Exploring Language Learning Beliefs and Strategies:

In Reaction to a CLIL Course

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Abstract

This study explored adult EFL learners' beliefs in language learning, and their learning strategies in a Content and Language Integrated Learning (CLIL) Course. A survey was conducted among 110 learners in a private university in Tokyo over a period of four academic years. The main finding was that firstly, the learners' beliefs in language learning did not necessary correlate with the actual learning strategy. Secondly, beliefs in analytic learning negatively correlated with learners' language proficiency. Thirdly, experiential strategies correlated with the learners prior learning experience in CLIL and CLIL-like teaching methods, and with learners' confidence and motivation.

Keywords: CLIL, learner belief, learner strategy

Introduction

CLIL (Content and Language Integrated Learning) is a holistic approach which aims to learn both the content and the language (Ikeda, 2017), and has established itself as an international educational provision (Puffer, 2018). As Mehisto, Marsh, and Frigols-Martin. (2008) state, the

learners learn as they use, and use as they learn the target language. It is a student-centered approach where teachers maintain balance between cognitive challenge for learners, and the appropriate scaffolding in teaching. Earlier studies have shown the impact of CLIL on second language acquisition, learners' motivations, and strategies. This study analyzed the learners' reactions obtained over the four years of CLIL instructions, and investigated how the learners' beliefs on language learning and the actual learning strategies associated with each other, as well as how they correlated with the learners' motivation, confidence, language proficiency, and learning history.

Previous Studies

Numerous studies have explored the language learner's beliefs (Benson & Lor. 1999: Gaies, Galambos, & Cornish, 1999: Horwitz, 1985: Huang, 1997; Matsuura, Chiba, & Hilderbrant, 2001; Mori, 1999; Park, 1995: Sakui & Gaies. 1999: Tanaka & Ellis. 2003: Truitt. 1995: Wenden. 1986; Yang, 1999). Yang (1999) investigated 505 university students in Taiwan, and found connections between learners' self-efficacy, belief, and their use of learning strategies. Tanaka and Ellis (2003) examined Japanese university students' belief about language learning after a 15-week study-abroad program and concluded that there was an improvement in self-efficacy and confidence of the learners as well as their proficiency level. In their study, language learners' beliefs could be divided into two main categories: beliefs about (a) language learning approaches and (b) themselves as a learner. In this study, the beliefs about analytic and experiential learning refer to both, in a sense that it questions what the learners believe to be and what they believe is the best approach for language learning.

Izumi, Shiwaku, and Okuda (2011) compared the learners who have lived abroad with those who have not, and found that the former group tended to be more experiential learners while the latter group were

more analytical learners. More recently, Imura and Ahmadi (2016) explored the relations among the students' sense of achievement, the actual progress, and their learning belief and strategies and found that there was a mismatch between the learners' belief and strategy, and there were significant correlations between the learners' strategies and past learning experiences of communicative language teaching, content based teaching and teaching in English. This study goes further on with exploring the learners' confidence, motivation, starting age, and learning experiences, considering the learners' internal factors in relations to the learners' language learning beliefs and strategies. The research questions are as follows.

Research Questions.

- 1. How do learner belief and learner strategy relate to each other in CLIL courses?
- 2. How do learner belief and learner strategy relate to the following factors?
 - a. English level
 - b. Previous language learning experience
 - c. Confidence
 - d. Motivation
 - e. Starting age

Method

The study analyzed the questionnaire conducted among students who were taking the compulsory Listen and Read III and IV courses in a private university in Tokyo. Although the initial course description was skill based, the course was designed under the framework of CLIL. The study conducted a survey using the 5-point Likert scale questionnaire developed by Imura and Ahmadi (2016) which was originally based on Izumi, et al. (2011). The questionnaire comprised of the stu-

dents' English level, study abroad experience, starting age, language learning experience, sense of achievement, confidence, motivation, learning belief and learning strategy. The study analyzed a survey (see Appendix) conducted in six classes which were performed during the academic year of 2016 to 2019.

Course Design

The courses used in this study were conducted once a week, covering 15 classes per semester, and were designed to integrate the four skills: listening, speaking, reading, and writing. They focused on academic contents such as World Englishes and Intercultural Communication to acquire the knowledge of the content as well as skills for EAP (English for academic purposes). Each course was designed to use the 4Cs: Content, Communication, Culture, and Cognition. It was also designed to use different levels of thinking skills (remember, understand, apply, analyze, evaluate, create), employed cooperative learning, and promoted intercultural awareness and use of authentic materials. Students also had frequent opportunities for discussions and presentations.

Participants

The participants of this study were second-year learners of English who were assigned to each class by TOEIC scores and class performance. Among 110 participants, 91 reported their TOEIC scores in the survey, and the average score was 643.68. Among six classes, one was lower-intermediate level, and the other five were advanced level. Seven students had study abroad or living experiences in English speaking countries more than a year, and 32 studied abroad less than a year. Since the university highly recommends students to participate in the study abroad programs, it turned out that the percentage of study or living abroad was 35%, which meant that one out of three students had study experience in English speaking countries.

As for the learners' starting age of learning English, the average

was 10.7. As Figure 1 shows, the percentage of students who started earlier than the age of eight adds up to 28%, and the percentage of those who started from higher grades in elementary school was 27%, and 45% of the students started learning English from secondary schools.

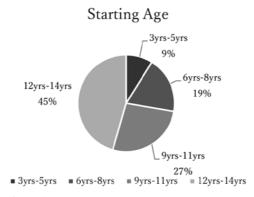


Figure 1 Percentage of the Learners' Starting Age

Results

Language Learning Experiences

The survey asked the learners' past learning experiences (see Appendix questionnaire part E) which entailed nine factors relating to teaching methodologies. As Figure 2 shows, the relatively high scores of the grammar-translating method, and whole class activity indicate the learners' prior traditional language learning experiences. However, the score of teaching English in English was also high, and learners seemed to have some opportunities to communicate in class, since communication activities and having opportunities to use the language were also relatively high. At the same time, the low score of learning different subjects shows that participants had less prior experience in CLIL.

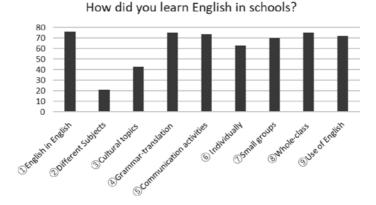


Figure 2 Average Scores of Learning Experiences.

- ① Learning English in English ② Learning Different Subjects in English
- ③ Cultural topics woven into each classes ④ Grammar-translation method
- ⑤ Communication activities
- (6) Learning individually
- (7) Learning in small groups
- Learning through whole-class activities
- 9 Had the opportunities to use English in class

The Learners' Learning Beliefs and Strategies

Language beliefs are the learners' ideas or philosophies about language learning, and they exert strong influence on L2 learning, constituting variables that accounts for individual differences (Izumi, 2014; Dörnyei, 2005). In this study, beliefs indicate the learners' ideas or principles on how language should be learned. The questionnaire items for the belief in analytic learning are as follows: It is important to be able to understand everything the teacher says. I want my English teacher to explain new grammars in Japanese. It is important to check any words that I do not understand. I think we need to know the grammar and vocabularies before we can speak in English. I want my teacher to correct all my mistakes. The items for the belief in experiential learning are as follows: I think we need to speak and listen in English in order to learn English. It is okay to speak English with some Japanese accent. If I do not under-

stand some words in English, I try to guess it and continue the conversation. I am not afraid of making mistakes while speaking. I do not spend too much time on learning grammar and memorizing vocabularies. Next, strategies refer to the learners' actual involvement in language learning. The questionnaire items for the strategies in analytic learning are as follows; I learned English by memorizing a lot of words and idioms. I learned English by studying school textbooks carefully. I learned English by repeating and practicing a lot. I learned English by looking up the dictionary and translating the words into Japanese. I learned English by studying a lot of grammatical structures. The items for the strategies in experiential learning are as follows: I learned English by immersing myself in an English speaking environment. I learned English by writing e-mails, diaries, or letters in English. I learned English by listening to the radio or watching TVs / movies in English. I learned English by speaking with others in English. I learned English by reading a lot of English magazines, books, and newspapers. (see Appendix Section H).

Using the questionnaire adopted by Imura & Ahmad (2016) and Izumi, et al. (2011) the scores of the entire learners' language learning beliefs and strategies were summed up. Table 1 shows the result of a paired t-test based on the scores of Belief Analytic, Belief Experiential, Strategy Analytic, Strategy Experiential groups. There was a significant difference between Belief Experiential and Strategy Experiential, which implies that the learners who believed to be experiential did not employ experiential learning in practice. In contrast, for analytic learning, the

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Logistic parameter	M	SD	t	р
Belief A and Strategy A	.58	3.45	1.78	.083
Belief E and Strategy E	2.23	3.79	6.14	.000**
Belief A and Belief E	.88	3.63	2.54	.013**
Strategy A and Strategy E	2.53	5.19	5.09	.000**

Table 1. Results of Paired T-test on Belief and Strategy

r < 0.01**

learners' belief and strategy did not contradict.

Language Proficiency, Learning Belief and Learning Strategy

The participants' language proficiency was examined in relation to learning beliefs and strategies. Table 2 shows the correlations between the learners' TOEIC scores and the Belief Analytic, Belief Experiential, Strategy Analytic, and Strategy Experiential learning. Interestingly, there was a strong negative correlation between the learners' language proficiency and the belief in analytical learning. This result indicates the fact that those who believed in analytical language learning did not receive higher scores in TOEIC tests. The result also shows that there is no correlation between the actual analytical practice and the TOEIC scores. The learners' ideas or philosophies about language learning seem to have some impact on their actual performance. Their beliefs about analytical learning had some negative effects on the actual performance on language proficiency tests.

Table 2. Results of Pearson's Correlation Analysis on TOEIC Scores, Analytic and Experiential Learning

	Belief A	Belief E	Strategy A	Strategy E
TOEIC scores	384**	.068	133	.112

r < 0.01**

Other Individual Factors in Relation to Learning Belief and Learning Strategy

The individual factors such as confidence, motivation, and starting age were examined in relation to learning beliefs and strategies. The questionnaire items indicating confidence are as follows: I don't think learning English is very difficult. I am not afraid of speaking to a native speaker of English. I think I can manage to achieve my goals in learning English in a few years. I understand more than 70% of the teachers talk

during the lesson. When I have a question, I would ask it immediately. Table 3 shows the correlation between the learners' confidence and the belief and strategy types. The result shows that there was a strong correlation between the learners' confidence and belief on experiential learning, and their analytic strategy and experiential strategy. There was no correlation between confidence and belief on analytic learning. Belief in analytic learning did not correlate with the learners' confidence.

Table 3. Results of Pearson's Correlation Analysis on Confidence, Analytic and Experiential Learning

	Belief A	Belief E	Strategy A	Strategy E
Confidence	.014	.408**	.244*	.391**

r < 0.01**, r < 0.05*

Next, the questionnaire items indicating motivation are as follows: I would like to speak in English with my classmates. I would love to travel to English speaking countries to challenge my English knowledge. The teacher asks us to explain our ideas to him or to other students. I enjoy presenting my new ideas to the teacher and other students. I think speaking in English, not in Japanese, is very important for improving in English.

Table 4 shows the correlation between the learners' motivation and belief and strategy types. The result shows that there was a strong correlation between motivation and beliefs on both analytic and experiential learning, and analytic and experiential strategies. The result shows that motivation is linked with the learners' beliefs and strategies of both types.

Table 4. Results of Pearson's Correlation Analysis on Motivation, Analytic and Experiential Learning

	Belief A	Belief E	Strategy A	Strategy E
Motivation	.256**	.436**	.267**	.412**

Table 5 shows the correlation between the learners' starting age, the belief and strategy types, and the TOEIC scores. The result demonstrates a strong correlation between starting age and all types of learning. Interestingly, there was a negative correlation (r = -.238) between the starting age and TOEIC scores. The result indicates that the test score rises as the starting age declines, which means that starting at early age relates to higher scores in language proficiency tests.

Table 5. Results of Pearson's Correlation Analysis on Starting Age, Analytic and Experiential Learning and TOEIC Scores

	Belief A	Belief E	Strategy A	Strategy E	TOEIC
Starting age	.256**	.436**	.267**	.412**	238*

 $r < 0.01^{**}, r < 0.05^{*}$

Correlations Between the Learners' Learning Strategies and Learning Experiences

Table 6 shows the correlations between the learners' learning strategies and learning experiences: Learning English in English (How 1), Learning different subjects in English (How 2), Cultural topics woven into each class (How 3), Grammar-translation method (How 4), Communication activities (How 5), Learning individually (How 6), Learning in small groups (How 7), Learning through whole-class activities (How 8), Had the opportunities to use English in class (How 9). The correlation analysis shows that there are significant correlations between the learners' experiential strategies and their learning experiences such as learning English in English (How 1), CLIL (How 2), communicative approach (How 5) and learning in small groups (How 7). Furthermore, there was a correlation between learners' analytic strategy and grammar translation method (How 4). The result shows that no correlations were found between the learners' beliefs and learning experiences. In contrast, strong positive correlations were found between the learners'

strategies and learning experiences. There were more positive correlations with Strategy experiential than with Strategy analytic.

Table 6. Correlations Between Learning Experiences and Analytic and Experiential Learning

	How 1	How 2	How 3	How 4	How 5	How 6	How 7	How 8	How 9
ВА	.131	017	-0.013	.047	.080	.055	023	003	.174
BE	024	.126	059	.134	027	085	.090	021	.169
SA	070	022	074	.279**	073	078	146	.124	042
SE	.190*	.321**	.167	.053	.218*	.175	.198*	.115	.139

r < 0.01**, r < 0.05*

Experience in learning English through English, CLIL, communicative language teaching, and having group works in class correlated with the experiential strategy, and grammar translation method correlated with the analytic strategy.

Categorizing Belief and Strategy Types

Next, the study classified the learners' belief and strategy types into Belief A+E+, Belief A+E-, Belief A-E+ Belief A-E-, Strategy A+E+, Strategy A+E-, Strategy A-E+, Strategy A-E-. The cut-off point was 18 out of 25 points, considering the average 17.73 points for the entire BA, BE, SA, SE scores. (5 question items for each category). For example, if the learner's score of Belief Analytic was 18 or below, and belief experiential was 19 or above, it was categorized as belief A- E+, and if the score of strategy analytic was 19 or above and strategy experiential was 18 or below, it was categorized as strategy A+ E-. Table 7 shows

Table 7. Belief Analytic and Experiential, Strategy Analytic and Experiential

Variable	A+E+	A+E-	A-E+	A-E-
Belief	33	28	14	35
Strategy	15	41	14	40

the numbers of learners in each category.

It should be noted that there was a gap between the learners' beliefs on language learning and their actual learning strategy. Those who believed to be experiential learners were not necessarily the ones who engaged in experiential learning. The number of participants who believed to be A+E+ outnumbered those who employed A+E+ strategies. Also, the number of strategy A+E-. outnumbered belief A+E-. Learners employed more analytic learning in reality.

Finally, the learners' strategies types, language proficiency, and other individual factors will be compared. The focus will be laid on learner strategy to explore each factor with the actual performance, not what the learner believes. Figure 3 shows the learners' average TOEIC scores by the strategy types.

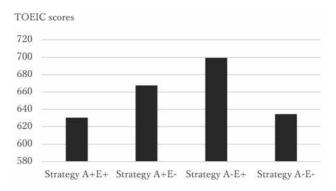


Figure 3 The learners' Proficiency and Strategy Types.

The result of ANOVA analysis shows that strategy types had no impact on the TOEIC scores. There is no statistically significant difference among the four strategy types, F (3, 85) =.578, p=.631.

Figure 4 shows the learners' average confidence scores by the strategy types. The result of ANOVA analysis shows that strategy types had an impact on the Confidence scores. There is a statistically significant difference among the four strategy types, F (3, 85) =4.570,

p=.05. It shows that Strategy A+E+ and A-E+ learners have higher confidence than other types of learners. On the contrary, learners who did not employ experiential learning had less confidence.

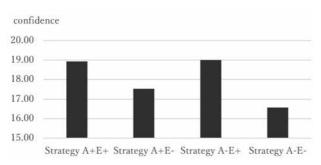


Figure 4 The Learners' Confidence and Strategy Types

Figure 5 shows the learners' average motivation scores by the strategy types. The result of ANOVA analysis shows that strategy types had an impact on the Motivation scores. There is a statistically significant difference among the four strategy types, F (3, 85) =7,718, p=.000.

Strategy A+E+ and A-E+ learners seems to have higher motivation than other types of learners.

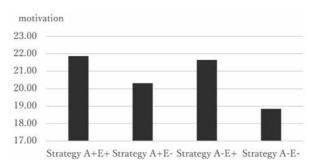


Figure 5 The Learners' Motivation and Strategy Types

Conclusion

This study examined Japanese EFL learners' beliefs on language learning, and their learning strategies in a CLIL course. It explored how learner beliefs and strategies related to each other, as well as how they related to the learners' English proficiency, starting age, previous language learning experiences, confidence, and motivation.

A summary of the results of each analysis will be stated as follows. The result of the t-test for the Beliefs and Strategies showed significant differences between Belief Experiential, and Strategy Experiential. This implies that although the learners believed that experiential learning is necessary, they might not have been exposed to the situation where experiential learning took place. The recent educational reform lead by MEXT (Ministry of Education, Culture, Sports, Science, and Technology) suggests giving more opportunities for language use in classrooms. The result shows, however, that there is still a gap between what the learners feel they should employ with what they can actually perform.

Another interesting finding was that there was a negative correlation between the learners' language proficiency with belief in analytic learning. Learners who believed that they should be able to understand everything the teacher says, occasionally checked new words in a dictionary, focused on grammar rules, wished their teachers would correct their mistakes and believed that they needed to learn before they use, did not necessarily do well on TOEIC tests.

Next, the learners' prior experience in learning English through English, CLIL, communicative language teaching, and having group works in class correlated with experiential strategy. The learners' past experience in these methods might have had a positive effect on developing their experiential learning strategies and have functioned well in a CLIL course.

Furthermore, while motivation correlated with all types (BA, BE,

SA, SE), confidence did not correlate with BA (belief in analytic learning). This implies that belief in analytic learning leads to learners' uncertainty about themselves.

As for the starting age, there was a negative correlation between the starting age and TOEIC scores which implies that earlier starters have advantage over the late starters. It accounts for the possibility of early English education giving positive effect on language learning in a long run. However, it requires further investigation, with a more detailed analysis focusing on the age factor and learner belief and strategy.

Lastly, the study focused on the learner strategies and categorized them into eight types: Belief (A+E+, A+E-, A-E+, A-E-), Strategy (A+E+, A+E-, A-E+, A-E-). Further analysis focusing on the learners' strategy types indicated that Strategy A+E+ and A-E+ learners had higher confidence and motivation compared to the other groups. There seemed to be more advantage in experiential learning for the learners' internal factors.

What do these results infer? If CLIL is a holistic approach, and requires the learners' use of balanced strategies, the traditional analytic learning might not fulfill its needs. The results indicate positive effects of experiential learning in such learning environment. Limitation of the study, however, is the lack of evidence in favor of CLIL instruction against the traditional ones. It will be interesting to conduct the similar survey in other skill-based language courses and monitor the outcome.

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Appendix

estionnaire on CLIL course
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te
jor:
nder: male – female
ail address (optional):
TOEFL/TOEIC/IELTS/TEAP score (if any)
TOEFL () TOEIC () IELTS ()
TEAP () STEP test ()
Study/stay abroad experience
Country
Duration <u>years months</u>
Country
Duration years months
Country Durationyearsmonths
Duration <u>years months</u>
When did you start learning English? When I wasyears old
What other English classes have you taken except for the schools? How long have you been attending the class? How often did you take the class a week? Cram school for years a week Language school for years a week Private lesson for years a week Others
How did you learn English in schools? Check the ones you have experienced. ① Learning English in English () ② Learning different subjects in English () ③ Cultural topics woven into each class () ④ Grammar-translation method () ⑤ Communication activities () ⑥ Learning individually () ⑦ Learning in small groups () ⑧ Learning through whole-class activities () ⑨ Had the opportunities to use English in class ()

F. To what degree have you practiced each of these skills? Chose a number from one to five.
[5. I worked very hard 4. I worked well 3. I worked fairly well 2. I did not work so hard 1. I did not work hard] a. listening () b. speaking () c. reading () d. writing ()
 G. Do you think that you acquired the following skills in this course? Write down the number. — [5. Strongly agree 4. Agree 3. Somewhat agree 2. Disagree 1. Strongly disagree]
Speaking skills
Reading Skimming and scanning () Reading books and articles for research () Writing Writing a paragraph () Summarizing a lecture () Vocabulary Understanding the academic vocabulary () Using academic vocabulary in your speaking or writing ()
 H. Do you agree with the following statements? Write in five point scale. [5. Strongly agree 4. Agree 3. Somewhat agree 2. Disagree 1. Strongly disagree] Section 1 ① I don't think learning English is very difficult. () ② I would like to speak in English with my classmates. () ③ I am not afraid of speaking to a native speaker of English. () ④ I think I can manage to achieve my goals in learning English in a few years. ()

⑤ I would love to travel to English speaking countries to challenge my En-
glish knowledge. ()
⑥ I understand more than 70% of the teachers talk during the lesson. ()
⑦ The teacher asks us to explain our ideas to him or to other students. ()
® When I have a question, I would ask it immediately. ()
(9) I enjoy presenting my new ideas to the teacher and other students. (1)
10 I think speaking in English, not in Japanese, is very important for improv-
ing my English. ()
Section 2
① It is important to be able to understand everything the teacher says. ()
② I think we need to speak and listen in English in order to learn English. ()
③ It is okay to speak English with some Japanese accent. ()
④ I want my English teacher to explain new grammars in Japanese. ()
(5) If I do not understand some words in English, I try to guess it and contin-
ue the conversation. ()
⑥ It is important to check any words that I do not understand. ()
① I am not afraid of making mistakes while speaking. ()
® I do not spend too much time on learning grammar and memorizing vo-
cabularies. ()
(9) I think we need to know the grammar and vocabularies before we can
speak in English. ()
① I want my teacher to correct all my mistakes.
Section 3
(1) I learned English by memorizing a lot of words and idioms. (1)
2) I learned English by immersing myself in an English speaking environ-
ment. ()
③ I learned English by writing e-mails, diaries, or letters in English. ()
4 I learned English by studying school textbooks carefully. ()
(5) I learned English by listening to the radio or watching TVs / movies in
English. ()
(6) I learned English by speaking with others in English. ()
⑦ I learned English by repeating and practicing a lot. ()
® I learned English by looking up the dictionary and translating the words
into Japanese. ()

9 I learned English by reading a lot of English magazines, books, and news-

1 learned English by studying a lot of grammatical structures.

papers. ()