incorrectly, there would be an alarm sound. This may have annoyed them.

It can be concluded that students had positive attitudes towards the grammatical CALL lessons because of three main reasons: 1) the students had control over their learning pace, 2) the lessons were interactive and contained meaningful feedback for both correct and incorrect answers, and 3) the students liked the pictures, animations, and sounds accompanying the written texts or explanations.

4.1.2 Students' Attitudes towards the Explanation Styles in the Grammatical CALL Packages

In order to find out students' attitudes towards formal and conversational explanation styles used in the CALL packages, the results obtained from the questionnaires, final interview, and ongoing interviews will be presented and discussed.

4.1.2.1 Results Obtained from the Questionnaires

As for the information from the second part of the questionnaires, there were 9 items (items 12, 13 and 15-21 see **Appendix E**) focused only on the explanation styles used in the packages. The data from these nine items was examined to determine reliability. It was found that in the first experiment, the reliability of the questionnaires on the students' attitudes towards the formal explanation style was 0.87 and the reliability of the conversational one was 0.79. In the second experiment, the reliability of the questionnaires on the students' attitudes towards the formal explanation style was 0.86 and the reliability of the conversational one was 0.84. Their reliabilities were ≥ 0.60, which is acceptable (Harris, 1969; Cohen, 1994; Kijpreedaborisuthi, 2000).

Table 4.4 presented the results of the questionnaire analysis on the students' attitudes towards the explanation styles. It was found that the students from both groups had positive attitudes towards both explanation styles in both experiments.

Table 4.4 The Students' Attitudes towards the Two Explanation Styles from the Questionnaires

Experiment	Formal		Conversational		t	df	Sig. (2-tailed)
	Mean	S.D.	Mean	S.D.			
1st experiment (Articles)	4.90	.79	5.45**	.61	-2.996	58	.004
2nd experiment (There is/There are and Have/Has)	5.29**	.74	4.76	.78	-2.680	58	.010

N.B. **significant at the .01 level

Table 4.4 summarizes the mean scores of the students' preference for both explanation styles. It can be seen that in the first experiment, the mean of the attitudes towards the formal style was 4.90 and that of the conversational one was 5.45. The difference between the preference for formal and conversational explanation styles was

statistically significant at the .01 level (t = -2.996, p = .004). In the second experiment, the mean of the attitudes toward the formal style was 5.29 and that of the conversational one was 4.76. The difference between the preference for formal and conversational explanation styles was statistically significant at the .01 level (t = -2.680, p = .010). It can be concluded that the students in both groups were in favor of both formal and conversational explanation styles.

However, there is a discrepancy in the results of the first experiment with the second experiment in the questionnaires. That is the means of the preference for the explanation styles in the second experiment were not congruent with those of the preference for the explanation styles in the first experiment. That is to say, in the first experiment, the mean (5.45) of the rating scale of the preference for the conversational style was greater than that of the formal one (4.90). By contrast, the opposite was found in the second experiment, where the mean (5.29) of the formal style was greater than that of the conversational one (4.76).

One possible reason for this discrepancy could be the level of difficulty of each grammatical aspect. As for 'Articles', there are articles (a, an, the, zero article) in English but not in Thai. Therefore, students might have to remember the rules in order to use them correctly. This can be shown from the results of the ongoing interviews and final interview. Here is an excerpt from the student who expressed her idea on an "Articles" lesson.

Excerpt A

> *"I thought "Articles" lesson had more contents to remember than "There is /There are and Have/Has" lesson. There were many rules and exceptions in "Articles" lesson, so I had to remember them."*

On the other hand, "There is/There are and Have/Has", in English "There is/There are" are used to tell people that something exists while "Have/Has' are used to express possession. These two grammatical points can be presented by only one Thai word 'mee' (have) and so Thai students have more difficulty with the correct use of these two

concepts because students translate from Thai into English (Biggs, 2003). This leads the students to misuse "There is/There are and Have/Has". In order to use them accurately, students should realize the correct use of both aspects. The students taking part in the interviews also expressed their ideas on a "There is/There are and Have/Has" lesson as follows:

Excerpt B

> *"I thought the concept of the use of "There is/There are and Have/Has" was more difficult and confusing. I just realized that I had misused these two concepts."*

With regard to the students' views above, "There is/There are and Have/Has" seemed more difficult than "Articles" since the students had to be aware of the two grammatical aspects in the "There is/There are and Have/Has" lesson while the students had to remember the rules and exceptions in the "Articles" lesson. It could be concluded that the "There is/There are and Have/Has" lesson was harder than the "Articles" lesson. As a result, the students in the first experiment preferred the conversational explanation style to the formal one since this explanation style attracted the students' attention and finally they could remember the rules. On the contrary, the students preferred the formal explanation style to the conversational one in the second experiment because the lesson was more difficult and students needed to comprehend the two grammatical aspects (There is/There are and Have/Has). The formal explanation style was more straightforward so it was easy for the students to understand the concepts of the two grammatical aspects.

In short, the results from the questionnaires revealed that the students in both groups had positive attitudes towards both explanation styles. Nevertheless, the students' preference for the explanation styles could be influenced by grammatical aspects in that if the grammar aspect were easy for them, the students would have a strong preference for a conversational explanation style because it got the attention from the students. This helped them remember the rules. On the other hand, if the grammar aspect was

complicated, the students prefer a formal one because it was more straightforward so the students could understand the concepts of grammatical points easily.

4.1.2.2 Results Obtained from the Final Interview

Questions asked during the final interview specifically sought students' attitudes towards the explanation styles. Initially, the researcher planned to interview 12 students. Since there was some misunderstanding in the third part of the questionnaires in the second experiment in that most of the students did not answer which explanation style in which lesson, they preferred and why, these questions were used again in the final interview. Also, the number of students participating in the interview increased from 12 to 30 to get relevant information.

In the final interview, students may not have been able to recall all the details of what they encountered in the two experiments. As suggested by Stevick (1999) and Todd (2004) to help students recall during the retrospection, the researcher read aloud the explanations written in both formal and conversational styles so the focal point was on explanation, not on grammar points. All of the students participating in the final interview had to answer which explanation style they preferred and give a reason. Then they had to answer to the questions which relevant to their results of the pre-tests, progress tests, delayed post-tests, questionnaires, and students' click back history.

Table 4.5 summarizes the data gained from the final interview. The data in this table focused on the explanation style in the grammatical CALL packages. It was found that students preferred a conversational explanation style to a formal one.

Table 4.5 The Percentages of Students' Attitudes towards the Explanation Styles from the Final Interview

Questions	Students' Views	Formal	Conversational	Total (n=30)
1. Which explanation style do you prefer?	1.1 I preferred a formal explanation style.	13.33	NA	13.33
	1.2 I preferred a conversational explanation style.	NA	86.67	86.67
2. What do you think about the explanation style you preferred?	2.1 The explanations were easy to understand.	13.33	80	93.33
	2.2 The conversational explanation style was not suitable for university students.	6.67	NA	6.67
	2.3 I was familiar with a formal explanation style.	6.67	NA	6.67
	2.4 It was like I was talking to friends.	NA	30	30
3. Which feature of the lesson made you understand it? Why?	3.1 I understood the lesson because of the exercises. They provided explanatory feedback.	10.00	86.67	96.67
	3.2 I liked praise and criticisms which made me eager to learn.	NA	86.67	86.67
4. What made you get good scores on the tests?	4.1 I could remember the explanations.	NA	6.67	6.67

The information derived from the final interview shows that the majority of the students (86.67%) preferred the conversational explanation style to the formal one while a few of the students (13.33%) preferred the formal one (see item 1.1 and 1.2). The students favoring the conversational explanation style showed that their positive attitudes towards this style was higher than those who favored the formal explanation style in most aspects (see items 2.1, 2.4, 3.1, 3.2 and 4.1), except for their attitudes towards the formal explanation style (see items 2.2 and 2.3).

Regarding the explanation style in the tutorials, both groups of students stated that the explanation was easy to understand (see item 2.1) but the number of students who preferred the conversational explanation style was greater than the number of students preferring the formal one. Most of the students favoring the conversational explanation style (80%) showed such views on this style of explanation. Below are some of their attitudes towards it.

Excerpt C

> *"I found the explanations in the tutorials very useful. I guess I couldn't understand the lesson without any explanations."*

Excerpt D

> *"...examples of sentences given in each page helped me fully understand the explanations. I meant I knew how to apply the rule from the examples."*

All of the students who favored the formal explanation style (13.33%) showed similar ideas to those who favored the conversational one. They all reported that the explanation in the tutorials was easy to understand. Here are some examples of their attitudes towards the formal explanation style.

Excerpt E

"The explanations in the packages were easy to understand because it explained how to use the rule clearly. If there weren't any explanations, how could I understand the rule?"

Excerpt F

"I think the explanations were easy to understand and sentences given helped me imagine how to make sentences correctly."

From the excerpts above, it can be seen that both groups of students agreed that the explanation with either the conversational or formal explanation style was easy to understand. It might be because the explanation did not provide only the rules of the grammatical points, but also the explanation of each rule. Besides, in each explanation, there were examples of each rule provided to illustrate how to apply the rules correctly. Furthermore, the students could click on examples given to get more explanation, which explain how to apply the rule in each example. These helped the students comprehend the concept of the grammatical aspects easily. To illustrate how the explanation is provided in the tutorials, here is an example of the explanation with a conversational style.

Example 1

OK, let's talk about idioms such as 'go to school' 'go to college' 'go to church' 'go to hospital' 'go to prison' 'be in bed'. Without 'the', it means you go to those places to do activities that normally take place there. BUT if you use 'the', the meanings will be changed. Eh…get it? Click the examples below.

** This man went to prison two years ago.*

** The young woman has gone to the prison to visit her father.*

If we use 'go to prison', it means 'you are a thief in prison'. Once we add 'the', once the meaning has changed. It means you go to the prison to do a particular thing. Look!, only adding 'the' can turn a bad guy into a good one. You see! Another sentence, using 'go to the prison' to show that this woman goes to the prison to visit her father.

Interestingly, all the students (13.33%) who said they preferred a formal explanation style were male students. They stated that a formal explanation style was suitable for university students. They also remarked that in academic context, the tone of the explanation should be more formal. Here are some students' views on a formal explanation style.

Excerpt G

"...I guess a conversational explanation style sounded childish. I didn't like it. This explanation style annoyed me."

Excerpt H

"We were university students. We needed explanations given in academic way. This style of the explanations was for secondary school students."

From the students' views above, it can be seen that gender might affect the students' attitudes towards the explanation style.

Besides, the exercises with explanatory feedback helped the students understand the lessons. Again, the number of students favoring the conversational explanation style (86.67%) was still greater than the number of students who favored the formal one

(10%). Here are views of the students who enjoyed the explanation in the exercises with the conversational style.

Excerpt I

"I think I understood the lesson because of exercises. I liked to check whether my answer was correct or not. Of course, the explanation in the exercises was very useful because it related to what I was doing. I loved it when I got feedback for my incorrect answers."

Excerpt J

"When I did the exercises, the computer instantly told me whether my answers were correct or not. It was exciting indeed! Sometimes I read the explanations to find a reason why my answers were wrong!"

The students favoring the formal explanation style (10%) showed similar ideas to the students who favored the conversational one and said that the exercises providing explanatory feedback helped them understand the lessons. Here are some ideas expressed by them.

Excerpt K

"The explanation with a formal style, especially in the exercises was very useful because it was to the point and clear."

Excerpt L

"I did exercises so many times because I expected to get full scores. Sometimes I didn't finish, but I could start to do it again. I think I understood the lesson because I did exercises."

From the students' views above, it can be seen that exercises with immediate explanatory feedback helped the students understand the lessons since when the students did exercises, the CALL lessons gave such feedback to tell the students whether their answers were right or wrong and also gave the explanation as to why their answers were right or wrong. Additionally, the explanatory feedback given was to the point. Besides, the students could do exercises as many times as they want.

Referring to the click back history, the interaction time of students could be traced. It is obvious that the students spent more time in the exercises than in the tutorials as shown in **Table 4.6** below.

Table 4.6 The Average of Students' Interaction Time

Experiment	Explanation Styles	Time Spent (min)		Total
		Tutorials	Exercises	
"Articles"	Formal	3.03	16.33	19.36
	Conversational	5.03	20.53	25.56
"There is/There are and Have/Has"	Formal	4.60	17.17	21.77
	Conversational	2.53	16.07	18.60

Table 4.6 shows that in the first experiment, the students studying the "Articles" package containing a formal explanation style spent 3.03 minutes in tutorials and 16.33 minutes in the exercises while those who studied with a conversational explanation style, spent 5.03 minutes in tutorials and 20.53 minutes in the exercises. In the second experiment, the students studied the "There is/There are and Have/Has" package containing a formal explanation style spent 4.06 minutes in tutorials and 17.17 minutes in

the exercises. Those who studied with a conversational explanation style spent 2.53 minutes in tutorials and 16.07 minutes in the exercises.

From the students' interaction time shown in **Table 4.6**, it was evident that the students spent more time in the exercises than in the tutorial. One possible reason why is that all information they needed were all available for them in the tutorial, for example, they can get everything there such as immediate feedback, which directs to them and "More Info" which provides the relevant information to what students are studying. These features are great comforts to students. However, "More Info" was less effective than immediate feedback since it was found that most of the students did not use it at all. Similar to the tutorial, it was also less effective than exercises since most of the students understood the lessons because of the exercises with immediate feedback. It is obvious that exercises are effective in CALL lessons when giving students immediate feedback individually. This finding is in accord with the studies of Garette, 1991; Klaus, 1991; Bickle and Truscello, 1996; Hoffman, 1996; Chapelle, 2001; Lee, 2001; Sokolik, 2001; Bax, 2003. They all reported that feedback is one of the most important features in effective CALL lessons since students can interact with a CALL package providing immediate feedback (Lee; 2001). The feedback should anticipate students' possible wrong answers and give meaningful explanation. Not only wrong answers deserve explanation, but also correct answers because it reinforces or reconfirms students' understanding (Lee, 2001; Sokolik, 2001; Bax, 2003). Furthermore, when students do exercises through CALL lessons, they do not lose face when they make mistakes (Garette, 1991; Bickel and Truscello, 1996; Hoffman, 1996; Sokolik, 2001).

In the present study, the CALL packages provided immediate explanatory feedback to either correct or incorrect answers. Here are examples of feedback given in the exercises containing a conversational explanation style.

Example 2: Feedback for correct answer

> *"Great! What is 'leave school'? Of course, it is an idiom meaning somebody finishes his study, right? So we don't need any articles here."*

Example 3: Feedback for incorrect answer

"Gosh! Nobody on earth uses 'articles' with the name of subjects!"

Apart from immediate explanatory feedback given in exercises in the CALL lessons that made the students understand the grammar points easily, there were the other two kinds of feedback. First, the feedback allowed the students a second chance to answer by giving them further explanation to stimulate them to think. Next, at the end of each exercise, there was feedback for students to check their progress. The followings are some examples of this feedback.

Example 4: Feedback giving the students a second chance to respond.

"Oops! Try again. Remember that the name of the country in a plural form needs an article…But what is the suitable one? Think carefully!"

Example 5: Feedback for students to check their progress.

"Your score is 8! You should study 'Indefinite Article' and do 'Exercise 1: a, an again."

Furthermore, another feature of CALL packages is praise and criticism. Only the students favoring the conversational explanation style (86.67%) reported that they liked the praise and criticism given in the exercises. Praise and criticism made students enjoy doing exercises and they wanted to do the exercises (see item 3.2 **Table 4.5**). Here are some excerpts from the students showing their opinions on praise and criticism.

Excerpt K

"It was fun to read the explanations in the exercises. The feedback praises me when I answered correctly and criticized me when I answered incorrectly. I was eager to do exercises because I liked to know how sensational the criticisms or praises would be."

Excerpt L

"I think the explanations with a conversation style were easy to understand. It was fun to study the lesson. Especially in doing exercises, I felt like my friends criticized me when I answered incorrectly. Cool!"

From the students' views above, praise and criticism motivated the students to do exercises since the students would like to find out the computer's responses. Examples of such praise and criticism are: *'Wow!' 'That's great!' 'Cool!' 'That's right!' 'You've done a good job!' 'Oh god!'* '*Absolutely wrong!' 'Gee!' 'Oops!'*

These praise and criticism with a conversational explanation style made students enjoy doing exercises because they were sensational, whereas praise and criticism with the formal explanation style simply provided only *'Right'* or *'Wrong'*. These might be the reasons why the students favoring the formal explanation style were not impressed by praise and criticism. The praise and criticism in the CALL packages containing the conversational explanation styles can make students feel like they were talking to friends (see item 2.4 in **Table 4.5).** 30% of the students favoring the conversational explanation style reported that they felt like they were speaking to their peers while those who preferred the formal explanation style did not.

Effective CALL packages should be user-friendly so that students will be willing to learn subconsciously (Dudley, 1997; Lee, 2001). This willingness could lower students' anxiety in learning the language (Krashen, 1981; Lignbown and Spada, 1993). Then, students would feel more comfortable to learn.

The last aspect concerning the conversational explanation style is that 6.67% of the students favoring this style of explanation got higher scores because they could recall the explanation in the lessons (see item 4.1 **Table 4.5**). It is noticeable that the percentage of this aspect was very low. It was because the students' answers for question no. 4 were varied and only two students' answers related to the explanation styles. That is, they could remember the explanation. Here is an excerpt from the student who reported that she could remember an explanation in the CALL packages.

Excerpt M

"I got higher scores in the delayed post-test because I understood the lesson and I think I could remember the explanations."

One possible explanation why the students could remember the explanations in the CALL packages could be that they recalled affective data from their long-term memory (Stevick, 1999). Expressions such as "*Read this carefully*", "*Notice this*", and "*I must emphasize here that…*" could draw the students' attention to the point being explained which in turn made the students concentrate on studying and then remember them. Here is an excerpt from the student who found some expressions helped her to focus on the content.

Excerpt N

"There were some expressions such as 'I must emphasize here that…' 'Read this carefully'. These made me know that I should pay my attention particularly."

In brief, the students showed their positive attitudes towards the conversational explanation style in the grammatical CALL packages because of three main reasons: easy explanations, exercises with immediate feedback, and praise and criticism.

4.1.2.3 Results Obtained from the Ongoing Interviews

As for ongoing interviews, eight students in the first experiment and nine students in the second experiment participated in the ongoing interviews based on their click back history. Therefore, the information obtained from ongoing interviews (see **Appendix J**) was analyzed quantitatively. **Table 4.7** indicates that there was a tendency for the students to prefer the conversational explanation style although the preference for the conversational explanation styles in both experiments was not significantly different.

Table 4.7 The Students' Attitudes towards the Two Explanation Styles from the Ongoing Interviews

Experiment	Groups	N	Mean Rank	Sum of Ranks	Sig. (2-tailed)
1st Experiment	**Formal**	4	3.88	15.50	.454
	Conversational	4	5.13	20.50	
2nd Experiment	**Formal**	5	3.60	18.00	.059
	Conversational	4	6.75	27.00	

From **Table 4.7**, the mean ranks of the students' attitudes towards both explanation styles from both experiments were not significantly different. In the first experiment, the mean rank of the students' attitudes towards the formal explanation style is 3.88 and that towards the conversational one is 5.13. It is not significantly different (p=.454). In the second experiment, the mean rank of the students' attitudes towards the formal explanation style is 3.60 and that towards the conversational one is 6.75. The difference is not significant (p=.059). Regarding the mean ranks, however, the mean ranks of both experiments from the groups of students studying the lessons containing the conversational explanation style were greater than those from the groups of students studying the lessons containing the formal one.

The result from the ongoing interviews show that the students had a tendency to prefer the conversational explanation style to the formal one but it was not significantly

different. There might be a recency effect of the ongoing interviews in that the students learned each grammatical point, did the immediate tests and were interviewed. What was left in their short-term memory while being interviewed might be influenced by the subject matter of each grammar point. Therefore, their answers were centered around the grammar points rather than the explanation styles.

In conclusion, referring to the results obtained from the questionnaires, final interview, and ongoing interviews, it was found that the students had positive attitudes towards both formal and conversational explanation styles because the explanation styles in both tutorials and exercises were easy to understand and immediate explanatory feedback in exercises helped the students to understand the lesson since it was to the point. However, the students had a stronger positive attitude towards the conversational explanation style than the formal one since it was sensational, particularly in the exercises. One obvious feature in a conversational explanation style found in the exercises was praise and criticism. They made the students eager to do the exercises.

4.2 The Effects of the Explanation Styles in the Grammatical CALL Packages on Students' Learning Outcomes

To determine the effects of the explanation styles used in the grammatical CALL packages on the students' learning outcomes, means of the pre-tests, progress tests, and delayed post-tests of each grammatical aspect were analyzed quantitatively.

Before the commencement of the study, all of the students completed the computerized pre-test on "Articles" and "There is/There are and Have/Has". Based on their pre-test scores, the students were paired and randomly assigned into two groups so that the ability of both groups in using these two grammatical aspects was not significantly different. That is, the mean on "Articles" of the first group was 8.63 and that of the second group 8.60. The mean on "There is/There are and Have/Has" of the first group was 7.30, and that of the second group 7.37, as shown in **Table 4.8**.

Table 4.8 Comparisons of Pre-Test Means between Groups

Pre-Test	Explanation Styles	Mean	S.D.	t	df	Sig. (2-tailed)
"Articles"	Formal	8.63	2.72	.049	58	.961
	Conversational	8.60	2.54			
"There is/There are and Have/Has"	Formal	7.30	3.14	-.079	58	.937
	Conversational	7.37	3.37			

N.B. 1.) N = 30

2.) No. of items = 15

After students finished studying each grammatical CALL package, the students completed the progress tests to determine their achievements of using the two grammatical aspects. The means from both groups were compared. The result is displayed below in **Table 4.9**.

Table 4.9 Comparisons of Progress-Test Means between Groups

Progress Test	Explanation Styles	Mean	S.D.	t	df	Sig. (2-tailed)
"Articles"	Formal	8.70	2.84	-.603	58	.549
	Conversational	9.13	2.72			
"There is/There are and Have/Has"	Formal	10.30	3.19	-.074	58	.941
	Conversational	10.23	3.74			

N.B. 1.) N = 30

2.) No. of items = 15

The result from **Table 4.9** indicates that there is not a significant difference in the means between the two groups. That is, the mean on "Articles" of the students studying the CALL package containing the formal explanation style was 8.70, and that of the students studying the CALL package containing the conversational style was 9.13. The

mean on "There is/There are and Have/Has" of the students studying with the formal explanation style was 10.30 and that of the students studying with the conversational style was 10.23. In other words, the ability of using the two grammatical aspects between the students who studied with the formal explanation style and those who studied with the conversational style was not different.

The same result was found in the delayed post-tests. The tests of the two grammatical aspects were administered two weeks after the second experiment to find out the students' retention of the two grammatical usages. The comparison of the means between the two groups is shown in **Table 4.10**.

Table 4.10 Comparison of Delayed Post-Tests Means between Groups

Delayed Post-Tests	Explanation Styles	Mean	S.D.	t	df	Sig. (2-tailed)
"Articles"	Formal	10.67	2.76	.657	58	.514
	Conversational	10.20	2.75			
"There is/There are and Have/Has"	Formal	8.83	3.46	1.43	58	.158
	Conversational	10.03	3.01			

N.B. 1.) N = 30

3.) No. of items = 15

Table 4.10 reveals that the means on the delayed post-tests did not show any significant difference between the students studying with the formal explanation style and those studying with the conversational style. That is the mean on "Articles" of the student studying with the formal explanation style was 10.67 and that of the students studying with the conversational style was 10.20. The mean score on "There is/There are and Have/Has" of the students studying with the formal explanation style was 8.83 and that of the students studying with the conversational style was 10.03. It indicates that no significant differences were found in the means between the two groups.

The fact that no significant difference between two groups though they studied with different explanation styles might be because explanations with both styles are clear and to the point.

To determine students' learning outcomes in using the two grammatical aspects two weeks after studying with the grammatical CALL packages, the means of the pre-tests and the delayed post-tests were compared by paired t-test analysis. In other words, the means were compared within groups. The result is presented in **Table 4.11**.

Table 4.11 Comparison of the Means between Pre-Tests and Delayed Post-Tests within Groups

Experiment	Explanation Styles	Test	Mean	S.D.	t	df	Sig. (2-tailed)
1st experiment	Formal	Pre-test	8.63	2.72	-3.93	29	.000
		Delayed post-test	10.67**	2.76			
	Conversational	Pre-test	8.60	2.54	-3.36	29	.002
		Delayed post-test	10.20**	2.75			
2nd experiment	Formal	Pre-test	7.37	3.37	-2.49	29	.019
		Delayed post-test	8.83**	3.46			
	Conversational	Pre-test	7.30	3.14	-4.30	29	.000
		Delayed post-test	10.03**	3.01			

N.B. 1.) **significant at the .01 level
2.) N = 30
3.) No. of items = 15

Table 4.11 indicates that the students exposed to the CALL packages with either the formal or conversational explanation styles performed significantly better on the

delayed post-tests. In the first experiment, the mean on the pre-test of students studying with the formal explanation style was 8.63 and that on the delayed post-test was 10.67. The means are significantly different (t = -3.93, p = .000). The mean on the pre-test of the students studying with the conversational style was 8.60 and that on the delayed post-test was 10.20. The means are significantly different (t = -3.36, p = .002). In the second experiment, the mean on the pre-test of students studying with the formal explanation style was 7.37 and that on the delayed post-test was 8.83. The means are significantly different (t = -2.49, p = .019). The mean on the pre-test of the students studying with the conversational style was 7.30 and that on the delayed post-test was 10.03. The means are significantly different (t = -4.30, p = .000).

It can be concluded from **Table 4.11** that the students' grammar skills could be, to a certain degree, improved through the use of these grammatical CALL packages. These findings were congruent with the results of the studies conducted by Nagata (1996); Nutta (1998); Suppasetseree (1998), who all found that students' grammatical competence improved after studying with grammatical CALL packages. This could be because the CALL packages used in the present study provided immediate feedback to individual students. Also, the packages could provide feedback repeatedly on demand so the students could do exercises as many times as they wanted without the feeling of losing face (Garette, 1991; Sokolik, 2001). In addition, the packages gave students feedback after they finished each exercises as well, so they could control their pace of learning (Garette, 1991; Karl, 1991; Hoffman, 1996; Torut, 1999). They could check their progress, and then made their decision as to if they would like to do the same exercise again or move to other exercises or move to study the lesson again.

In conclusion, the study revealed that the students had positive attitudes towards the grammatical CALL packages because of three major reasons. First, the packages were highly interactive and contained immediate explanatory feedback for both correct and incorrect answers. Second, the students had control over their learning pace. Finally, the students liked the pictures, animations, and sounds accompanying the explanations. In additionally, the students had positives attitudes towards both formal and conversational explanation styles. The students showed stronger positive attitudes towards a conversational explanation style than a formal one because the conversational

explanation style was sensational, especially praise and criticism provided in exercises. Lastly, the students' abilities to use the two grammatical aspects were improved after they studied through the grammatical CALL packages because of the CALL nature: interactivity and students' control.