

Chapter 4

Results and Analysis

This chapter presents the results of the study: the students' learning style preferences, the supplementary material construction, the classroom observations, and the students' opinions towards the supplementary material.

Students' Learning Style Preferences

The means of students' learning styles are presented in table 6.

Table 6: Means of the Students' Learning Styles

Learning Styles	Means
Visual Style	3.53
Individual Style	3.42
Analytic Style	3.22
Syllabus-free Style	3.20
Tactile Style	3.18
Global Style	3.04
Extrovert Style	2.90
Group Style	2.89
Kinesthetic Style	2.80
Syllabus-bound	2.78
Auditory Style	2.60
Introvert	2.59

This survey reflected that the highest mean score of the subjects' learning style was 3.53 (visual style), and the lowest mean score was 2.59 (introvert style). Meanwhile, according to the criteria of five-scale point, the high mean scores were 3.53 and 3.42, the average mean scores ranged from 3.22 to 2.80, and the low mean scores were 2.60 and 2.59. That is, in language learning, the subjects most often preferred visual and individual styles, and they sometimes preferred analytic, syllabus-free, tactile, global, extrovert, group, kinesthetic, and syllabus-bound styles. In addition, they were less prefer introvert and auditory styles.

Table 7: Means of Learning Styles Students Preferred from most to least

Learning Styles	Means	Preference Level
Visual	3.53	Preferred a lot
Individual	3.42	
Analytic	3.22	Preferred sometimes
Syllabus-free	3.20	
Tactile	3.18	
Global	3.04	
Extrovert	2.90	
Group	2.89	
Kinesthetic	2.80	
Syllabus-bound	2.78	Preferred less
Auditory	2.60	
Introvert	2.59	

The Construction of the Supplementary Material Project

This SMP was constructed using the theme of the environmental problem in China in terms of the students' interest. In addition, a heavy dust storm in Chengdu City in April 2000 increased the students' concern about this environmental problem affecting their daily lives. Under this theme, seven tasks

were developed in order to emphasize the necessity finding solutions to this serious problem.

The main objective of the SMP was to enhance the awareness of the students' communicative skills, cognitive skills, and reading and writing skills through implementing authentic materials in learning situations. Specific objectives for each task were designed to match the various evaluations in each task.

Furthermore, this SMP was developed to suit the students' learning style preferences. The activities in each task aimed at incorporating the students' different learning styles in their learning.

Meanwhile, the authentic materials were selected from local photos, magazines, and Internet searches. Most materials were chosen from the Beijing Review, a magazine that is popular with the students at the Southwest Nationality Institute.

Finally, this SMP encouraged the teachers to use an overhead projector, TV set, Video machine, and computer instead of only using fixed textbooks.

The framework of the SMP is shown in table 8, and the details of this SMP are organized in appendix 1.

Table 8 : The Framework of Supplementary Material Construction

Tasks	Styles	Activities	Skills	Input	Objectives	Roles of teacher	Roles of learners	Evaluation	Equipment
1. Discussion of the environmental problems in Chengdu	Visual	Look at the local photos.	Cognitive thinking	Photos	Discuss the photos and share personal idea.	Director	Speaker	How many do they talk and write?	Overhead projector
	Individual	Think and guess the meaning of the photos.	Speaking	Questions from the teacher			Listener		Blackboard
	Analytic	Listen to others' ideas about the photos and write down gists.	Listening	Peers' opinions on the photos			Little influenced by the content of photos		
2. Listen to the recording on Taihu Lake's pollution in China	Individual	Learn the words, write one paragraph from listening to the record.	Listening	Vocabulary List	Control the structures of sound, form, order, and important words.	Director	Listener	Write one paragraph about the listening material.	Tape Recorder
	Auditory	Listen to the record.	Writing	Important phrases from the listening transcription	Write down the gist of the listening material.		Learners are responsible for their own learning independently.		Blackboard
	Visual	Look at the important words on the blackboard.	Note-Taking	Tape record					
	Analytic	Analyze the specific facts from listening to the record.							

Table 8 : The Framework of Supplementary Material Construction

Tasks	Styles	Activities	Skills	Input	Objectives	Roles of teacher	Roles of learners	Evaluation	Equipment
3. Assessment	Visual	Read disordered word cards.	Reading	Eight envelopes with disordered word cards. Correct sentence order.	Rearrange the word cards into meaningful sentences.	Process manager	Learner as interactor and member of the community.	Share the meaningful sentences in class.	Blackboard Cards
	Group + Extrovert	Share ideas and rearrange the cards together.	Logical thinking						
	Tactile	put the cards in the right order.							
4. Text understanding	Individual	Read 4 paragraphs. Underline the important words. Summarize the material.	Thinking	4 paragraphs from article on Taihu lake pollution.	Read the material and write down the summary.	Director Direct student how to find the important parts in article how to write summary.	Thinker	Underline and take margin notes of the important parts of the article.	Overhead projector
	Visual	Read material Silently.	Reading						
	Tactile	Underline the important words.	Writing						
	Analytic	Break the whole material into specific points.							
	Global	Combine the specific importance together and write a summary							

Table 8 : The Framework of Supplementary Material Construction

Tasks	Styles	Activities	Skills	Input	Objectives	Roles of teacher	Roles of learners	Evaluation	Equipment
5. Video about presentation	Individual	Watch the video.	Listening	Video tape	Distinguish the difference from the 2 presentations.	Partner of students	Thinker	Tell the difference of the 2 presentations.	Video tape
	Visual	Distinguish the difference between the two presentations.	Speaking						
	Auditory	Watch the process of giving a presentation. Listen to the content of the presentation.	Thinking						
6. Internet searches	Visual	Read the material and select one article for presentation.	Reading	Steps of using the internet to search for materials.	Search the material from the internet.	Facilitator	Interact with computer.	Find one article.	Computer
	Auditory	Listen to the steps of using the internet to search related materials.	Listening Note-taking						

Table 8 : The Framework of Supplementary Material Construction

Tasks	Styles	Activities	Skills	Input	Objectives	Roles of teacher	Roles of learners	Evaluation	Equipment
7.Oral presentation	Visual	Look at the speaker's performance of his/her presentations.	Listening	Assessment sheet	Practice oral presentation and judge the effectiveness of presentation	Outsider	performer, actor, and judge	Give a presentation	Overhead projector blackboard
	Auditory	Listen to the content of the presentation.	Speaking						
	Individual	Give presentation and mark other student's presentations.							
8.Project survey	Individual	Give the feedback of the project survey.	Speaking Thinking	Questionnaire	Collect the opinions of using the SMP.	Director	Listener speaker	/	/

Table 8 provides the following information of this SMP:

Task one used visual, individual, and analytic styles to create the classroom activities. This task aimed at attracting the students' attentions by showing them some local photos on environmental problems, and then encouraging the students to guess the meaning and describe the photos. The purpose of this task was to guide students to enlarge their language (vocabulary: to include pollution terms, reasons & effects, solutions and their thinking about pollution) needed for this main unit on environmental pollution.

Task two used auditory, analytic, visual, and individual styles to organize the classroom activities. This task focused on practicing the students' listening skill and note-taking ability through listening to a tape recording on environmental pollution in China from a tape. This different authentic material was selected to direct the students' attentions out from Chengdu City's environmental pollution to that of another province in China. This task urged the students to realize the seriousness of the facts and to consider the reasons, effects, and solutions.

Task three used visual, tactile, and group styles to develop the classroom activities. This task emphasized the students' cognitive skills by rearranging the disordered words into logical sentences. The material was the continuation of Task 2 by showing the serious water pollution problem in Taihu Lake. Also, Task 3 started to mention the Chinese government's plan for the solution.

Task four used analytic and global styles to design the classroom activity. This task reinforced the environmental pollution problems in Taihu Lake and the connection between environmental pollution and China's economic growth. This task aimed at combining reading and writing skills together.

Task five used individual, analytic, tactile, and visual styles to create the classroom activities. This task emphasized teaching the students how to use on line services from the Internet to search for related information. This task was very successful in guiding students to use the Internet in their language learning. The teacher offered Yahoo, Netscape, Mail City, and Monster web sites for students to search for information. This task reinforced the subjects' reading and note-taking skills as well as the idea of organization.

Task six used auditory, visual, individual, and analytic styles to develop the classroom activities. This task focused on oral presentation by showing the students two different presentations by an English native speaker on videotape. Then, students had to find the importance of successful presentations.

Task seven used auditory, individual, extrovert, and visual styles to develop the classroom activities. This task aimed at reinforcing the students' speaking and listening skills by having them give their oral presentations.

Task eight used individual style to create the classroom activities. This task aimed at evaluating the effectiveness of the supplementary material. It also encouraged students to discuss their views about learning English, including their strengths, problems, hopes, and needs. In this task, the students' speaking and listening skills were practiced.

Observation Results

The classroom observation was used to evaluate the effectiveness of the supplementary material in this study. The details of the classroom observation are presented in table 9.

Table 9: Classroom Observations

Teacher	Wangsu	Wangsu	Wangsu	Wangsu
Date	May, 16	May, 18	May, 19	May, 21
Tasks	Discussion of environmental problem	Listen to a tape on Taihu Lake pollution in China	Assessment	Text understanding
Teacher's action zone	Front seat and right side students participated in the activity	All students participated in the activity.	All students participated in the activity.	All students participated in the activity
Teacher's talk	30% of 60 minutes	10% of 70 minutes	25% of 60 minutes	25% of 60 minutes
classroom interactions	Answer the teacher's questions Discuss the photos by sharing their ideas, opinions and feelings actively.	Listen to tape four times. Take notes, but cannot write down important information Have difficult time in understanding the environmental technical terms.	Glad to see the word cards. Confused by arranging the correct word order. Spend lots of time arranging the sentences.	Look for the explanation of the new words. Make sentences with the new words. Share information with others.
Group arrangement	Whole-class	Individual	Group Work	Individual
Seating	Rows and lines	Circle	Small group	Rows and lines
Classroom atmosphere	Actively talk	Silent. Anxious to get more information from the tape.	Talk actively. Sometimes confusing facial expression	Actively share the meaning with peers. Sometimes keep silent.

Table 9 continues next page.

Table 9: Classroom Observations

Teacher	Wangsu	Wangsu	Wangsu
Date	May, 24	May, 25	May, 27
Tasks	Video class about presentation	Internet search	Oral presentation
Teacher's action zone	All students participated in the activity	All students Participated in the activity	All students participated in the activity
Teacher's talk	10% of 60 minutes	55% of 100 minutes	5% of 180 minutes
classroom interactions	Watch the video carefully. Write down the points of good presentation. Actively discuss the differences of the presentation.	Listen to the steps carefully of using the Internet to search for material. Active in Internet searches. Spend a lot of time getting the related materials.	Give a presentation. Judge other students' presentations.
Group arrangement	Individual	Individual	Individual
Seating	Rows and lines	Rows and lines	Semi-circle
Classroom atmosphere	Silently watch the movie. Sometimes talk a little. Laugh at the speaker's funny performance	Enjoyed the Internet searchers. Some talks in the class.	Little nervous.

Table 9 reflected some facts from the classroom observations as follows:

1. The teacher made eye contact with the whole class and almost all the students participated in the activities.
2. The classes were mainly student-centered because the amount of the teacher's talk had been kept in low proportion. And students had sufficient opportunities to communicate with others and think cognitively in class.
3. The classroom activity involved whole-class work, group work, and individual work, which matched the variation of the students' learning style preferences.

4. The classroom seating varied from rows and lines, circles, semi-circles, and small groups, which made the students interact with different people in class.
5. The learners interacted with the teacher by asking/answering questions, and by completing the assignment. They interacted with materials by watching the video, reading the articles, listening to the tape, taking notes, writing a summary, arranging the sentence orders, and searching the related materials. In addition, the learners interacted with their peers by discussion, sharing ideas, organizing words, and judging individuals' presentations in class.
6. The classroom atmosphere was most active in discussion, using computer to search the material, watching the video, asking questions, and sharing ideas. However, the students' confused facial expressions sometimes reflected the difficulty of the material, especially when the students were nervous for their presentations.

The Students' Opinions on the Supplementary Material

After using the SMP in class, a questionnaire survey was used to find out the subjects' opinions towards the supplementary material. Table 10 reflects the details.

Table 10: Project Survey of Using the Authentic Material

Questions	Percentage			
	Yes	OK	Little	No
Do you think this project was interesting?	84.5%	12%	3.5%	-
Do you think it wasted your time?	-	22%	78%	-
Do you think you can use your English well in this project?	95%	3%	2%	-
Do you think this project helped your future?	32%	37%	21%	-
Would you like to do more of the authentic project?	98%	2%	-	-
Did you have enough practice in your presentation and writing?	100%	-	-	-
Do you think these materials were difficult?	30%	28%	25%	22%

According to table 10, most students (84.5%) were interested in this SMP even though 22% of the students spend a lot of time on the assignment due to the difficulty of some materials. Particularly, 95% of the students agreed that this SMP enabled them to sufficiently practice their English in communication, logical thinking, reading, and writing skills. Meanwhile, 98% of the students enjoyed using the authentic materials according to their interests, even though 55% of the students felt the material was difficult.

Analysis of this Supplementary Material Design

The information of the classroom observations and the students' opinions towards the project reflected some strengths and weaknesses of this SMP.

Strengths:

1. This material design was effective in utilizing the students' learning style preferences and in encouraging the students to implement their occasionally used style in language learning.
2. This material could highly motivate the students' attention in learning English by using authentic input according to the topics which they were interested.
3. This SMP created active classroom participation. The activities in each task changed the passive classroom atmosphere to an active one. Moreover, the activities helped guiding the students toward a new self-study learning environment.
4. The Internet access led the students into a real world learning environment.

Weaknesses:

1. In Task one, the content of the listening material was quite difficult for the students to understand due to some environmental technical terms and complex sentence structures. Also, the recorded tape of a native speaker was difficult for students to understand because of the strong accent.
2. In Task three, the activity of rearranging the disordered words into a sentence needed to be improved because some sentences were too long and complicated.
3. Task 5 (Watch Video) and Task 6 (Internet search) should be switched. The students already knew about the environmental problem from task 1 to task 4. They needed to enlarge their understanding of this serious problem in the world by searching the Internet. Then, the students could be guided into the preparation of effective presentation by watching the video.