

Language Learning Beliefs of Thai EFL University Students: Variations Related to Achievement Levels and Subject Majors

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Abstract

The objective of this study was to determine whether there was any significant difference in terms of the beliefs about language learning among groups of students at different levels of English proficiency, with different age and gender, and majoring in different academic fields. Horwitz's Beliefs About Language Learning Inventory (BALLI) was administered to Thai EFL university students ($N = 532$). In terms of two of the five factors, which were empirically identified by factor analysis in the author's previous study, a significant difference was identified between groups of students with different levels of English language proficiency. Similarly, language learning beliefs were significantly different among groups of students majoring in different fields of study in terms of one factor. The findings suggest that language learning beliefs are different among the learners with different previous language learning experiences, which were reflected in the participants' different proficiency levels and different subject majors.

1 Introduction

The learners' beliefs have been considered as an important variable in language learning by many researchers (Diab, 2006; Dörnyei, 2005; Horwitz, 1999; Tanaka & Ellis, 2003; Wenden, 1999). This is mainly because of their potential impacts on the behaviors of language learners, and consequently, on the outcomes of language learning (Mori, 1999; Riley, 2009; Tanaka & Ellis, 2003). In addition to other individual differences of language learners (e.g. personality, aptitude, motivation), the ultimate success or failure of the language learning is likely to partially depend on the beliefs. The beliefs about language learning were defined as "opinions on a variety of issues and controversies related to language learning" (Horwitz, 1987, p. 120). Since the series of Horwitz's pioneering research (1985, 1987, 1988), numerous studies have been carried out to investigate the beliefs about language learning (Dörnyei, 2005; Horwitz, 1999; Tanaka & Ellis, 2003). This advancement has been also largely facilitated by the paper-and-pencil measurement instrument developed by Horwitz (1987), "Beliefs About Language Learning Inventory" (BALLI).

In spite of the accumulated findings from the studies over the last three decades, the relationships between the beliefs about language learning and other potentially related variables (e.g. learners' past learning experiences, cultural backgrounds) seem to be still not clearly identified. It appears to the author that this is mainly due to the methodological constraints of the analyses used in the studies to date. This current study addressed this issue directly by introducing an alternative methodology in BALLI studies in order to empirically investigate the beliefs'

relationships with the other variables. Language learning beliefs were compared at the dimensional levels identified by Fujiwara (2011) to examine whether the beliefs are different among groups of individuals. In addition, the scope of study was further expanded. This research examined Thai students learning English as a foreign language, a cultural and ethnic group of language learners whose language learning beliefs are almost never explored by any other study published in English, except two studies recently published (Fujiwara, 2011, 2012).

1.1 Belief variations and methodological issues

Empirical investigations of language learning beliefs can be traced back to as early as mid-1980s when Horwitz began her series of studies (1985, 1987, 1988) using her original measurement instrument, BALLI. Horwitz (1987) argued that language learning beliefs were influenced by both students' previous experiences as language learners and their cultural backgrounds. Considering this claim, as Tanaka and Ellis (2003) pointed out, many of the research in this area explored the similarities and differences of the beliefs among groups of language learners with different demographic and other important characteristics (e.g. Diab, 2006; Nikitina & Furuoka, 2007; Peacock, 2001; Rifkin, 2000). Nevertheless it seems to the author that still little is known about the variations of language learning beliefs among the groups of language learners.

This lack of clarification seems to be due to the following two methodological issues. The first issue concerns the comparison method. In most of the BALLI studies, the analyses for the belief variations have been limited to the comparisons at the item levels. The descriptive data, that is, the frequencies of the response options (e.g. "strongly agree", "agree" and so on) in percentage for each item, has been used to compare groups of learners, without appropriate statistical analyses. Only in some cases (e.g. Bernat & Lloyd, 2007; Peacock, 2001; Rifkin, 2000; Schulz, 2001; Shah et al., 2009), inferential statistical analyses were conducted, and the mean scores were compared, but they still remained at the item levels. It was the frequencies of the modal response options (i.e., the responses selected by the largest number of participants) in each of the BALLI items that Horwitz (1999) used as a unit of comparison in her meta-analytical study to investigate the cultural variations of the beliefs. This comparison method naturally obscured variations manifested in the other response options endorsed by a fewer number of participants. The statistical validity remains unknown when comparison is made at single item levels.

This issue of analyzing only at single-item levels was extensively examined by Sage (2011), and this practice which is still noticeable even in recent BALLI studies (e.g. Altan, 2006; Bernat, 2004; Tercanlioglu, 2005) was judged as a consistent problem in terms of its measurement validity. Sage argued that the BALLI studies are limited in its validity due to this practice of analysis, as the single item reliabilities are statistically very low by nature. This problem might be structurally rooted in the BALLI scales, as multiple-item scales are not offered for the five belief dimensions conceptually proposed by the instrument developer.

The second methodological issue is related to the situational and contextual variables of the participants. In many studies that examined belief variations, the participants were different not only in terms of the factors in question, but also in other important aspects. This issue was an unavoidable obstacle in Horwitz's (1999) meta-analysis. Even though her main aim was to identify the cultural variations of the beliefs, the participants were different in other numerous aspects in addition to their cultural backgrounds. Those factors included the participants' age, stage of language learning (e.g. beginner level or advanced level), professional status, and the target language. Those discrepancies among the learners made it almost impossible to identify whether the participants' cultural backgrounds were attributable for the variations of language learning beliefs. It was mainly because of those two methodological constraints that Horwitz (1999) had to admit that "clear-cut conclusions do not seem possible" (p. 574), even if she identified many variations and similarities across several groups of learners.

To summarize, the BALLI studies exploring the variations of the beliefs have been limited in two ways: Firstly, only the descriptive frequencies of the response options in percentage for each item were used as the unit of comparison in most of the studies with no inferential statistical

analyses. Secondly, the language learners investigated by the studies were different in many important aspects other than those in question. This current study was an attempt to overcome those limitations.

1.2 Identifying belief variations at the dimensional levels

As far as the first shortcoming is concerned, it appears that it has been inevitable to compare language learning beliefs only at single item levels due to the focus of the BALLI studies to date. Kuntz (1996) argued that the dimensional structure of the beliefs received very little attention from Horwitz and other researchers, reviewing the research in this area over a decade. It is nearly two decades ago that Kuntz highlighted this lack, but the situation still remains almost the same even today. In this circumstance, systematic comparisons among various groups of learners beyond simple response frequency comparisons at each item level have been technically impossible. Only the data at each item has been available to the researchers to compare groups of learners to examine belief variations. The empirical identification of the dimensions of language learning beliefs is thus essential and a prerequisite to compare groups of learners more extensively and thoroughly from a macroscopic perspective in a more reliable manner.

It was this particular situation that encouraged Fujiwara (2011) to empirically explore the dimensional structure of beliefs about language learning. Through the statistical analyses of the BALLI responses, Fujiwara (2011) identified five factors of the beliefs. In this current research, those five dimensional factors identified by Fujiwara (2011) were used as the unit of comparison to examine the belief variations.¹

This type of method of analysis at dimensional levels is not new but rather very common in recent studies of language learning beliefs (e.g. Amuzie & Winke, 2009; Diab, 2006; Loewen et al., 2009; Tanaka & Ellis, 2003). In many studies, factor analysis was performed as the first step to identify the underlying dimensional structure. Then, as the second step, statistical analyses such as MANOVA were conducted, using the identified dimensions as the dependent variables, in order to examine whether the groups of language learners were different from each other in terms of their language learning beliefs.

However, as far as the BALLI studies are concerned, this is not the case. It is only in a very small number of BALLI studies (e.g. Nikitina & Furuoka, 2006; Truitt, 1995; Yang, 1999) that the dimensionality of beliefs was examined through statistical analyses of the participants' responses to the BALLI items, as reviewed by Fujiwara (2011). Fujiwara (2011), and Mohebi and Khodadady (2011) recently identified the belief dimensions empirically from their participants' responses to BALLI using factor analysis. Yet, in those studies, further comparisons among groups of language learners were not conducted. It was not the objective of their studies. In summary, to our best knowledge, the language learning beliefs measured by BALLI have never been compared at the dimensional levels among the groups of learners by inferential statistical analyses.

1.3 Various learner characteristics

In this study, the participants shared essential characteristics that could potentially influence language learning beliefs. This made it possible for the author to compare their language learning beliefs and attribute the identified variations to the factors in question. The participants shared cultural and ethnic backgrounds and many other situational and contextual factors. They were all Thai native speakers and first-year undergraduate students studying at the same university. They all completed primary and secondary schools following the curriculum set by the Thai Ministry of Education before enrolling in the university. Thus, they all received similar education in their primary and secondary schools in all aspects, including the studying of English as a foreign language (EFL).

1.4 *Different focuses of the two studies*

This study and Fujiwara (2011) both explored the variations of language learning beliefs, yet the focus was different in each of them. This current research focused on the variations among the Thai EFL students, that is, intragroup variations. The study explored if their beliefs were different among the Thai students with a different level of English language proficiency, age, gender, and subject major. Fujiwara (2011), on the other hand, explored the similarities and differences among different cultural and ethnic groups of language learners, that is, intergroup variations. He compared his identified Thai EFL students' language learning beliefs with those of Taiwanese EFL students. In addition, this present study examined the learners' strength of the beliefs, that is, their degree of agreement to the statements of the items grouped together within each of the five dimensional factors, while Fujiwara (2011) was mainly concerned with the dimensional structure itself and the BALLI item grouping within each factor.

1.5 *Purpose of the study*

The purpose of this study was to explore the variations of the beliefs about language learning held by Thai EFL university students through statistical analyses of their responses to BALLI. The beliefs examined in this study are measured by BALLI, covering five theoretical areas proposed by Horwitz (1987).² The groups of the Thai EFL students differing in the four following aspects were compared at the dimensional levels: (a) their level of the English language proficiency, (b) age, (c) gender, and (d) subject major. The dimensions empirically identified by Fujiwara (2011) were used as the dependent variables.

2 Method

2.1 *Participants*³

The participants in this study were first-year undergraduate students ($N = 542$) in a large research-oriented state university in Thailand. The instructors randomly selected from those teaching EFL courses at the university invited their students to participate in this study upon the request of the author. All of the instructors asked to administer this survey to their students in their EFL classes agreed to do so. The participants were all Thai native speakers. The mean of their age was 18.81 years and most of them were either 18 years old (27.1%) or 19 years old (67.2%). Female students made up 67.0% of the participants.

The students were enrolled in 19 different undergraduate degree programs. The most dominant group were students majoring in medicine and health science. Medical students were the largest group (19.2%).⁴ Nursing students were the second largest (14.8%), followed by science majors (12.9%) and engineering majors (10.9%). Other majors included medical technology (8.1%), public health (7.0%), pharmacy (6.3%), dentistry (4.2%), physical therapy (2.6%), and veterinary science (1.7%).

The students were taking one of the compulsory English classes of three different levels: the advanced-level classes (3.3%), the intermediate-level classes (26.9%), and the elementary-level classes (69.7%).⁵ The students' score for the English test in the entrance examination to the university was used to make this grouping. The English test, given as one of the subjects of the nation-wide entrance examination which all the applicants of the Thai state university's undergraduate programs were required to take, was a paper-based multiple-choice written test, and it measures mainly the reading and writing skills of English, as well as the grammar usages. Using a range of scores for each of the three levels, set by the university, the students were divided into three groups.

2.2 *Materials*⁶

The “Beliefs About Language Learning Inventory” (BALLI) was used to measure language learning beliefs because of the purpose of this study: identifying the belief variations at the dimensional levels through BALLI. Although BALLI is the most widely used instrument of measurement for language learning beliefs, the belief variations at dimensional levels have not been identified using this measurement instrument. A Thai-language version of Horwitz’ 35-item BALLI was developed for this study from Yang’s (1999) English Learning Questionnaire.⁷ In 33 items, the participants were asked to indicate how they agree or disagree with statements on a five-point Likert scale ranging from “strongly agree” (5) to “strongly disagree” (1). The other two items measured the level of difficulty of English (item 4) and the period of time necessary to learn a new language (item 15), respectively, using different response options. In creating the Thai-language version, some changes were made in Yang’s wordings in order to ensure consistency among all the items and to reflect the current situations.⁸ At the end of the measurement instrument, the participants were asked to answer some demographic questions.

The participants’ responses to the 35 items were analyzed through an exploratory principal component analysis with direct oblimin rotation. Five factors were extracted, and accounted for 32.73% of the total variance.⁹ Each factor accounted for 10.29%, 8.49%, 5.08%, 4.76%, and 4.11% of the variance, respectively. The Cronbach’s coefficient alpha for each factor were .489, .591, .553, .491, and .566, respectively.¹⁰

A series of one-way between-participants MANOVAs was conducted to examine whether there was any significant difference in terms of the beliefs about language learning among the groups of students with different demographic characteristics. The mean scores of the five dimensional factors of the beliefs identified by Fujiwara (2011) were used as the dependent variables. The participants’ four demographic variables (i.e. their proficiency level of English, gender, age, and subject major) were the independent variables. An alpha level of .05 was used for all the statistical tests in the analyses, except for those with a Bonferroni adjusted alpha.

2.3 *Procedures*

The questionnaire survey was administered by the instructors teaching English as a foreign language to their students in their respective classes. Depending on the instructor, the questionnaires were collected in one of two different ways. In some cases the students were given several minutes to complete the questionnaire in class, while in the other cases the participants were asked to return the questionnaire in the next session.

3 *Results*

3.1 *Preliminary assumption and outliers*

Before performing MANOVAs, preliminary assumption testing was conducted in order to assess normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity. No serious violation was observed, except for the following univariate and multivariate outliers.¹¹ A total of 34 participants were deleted, as their mean scores of one of the five identified belief factors were considered as univariate outliers. In addition, one participant was removed because of his/her mean scores of the five belief factors considered as a multivariate outlier.

3.2 *Language learning belief variations (1): Proficiency level*

As far as the English language proficiency is concerned, only the students in the two lower levels (i.e., the elementary level and intermediate level) were examined. This is because of the very small number of the students in the advanced level. A statistically significant difference was

identified between the two groups of students on the combined dependent variables, $F(5, 464) = 4.845$, $p < .0005$; Wilks' Lambda = .950; partial eta squared = .050. When the results for the dependent variables were considered separately, a statistically significant difference was identified in two out of the five factors: Factor 2 (important aspects of language learning, ALL), $F(1, 468) = 6.766$, $p = .010$, partial eta squared = .014, and Factor 5 (difficulty and ability of language learning, DAL), $F(1, 468) = 9.955$, $p = .002$, partial eta squared = .021, using a Bonferroni adjusted alpha level of .01. The students with the lowest level of the English proficiency ($M = 3.011$, $SD = 0.497$) had a significantly higher mean score in Factor 2 than the students in the intermediate-level English classes ($M = 2.877$, $SD = 0.521$). In terms of Factor 5, the situation was in the complete opposite. The students in the elementary-level classes ($M = 2.904$, $SD = 0.375$) had a significantly lower mean score than the students in the intermediate-level classes ($M = 3.024$, $SD = 0.358$). Table 1 describes the two group's mean scores and standard deviations in the five identified belief factors.

Table 1. Belief variations of groups of students with different English proficiency levels

Level	Factor 1: LCS		Factor 2: ALL		Factor 3: EDE		Factor 4: NAL		Factor 5: DAL	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Elementary (<i>n</i> = 337)	4.221	0.326	3.011	0.497	3.799	0.474	3.515	0.354	2.904	0.375
Intermediate (<i>n</i> = 133)	4.227	0.328	2.877	0.521	3.736	0.446	3.559	0.333	3.024	0.358
Total (<i>N</i> = 470)	4.223	0.326	2.973	0.507	3.781	0.466	3.527	0.349	2.938	0.374

Note. LCS = Learning and communication strategies; ALL = Important aspects of language learning; EDE = Expectations and difficulty of learning English; NAL = Nature and aptitude of language learning; DAL = Difficulty and ability of language learning.

3.3 Language learning belief variations (2): Age

The following three age groups were formed and compared due to a small number of some separate age groups: (a) 17-year and 18-year old students together; (b) 19-year old students only; and (c) 20-year old and older students. No statistically significant difference was identified among the three age groups on the combined dependent variables, $F(10, 952) = 0.901$, $p = .532$; Wilks' Lambda = .981; partial eta squared = .009.

3.4 Language learning belief variations (3): Gender

A statistically significant difference was uncovered between the male students and the female students on the combined dependent variables, $F(5, 477) = 3.485$, $p = .004$; Wilks' Lambda = .965; partial eta squared = .035. However, when the results for the dependent variables were considered separately for each of the five belief factors, no significant difference was identified, using a Bonferroni adjusted alpha level of .01.

3.5 Language learning belief variations (4): Subject major

The students majoring only in the following disciplines were examined: engineering, science, medicine, nursing, and health-related sciences. This was because of the small number of the students in the other majors. Due to a small number in each separate major, two new groups were formed for the students in the health-related sciences. The students in dentistry, pharmacy, and veterinary science were combined together to form the category of "health science I." The students majoring in medical technology, public health, and physical therapy were put into the group of

“health science II.” This grouping was made considering the closeness and similarities of each disciplinary area. The two groups were also different in terms of the number of years necessary to complete the program: six years for the former, and four years for the latter. Thus, the six following groups were compared: (a) engineering students; (b) science students; (c) medical students; (d) nursing students; (e) students in health science I; and (f) students in health science II.

A statistically significant difference was identified among the six major groups of students on the combined dependent variables, $F(25, 1539) = 2.327, p < .0005$; Wilks' Lambda = .871; partial eta squared = .027. When the results for the dependent variables were considered separately, a statistically significant difference was detected only in Factor 2 (important aspects of language learning, ALL), $F(5, 418) = 4.048, p = .001$, partial eta squared = .046, using a Bonferroni adjusted alpha level of .01.

A one-way between-participants ANOVA with post-hoc comparison using the Tukey HSD test disclosed that in Factor 2, the mean score of the students in health science I ($M = 2.758, SD = 0.436$) was significantly different from the nursing students ($p = .004, M = 3.064, SD = 0.480$) and also from the students in health science II ($p = .005, M = 3.056, SD = 0.486$), using a Bonferroni adjusted alpha level of .01. The effect size, calculated using eta squared, was .045. Table 2 summarizes the mean scores and standard deviations of the six subject major groups in the five identified belief factors.

Table 2. Belief variations of groups of students with different subject majors

Major	Factor 1: LCS		Factor 2: ALL		Factor 3: EDE		Factor 4: NAL		Factor 5: DAL	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
EG (<i>n</i> = 51)	4.152	0.335	2.997	0.493	3.667	0.423	3.553	0.349	2.863	0.384
SC (<i>n</i> = 64)	4.219	0.300	2.977	0.481	3.792	0.519	3.597	0.335	2.943	0.399
MD (<i>n</i> = 91)	4.268	0.320	2.874	0.535	3.744	0.456	3.568	0.354	3.051	0.378
NS (<i>n</i> = 75)	4.262	0.306	3.064	0.480	3.900	0.486	3.496	0.354	2.929	0.407
HS I (<i>n</i> = 62)	4.238	0.343	2.758	0.436	3.685	0.428	3.538	0.308	2.973	0.327
HS II (<i>n</i> = 81)	4.287	0.287	3.056	0.486	3.796	0.412	3.477	0.369	2.942	0.322
Total (<i>N</i> = 424)	4.245	0.315	2.956	0.498	3.771	0.459	3.536	0.348	2.958	0.372

Note. EG = Engineering; SC = Science; MD = Medicine; NS = Nursing; HS I = Health science I; HS II = Health science II. LCS = Learning and communication strategies; ALL = Important aspects of language learning; EDE = Expectations and difficulty of learning English; NAL = Nature and aptitude of language learning; DAL = Difficulty and ability of language learning.

4 Discussion and conclusions

In this study, a significant difference was identified between the groups of students with a different level of English language proficiency in terms of their language learning beliefs by comparing the mean scores of the five belief dimensions empirically identified by Fujiwara (2011). The students with a high proficiency level were significantly different from those with a low proficiency level in terms of the two dimensions: Factor 2 (important aspects of language learning, ALL) and Factor 5 (difficulty and ability of language learning, DAL). In a similar manner, a significant difference was also disclosed among students majoring in different disciplines in terms of one dimension. In terms of Factor 2, the students majoring in dentistry, pharmacy, and veterinary science were significantly different from both the nursing students and from the

students majoring in medical technology, public health, and physical therapy, respectively. On the other hand, no significant difference was identified among students differing in their age and gender. The findings seem to exhibit that language learning beliefs were significantly different at least at a dimensional level among the Thai EFL students with different proficiency levels and with different subject majors. In other words, it appears that the variations of language learning beliefs were empirically identified among groups of students with different English proficiency levels and subject majors.

The first findings regarding levels of English proficiency seem to empirically support what many researchers have argued about language learning beliefs. Students at different proficiency levels (and also at different stages of learning) seem to have different beliefs about language learning. The participants of this study were grouped according to the results of their English test in the entrance examination to the university. Thus, this grouping mainly reflected the achievements in their secondary schools. The study therefore appears to exhibit belief variations among students differing in their past language learning achievements. Yet the relationship between the two variables (i.e. language learning beliefs and past language learning experience) identified in this study is only correlational.

In terms of Factor 2, the students with a low proficiency level had a mean score significantly higher than those with a high proficiency level. All the six items grouped in Factor 2 had a positive factor loading. Thus the low achievers were more likely to agree with the statements in all the six items. Many of the statements covered specific areas of language learning traditionally considered to be important. The high achievers were significantly less likely to recognize the importance of grammar (item 23), to think that reading and writing English was easier than speaking and understanding English (item 34), and to believe that language learning involved a lot of memorization (item 35). The successful learners also tended to deny the importance of learning how to translate (item 28), and the importance of vocabulary learning (item 17). Furthermore, the learners with a higher proficiency level had a tendency to reject the idea that you should not say anything if you cannot say it correctly (item 9). The high achievers seem to share the teachers' beliefs about an important aspect of language learning – the idea of using the language even if you are not perfectly ready yet.

The belief variations were just in the opposite direction in Factor 5. The students with a high proficiency level had a mean score significantly higher than those with a low proficiency level. Only one of the five items grouped in Factor 5 had a negative factor loading. Thus, the high achievers had a tendency to agree with the statements in the BALLI items, except for this item. The successful learners were more likely to believe that English was an easy language (item 4), that they themselves had a special ability for learning foreign languages (item 16), and that they were able to learn to speak English very well (item 5). In addition, the high achievers tended to acknowledge that people in their home country (i.e. Thai people) were good at learning foreign languages (item 6), and also to consider guessing as an acceptable communication strategy if you do not know a word (item 14). On the other hand, the successful language learners were less likely to feel shy when they speak English with other people (item 21).

The findings also endorse what Mori (1999) identified in her study that examined American learners of the Japanese language. Mori discovered different language learning beliefs between the beginning and advanced learners. She argued that the rich learning experiences of the advanced learners may have helped them to refine their beliefs (Mori, 1999, p. 409).

The other findings regarding the participants' subject majors reinforce this interpretation about their past learning experiences. The students majoring in different academic subjects had different beliefs in terms of Factor 2. The students from faculties of dentistry, pharmacy, and veterinary science indicated a weaker agreement to the statements in the six items in Factor 2 than those from faculty of nursing and those from faculties of medical technology, public health, and physical therapy. This type of belief variations in Factor 2 was equally uncovered between the successful and less successful learners of English, as described in the previous sections. The students in the intermediate-level classes showed a weaker agreement to the statements than those in the elementary-level classes.

It is very likely that the students studying in different faculties had different learning experiences before coming to the university and they had different academic achievements in their secondary school. This could be applicable not only to language learning but also to learning and studying in general. This is mainly because of the different school subjects necessary to study to be admitted to the programs in different academic areas, as well as the different levels of competitiveness or difficulty of the programs. Some undergraduate degree programs (e.g. medicine) are more competitive than others, and more difficult to be admitted. The applicants need to take a separate different admission examination in order to get admitted to medical schools in Thailand. These programs tend to attract students who are academically more talented and made higher achievements in their secondary school. Taking those issues together into consideration, the findings seem to exhibit different language learning beliefs among students with different past learning experiences and achievements. Thus, it is plausible that the participants' past learning experiences, either successful or less successful, influenced the formation and development of their beliefs about language learning.

Meanwhile, it is necessary to note that it is possible that the variables of the students' subject majors and their English language proficiency might be related to certain extent, as they were not controlled in this study. Due to the different levels of competitiveness among the programs, it is likely that the students in certain subject majors (e.g. medicine) are academically more able and made higher achievements in their high school period than others, including in their English language proficiency level. Yet, the two variables measure a different aspect of the students' past learning experience.

The results of this study suggest that the learners' achievements are likely to be related to their beliefs about language learning. However, the relationship between those two factors seems to be cyclical. It is likely that the participants in the intermediate-level classes could obtain a higher level of English language proficiency because it was facilitated by their beliefs. At the same time, it is also possible that their language learning beliefs were developed or refined by their successful learning experiences, as Mori (1999) argued.

This kind of relationship between the past learning experiences and the dimensional-level beliefs was also suggested by Fujiwara (2012). He investigated the language learning beliefs held by Thai university students learning Chinese and Japanese languages. Fujiwara (2012) argued that his participants had similar language learning beliefs, because their previous experiences as language learners were similar in a wide range of aspects. He claimed that all the participants underwent more or less similar experiences in learning English and in achieving a very high level of proficiency in English.

The learners' past learning experiences identified as potentially correlated with the learning beliefs provide some educational implications. First, it enlightens the theoretical foundations for teachers' endeavors to develop and alter learners' beliefs. It is likely that learners can produce higher achievements if they have language learning beliefs enhancing the leaning effectiveness. The findings regarding the types of beliefs shared by more successful learners are intuitively plausible, but this study empirically endorses the potentiality of developing them through instructional practices. However, as this study indicated the correlational relationships and not the causal relationships, in some cases this type of educational interventions might be limited in their effectiveness in developing language learning beliefs. It is a valuable aim for future research to identify this causal relationship.

In spite of those contributions of this study, some limitations need to be acknowledged. The most fundamental issue is related to the measurement instrument used in the study, BALLI. Although it was not the focus of this study to examine the dimensional structure of the beliefs itself, the Cronbach's coefficient alpha score for each of the five factors were low. The factors were used as the dependent variables in MANOVAs to examine the variations of the beliefs. Thus it is necessary to consider this psychometric issue in interpreting the findings of the study regarding the beliefs variations.

On the other hand, this kind of low Cronbach's alpha coefficients scores have been reported in many other studies of language learning beliefs (e.g. Amuzie & Winke, 2009; Tanaka & Ellis,

2003; Yang, 1999), regardless of the measurement instruments used in the studies, whether it was BALLI or another instrument. In addition, Paechter et al. (2013) pointed out that the low reliability of the empirically identified dimensions is also widely noticeable in the studies of personal epistemology, examining the individuals' beliefs about knowledge and knowledge acquisition in general. It is thus plausible that this could actually reflect the complicated nature of this construct. As this study was to address the issue of validity for the single-item level analyses, this issue of validity for the dimensional-level analyses must be addressed in the future research.

The next issue concerns the two variables identified as being correlated with the beliefs dimension: the participants' English language proficiency level and subject majors. As it was discussed earlier, it is plausible that the two variables are not independent from each other. Students in some academic fields (e.g. medicine) have higher entrance requirements than others, and thus they have higher English test score. Furthermore, the variables about learners' past learning experiences were not empirically explored in this study. It is undoubtedly necessary to measure those variables in order to obtain the whole picture of the participants' past learning experiences, not only in language learning, but also in other subject areas in general. These additional aspects would be explored more effectively through the combined methods, collecting both quantitative and qualitative data. Longitudinal studies will also enable us to investigate how the past experiences as language learners make a difference in the individuals' beliefs about language learning. With such studies, we will be able to have a better understanding of how learners' language learning experiences and their language learning beliefs mutually influence each other.

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Notes

¹ The five dimensional factors identified by Fujiwara (2011) are: (a) Factor 1: learning and communication strategies; (b) Factor 2: important aspects of language learning; (c) Factor 3: expectations and difficulty of learning English; (d) Factor 4: nature and aptitude of language learning; and (e) Factor 5: difficulty and ability of language learning. All the five factors had a complex structure, including items from two or more of the five conceptual dimensions, and thus they do not correspond to the dimensions proposed by Horwitz (1987). See Fujiwara (2011) for more details.

² The five theoretical areas covered by BALLI are: (a) foreign language aptitude; (b) the difficulty of language learning; (c) the nature of language learning; (d) learning and communication strategies; and (e) motivation and expectations. See Fujiwara (2011) for more details about BALLI.

³ The participants in this study were the same as Fujiwara (2011). The data obtained from the same participants were used for both of the two studies. See Fujiwara (2011) for more details.

⁴ Medical schools in Thai universities offer six-year undergraduate programs to produce medical doctors. High school graduates are eligible to apply for the programs immediately after having completed their secondary education. Therefore, in terms of the previous educational experiences, the participants of this study are similar regardless of their subject major, with only 12 years of pre-university education.

⁵ The names of the English classes with different levels (i.e., "advanced-level", "intermediate-level", and "elementary-level") were used only in this study for the reference purpose, and the numerical levels (i.e., English Level 3 for the "advanced-level" course, English Level 2 for the "intermediate-level" course, and English Level 1 for the "elementary-level" course) were used within the institution. The levels do not refer to any recognized categories, and they were purely institutional labels. The textbooks are different between classes of different levels, although they are from the same series, and different examinations were given to the classes of different levels.

⁶ The materials used in this study were the same as in Fujiwara (2011). See Fujiwara (2011) for more details.

⁷ The original BALLI has 34 items, but one item was added in a later version by Horwitz according to Yang (1999).

⁸ Through this wording modification, all item statements in the questionnaire equally refer to all English-speaking countries and their people instead of only America and Americans. Another wording change replacing “cassettes or tapes” by “audio-visual materials (such as CDs, and DVDs)” was made because of the current usage of audio-visual materials by the participants. See Fujiwara (2011) for more details.

⁹ See Fujiwara (2011) for discussions regarding the factor identification and its labeling.

¹⁰ See Table 1 in Fujiwara (2011) for details of the five identified factors, and Table 2 in Fujiwara (2011) for the mean score of each of the five factors and their standard deviations.

¹¹ With the large number of the participants in this study ($N = 542$), the MANOVAs were still valid even with some minor violations of the assumption, as outliers were excluded from the sample.

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