EFL Learners' Beliefs about and Strategy Use of Translation in English Learning

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Abstract ■ Although the use of translation in learning a foreign language is much maligned by language teachers, translation is widely used in learners' foreign language learning process. It appears that learners often use translation as a learning strategy to comprehend, remember, and produce a foreign language. However, relatively little research attention so far seems to have been devoted to a consideration of the use of translation in language learning. Thus, this study aims to explore the role of translation in Taiwanese college students' English learning, particularly in terms of their learning beliefs and learning strategies about using translation to learn English. The data from survey questionnaires and qualitative interviews will address the following research questions: (1) What are students' beliefs about using translation to learn English? (2) What learning strategies employing translation do students report using? (3) What are the relationships among learners' beliefs about and use of translation? (4) To what extent do learners' background variables relate to their beliefs about and use of translation? Pedagogical implications are also discussed. The results of the study hope to sensitize EFL teachers to various learning strategies involving translation and to the possible benefits of using translation for English learning reported by the students.

Keywords ■ foreign language learning, learning English, learning strategies, students' beliefs, translation.

Introduction

Translation has been used by foreign language learners to facilitate language learning for centuries, but translation has played various roles

under different language teaching methods. While some foreign language educators may consider translation as a critical means to ensure students' comprehension and an important writing exercise, other teachers may totally ban or discourage the use of the native language and translation in the classroom. As Malmkjær stated, 'the issue of the use of translation in language teaching is one on which most language teachers have a view' (1998: 1), but fairly often, teachers' views are not strongly in favor of it. Particularly from the turn of the twentieth century onwards, many theoretical works and practical methods in language teaching have assumed that a second language (L2) should be taught without reference to the learners' first language (L1). It has become a popular belief among teachers that the translation of L1 gets in the way with the acquisition of L2.

For example, the Grammar-Translation Method views translation as essential for foreign language instruction and learning. However, this method has been denounced in foreign language teaching for decades. Under the later-developed Direct Method and Audio-Lingual Method, translation was banned and no longer included as a part of classroom activities. In the current most popular Communicative Language Teaching (CLT) approach, the target language is used during authentic, functional, communicative activities, and students' native language has no particular role in the classroom. Many CLT teachers maintain that the best way for learners to achieve native-like control of the target language is to think in that language rather than to translate or reprocess the target language into their mother tongue.

While many foreign language educators may have ignored the role of translation in language teaching, from the learners' perspective, translation is still widely used in their learning (Naiman *et al.* 1978; Marti Viano and Orquin 1982; Politzer 1983; O'Malley *et al.* 1985b; Chamot *et al.* 1987). For instance, Naiman *et al.* (1978) aimed to identify strategies used by Good Language Learners (GLLs), and found that one of the strategies often used by GLLs was to 'refer back to their native language(s) judiciously (translate into L1) and make effective cross-lingual comparisons at different stages of language learning' (p. 14). It appears that learners very often use translation as a learning strategy to comprehend, remember, and produce a foreign language. However, relatively little research attention so far seems to have been devoted to a consideration of the use of translation in language learning from the learner's points of view or beliefs.

In research on learners' beliefs about foreign language learning, researchers have suggested that learners' preconceived beliefs would likely affect the way they use learning strategies and learn a foreign language. Wenden's (1987) study illustrates how beliefs affected learners' choice of strategies, their attending pattern, criteria for evaluating the effectiveness of a language learning activity, and their planning priorities. Based on her survey of foreign language students, Horwitz (1987) also argues that some preconceived beliefs are likely to restrict the learners' range of strategy use.

In terms of using translation as a learning strategy, translation has often been classified as one of the cognitive learning strategies (Chamot 1987; Chamot and Kupper 1989; Chamot *et al.* 1987; O'Malley *et al.* 1985a; O'Malley *et al.* 1985b; Oxford 1990). Translation, in a rather broad sense, can be seen as a phenomenon of transfer of one's language to another language. Under the CLT approach, however, language teachers assume that translating is not a good learning strategy. They argue that by thinking in the target language, students increase their chances of becoming fluent and accurate in that language and avoiding interference from their L1. Nonetheless, such an assumption seems to lack much empirical evidence. Corder (1981) would rather emphasize more on viewing L1 as a valuable resource which learner can use for translation to make up their limitations in learning a L2. He proposed to reframe the concept of 'interference' as 'intercession' in order to consider learners' use of their L1 as a strategy of communication. In fact, more and more studies have suggested a positive and facilitative role of translation or L1 transfer in students' language learning. (Baynham 1983; Titford 1985; Perkins 1985; Ellis 1985; Atkinson 1987; Newmark 1991; Husain 1994; Kobayashi and Rinnert 1992; Kern 1994; Husain 1995; Omura 1996; Prince 1996; Cohen and Brooks-Carson 2001).

Although growing numbers of researchers have considered the positive potential of using translation in language teaching and learning, very little attention has given specifically to student perspectives, that is, student's particular beliefs about translation and their frequent use of translation as a learning strategy. Thus, this study attempts to explore Taiwanese college students' learning beliefs about translation and how they use translation to learn English. Specific research questions to be addressed are as follows:

1. What are Taiwanese students' beliefs about using translation to learn English?

2. What kinds of learning strategies employing translation do Taiwanese students report using?

3. What are the relationships among learners' beliefs about translation and their use of translation as a strategy?

4. To what extent do learners' background variable (e.g. proficiency level, academic major) relate to their beliefs about and use of translation?

With these questions in mind, the research results may help raise learners' usually unconscious translation into a level of conscious awareness, and also help language teachers better acknowledge the role of translation in language teaching and learning.

Literature Review

Definition of Translation Used in This Study
In addition to its usual definition in transferring meanings and conveying messages, translation can also be viewed as a strategy for learning foreign languages. Oxford (1990) defined translating as 'converting the target language expression into the native language (at various levels, from words and phrases all the way up to whole texts); or converting the native language into the target language' (p. 46). Likewise, Chamot (1987) described the translation strategy as 'using the first language as a base for understanding and/or producing the second language' (p. 77). In a similar vein, the definition of translation in the present study refers to using one language as a basis for understanding, remembering, or producing another language, both at the lexical level and the syntactic level, and also in either direction from the target or the source language into the other language.

Learners' Beliefs about Translation
Few empirical studies have been reported so far that specifically examined learners' beliefs about using translation in their foreign language learning, but it could be expected that students may have highly varied views on this issue. In one such study, Horwitz (1988) found that the majority of Germen and Spanish students (70% and 75%) endorsed the idea that learning a foreign language is mainly a matter of learning to

translate from English, while a mere of 15% of the French students agreed or strongly agreed to the same statement. Furthermore, Kern (1994) contended that even though foreign language teachers and learners realized the inevitability of mental translation in reading L2 texts, both parties often view translation as an undesirable 'crutch'. Additionally, in comparing the use of both translation and context in learning L2 vocabulary, Prince (1996) observed that learning vocabulary in context is widely perceived by teachers as a desirable strategy, but students often actively resist it and believe that the translation learning, with the new word being linked to its native language equivalent, is more effective in learning new vocabulary.

Because students have often been encouraged by their teachers to think in the target language, some students may have come to believe that it is detrimental for them to depend on their native language while learning and using the target language. In students' perceptions about L2 writing through translation versus writing directly in the L2, Kobayashi and Rinnert (1992) reported that 88% of the higher proficiency Japanese participants preferred direct composition to translation, whereas 53% of lower proficiency students also favored direct composition. Several students said that they preferred direct writing because they wanted to be able to think in English.

In other cases, in reporting on a Chinese context linking English learner variables to English achievement, Wen and Johnson (1997) selected ten English major students in China for an in-depth qualitative study to elucidate the differences between high and low achievers through interviews, diary studies, and strategy use while working on a reading task. Their data showed that, regarding the use of the mother-tongue-avoidance strategy, the low achievers thought the use of translation would not hinder their progress, but the high achievers stated explicitly that using Chinese would be harmful for their English learning. Wen and Johnson concluded that Chinese students should be encouraged to suppress the use of translation resolutely and consciously.

Contrary to Wen and Johnson's conclusion, Hsieh (2000) found that translation benefited his Taiwanese students' English reading in terms of enhancing their reading comprehension, reading strategies, vocabulary learning, and cultural background knowledge. He administered a questionnaire regarding attitudes and thoughts toward translation to Taiwanese college students at the end of one year of EFL instruction using a translation method. Of the 52 participants, 85% expressed that translating can

help them pay attention to the coherence and contextualization of English reading text; 73% of the students said that they learned the importance of their native language (Chinese) through translation; 65% thought that they became more aware of multiple meanings of an English word; 62% felt that translation helped extend vocabulary knowledge and reading skills. In general, these students believed that the adoption of translation had positive effects on their English reading and vocabulary learning.

Translation as a Learning Strategy

Since language learning strategy research mushroomed and various classifications of these strategies were carried out, translation has usually been identified as one of the cognitive learning strategies. In O'Malley *et al.*'s study (1985b), translation was found to be a frequently used learning strategy. Out of a total of 11 cognitive strategies identified by the researchers, translation accounted for 11.3% of all strategy uses by beginning and intermediate-level ESL learners, second only to such strategies as repetition (19.6%), note taking (18.7%), and imagery (12.5%). Moreover, Kobayashi and Rinnert (1992) found that Japanese college students who wrote English essays through Japanese translation were rated higher than those who wrote directly in English. As for the advantages of translating, the students felt that the ideas were easier to develop, thoughts and opinions could be expressed more clearly, and words could be more easily found through the use of dictionary. In addition, translation also can help in vocabulary acquisition. Prince's research results (1996) revealed the superiority of using translation in learning vocabulary in terms of quantity of words learned. It is believed by these researchers that strategic learners can make intelligent use of the repertoire of their L1 skills and translation in order to learn a new language.

Also, researchers have varied opinions at which stage the use of translation is most beneficial for the learner. Husain's research (1995) suggested that using translation had highly positive effects on the low and intermediate proficiency learners, but it did not benefit higher level students. The researcher found that translation strategy could enhance English learning in general. It was also discovered that students who used translation tended to make more gains in learning vocabulary and phrases, compared to a lower level gain in learning tenses. This finding implies that semantic aspects of language are more generally shared across languages than structural aspects. Another important finding was that the intermediate level students made more gains than those higher level peers

did, and the gains made by the lower level students were higher than those by the intermediate level students. In other words, the higher level students benefited the least from translation use.

In contrast, other researchers advocate the use of translation at the advanced level. Advanced learners may have already developed a somewhat solid foundation of the target language, and thus can be more likely to discern the subtle differences of vocabulary meaning and grammar usage between their L1 and L2. For example, Perkins (1985) indicates that through translation instruction, 'the advanced learner will always gain some insight into points of L1-L2 difference and conflict on a syntactic, semantic and stylistic level and this may ultimately improve his L2 competence' (p. 53). Translation is seen as an important tool to upgrade high-level students' learning. Titford (1985) shares the same view and proposes that translation is an appropriate resource for advanced learners. He argues that translation can serve as a problem-solving exercise as well as a cognitive exercise in the classroom. Advanced learners are often keen to know the underlying rule behind a particular foreign language, and tend to ask the question how an expression is translated in the foreign language and what rules are involved. More importantly, the use of translation at the advanced level can help learners extend their knowledge of the foreign language by making reference to their mother tongue, and then help learners clarify the similarities and the differences between the foreign language and their native language.

Method

This study primarily involved a survey, comprised of three sets of questionnaires concerning beliefs, strategy use, and personal background information. Moreover, in order to probe more deeply the relationships and among learners' beliefs about translation, strategy use, and individual demographic variables, interviews were conducted with students as well.

Participants

A total of 351 students (eight classes) enrolled in a five-year junior college in central Taiwan were selected to participate in this study for the quantitative survey. In order to conduct this study on the students who are equivalent to a tertiary education level, the target population of this study was chosen from the fourth and the fifth-year students. Most participants majored in English (51%), and the remaining participants were relatively evenly distributed across the majors of Japanese (13%), Business Admini-

stration (9%), Management of Information System (14%), and International Trade (13%). For the qualitative interviewing, five successful and five less successful English learners were selected from different classes, based on these learners' English scores and recommendations from their current English teachers.

Instrumentation

The instruments used in this study included three questionnaires and one interview guide (see Appendix), all of which were developed by the researcher of this study. For beliefs measurement, the *Inventory for Beliefs about Translation (IBT)* was used; for strategy use measurement, the *Inventory for Translation as a Learning Strategy (ITLS)* was used; for background information items, the *Individual Background Questionnaire (IBQ)* was used; for interviewing, the *Interview Guide* was used. All three questionnaires and the interview guide were translated from English into Chinese so that students with different English proficiency levels could adequately understand the questions. The development of these instruments proceeded in several stages and established satisfactory reliability and validity (Liao 2002).

Data Collection

The researcher went to each class to administer the survey at a pre-arranged time. He first briefly explained to the participants the nature and the purpose of this study and provided instructions about how to answer the questionnaires. The time for answering the questionnaires took about 40 minutes. The interviewing data were collected soon after the survey was completed. The length of each interview lasted from approximately 30 minutes to one hour. Each interview was conducted in Chinese and tape-recorded.

Data Analysis

The quantitative analysis of the questionnaires was conducted by using the SPSS and the SAS System through the following statistical methods:

1. Descriptive statistics such as frequencies, means, and standard deviations were computed to summarize the participants' responses to the IBT, the ITLS, and the IBQ. These descriptive analyses can help identify the overall patterns of students' beliefs about translation and their learning strategy use involving translation in order to address the first and the second research questions.

2. Factor analysis was used to determine the underlying factors that may account for the main sources of variation among the individuals' responses to both the IBT and the ITLS. The newly constructed sets of factors were used as composite variables in subsequent canonical correlation analysis to help answer the third research question.

3. Canonical correlation was performed to indicate the direction and relationship between the two sets of factors constructed from the IBT and the ITLS through factor analysis. The overall association between the two constructs of beliefs and strategy use was measured to address the third research question.

4. Multivariate analysis of variance (MANOVA) was also conducted to examine whether the participants' background variables such as proficiency level and academic major had any effects on their beliefs and strategy use regarding translation, in order to address the fourth research question.

Furthermore, the interview data were intended to serve as an additional source of information to supplement the questionnaire survey. The researcher identified salient excerpts that illustrated the interviewees' beliefs about and use of translation. This information would also be used to triangulate students' responses to the questionnaires.

Results and Discussion

Descriptive Analysis of the IBT

Participants responded to the IBT items on a Likert scale of 1 to 5, indicating the degree to which they agreed or disagreed with statements concerning their beliefs about translation. The means and standard deviations were computed on the participants' responses to the items and are presented in Table 1. Most of these participants endorsed the concept that translation played a positive role in their current English learning experiences. Among the 24 choice items, 16 items (items 1, 24, 9, 11, 7, 13, 12, 2, 5, 3, 10, 19, 21, 17, 22, and 8)had the highest means (M>3.5) and thus were the most common beliefs held by the participants, whereas 4 items (items 23, 16, 20, and 18) received relatively low means (M<3) and became the least common beliefs.

Table 1. *Means and Standard Deviations for the IBT Items*

Item Description	M	S.D.
1. Translating helps me understand textbook readings.	4.19	.65
2. Translating helps me write English composition.	3.77	.86
3. Translating helps me understand spoken English.	3.74	.90
4. Translating helps me speak English.	3.42	1.02
5. Translating helps me memorize English vocabulary.	3.75	.94
6. Translating helps me understand English grammar rules.	3.34	1.09
7. Translating helps me learn English idioms and phrases.	3.85	.82
8*. Translating does not help me make progress in learning English.	3.54	1.01
9. Translation helps me understand my teacher's English instructions.	3.99	.66
10. Translation helps me interact with my classmates in English class to complete assignments.	3.66	.80
11. The more difficult the English assignments are, the more I depend on Chinese translation.	3.91	.94
12. Using Chinese translation helps me finish my English assignments more quickly and save time.	3.82	.86
13. Using Chinese translation while studying helps me better recall the content of a lesson later.	3.85	.95
14. I like to use Chinese translation to learn English.	3.20	.96
15*. The use of Chinese translation may interfere with my ability to learn English well.	3.42	.92
16*. Chinese translation diminishes the amount of English input I receive.	2.74	1.04
17. At this stage of learning, I cannot learn English without Chinese translation.	3.57	1.00
18. I think everyone has to use Chinese translation at this stage of learning.	2.96	.96
19. I will produce Chinese-style English if I translate from Chinese to English.	3.62	.99
20*. I prefer my English teachers always use English to teach me.	2.95	1.11
21. I feel pressure when I am asked to think directly in English.	3.59	.99

22. I tend to get frustrated when I try to think in English.	3.55	.95
23*. When using English, it is best to keep my Chinese out of my mind.	2.68	1.03
24. I believe one needs to be immersed in an English-speaking culture for some time before he/she is able to think in English.	4.08	.88

*. The scores of the items 8, 15, 16, 20, and 23 were reversed.

On the whole, the participants overwhelmingly believe that translating helps them acquire English language skills such as reading, writing, speaking, vocabulary, idioms, and phrases. These findings are consistent with Prince's (1996) study that students believed that translation learning was more effective than context learning in learning new vocabulary words, and with Hsieh's (2000) findings that Taiwanese students thought that translation helped their reading comprehension and vocabulary learning.

These findings are further supported and validated by the interviews with ten participants. These interviewees expressed ideas about both the positive and negative effects of using translation in their learning process. The positive aspects of using translation include that: (1) translation can help students comprehend English; (2) translation can help students to check whether their comprehension is correct; (3) translation eases memory constraints in memorizing more words, idioms, grammar, and sentence structures; (4) translation can help students develop and express ideas in another language; and (5) translation can help reduce learning anxiety and enhance motivation to learn English. On the other hand, negative effects of translation were also described by the interviewees: (1) translations sometimes can be wrong because of the multiple meanings of certain terms; (2) students are likely to generate Chinese-style English; (3) students may overly depend on translation and not make significant progress in learning English; and (4) translation may slow down students' English comprehension and production processes.

Descriptive Analysis of the ITLS
The participants were also asked to rate statements on a five-point Likert scale and then their scores were added up and averaged, representing how frequently the participants reported using translation as a learning strategy. In this study, the participants showed a medium use of translation as a learning strategy (M = 3.35). The means and standard deviations for the

ITLS items are displayed in Table 2. Ten most frequently used strategies (items 13, 16, 19, 5, 3, 1, 4, 14, 9, and 28) out of the 28 items received high means (M>3.5), while 5 items (items 10, 8, 18, 22, and 23) were least used strategies (M<3) by the participants in this study.

Table 2. *Means and Standard Deviations for the ITLS Items*

	Item Description	M	S.D.
1.	When reading an English text, I first translate it into Chinese in my mind to help me understand its meaning.	3.69	.94
2.	I read Chinese translations in the course reference book to help me better understand English articles in the textbook.	3.41	1.06
3.	After I read English articles, I use an available Chinese translation to check if my comprehension is correct.	3.74	1.02
4.	To write in English, I first brainstorm about the topic in Chinese.	3.68	1.10
5.	When I write in English, I first think in Chinese and then translate my ideas into English.	3.79	1.01
6.	I write Chinese outlines for my English compositions.	3.00	1.36
7.	When I listen to English, I first translate the English utterances into Chinese to help me understand the meanings.	3.40	1.11
8.	I read the Chinese translation scripts before I listen to instructional English tapes or CDs.	2.66	1.30
9.	When I watch English TV or movies, I use Chinese subtitles to check my comprehension.	3.63	1.11
10.	I listen to or read Chinese news first in order to understand English radio/TV news better.	2.35	1.20
11.	When speaking English, I first think of what I want to say in Chinese and then translate it into English.	3.45	1.15
12.	If I forget certain English words or expressions in the middle of conversation, I translate from Chinese into English to help me keep the conversation going.	3.16	1.18
13.	I memorize the meaning of new English vocabulary words by remembering their Chinese translation.	4.12	.99
14.	I learn English grammar through Chinese explanations of the English grammatical rules.	3.64	1.13
15.	I use Chinese translation of grammatical terms such as parts of speech, tenses, and agreements to help me clarify the roles of the grammatical parts of English sentences.	3.34	1.15

16. I learn English idioms and phrases by reading their Chinese translation.	3.99	.94
17. I use English-Chinese dictionaries to help myself learn English.	3.42	1.13
18. I use Chinese-English dictionaries to help myself learn English.	2.85	1.27
19. I use an electronic translation machine to help myself learn English.	3.83	1.06
20. If I do not understand something in English, I will ask other people to translate it into Chinese for me.	3.13	1.10
21. I ask questions about how a Chinese expression can be translated into English.	3.03	1.03
22. When the teacher assigns English articles for reading, I work with others to translate them.	2.87	1.09
23. I practice mentally translating my thoughts from Chinese to English in various situations.	2.88	1.07
24. I take notes in Chinese in my English class.	3.39	1.06
25. I write Chinese translations in my English textbooks.	3.41	1.09
26. I try to clarify the differences and similarities between Chinese and English through translation.	3.06	1.09
27*. When reading English, I try to grasp the meaning of what I read without thinking of Chinese equivalents.	3.36	1.07
28*. When speaking English, I think of what I want to say in English without thinking first in Chinese.	3.56	1.01

*. The scores of the items 27 and 28 were reversed.

Specifically speaking, students most frequently use translation to learn English vocabulary words, idioms, phrases, and grammar, to read, write, and speak English, and to check their reading and listening comprehension. These findings were somewhat inconsistent with Kobayashi and Rinnert's study (1992) in that they found that 77% of Japanese university students in their research reported preferring direct composition in English to translation, because they wanted to think in English. Huang and Tzeng (2000) also reported that only 11% of their high English proficiency participants in Taiwan used translation as a strategy to improve reading skills. This difference of the amount of translation strategy use might be due to the fact that the participants in this study, as junior college students

in central Taiwan, tended to be less proficient in their English level and relied more on translating.

Factor Analysis and Canonical Correlation Analysis among Belief and Strategy Factors

The exploratory factor analysis and later canonical correlation analysis conducted revealed that some of the beliefs and strategies were related to one another both statistically and logically. Based on the results of the factor analysis on the IBT and the ITLS items, three composite belief variables (B1, B2, and B3) and five composite strategy variables (S1 through S5) were constructed and are summarized in Table 3.

Table 3. *Summary of Composite Belief and Strategy Variables*

Composite Belief Variables

Variable	Description
B1	Beliefs about positive effects of translation on learners' affective and metacognitive aspects of English learning.
B2	Beliefs about positive effects of translation on enhancing learners' English skills and classroom interaction.
B3	Beliefs about negative effects of translation in learning English.

Composite Strategy Variables

Variable	Description
	Strategies to enhance English skills such as reading, writing, listening, and speaking.
S2	Strategies to learn English forms or structures in areas such as vocabulary, idioms, phrases, and grammar.
S3	Strategies to avoid the use of L1 when using English, to practice translating, and to clarify the differences and similarities between Chinese and English.
S4	Strategies to interact with other people in learning.
S5	Strategies to use learning aids such as dictionaries and to take notes.

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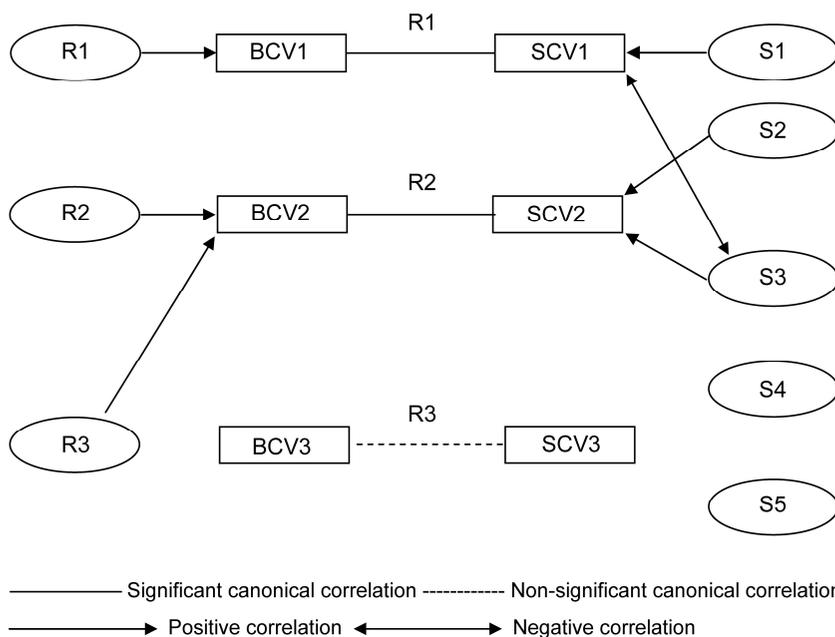

Figure 1. *Relationship among Belief Variables, Belief Canonical Variates, Strategy Variables, and Strategy Canonical Variates*

According to the results of the canonical correlation analysis, two significant canonical correlations R1 and R2 were found. Figure 1 illustrates the relationship among three composite belief variables (B1, B2, and B3) and five composite strategy variables (S1 through S5). The results suggested that R1 is the linkage among beliefs about positive effects of translation on learners' affective and metacognitive aspects of English learning (B1), strategies to enhance English skills such as reading, writing, listening, and speaking (S1) and strategies to avoid the use of L1 when using English (S3, a negative relationship), whereas R2 has a significant linkage between beliefs about positive effects of translation on enhancing learners' English skills and classroom interaction (B2), beliefs about negative effects of translation in learning English (B3) and strategies to learn English forms or structures in areas such as vocabulary, idioms, phrases, and grammar (S2), strategies to avoid the use of L1 when using English (S3). The above analyses suggest that learners' beliefs about how translation can function in their English learning apparently influenced the

kinds of translation strategies they chose to use, further confirming what Wenden (1986a, 1986b, 1987), Horwitz (1985, 1987, 1988), and Abraham and Vann (1987) have claimed about learners' beliefs about language learning and how these may underlie their use of learning strategies.

The Influence of Background Variables on Beliefs and Strategy Use

MANOVA was performed to examine the effects of students' background on their beliefs about translation and how they use translation to learn English. Because there were a large number of variables on both the IBT and the ITLS, the composite variables were used to represent the two questionnaires. The factor scores of the three composite belief variables (B1, B2, and B3) and the five composite strategy variables (S1, S2, S3, S4, and S5) served as the dependent variables, whereas the participants' background variables such as English proficiency and academic major served as the independent variables.

In this study, higher English proficiency students were defined as the top 27% in each class based on their English grades at the end of semester, while lower English proficiency students came from the last 27% in the class (Gronlund 1985). Thus, 96 high achievers and 104 low achievers of English were chosen. These 200 proficient and less-proficient students were further categorized into two major groups as foreign language majors (N = 132) and non-foreign language majors (N = 68) for statistical analysis.

A MANOVA was performed and the results indicated a significant main effect for academic major, Wilks' Lambda = .68, $F = 11.35$, $p = .000$. No significant proficiency main effect was found, Wilks' Lambda = .93, $F = 1.82$, $p = .075$, and no significant major-by-proficiency interaction effect, Wilks' Lambda = .95, $F = 1.21$, $p = .296$.

The following univariate ANOVAs were conducted to indicate which composite variables contributed to the overall multivariate significance, of which results are shown in Table 4. The reported p values do not take into account that multiple ANOVAs have been conducted, so the Bonferroni procedure was used to control for Type I error (Green, Salkind and Akey 2000), and each ANOVA was tested at the significance level of .00625 (.05 divided by the number of dependent variables). Consequently, the participants' academic major had a significant effect on the belief variables B1 and B3, as well as on the learning strategy variables S1 and S3, while the univariate ANOVAs for B2, S2, S4, and S5 were not significant at the required level of .00625.

Table 4. *Tests of Between-Subjects Effects*

Source	Dependent Variable	df	Mean Square	F	Sig.	Partial Eta Squared
Major	B1*	1	17.891	19.789	.000	.092
	B2	1	1.567E-03	.002	.968	.000
	B3*	1	20.363	20.687	.000	.095
	S1*	1	12.140	13.487	.000	.064
	S2	1	3.864	4.218	.041	.021
	S3*	1	20.723	24.157	.000	.110
	S4	1	5.258	5.459	.020	.027
	S5	1	2.453	2.812	.095	.014

Note: *The mean difference was significant at the .00625 level.

Because only two groups of academic major were compared, there was no need to conduct a post hoc test. The means of foreign language and non-foreign language major groups in variables B1, B3, S1, and S3 were calculated and compared. The results suggested that foreign language majors had higher means than non-foreign language majors in B3 (M = .28) and S3 (M = .30), but had lower means in B1 (M = -.27) and S1 (M = -.15). In other words, foreign language majors tended to believe that translation would generate negative results on their English learning (B3) and hence they avoided using translation in their learning (S3). On the other hand, non-foreign language majors would like to think that translation yielded positive effects on their English learning (B1), and correspondingly to use translation to enhance their reading, writing, listening and speaking skills (S1).

On the basis of these findings, it appears that students' academic background may affect their beliefs about translation and accordingly their strategy of using of translation. Nevertheless, with regard to the other background variable of English proficiency, this study did not find a statistically significant relationship. Although previous studies have revealed that less proficient English learners preferred to translate while reading English (Chia and Chia 2001), relied more on translation during English learning (O'Malley *et al.* 1985b; Wen and Johnson 1997), or benefited more from translation than more proficient learners (Kobayashi and Rinnert 1992; Husain 1995), English proficiency did not make a significant difference in translation beliefs and strategy use in the quantitative

analysis of the present study. However, the qualitative interview data gathered from both more proficient and less proficient English learners shed some light on the difference between their beliefs and strategy use.

First, both groups of learners recognized that translation played a vital role in their English learning. Nonetheless, they have different understandings of translation and how it should be used in learning English. For some of the less proficient students, translation meant to translate word for word, or to write Chinese translations between the lines of English texts. By contrast, for more proficient learners, the guiding principle was to read or write directly in English, and to translate only when necessary. It seems that more proficient learners had a better sense of when and how translation was likely to yield good results. In addition, because translation usually facilitates comprehension, it is expected that more advanced learners used less translation, because they were more capable in English and hence relied less on the transfer of their L1. It also appeared that advanced English learners put an extra effort in trying to learn English through English. For instance, less proficient learners reported that in the process of thinking in English they tended to feel exhausted, frustrated, and to think more slowly. In contrast, more successful English learners seemed to recognize that over-reliance on translation in English learning can sometimes be counter-productive, leading to inappropriate transfer of features in Chinese to English and thus making grammatical mistakes.

Conclusions

Several research questions were addressed in this study, and the principal findings suggested that (1) most participants endorsed the belief that translation played a positive role in their English learning experiences, but learners also had conflicting beliefs about translation, resulting from their different understandings of both the positive and negative effects of using translation; (2) learners showed a medium to high level use of translation as a learning strategy, and they used a wide variety of strategies involving translation, including cognitive, memory, compensation, social, and affective strategies; (3) learners' beliefs about translation generally affected the translation strategies they chose to use in learning English; and (4) foreign language majors and more proficient learners tended to report negative beliefs about translation and less use of translation, compared with their non-foreign language major and less proficient peers.

On the whole, translation seems to play an important facilitative role in college students' English learning process. With respect to students' shared beliefs about using translation in learning English, generally they expressed the inevitability of translation use at their present phase of learning, and considered translation as a positive learning resource for them to comprehend, memorize, and produce better English, to acquire English skills, and to complete various English tasks. However, students also showed a somewhat contradictory feeling toward translation. On the one hand, they apparently believed that they needed translation in their current learning process. On the other hand, they were concerned that translation might (1) cause interference of Chinese into English, (2) inhibit their thinking in English, and (3) make learners assume that there is a one-to-one correspondence of meaning between Chinese and English, and thus become a 'bottleneck' in their advancement in English learning. For these reasons, they thought that they should gradually refrain from this tendency of translating as they made progress in learning English.

When it comes to the use of translation as a strategy to learn English, on average, students were found to have a medium to high level of translation strategy use. They employed a wide variety of learning strategies involving translation to help them strengthen their English skills and solve language problems. Specifically, the use of translation as memory, compensation, cognitive, affective, and social strategies were identified as frequently used strategies among these college students.

In terms of the relationship between learners' beliefs and their strategy use, although individual variations did occur, overall, students' professed beliefs on the IBT were greatly consistent with their described learning strategies on the ITLS. The qualitative interview data also generally supported the quantitative results. To be more specific, the results of factor analysis and canonical correlation analysis in this study suggested that (1) students' beliefs B1 may lead students to use strategies S1; (2) students' beliefs B1 may not lead them to avoid using translation strategies S3; (3) students' beliefs B2 may lead them to use strategies S2; and (4) students' B3 may lead them to avoid using strategies S3.

Another major finding of this study involved that students with different background variables such as English proficiency level and academic major appeared to hold different beliefs about translation and strategy use involving translation. On the basis of MANOVA results, the only significant main effect was for academic major, indicating that students majoring in foreign languages were more likely to believe B3 and to avoid using

S3 than their non-foreign language major counterparts; non-foreign language major students, on the other hand, tended to believe B1 and to make use of S1. Moreover, although there was no statistically significant English proficiency main effect nor major-by-proficiency interaction effect in the MANVOA test, qualitative interview data showed that in contrast to less proficient learners, some more proficient English learners favored directly reading or writing in English and only translating cautiously as a last resort.

Implications

Many English teachers believe that it is necessary for students to use translation only at the initial stages of learning. At the college level, it is believed possible and even necessary to use English without translation because students at that level are believed to know English well enough to improve their linguistic skills without their mother tongue being involved. Such a viewpoint, however, is often in conflict with students' perspective, based on the findings of this study that learners draw on knowledge of their native language and rely on translation as they try to discover the complexities of English. As the findings in this study indicated, the use of translation could be a valuable resource or tool that can contribute to the development of various language skills. In fact, the strategic use of L1 or translation would be helpful in developing learners' reading efficiency and maintaining the flow of their conversation and writing tasks.

As Horwitz (1987, 1988) noted, learners' beliefs about language learning are often based on limited knowledge and experience, and these beliefs likely influence students' effectiveness in their learning. Because the use of translation prevails in students' English learning in Taiwan, teachers there should be more attentive to their students' learning beliefs and strategy use about translation. From this study, teachers may gain insights into the role of translation in the students' learning process and ways to integrate these insights into their teaching. Teachers may not need to prohibit students' use of translation altogether, and they should be more aware of the instances when translation can be beneficial as students try to develop their English language system.

In addition, regarding students' conflicting beliefs and various uses of translation as a strategy, as Cohen (1998) pointed out, teachers might suggest translation more for some learners than others, based on their cognitive styles and learning strategies. Since students have some conflicting beliefs about using translation, teachers may want to help students

raise their level of conscious awareness about the advantages and disadvantages of translating, and to encourage them to view translation as an effective and efficient strategy but to use it with caution. At the same time, although students on different proficiency levels may use translation as a strategy differently, they should all be advised to stay away from the possible pitfalls of L1 interference and word-for-word translations.

Limitations of the Study
There are some limitations of survey research. First, although the results of descriptive analysis have shown the overall patterns of learners' beliefs and strategy use related to translation, there was little we could know about the sources of these respondents' beliefs and what caused them to employ such strategies. Second, questionnaires generally could not provide a rich picture of the complicated and interacting learning factors involved in the language learning process and contexts. That is the reason why interviews were added in the study, hopefully to offer more insights about individual learners.

Another limitation derived from the use of factor analysis and canonical correlation in the analysis of the relationship between belief variables and strategy variables. As Johnson (1992) pointed out, due to the essentially reductionist nature of the correlational studies, constructs such as beliefs and strategies need to be reduced to a set of numbers. Furthermore, correlation research does not determine a causal relationship between variables. Hence, even though the findings of this study suggest that there was a significant relationship between learners' beliefs about translation and their use of translation as a strategy, it would remain uncertain to conclude that students' beliefs about translation were causing their strategy use of translation.

Finally, the results of this study were based on a sample population of students at a junior college in central Taiwan. Therefore, the generalization of the findings may be limited to populations with similar nature, but may not be applicable so well for other learner groups with different native languages, educational settings, or cultural backgrounds.

Suggestions for Future Research
Because English learners' views about translation may not often correspond to those of their teachers', as Horwitz (1985) assessed preservice foreign language teachers' beliefs, and then Kern (1995) compared foreign language teachers' with students' beliefs, future research could be

conducted on English teachers' beliefs about using translation or L1 to learn English and make a comparison between these teacher's beliefs with their students'.

In addition, this study has tried to answer what translation strategies learners tend to use. It might be beneficial to examine further how learners translate to help them learn a foreign language. For example, asking learners to describe or think aloud how they go about doing mental translation when they are comprehending or producing a foreign language text. This information about how language learners use translation strategies to learn, instead of what translation strategies they use, may provide more insights into the role of translation in foreign language learning.

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APPENDIX

Interview Guide

1. My understanding is that English teachers in Taiwan use both Chinese and English in the classroom. What is the reason for your teachers to use Chinese or English as the medium of instruction? What pattern of language use do you seem to find?
2. Usually, English teachers, parents, or your peers will give you some advice about how to learn English. Have they asked you not to use translation to learn English and to think directly in English when you are learning or using English? If so, what do you think of this advice?
3. Taiwanese learners often use Chinese or translation to help them learn English (for instance, the use of Chinese-English dictionaries). How do you personally do that?
4. How do you feel about using Chinese or translation to learn English?
5. What are the effects of using translation to learn English?
6. What proficiency level can benefit most from using translation? Why?
7. What language skills do you feel can be strengthened the most form using translation? Why?
8. Some people say that English learners can eliminate their habit of using translation gradually as their learning goes on? What are your ideas about how to change this habit?
9. Is there anything you would like to tell me about your experience or your thoughts using translation to learn English?