CHAPTER 4

RESULTS

This chapter presents the results of the present study in two parts. One is the comparison of writing coherence between pre-test and post-test compositions. The other is the comparison of pre-test compositions and pre-test revisions. All the findings will serve to test the research hypotheses of this present study.

4.1 Comparison between the Pre-test and Post-test

In this section, paired-samples t-test is used to test the first research hypothesis: participants would not perform better in coherent writing in post-test than in pre-test compositions after doing the Chinese-English translation practice. Distribution of the five cohesive devices used in pre-test and post-test compositions will serve to test the second hypothesis: participants would not better apply cohesive devices in post-test than in pre-test compositions after doing the Chinese-English translation practice.

4.1.1 Coherence

Each of the totally 222 compositions, for pre-test, post-test, and pre-test revision, was evaluated by two raters. Then, the two scores for each composition were measured by Pearson product-moment correlation to gain the scoring reliability. The

reliability was .842, indicating a significant correlation between the two raters. As described in 3.3.2.1, the full score of coherence in the grading system is 10. The participants' performance in pre-test and post-test writing was measured by the average scores given by the raters. Paired-samples t-test was then used to examine if participants could make significant progress in post-test writing. The statistics for pre-test and post-test mean scores are shown in Table 4.1. The paired-samples statistical results are also presented in Table 4.2.

Table 4.1 Mean Scores of Pre-test and Post-test Compositions

	Mean	Number	Std. Deviation	Std. Error Mean
Pre-test	5.8649	74	1.5200	.1767
Post-test	7.3243	74	1.1833	.1376

Table 4.1 displays that the mean score for the pre-test is 5.86 and that for the post-test is 7.32. The difference between the pre-test and post-test apparently reveals that participants perform better in post-test writing after the translation training sessions.

Table 4.2 Pre-test and Post-test Compositions: A Comparison

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
PRETEST -POSTTEST	-1.4595	1.4914	.1734	-1.8050	-1.1139	-8.418	73	.000**

Note: **Indicates significant difference at the .01 level.

Table 4.2 shows that the progress in coherence learning in post-test is significant (t = -8.418, p< .01). The first null hypothesis of the present study is rejected. That is, after acquiring the learning strategies of the cohesive devices through Chinese-English paragraph translation practice, participants would write a more coherent English composition.

Table 4.3 Comparison between Pre-test and Post-test Compositions

	Excellent to Very Good		Good to Average			Fair to Poor			Very Poor		Total
Test	10	9	8	7	6	5	4	3	2	1	
Pre-test (percentage)	0	6 (8.1%)	5 (6.8%)	12 (16.2%)	15 (20.3%)	25 (33.8%)	8 (10.8%)	3 (4.1%)	0	0	74 (100%)
Post-test (percentage)	0	14 (18.9%)	20 (27%)	21 (28.4%)	14 (18.9%)	5 (6.8%)	0	0	0	0	74 (100%)

As shown in Table 4.3, participants perform better in post-test than in pre-test. Fourteen compositions (18.9%) rank very good in post-test while only 6 compositions (8.1%) are the same in pre-test. Twenty compositions (27%) score 8 points in the post-test; however, merely 5 ones (6.8%) are the same in pre-test. In other words, 31% more writings (18.9%+27%-8.1%-6.8%) are ranked higher than 7 points in post-test. Furthermore, only 12 compositions (16.2%) are scored 7 points in pre-test, but 21 ones (28.4%) are ranked at the same level in post-test. That is to say, up to 74.3 % of the post-test writings score at least 7 points while only 31.1% of the pre-test score higher than 6 points. On the other hand, none of the post-test compositions rank at the level of 3 or 4 points; nevertheless, 3 compositions (4.1%) score 3 points and 8

compositions (10.8%) score 4 points in pre-test. Moreover, only 5 compositions (6.8%) are ranked fair in post-test, whereas 25 ones (33.8%) are equivalent to the same level in pre-test. Namely, the percentage of the fair to poor score range drops from 48.7% (33.8%+10.8%+4.1%) to 6.8% in post-test. Meanwhile, the result also demonstrates that 93.2% (100%-6.8%) of the post-test compositions reach a level better than the fair one.

According to Tables 4.1, 4.2, and 4.3, it appears that participants' coherent writing expertise is significantly promoted after the practice of Chinese-English paragraph translation exercises.

4.1.2 Cohesive Devices

This section aims to investigate the five cohesive devices used in pre-test and post-test writings, including reference, conjunction, lexical cohesion, substitution and ellipsis. Table 4.4 shows little application of substitution and ellipsis in participants' writing. As referred to in 3.2.3, substitution and ellipsis are more frequently found in conversation than in writing materials (de Beaugrande & Dressler, 1981; Witte & Faigley, 1981).

Table 4.4 Total Numbers of Cohesive Devices in Pre-test and Post-test Compositions

test	Reference	Conjunction	Lexical Cohesion	Substitution	Ellipsis	All Devices
Pre-test (percentage)	182 (12.8 %)	163 (11.5 %)	1067 (75.2 %)	4 (0.3%)	2 (0.1%)	1418 (100%)
Post-test (percentage)	280 (15.0 %)	265 (14.2 %)	1312 (70.5 %)	3 (0.2%)	2 (0.1%)	1862 (100%)

Table 4.5 Means of Cohesive Devices Used in Pre-test and Post-test Compositions

Devices	Test	Very Good	Good to Average			Fair to Poor			Means in Individual Test
		9	8	7	6	5	4	3	
Reference	Pre-test	2.5	4.4	3.2	2.3	2.2	2.1	0.7	2.5
	Post-test	5.5	3.8	3.3	2.9	3.4			3.8
Conjunction	Pre-test	3.2	2.6	2.7	2.7	1.6	1.9	1	2.2
	Post-test	3.6	3.7	3.9	2.9	4.4			3.6
Lexical Cohesion	Pre-test	18.7	18	18.3	15.2	8.5	11	10.7	14.4
	Post-test	22.6	18.6	15.4	16.2	14.8			17.7
Cohesive Devices in Total	Pre-test	24.3	25.2	24.2	20.2	11.3	15.1	12.3	19.2
	Post-test	31.8	26.2	22.6	21.9	22.8			25.2

Table 4.5 shows the means of each cohesive device used in pre-test and post-test. Averagely, 1.3 (3.8-2.5) more reference items could be found in each post-test composition than in each pre-test one. Mean number of conjunction item in each post-test composition is more than one and half times (3.6/2.2=1.64) the number in pre-test. As far as all cohesive devices are concerned, participants use an average of 25.2 devices in post-test while they apply 19.2 ones in pre-test. In other words, they use an average of six more cohesive items in post-test than in pre-test.

Table 4.6 Means of Lexical Cohesion Devices Used in Pre-test and Post-test Compositions

Devices	Test	Very Good	Good to Average			Fair to Poor			Means in Individual Test
		9	8	7	6	5	4	3	
Reiteration	Pre-test	12.5	13	13.7	11.3	9.6	8.1	8.7	10.9
	Post-test	15.8	12.8	11.6	13.2	10			12.9
Collocation	Pre-test	6.2	5	4.6	4	1.7	2.9	2	3.6
	Post-test	6.8	5.8	3.8	3	4.8			4.8
Lexical Cohesion	Pre-test	18.7	18	18.3	15.2	8.5	11	10.7	14.4
	Post-test	22.6	18.6	15.4	16.2	14.8			17.7

As presented in Table 4.6, 2 (12.9-10.9) more reiteration items are detected in each post-test writing than in each pre-test. The table also indicates that participants use only 3.6 collocation items on average in their pre-test; however, they use 4.8 ones in their post-test. To sum up, as far as lexical cohesion is concerned, a mean of 14.4 items are used in each pre-test composition whereas 17.7 items are applied in each post-test. Both Tables 4.5 and 4.6 show that, in comparison, the participants do use a relatively larger number of cohesive devices in post-test than in pre-test as a whole. Their progress in coherent writing implies that they can better apply cohesive devices in compositions after doing the Chinese-English translation practice. The second null hypothesis is rejected.

4.2 Comparison between the Pre-test and Pre-test Revision

In this section, paired-samples t-test is also used to serve the purpose of testing the third research hypothesis: participants would not perform a better job in revising

incoherent parts of compositions after doing the Chinese-English translation practice. Distribution of the five cohesive devices used in pre-test and pre-test revision compositions will serve to test the fourth hypothesis: participants would not better apply cohesive devices to promote writing coherence while revising their compositions after doing the Chinese-English translation practice.

4.2.1 Coherence

The participants' performance in pre-test and pre-test revision writing was examined by paired-samples t-test to see if participants could make significant progress in pre-test revision. The statistics for pre-test and pre-test revision mean scores are shown in Table 4.7. The paired-samples statistical results are also indicated in Table 4.8.

Table 4.7 Mean Scores of Pre-test Writing and Pre-test Revision

	Mean	Number	Std. Deviation	Std. Error Mean
Pre-test	5.8649	74	1.5200	.1767
Pre-test Revision	6.6351	74	1.2882	.1498

Table 4.7 demonstrates that the mean score for the pre-test is 5.86 and that for the pre-test revision is 6.64. The difference between the mean scores indicates that participants perform better in revising their writing, i.e., they achieve better coherence after receiving the Chinese English paragraph translation practice.

Table 4.8 Pre-test and Pre-test Revision Compositions: A Comparison

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
PRETEST -PRETEST REVISION	-.7703	.8997	.1046	-.9787	-.5618	-7.365	73	.000**

Note: **Indicates significant difference at the .01 level.

Table 4.8 shows that the progress in coherence learning in pre-test revision is significant (t = -7.365, p< .01). The third null hypothesis of the present study is rejected, i.e., after acquiring the learning strategies of the cohesive devices through Chinese-English paragraph translation practice, participants are capable of detecting improper use of the cohesive devices and thus removing them or adding proper ones to achieve coherence in writing.

Table 4.9 Comparison between Pre-test and Pre-test Revision Compositions

	Excellent to Very Good		Good to Average			Fair to Poor			Very Poor		Total
Test	10	9	8	7	6	5	4	3	2	1	
Pre-test (percentage)	0	6 (8.1%)	5 (6.8%)	12 (16.2%)	15 (20.3%)	25 (33.8%)	8 (10.8%)	3 (4.1%)	0	0	74 (100%)
Pre-test Revision (percentage)	0	7 (9.5%)	10 (13.5%)	24 (32.4%)	19 (25.7%)	10 (13.5%)	4 (5.4%)	0	0	0	74 (100%)

Table 4.9 illustrates participants' performance in pre-test and pre-test revision compositions. It shows that participants apparently perform better in coherent writing in pre-test revision than in pre-test writing. The number of pre-test revision

compositions scoring at least 7 points is distinctively higher than that of pre-test ones, being 41 (7+10+24) and 23 (6+5+12) respectively. That is to say, more than half (9.5%+13.5%+32.4%= 55.4%) of pre-test revision compositions score higher than six points in pre-test revision while merely less than one third (8.1%+6.8%+16.2%=31.1%) of pre-test writing score at least seven points. Furthermore, the number of pre-test compositions scoring at least six points is manifestly fewer than that of pre-test revision, being 51.4% (8.1%+6.8%+16.2%+20.3%) and 81.1% (9.5%+ 13.5%+32.4%+25.7%) respectively. This indicates that the percentage of "very good to average" score range rises from 51.4% to 81.1% in pre-test revision, i.e., 29.4% (81.1%-51.4%) of the compositions shows progress in coherent writing in pre-test revision. On the other hand, nearly half (48.6%) of the pre-test compositions rank "fair to poor" level while only less than one fifth (18.9%) of pre-test revision are rated as this range. This further suggests that the percentage of "fair to poor" score range drops from 48.6% to 18.9% in pre-test revision. Moreover, none of the pre-test revision compositions get the score of 3 points and only 4 ones (5.4%) get 4 points; however, 11 pre-test writings (14.9%) get 3 or 4 points.

According to Tables 4.7, 4.8, and 4.9, participants perform a good job in revising incoherent parts of compositions. Their coherent writing expertise is significantly promoted after receiving the training of Chinese-English paragraph translation.

4.2.2 Cohesive Devices

This section illustrates the distribution of the five cohesive devices applied in

pre-test and pre-test revision compositions. The three devices, i.e., reference, conjunction, and lexical cohesion, will be compared in this section. Yet no comparison is made for the remaining two classes, i.e., substitution and ellipsis. The two devices are not evaluated in this study since substitution and ellipsis are more frequently found in conversation than in writing materials (de Beaugrande & Dressler, 1981; Witte & Faigley, 1981). Table 4.10 shows the little application of substitution and ellipsis in participants' compositions.

Table 4.10 Total Number of Cohesive Devices Used in Pre-test and Pre-test Revision Compositions

Test	Reference	Conjunction	Lexical Cohesion	Substitution	Ellipsis	All Devices
Pre-test (percentage)	182 (12.8 %)	163 (11.5 %)	1067 (75.2 %)	4 (0.3%)	2 (0.1%)	1418 (100%)
Pre-test Revision (percentage)	206 (12.2%)	282 (16.6%)	1201 (70.9%)	3 (0.2%)	2 (0.1%)	1694 (100%)

Table 4.11 Means of Cohesive Devices Used in Pre-test and Pre-test Revision Compositions

		Very Good	Good to Average			Fair to Poor			Means in Individual Test
Devices	Test	9	8	7	6	5	4	3	
Reference	Pre-test	2.5	4.4	3.2	2.3	2.2	2.1	0.7	2.5
	Pre-test Revision	2.6	3.6	3.3	2.1	2.6	2.3		2.8
Conjunction	Pre-test	3.2	2.6	2.7	2.7	1.6	1.9	1	2.2
	Pre-test Revision	3.7	4.9	4	3.4	3.6	2.8		3.8
Lexical Cohesion	Pre-test	18.7	18	18.3	15.2	8.5	11	10.7	14.4
	Pre-test Revision	19.7	18.7	18.2	14.1	11.7	14		16.2
Cohesive Devices in Total	Pre-test	24.3	25.2	24.2	20.2	11.3	15.1	12.3	19.2
	Pre-test Revision	26.1	27.3	25.5	19.5	18	19		22.9

Table 4.11 shows the means of each cohesive device used in pre-test and post-test. On average, slightly more reference items are applied in pre-test revision compositions than in pre-test compositions. Means of the conjunctions applied in pre-test revision is slightly more than one and half times (3.8/2.2=1.7) the number in pretest writing. As far as all cohesive devices are concerned, participants use an average of 22.9 devices in pre-test revision while they apply 19.2 ones in pre-test. That is, they use averagely 3.7 (22.9-19.2) more cohesive devices in pre-test revision than in pre-test.

Table 4.12 Means of Lexical Cohesion Devices Used in Pre-test and Pre-test Revision Compositions

		Very Good	Good to Average			Fair to Poor			Means in Individual Test
Devices	Test	9	8	7	6	5	4	3	
Reiteration	Pre-test	12.5	13	13.7	11.3	9.6	8.1	8.7	10.9
	Pre-test Revision	13.4	12.9	13	11.1	8.8	9.5		11.8
Collocation	Pre-test	6.2	5	4.6	4	1.7	2.9	2	3.6
	Pre-test Revision	6.3	5.8	5.2	2.9	2.9	4.5		4.5
Lexical Cohesion	Pre-test	18.7	18	18.3	15.2	8.5	11	10.7	14.4
	Pre-test Revision	19.7	18.7	18.2	14.1	11.7	14		16.2

As described in Table 4.12, on average, there are a little more reiteration items in pre-test revision compositions than in pre-test compositions. Also, participants are found to apply an average of 3.6 collocation items in pre-test; however, they apply up to 4.5 ones in pre-test revision. On the whole, a mean of 14.4 lexical cohesive items are employed in pre-test writing while 16.2 ones are applied in pre-test revision. Tables 4.11 and 4.12 indicate that after doing the Chinese-English paragraph

translation practice, participants could better apply cohesive devices to promote coherence while revising their pre-test compositions. The fourth null hypothesis is rejected.

To sum up, participants make a progress in coherent writing after doing the Chinese-English translation practice. They could more tactfully apply cohesive devices to enhance the interactive relationships of sentences and thus promote coherence in their compositions. They could revise the incoherent parts of their compositions and better apply cohesive devices to promote coherence. They do acquire coherent writing expertise and make their compositions more readable. The Chinese-English translation practice is effective to vocational senior high school student in acquiring the coherence expertise.