

Developing Students' Metacognitive Awareness of Second Language Learning

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Abstract: This qualitative study investigated a general education course, entitled “Second Language Acquisition (SLA) — Theory and Practice”, at a technological university in Taiwan. The purpose of this course was to provide students with a general view of SLA theories and hands-on activities so that they would be able to reflect on their own foreign (English) language learning experience. It was hoped that through their reflections, students would not only be able to understand themselves better in terms of language learning, but also get ready for any new challenges in their next language learning tasks. The above-mentioned teaching goal was evaluated through an open-ended questionnaire administered on students in the beginning and at the end of the semester in order to compare students' understanding of the important SLA concepts before and after taking the course. Meanwhile, students' final projects, which required them to analyze a case of a successful foreign language learner using the SLA theories, would also help to evaluate students' improvement in taking the course. Finally, three students were recruited at the end of the semester for an interview, each on their experience with this course and more in-depth views about metacognitive awareness of second language learning.

Key words: SLA, second language learning, metacognitive awareness

1. Introduction

Many general education courses in Taiwan, if related to foreign languages, teach mainly four language skills or literature or intercultural communication, etc. Very rare is there a course that teaches students about language learning itself; that is, a course that generally teaches how to learn a second language, even though many previous studies have looked into raising students' awareness in language skill classes, such as listening (Blanco & Guisadob, 2012; O'Bryan & Hegelheimer, 2009), oral communication (Mitrofanova, 2012; Glover, 2011), reading (Alhaqbani & Riaz, 2012; Zenotz, 2012) and writing (Negretti & Kuteeva, 2011; Xing & Wang & Spencer, 2008), etc.

In an attempt to help students become more metacognitively aware of their overall second language learning process, a general education course, entitled “Second Language Acquisition (SLA) — Theory and Practice”, was launched at a technological university in Taiwan in the spring semester of 2013. After the first year's tryout, the course content was slightly adjusted and the topics covered in the second year were listed in Table 1.

The list in Table 1 was generally based on H. Douglas Brown's textbook, *Principles of Language Learning and Teaching* (2007). However, for fear that technological university students' English reading proficiency was

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not high enough to comprehend the original work well, students were assigned to use the Chinese translation of the textbook for this course.

Basically this course was divided into two major parts: Before the midterm exam, the teaching goal was on the theoretical side of learning and language acquisition, so the class was conducted mainly in a lecture format. After the midterm exam, the focus turned to individual differences in language learning, which were therefore, in addition to the teacher's lectures, supplemented with some assessment tools to help students understand themselves better, such as their learning styles, strategy use, language learning anxiety, motivation, etc.

Table 1 Topics of the Course (Spring, 2014)

Week	Topic
1	Introduction
2, 3, 4	Human Learning
5	Language, Learning and Teaching
6, 7	First Language Acquisition
8	Age and Acquisition
9	Midterm Exam
10, 11, 12	Styles and Strategies
13, 14	Personality (Affective) Factors
15, 16	Sociocultural Factors
17	Final Exam

Also, students were divided into small groups, each of whom took turns presenting the main points of the reading assignments to the whole class each week before the teacher delivered the lecture or administered the assessment tools. In addition to the written midterm and final exam, students were also required to submit a term paper on interviewing a successful second language learner or on reading an article about such a person and then analyzing this person's learning difficulties and successful experience based on the SLA theories they have learned from this course.

In general, the purpose of this course was to provide students with a general view of SLA theories and hands-on activities so that they would be able to reflect on their own foreign (English) language learning experience. It was hoped that through their reflections, students would not only be able to understand themselves better in terms of language learning, but also get ready for any new challenges in their next language learning tasks. In this regard, the above-mentioned teaching goal was evaluated in the present study to see how much this course could help students to become metacognitively aware of their second language learning.

2. Research Methods

To evaluate how this course helped the students to become metacognitively aware of their own second language learning, qualitative methods were used for the present study, which will be illustrated in the following subsections about participants, instruments, data collection and analysis.

2.1 Participants

In the spring semester of 2014, a total of 19 students took this elective course, including nine sophomores and ten seniors. They had mixed-levels of English proficiency, ranging from the CEFR-B1 level (considered as

“high” in this study) to the CEFR-A1 level (considered as “low” in this study). All of the students were required to answer ten open-ended questions regarding their understanding of SLA-related theories and applications in the first week and last week of the semester. And all of their final reports for the term project were examined for the research purpose.

Three students were recruited at the end of the semester for further interviews on their experience with this course and more in-depth views about their metacognitive awareness of second language learning.

The 19 participating students' background information, including the three interviewees', is listed in Table 2.

Table 2 Participating Students' Background Information

Pseudo name	Gender	Major	Year at college	English proficiency	Interviewed
Alex	Male	Mechanical Engineering	Sophomore	Medium	●
Betty	Female	Mechanical Engineering	Sophomore	High	
Cindy	Female	Mechanical Engineering	Sophomore	High	●
Derek	Male	Mechanical Engineering	Sophomore	High	
Elaine	Female	Mechanical Engineering	Sophomore	Low	
Flora	Female	Mechanical Engineering	Sophomore	High	
Gary	Male	Materials Engineering	Sophomore	Low	
Hank	Male	Materials Engineering	Sophomore	Medium	
Jacky	Male	Materials Engineering	Sophomore	Low	
Kevin	Male	Electrical Engineering	Senior	High	●
Louis	Male	Electrical Engineering	Senior	Medium	
Mandy	Female	Electrical Engineering	Senior	Low	
Nick	Male	Chemical Engineering	Senior	Low	
Oliver	Male	Business Management	Senior	High	
Peter	Male	Business Management	Senior	High	
Randy	Male	Business Management	Senior	High	
Steve	Male	Industrial Design	Senior	Medium	
Tom	Male	Visual Communication	Senior	Medium	
Victor	Male	Visual Communication	Senior	Low	

2.2 Instruments

As briefly mentioned in the previous section, the instruments used in the present study include a pre- and post-course questionnaire, interview guides and students' final reports for their term project.

Pre- and post-course questionnaire. A questionnaire was designed to collect data on students' basic understanding of the SLA-related theories and applications before the course began and after the course was completed. Ten open-ended questions were included in the questionnaire for eliciting students' such metacognitive awareness for further qualitative analysis.

Interview guides. A list of interview questions were prepared in advance to direct the interviewing process to stay focused mainly on students' learning experience with this course and their metacognitive awareness of second language learning, which might not have been grasped from the questionnaire results and might need further interpretation.

Final reports. As mentioned earlier, all of the students were required to conduct a term project either on

interviewing a successful second language learner or on reading an article about such a person and then analyzing this person's learning difficulties and successful experience based on the SLA theories they have learned from this course. Students' final reports were examined carefully to evaluate how well they could apply the theories into practice.

2.3 Data Collection and Analysis

In the first two weeks of the course while students were still dropping and adding courses, all the students sitting in this class were asked to complete the pre-course questionnaire for about 30 minutes. The same questionnaire survey was conducted on the students who were actually taking this course in the last class of the semester. The pre- and post-questionnaire results were then compared to see if there was any significant growth on students' metacognitive awareness of second language learning over the semester.

The post-questionnaire interviews were conducted with three selected students in Chinese to ensure mutual understanding between the interviewer and interviewee. Each interview lasted for about 20 minutes. All the interviews were recorded with a digital recorder and were later transcribed in full for further analysis.

At last, students submitted their final reports on the final examination day. All of their reports were examined carefully for any of their applications of the SLA theories taught in class to the learning experience of a successful second language learner that they interviewed or read about.

3. Results and Discussion

In this section, the pre- and post-course questionnaire results will first be compared and discussed. Then the interview data with the three selected students will be categorized for more insights, followed by the analysis of the students' final reports for their term project.

3.1 Pre- and Post-course Questionnaire Survey

As mentioned earlier, there are ten open-ended questions on the pre- and post-course questionnaire. Students' before-and-after responses to each of the ten questions will be discussed separately in the following subsections.

Q1-General perception of this course. Before taking this course, four of the students (Betty, Cindy, Louis and Oliver) mistakenly thought this course was an English language course teaching four language skills. However, as the course title suggests, most of the students still considered this course as a course generally teaching foreign language learning methods. After one semester, most students were able to identify specifically which part of the course has impressed them the most. In this case, six students mentioned "learning strategies", six mentioned "personality factors" and five mentioned "learning styles" that they were most impressed by. Interestingly, three out of the five students mentioning "learning styles" said they felt most impressed by the left- and right-brain functioning and were quite convinced by their test results on brain hemisphere dominance.

Q2-The making of a successful second language learner. When asked about what constitutes a successful second language learner in the beginning of the semester, most students obviously had a similar idea about their own definition. Almost all the students thought a successful second language learner is someone who is able to talk or communicate well with foreigners in the second language. However, in the post-course questionnaire survey, some students were able to bring about some ideas other than "fluent conversation", such as intercultural awareness, avoidance of L1 influence, command of one's own personality in terms of language learning, etc., although one half of the students still remained unchanged for their definition of a successful second language learner throughout the course; that is, "someone being able to converse in the second language".

Q3-Becoming a successful second language learner oneself. When talking about how they would become a successful second language learner, students seemed to have more to say than the previous question. In the pre-course questionnaire survey, most students simply indicated their belief in “practice makes perfect”. After the course was completed, students clearly demonstrated more diversity in how they believed they could do to become a successful L2 learner, some of which could be traced back to the lessons learned in this course, such as adapting one’s language ego, becoming more risk-taking, increasing one’s self-efficacy, being not too worried about one’s accent, using learning strategies, etc. However, only two students, Gary and Steve, showed consistency in responding to Q2 and Q3; the other students did not seem to be consistent in terms of what they believe a successful L2 learner is and what they believe they could do to become one.

Q4-Age and second language acquisition. The fourth question asks whether students agreed with a popular slogan in Taiwan, “the earlier a kid starts to learn a foreign language, the better speaker s/he is going to be”. The results appeared to be split either in the pre- or the post-course questionnaire survey, with ten positive and nine negative answers. However, not all students remained on the same side throughout the course. Two students (Cindy and Randy) giving ‘no’ first to the question later changed their mind; on the other hand, two students (Jacky and Nick) who agreed with the slogan in the beginning turned out to show their disagreement at the end. What’s worth noticing is that both Jacky and Nick mentioned Piaget’s developmental theory to explain why they disagreed with the popular slogan.

Q5-Cross-linguistic influence. Question five is about what students think of L1 influence over L2 learning. Before the class started, 11 students thought there was indeed such an influence. However, after the course was completed, the number increased to 18; that is, only one student (Hank) in this class still insisted there was no such influence. Most students indicated that Chinese word order, grammar and even culture have influenced their learning of English. Students’ views on this part might have been reinforced or changed by some examples of cross-linguistic influence given in class.

Q6-Learning styles for second language acquisition. For this question on students’ learning styles for second language acquisition, almost all the students, before taking this course, could only refer to their English learning styles in layman’s terms, such as memorizing vocabulary, watching English TV programs, listening to English songs, etc. After students completed this course, four of them were able to describe their learning styles in a more professional way, such as visual style (Alex and Cindy) and right-brain-dominance (Kevin and Peter). A few of them seemed to have mistaken learning styles for learning strategies, for example, Louis reported “monitoring one’s own pronunciation” and Victor reported “using avoidance strategies” in their responses. However, at the end of the semester, the majority of students still described their learning styles in a way no different from their pre-course responses, indicating little progress in this respect.

Q7-Learning strategies for second language acquisition. In terms of language learning strategies (question seven), students seem to have much more to say either before or after taking this course. However, the pre-course questionnaire survey results show a rather limited repertoire of learning strategies that students could think of, such as repetition, mnemonics, note-taking, etc., all of which are cognitive strategies. On the semester-end questionnaire, however, students were able to include more strategies in their repertoire, and what’s more, they included not only more cognitive strategies (such as translation, recombination), but also metacognitive strategies (such as directed attention and self-monitoring) and socio-affective strategies (such as cooperation, question for clarification, compensatory strategies), suggesting significant progress in students’ awareness of the learning strategies available to them.

Q8-Affective factors for second language acquisition. As for whether students think affective factors could influence their second language learning (question eight), most students gave positive answers. However, when further asked what affective factors might influence their learning, it is surprising to find that, although students seemed to be able to indicate some important affective factors in responding to question three, most students did not give appropriate answers to this question in the post-course survey, not to mention in the pre-course survey. It seems that some students misunderstood the meaning of “affective factors” so they put down things like “interest” and “mood”, which were not even mentioned in class. Only five students gave appropriate answers in the post-course survey: self-esteem (Elaine, Kevin), self-efficacy (Peter, Steve) and motivation (Alex, Steve).

Q9-Sociocultural factors for second language acquisition. Sociocultural factors are also an important issue in the field of SLA. Although most students agreed with such a statement in question nine (in both the pre- and post-course surveys), it is quite disappointing to see very little progress made in this respect throughout the course. In the pre-course survey, students mostly used their daily life experience to connect sociocultural factors with second language learning; for example, two students (Elaine and Mandy) indicated that they watched Korean dramas not only to learn the language but also the Korean culture. However, in the post-course survey, nothing more than “word usage” and “etiquette” were found in students’ responses, indicating that students’ awareness of the influence of sociocultural factors on their L2 learning is still quite superficial.

Q10-General learning theories. The last question evaluates students’ progress in understanding the general learning theories from this course. Obvious differences are easily seen by comparing students’ pre- and post-course survey responses. Before the course started, almost no students got to name any learning theories on the questionnaire. At the end of the semester, most students were able to put down quite a few terms regarding learning theories, such as behaviorism, the nativist approach, functional approaches, instrumental-integrative orientation, left- and right-brain dominance, etc. However, this kind of “progress” is also superficial.

3.2 Interviews with Three Students

In the last week of the semester, three students, Alex, Cindy and Kevin, were recruited for further interviews. In the hope that more insights could be revealed in addition to the pre- and post-course questionnaire survey results, these three students were deliberately chosen for their regular attendance to class and more active participation in class. The interview data were categorized into the following two major themes.

Previous metacognitive experience in learning English. The interview data with the three students show that their English learning experience before taking this course was mostly test-oriented, especially during their high school years. As for whether they had been metacognitively aware of their English learning prior to this course, Alex and Cindy did not seem to have been aware of it metacognitively, since no concrete steps were mentioned to have been followed. Both of them could only give a vague description of what they thought about learning English before, such as taking more English courses, reading more English magazines, etc., and they sometimes were not able to put their ideas into action. However, Kevin, with similar test-oriented English learning experience as well, seemed to show a little more metacognitive awareness of his own learning, because he reported he always tried to figure out what his problem was and then interacted with more experienced people (such as senior classmates or teachers) to solve the problem and that is his principle of leaning no matter in what field.

Achieved metacognitive awareness of English learning. In terms of the metacognitive awareness of English learning they have achieved throughout the course, both Alex and Cindy said that they now know there

are many other learning strategies they can use to help them learn English well, which never occurred to them before they took this course. Cindy also mentioned that she has started to reflect on her intrinsic and extrinsic motivation for learning English since she took the course. Kevin, on the other hand, still insisted on his own principle of learning; that is, knowing the problem with learning first and then finding a solution to it by interacting with experienced people. However, Kevin also pointed out the learning strategies he learned from this course did help him solve some of the learning problems, because, in the past, he might have located his own learning problems without being able to find the solutions properly. Now he thinks he has got to know many methods (strategies) to solve the learning problems he has had or might encounter in the future. In addition, Kevin's speculation of being a "visual" type of person has been confirmed by the test results of brain hemisphere dominance, so he has a better understanding of his learning styles now. In sum, the three students have achieved their metacognitive awareness of learning English to a certain degree after taking this course, of which "learning strategies" seemed to be the most recognized.

3.3 Students' Final Reports

Among the 20 "successful second language learners" that students chose for their term projects (one student interviewed two targets together for her term project), 15 of them were Chinese speakers learning English or other languages and five of them (in four projects) were foreign speakers learning Chinese (including two overseas Chinese brother and sister from New Zealand, and three men from Japan, Vietnam and Thailand respectively). Students' final reports were evaluated with the following criteria: (1) how the student was able to identify the learning problems or difficulties of the so-called "successful second language learner"; (2) how the student was able to use any SLA theories to explain the learner's successful learning experience in overcoming those problems or difficulties; (3) any other findings.

Identifying the learning problems or difficulties. The targets that students chose for their term projects had a wide variety of backgrounds and experiences, but most of the targets were being studied for their student status when learning a second language. Some of these targets' learning problems or difficulties thus lay in their incapability of carrying out their schoolwork due to limited academic English. One very exceptional case was a graduate student in the translation and interpretation program, who failed at first not because of limited English proficiency, but limited background knowledge for doing oral interpretation. The second largest group of targets were people on the job, including businessmen, movie stars or even athletes. All these people had similar situations in learning a second language (mostly English); that is, they needed very fluent oral communication ability in the second language to fulfill their job requirements and they all survived the hardship on their way to success. In general, most students were able to identify the learning problems or difficulties of the people they chose for the term project.

Theoretical explanations for the successful learning experience. To explain the successful learner's experience in overcoming the problems or difficulties in learning a second language, almost all the students were able to apply at least one or two theories or concepts they have learned in class (some of them even gave a very long list). However, the majority of students still preferred to attribute the learner's success to their strategy use, such as repetition, note-taking, contextualization, inferencing, etc. One interesting case provided by Hank is about a Ph.D. student taking the TOEFL test 26 times within six years. This student's strategy for successful English learning is by preparing for the TOEFL test! The next frequently cited factors by the students were affective factors, especially self-efficacy and motivation. What is worth mentioning here is that one student, Steve, showed

pretty consistent views on second language learning, no matter in the pre- and post-course questionnaire survey or his final report; that is, he strongly believes in the important role that self-efficacy and intrinsic motivation play in second language learning, and he also shows his determination in learning English well in terms of these two affective factors. Only a few students remembered the learning theories discussed before the midterm exam, such as Skinner's Operant Conditioning and Ausubel's Meaningful Learning Theory, indicating it is not easy for students to absorb abstract concepts well but concrete or personalized concepts seem to be more acceptable to students.

Other findings. In addition to the theoretical explanations for the successful learning experiences, students were also required to write about what they have learned from this term project. As a matter of fact, not much was found in this part since most students seemed to repeat what they have said in the first two sections of their final reports. However, a few students did indicate their personal views about second language learning, for example, Betty, Derek, Flora, Gary, Hank and Nick more or less stressed the importance of one's own consistent efforts over any other learning theories. Cindy and Elaine, on the other hand, put emphases on the learning environment. Both of them think it is essential to create an English-speaking environment for learning the language well.

4. Conclusion

In general, the results of the pre- and post-course questionnaire survey, interviews and evaluation of students' final reports show that students seemed to have become more metacognitively aware of their second language learning after taking the course, although some of the progress might only be superficial on the ground that most of the students still stick to the deeply-rooted ideas about second language learning.

However, it is worth noticing that the majority of students have started to recognize the importance of strategy use in learning a second language after taking the course, indicating that students did need some concrete steps to follow when learning a second language. As for affective factors, which were also frequently brought up by students, it seemed that students had already had those concepts in mind, and the concepts were reintroduced and reconfirmed throughout the course, especially about self-efficacy and motivation. In contrast to the above mentioned concrete or personalized concepts, the relatively abstract learning theories, such as behaviorism, rationalism and constructivism, seemed too vague for students to absorb, although these theories are the foundations of such a course.

It is therefore suggested that more hands-on and personalized activities could be incorporated into the course in order to help students increase their metacognitive awareness more effectively. The theoretical parts are still essential for students to get started from, it is just that more personalized experiences or examples could be used to illustrate the elusive theoretical concepts.

Finally, as mentioned in the beginning of this paper, many previous studies have looked into raising students' awareness in language skill classes, such as listening, oral communication, reading, writing, etc., it is once again suggested that strategy use might deserve more attention in those classes, since, according to the present study, students would very much like to know what concrete steps to follow in learning each of the language skills.

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