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The Impact of a Study Abroad Program on College Students' Self-Efficacy in English-Speaking (Part II)

Nagisa MIYAUCHI
Graduate Student, Kumamoto Gakuen University
E-mail: miyauchi-n@mail.bears.ed.jp

Abstract

This study investigates how attending a three-week study abroad program in the United States affects students' speaking self-efficacies mainly from quantitative and qualitative aspects. Some of the quantitative aspects of this study (e.g., overall changes in self-efficacy scores) were examined in the author's previous study (Miyauchi, 2017) and this current study further analyzes more details of the sources of self-efficacies based on the result of the questionnaire, interviews, and responses to open-ended questions. Three student groups divided by a cluster analysis ($N = 17$) were examined as to how they differ in terms of the four sources of self-efficacy information and their in-class/out-of-class self-efficacies. The results suggested that students with initially high self-efficacy had more experiences abroad based on the four sources of self-efficacy information, especially on *mastery experiences, verbal persuasion* and *emotional states,* than those with initially low self-efficacy. Accordingly, the former students also enhanced their self-efficacy higher than the latter students. On the other hand, students with initially low self-efficacy lessened their self-efficacy through the sojourn, and *vicarious experiences* seemed to have worked negatively for them.

Keywords: self-efficacy, four sources of self-efficacy information, study abroad program

Introduction

As globalization and intense business competition have spread, Japanese universities have started to provide students with various kinds of study-abroad programs. Especially popular are the programs with a duration of less than one month. Japan Student Services Organization (JASSO, 2017) says that the number of students who went abroad for less than one month has increased drastically in the past decade, from 5,924 in 2004 to 29,933 in 2014. This shows that it has become easier for Japanese students to obtain opportunities to study abroad and expose themselves directly to the target language and its community.

Despite the increasing popularity of study-abroad programs, relatively few empirical studies have examined the relationships between Japanese students' speaking self-efficacy and their study-abroad experiences. For instance, Tanaka and Ellis (2003) found significant changes in students' beliefs relating to self-efficacy and confidence in L2 learning. However, more studies from qualitative aspects are needed to examine the change of self-efficacy through the sojourn.

Literature Review

Self-efficacy and Its Four Sources of Information

The concept of "self-efficacy" was theorized by Albert Bandura in the 1970s, who defined it as "a judgment of one's ability to organize and execute given types of performances" (1997, p. 21). High self-efficacy learners hold lower levels of anxiety, continually make more efforts to achieve their goals, utilize effective learning strategies and are more successful while low self-efficacy learners tend to demonstrate the opposite behaviors (Britner & Pajares, 2006).

Bandura (1997, p. 79) asserts that self-efficacy beliefs are derived from four sources of efficacy information: *mastery experiences* (ME), *vicarious experiences* (VE), *verbal persuasion* (VP), and *emotional states* (ES). ME is derived from successful performances that can predict one's future course and is regarded as the most influential source (e.g., Pajares & Valiante, 2006). VE indicates observers' self-comparison with the performances of their ideal models (Usher & Pajares, 2008), and the more similarities people perceive toward the models, the more persuasive this influence will become (Bandura, 1997, p. 87). VP denotes encouragement received from significant others such as parents and teachers about academic performance (Usher & Pajares, 2008). People who are convinced that they can accomplish given tasks will make more sustainable efforts than those who are not (Bandura, 1997, p. 101). ES indicates emotional arousal through physiological reactions that one experiences during an academic task, and while positive emotions can raise one's self-efficacy for future successful performances, high levels of anxiety may undermine it (Britner & Pajares, 2006).

Mills (2014) asserts that these four sources have a great influence on how self-efficacy beliefs are formed, by either heightening or lowering one's confidence to accomplish a given task (p. 8). So far, there have been numerous empirical studies which investigated math- or science-related self-efficacy from the four sources of information (e.g., Britner & Pajares, 2006; Lopez & Lent, 1992; Lopez, Lent, Brown & Gore, 1997; Matsui, Matsui & Ohnishi, 1990), but those which examined speaking self-efficacy are rare (e.g., Paradewari, 2017). This research area has yet to be fully developed, so it is worth investigating in more detail.

Quantitative Analysis of the Data (*Miyauchi, 2017*)

The author's previous study examined how university undergraduates' English-speaking self-efficacies (N = 17) changed through participation in a three-week language training program in the United States. The results of a paired-samples t-test and correlation analyses revealed significant differences. First, the participants showed greater gains in out-of-class self-efficacy (1.55) than in in-class self-efficacy (0.87). Second, the correlation between in-class and out-of-class self-efficacies in a post-survey ($r = .92, p < .001$) was much stronger than that in a pre-survey ($r = .78, p < .001$). Finally, the gain in out-of-class self-efficacy showed medium correlations with ME ($r = .63, p < .001$) and ES ($r = .62, p < .001$), while for in-class self-efficacy the correlations were somewhat weaker ($r = .40$, $r = .28$, respectively).

The result showed that ME and ES had stronger influence on the participants' speaking self-efficacy than VE and VP. The correlations between VE and the gains in in-class and out-of-class self-efficacies were weak (r = -.32, r = .001, respectively). The correlations between VP and the gains in in-class and out-of-class self-efficacies were also weak (r = .16, r = .33, respectively). The author concluded that students' self-efficacy could be enhanced more outside the classroom, where students are exposed to English in real natural settings.

Objectives and Research Questions

This research aims to examine the relationship between the participants' experiences abroad and their self-efficacy more deeply than Miyauchi (2017), using both quantitative and qualitative analyses of the survey results, interviews and open-ended responses. For this aim, a cluster analysis was employed to group the participants with more similar self-efficacy traits to each other than to those in other groups and the following research questions were designed:

RQ. 1 How do the student groups divided by a cluster analysis differ regarding the four sources of self-efficacy information?

RQ. 2 How do the student groups divided by a cluster analysis differ regarding in-class and out-of-class self-efficacies?

Methods

Participants

The participants in this study were the same as those in the author's previous study: 17 sophomore and junior undergraduates who took part in a three-week language training program in Minnesota, the United States, in 2016. They were all English majors at a private university in the western part of Japan. All the applicants willing to join the program were accepted, and were provided with preparation lessons once a week at university to learn about the US culture, lifestyle, and homestay before the program started. While staying with their host families, they attended morning classes at a university with other foreign students and in the afternoon attended special events organized by the host university.

Instrument

The original data were from the questionnaire used in the quantitative research in the author's previous study (Appendix, Miyauchi, 2017). The pre-survey questionnaire, which was conducted 2 weeks before the sojourn, was composed of 12 items, which included 6 items in terms of in-class self-efficacy (e.g., In class activities, I can answer correctly what I am asked in English.) and another 6 items regarding out-of-class self-efficacy (e.g., I can communicate with a foreigner in English when spoken to.). The post-survey questionnaire, which was conducted just after the sojourn, consisted of the same 12 items in the pre-survey, plus another 25 items concerning the four sources of self-efficacy information: 7 items for

ME (e.g., I talked about TV programs in English with my host family.), 6 items each for VE (e.g., I respect my friends who express their opinions in English.), VP (e.g., I am often praised about my speaking ability.), and ES (e.g., The mere thought of speaking English makes me feel excited.). Reliability coefficients (Cronbach's α) for ME, VE, VP, and ES were .91, .85, .85, and 89, respectively. An 11-point Likert scale ranging from zero (cannot do at all / entirely inapplicable) to ten (certainly can do / completely applicable) was utilized.

At the end of the questionnaire on the post-survey, open-ended questions were attached. The participants were asked 2 questions reflecting their own experiences in the United States. The questions were as follows:

1. Please write about the situations which raised your confidence in English proficiency through the language training program.
2. Please write about the situations which diminished your confidence in English proficiency through the language training program.

The original questions and the participants' statements were written in Japanese, which were later translated into English by the author (Appendix).

Interviews

Interview data were obtained from the participants with their permission. A semi-structured interview was adopted to provide the participants with the same four questions in the same order as shown below, which made it easier for the researcher to compare and examine the students' responses. The open-ended questions comprised four topics:

1. During your stay in the United States, in what kind of situations did you succeed in interacting with native speakers? (= ME)
2. During your stay in the United States, did you have any role models for speaking English? (= VE)
3. During your stay in the United States, did you receive any encouraging words or feedback from others about your English? (= VP)
4. During your stay in the United States, how did speaking English affect you physiologically or emotionally? (= ES)

Procedures

Before conducting the qualitative research, the participants were divided into several groups with similar characteristics in terms of self-efficacy levels and related experiences based on the four sources of self-efficacy information. A cluster analysis breaks the participants into groups that reflect the variables that are taken into account in the analysis (i.e., pre- and post-survey self-efficacies and the four information sources, in this study), so that the resultant clusters reflect typical combinations of highs and lows on these variables among the

participants. Making comparisons across clusters makes it possible to see how the typical student groups report their experiences differently, thus making the interpretation of the interview results easier than comparisons between individual students.

The face-to-face interview, about 25 minutes long, was held in Japanese two months after the sojourn. The aim of the interview was to explore what the participants had experienced abroad in a more direct way than through the quantitative analyses. The aim and procedure were examined carefully by the ethics committee at the university in advance, and permission was granted to the author. Thirteen out of seventeen students agreed on the interview, by responding to the author by e-mail. Seven students were juniors and the rest were sophomores. All the interview responses were recorded on a voice recorder with the students' permission. Recordings were transcribed, and the transcript was later confirmed by the author two or three times to increase accuracy.

Data Analysis

SPSS version 23.0 was utilized in analyzing the quantitative data to divide the participants into several groups with similar traits. A cluster analysis and a correlational analysis were conducted. For analyzing the qualitative data (RQ. 1 and RQ. 2), face-to-face interviews and open-ended questions were employed so as to obtain deeper insights into the participants' self-efficacy gains and to examine how these gains were produced.

Results

Results of Quantitative Analysis

In a cluster analysis, Ward's method with square Euclidean distance was utilized, and the analysis was based on in-class/out-of-class self-efficacies on the pre-/post-surveys, and the four sources of self-efficacy information on the post-survey.

Figure 1 shows the dendrogram using Ward's method, which shows that it is most suitable to divide the whole group into three clusters. They are named the High SE group (cluster 2), Middle SE group (cluster 3), and Low SE group (cluster 1), based on the means of self-efficacies on the pre-/post-surveys and the four sources of self-efficacy information.

Table 1 shows subscale means for each self-efficacy group, and Table 2 demonstrates self-efficacy scores and their gains for individual participants. These two tables show that the High SE group possessed initially higher self-efficacy, especially concerning in-class self-efficacy (7.13), than the lower self-efficacy groups (4.21 and 3.3). However, the gain in in-class self-efficacy in the High SE group (0.44) was much smaller than that in the Middle SE group (1.56). With regard to the four sources of self-efficacy information, the Low SE group revealed almost the same mean of VE (8.13) as the other two groups (Table 1) though the other 3 sources (ME, VP, and ES) were apparently lower than those in the other two SE groups. Judging from this trait, it can be presumed that the Low SE group possesses almost the same admiration as the other SE groups for desirable speaking models.

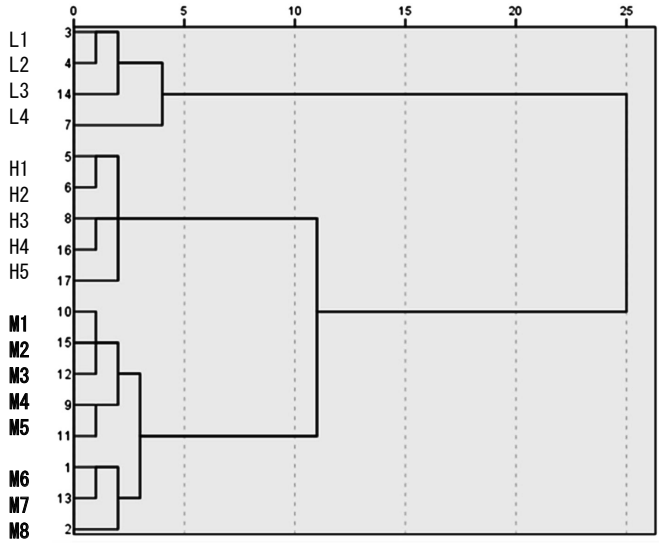

Figure 1. Dendrogram using Ward's method. L, M, and H represent a student in each cluster group based on self-efficacy; L = Low SE student, M = Middle SE student, and H = High SE student.

Table 1
Subscale Means for Each Self-Efficacy Group

Cluster	*n*	pre-ICSE	pre-OCSE	post-ICSE	post-OCSE	ME	VE	VP	ES
Cluster 1	4	3.33	3.08	3.33	3.5	3.93	8.13	2.7	4.41
Cluster 2	5	7.13	5.67	7.57	7.9	8.46	9.33	7.2	8.53
Cluster 3	8	4.21	4.46	5.77	6.15	7.41	7.85	5.65	6.54

Note. *N* = 17. Cluster 1 = Low SE group, Cluster 2 = High SE group, and Cluster 3 = Middle SE group. Pre-ICSE = Pre-survey in-class self-efficacy, Pre-OCSE = Pre-survey Out-of-class self-efficacy, post-ICSE = Post-survey in-class self-efficacy, post-OCSE = Post-survey out-of-class self-efficacy.

Taking Table 2 into consideration, it is notable that the High SE group showed only a slight gain in in-class self-efficacy (0.44), but they showed larger gain in out-of-class self-efficacy on the post-survey (2.23). The Middle SE group shows gains in both in-class (1.56) and out-of-class self-efficacies (1.69). The Low SE group revealed almost no gain in both in-class (0.00) and in out-of-class self-efficacy (0.42).

Table 3 shows the correlations between in-class/out-of-class self-efficacies on the pre-survey and the four sources of self-efficacy information as well as the gains in in-class/out-of-class self-efficacies. The correlations between self-efficacies on the pre-survey and the other subscales reveal several intriguing features. Firstly, ME, VP, and ES had moderate to high correlations with pre-survey in-class/out-of-class self-efficacies, which means that the students with higher initial self-efficacy had more beneficial experiences to heighten their self-efficacy than those with lower initial self-efficacy. In contrast, VE correlated weakly

Table 2

Self-Efficacy Scores and Their Gains for Individual Participants

Cluster Student	ICSE		OCSE		Ave-SEs		G-ICSE	G-OCSE	Ave-Gs
	Pre-sur.	Post-sur.	Pre-sur.	Post-sur.	Pre-ICSE+OCSE/2	Post-ICSE+OCSE/2	Post – Pre-sur.	Post – Pre-sur.	Ave. of G-ICSE + G-OCSE
H1	6.33	8.17	4.33	7.83	5.33	8.00	1.84	3.50	2.67
H2	7.33	7.50	4.67	8.50	6.00	8.00	0.17	3.83	2.00
H3	7.00	8.00	6.17	8.83	6.58	8.42	1.00	2.66	1.84
H4	7.00	6.50	6.83	7.67	6.92	7.08	-0.50	0.84	0.16
H5	8.00	7.67	6.33	6.67	7.17	7.17	-0.33	0.34	0.00
H.Ave.	**7.13**	**7.57**	**5.67**	**7.90**	**6.40**	**7.73**	**0.44**	**2.23**	**1.33**
M1	3.00	5.17	3.17	5.67	3.08	5.42	2.17	2.50	2.34
M2	4.17	4.33	3.83	4.50	4.00	4.42	0.16	0.67	0.42
M3	4.00	6.00	4.00	6.33	4.00	6.17	2.00	2.33	2.17
M4	3.83	6.33	4.33	7.50	4.08	6.92	2.50	3.17	2.84
M5	4.50	6.00	4.33	7.17	4.42	6.58	1.50	2.84	2.16
M6	4.00	6.50	5.17	6.17	4.58	6.33	2.50	1.00	1.75
M7	4.67	6.00	4.67	7.00	4.67	6.50	1.33	2.33	1.83
M8	5.50	5.83	6.17	4.83	5.83	5.33	0.33	-1.34	-0.50
M.Ave	**4.21**	**5.77**	**4.46**	**6.15**	**4.33**	**5.96**	**1.56**	**1.69**	**1.63**
L1	3.00	1.50	2.67	1.67	2.83	1.58	-1.50	-1.00	-1.25
L2	3.33	4.00	2.50	3.33	2.92	3.67	0.67	0.83	0.75
L3	3.83	4.17	3.00	4.50	3.42	4.33	0.34	1.50	0.91
L4	3.17	3.67	4.17	4.50	3.67	4.08	0.50	0.33	0.41
L.Ave.	**3.33**	**3.33**	**3.08**	**3.50**	**3.21**	**3.42**	**0.00**	**0.42**	**0.21**

Note. $N = 17$. ICSE = In-class self-efficacy, OCSE = Out-of-class self-efficacy, Ave-SEs = Average of in-class plus out-of-class self-efficacies on each pre- and post-survey, G-ICSE = Gain in in-class self-efficacy, G-OCSE = Gain in out-of-class self-efficacy, Ave-Gs = Average of gains in in-class plus out-of-class self-efficacies. H = High SE student, M = Middle SE student, L = Low SE student.

Table 3

Correlations Between In-Class/Out-of-Class Self-Efficacies on the Pre-Survey and the Four Sources of Self-Efficacy Information as Well as the Gains in In-Class/Out-of-Class Self-Efficacies

	Pre-ICSE	Pre-OCSE
ME	.61**	.58*
VE	.33	.22
VP	.75**	.74**
ES	.70**	.60**
G-ICSE	-.25	-.07
G-OCSE	.20	-.06

Note. $N = 17$. Pre-ICSE = Pre-survey in-class self-efficacy, Pre-OCSE = Pre-survey out-of-class self-efficacy, G-ICSE = Gain in in-class self-efficacy, G-OCSE = Gain in out-of-class self-efficacy.
*$p < .05$, ** $p < .001$.

with pre-survey in-class/out-of-class self-efficacies. This might reflect the result shown in Table 1 that the Low SE group strongly admired their role models and accordingly marked a relatively high score on VE.

Table 3 also shows that the correlations between pre-survey in-class/out-of-class self-efficacies and their gains turned out to be negative and low (r = -.25, r = -.06, respectively). These results indicate that students with higher initial self-efficacy made smaller gains than those with lower initial self-efficacy.

Considering the results above, it becomes clear that these SE groups showed zero to outstanding gains in both in-class and out-of-class self-efficacies, from 0.00 to 2.23 (Table 2). Among the three groups, the Low SE group revealed the smallest gain in both in-class and out-of-class self-efficacies. However, the negative, though weak, correlations between pre-survey in-class/out-of-class self-efficacies and the gains (Table 3) mean that students with initially low self-efficacy made slightly larger gains than high self-efficacy students on an individual basis. This negative correlation seems worth reassessing more thoroughly from a qualitative perspective, which is discussed in Results of Qualitative Analysis (Research Question 2).

The following is the summary of the quantitative analyses:

1. The Low SE group possessed relatively high mean of VE, which might have led to the overall low correlations between VE and pre-survey in-class/out-of-class self-efficacies.
2. ME, VP, and ES showed moderate to high correlations with both pre-survey in-class and out-of-class self-efficacies.
3. The correlations between pre-survey in-class/out-of-class self-efficacies and their gains turned out to be slightly negative.
4. The Low SE group made smaller gain than the higher SE groups.
5. SE gain in the High SE group is not necessarily larger than that in the other two groups.

The background causes of these results above will be explored in the next sections. From the next section, analyses based on a qualitative data will be discussed.

Results of Qualitative Analysis (Research Question 1)

RQ. 1 asked how the student groups divided by a cluster analysis differed in terms of the four sources of self-efficacy information.

In Table 3 in this study, ME and ES showed moderate to high correlations with pre-survey in-class (r = .61, r = .70) and pre-survey out-of-class self-efficacies (r = .58, r = .60). This reveals that those who have high initial self-efficacy tend to show higher ME and ES as well as larger self-efficacy gain than those who have low initial self-efficacy. With these results in mind, the interview started with ME and ES. The interview was conducted in Japanese, and the interview excerpts below are translated into English by the author.

***Mastery Experiences*（*Interview Results and Responses to Open-ended Questions*）**

ME is derived from successful performances that can predict one's future course, and is regarded as the most influential source（e.g., Bandura, 1997, p. 80）. Table 1 shows higher ME for the High and the Middle SE groups than for the Low SE group, where the High SE group shows slightly higher ME than the Middle SE group. Investigations into the interview responses found the following.

Though the High SE group first felt diffident, they seemed to have interacted willingly not only with their host family but also with local people. This allowed them to accumulate substantial successful experiences（see also Appendix, Responses to Open-Ended Questions）. The following are two High SE students' accounts:

> First, I was talking with my host family because I had to, but in three weeks, I tried to convey what I wanted to, even though I could not make myself understood, and gradually, I came to talk with them about a more difficult topic such as politics in Japan and the United States. I realized that I could make it if I had high motivation.（H5）

> When I saw people understand what I said, I realized that I could make myself understood in English. As time went by, I learned to speak English more and more, while using responses and nodding frequently.（H3）

Meanwhile, the Middle SE group seemed to have succeeded in shopping or talking with their host family or Chinese friends, which seemed to have raised their confidence, as shown in their responses to open-ended questions（Appendix）. They willingly talked to people in English without worrying about their grammatical errors. One student talked about his experience in the interview:

> Within a week, I was able to convey what I wanted to, word by word, and I felt a sense of attainment, while enjoying conversation.（M4）

The Low SE group also succeeded in communicating with their host family or native people（see also Appendix）. However, they seemed not to be confident of their English skills, and sometimes had difficulty interacting with local people. The following is one student's account in the interview:

> I could not make myself understood when I asked a native speaker the way to the *coffee shop* because of my unclear pronunciation of it. She was kind enough to correct my pronunciation. Around the end of the program, I was able to ask the way by myself.（L1）

This particular student L1, in fact, did not always feel successful, but had considerable difficulty, as demonstrated by her comments as shown in *Emotional States (Interview Results)*,

Vicarious Experiences (Interview Results) sections, and later in Results of Qualitative Analysis (Research Question 2).

In summary, it was found that the High SE group had extensive and successful experiences to build up their self-efficacy while the Middle SE group gradually became accustomed to speaking English. With regard to the Low SE group, even though they had several successful experiences, these experiences did not seem to be strong enough to boost their self-efficacy.

***Emotional States* (*Interview Results*)**

ES is defined as emotional arousal through physiological reactions that a person experiences while performing an academic task (e.g., Britner & Pajares, 2006). Table 1 shows that the High SE group is higher on ES than the other two groups, and the Low SE group is the lowest on ES. Support of this was found in the interview responses.

As for the High SE group, their initial anxiety about speaking English decreased as time went by, and eventually this same activity came to be seen as fun. This is what one student stated in the interview:

> When I came to the United States, I was nervous, but by talking and communicating with local people, my worries disappeared and I felt it was fun to communicate with native speakers. (H4)

Another student in the High SE group stayed positive even in a difficult situation. During the second week, she was struggling with the natural speed at which local people spoke. Her host mother noticed her disappointment and encouraged her, saying that she was doing pretty well using L2, which became a big relief to her. The student said in the interview:

> I wanted to return to Japan, not because I felt homesick but because I wanted to brush up my English skills. I realized my current level of English was poor, so I wanted to go back to Japan, study English harder, gain more confidence, and come back again. Of course, I felt depressed at that time, but I had no choice but to stand up, so I changed my mind in a positive way. (H5)

These two accounts reveal that the High SE group seems to possess strong confidence in their capacity, because they viewed adverse conditions favorably with positive emotions.

Regarding the Middle SE group, their initial anxiety from speaking English decreased as time passed, and in three weeks they were able to communicate with local people in a more natural way. The following is one student's account of this:

> First, I was nervous, but I got used to my life sooner than I had expected. I was able to interact more naturally by the end of the program, rather than feeling forced to speak English. (M8)

As for the Low SE group, they felt bewildered by speaking English, compared with the other self-efficacy groups. One of three participants whom the author interviewed maintained

the same feeling throughout the entire program. Her anxiety about speaking English did not diminish and remained the same. The following is her narrative demonstrating this situation:

> I was scared at first, wondering if I could make myself understood. But actually I had no choice but to speak English, so around the end of this program, I tried hard speaking English with a dictionary in my hand, but it was difficult... (L1)

Another student in the Low SE group talked about her physiological states clearly, provoked by her anxiety about speaking in English:

> Well, when I went to the United States, for a while, I was nervous because I had to use English in all situations. I was at a loss what to do, and I sweated a little with fear. Anyway, the first week was really tough for me. (L2)

Her condition might be related to Schunk's assertion (1995, p. 282) that physical symptoms triggered by anxiety might imply that students lack skills.

In brief, it can be inferred that those in the High SE group overcame their difficult situations by finding fun and raising their motivation through interacting with local people, which contributed to their self-efficacy gains. The Middle SE group also seems to have enjoyed interacting with local people gradually. Concerning the Low SE group, it is evident that their higher speaking anxiety prevented them from gaining more confidence.

The results based on the accounts above might support the results of the quantitative analyses that ME and ES could influence self-efficacy.

***Vicarious Experiences* (*Interview Results*)**

VE is defined as observers' self-comparison with how well their selected models perform (e.g., Usher & Pajares, 2008). VE tends to reveal an unstable and weak influence on the students' self-efficacy beliefs (e.g., Bandura, 1977).

In this present study, VE correlated weakly with pre-survey in-class ($r = .33$) and out-of-class self-efficacy ($r = .22$), indicating that initially high self-efficacy barely guarantees high VE in the subsequent study-abroad program. Table 1 shows that this is mainly because the Low SE group marked fairly high on VE. Interview analysis found some clues as to what their high VE means, as discussed below.

The High SE group seems to have acquired confidence by looking at numerous people they interacted with, such as their host family and teachers at the host university, selecting them as their models. These are two students' narratives to show this:

> Looking at my host family who spoke to me using easy English words, I realized that I could communicate in simple English. (H4)

I cannot hit upon a certain person as my speaking model, but maybe, my host family or teachers at the university in the U.S., who I thought were good at nodding or listening to others.（H2）

On the other hand, the Middle SE group tends to regard their Japanese friends as their role models. This is what one student stated in the interview:

In the host university, looking at my Japanese friends talking and interacting with the teachers, I realized that I could mimic some phrases they used in their conversation.（M7）

As for the Low SE group, anyone other than themselves could be their models due to their lower confidence in English proficiency. The following is one student's account for this:

Well, I don't have a good command of English, compared with my classmates. I didn't understand the lectures at all. Everyone except me asked questions willingly in class, but I could not…（L1）

From this statement, it can be presumed that the Low SE group first thought of their Japanese classmates as good role models to mimic, but that admiration for these models worked ineffectively and negatively for them because they felt intimidated and overwhelmed. Table 2 reveals that student L1 is the only student who lowered both in-class and out-of-class self-efficacies among all the students. This result obviously implies that she did not have meaningful experiences to build up her confidence abroad, which was indicated by her repeated remark in the interview, "I am not good at English at all." It is notable here that she marked the highest score, 10.0, on VE, indicating that vicarious experiences to her, though large in quantity, were dominantly negative experiences of being intimidated by better speakers, particularly her peers, in the English-only environment. Regarding the other three students in the Low SE group, they also marked relatively high scores on VE（6.3, 7.0, and 9.2）. Therefore, the average score of VE in this Low SE group is not so different from that of the other SE groups. Table 2 also shows that the Low SE group showed the smallest average of in-class self-efficacy（3.21）and out-of-class self-efficacy（3.42）as well as the smallest gain in in-class self-efficacy（0.00）and out-of-class self-efficacy（0.42）. In short, while the Low SE group revealed almost the same score on VE as the other two groups, they showed the lowest self-efficacy and the lowest self-efficacy gains. This, together with the case of L1 mentioned above, suggests that although VE may work effectively for most of the language learners, they can have adverse effects on learners with initially low self-efficacy by making them realize how poor their English is and consequently intimidating them.

Taking both the means of VE in the three SE groups（Table 1）and the interviews into consideration, it can safely be said that the High and Middle SE groups had beneficial hands-on experiences based on VE, but the Low SE group did not, despite their high mean of VE. In other words, the Low SE group's high mean of VE just demonstrated their strong admiration for speaking models. This difference can be seen in the interviews. The High SE

group student seemed to make better use of what he learned from his host family or local people. In contrast, the Middle SE group student seemed to regard his Japanese peers as models because he might have felt that Japanese peers were more similar to him and might have learned more from them than from local people. Similarly, the Low SE group student used her Japanese friends as speaking models, but it seems that the student L1 just felt overwhelmed by their superiority and lost confidence.

In summary, VE's negative or low correlations with the gains in in-class/out-of-class self-efficacies in the author's previous study and VE's low correlations with pre-survey in-class/out-of-class self-efficacies in this current study might have been derived from two inner aspects of the students. Firstly, the Low SE group scored surprisingly high on VE due to mere admiration for role models, but this initial admiration might have turned out to work negatively as it led to feelings of intimidation and inferiority. Secondly, judging from the interviews, it seems that most of the students did not identify particular role models to learn from. Their perception about role models is obscure, and there was always silence for 3 to 5 seconds before they identified who their role models were. This may prove that VE possesses weaker effects on the participants than the other sources. This corresponds to other findings that VE possesses weaker effects on self-efficacy (e.g., Britner & Pajares, 2006). Therefore, these two inner aspects may have combined to produce the negative and low correlations with the gains in in-class/out-of-class self-efficacies and with pre-survey in-class/out-of-class self-efficacies in both studies.

Verbal Persuasion (***Interview Results and Responses to Open-Ended Questions***)

VP denotes positive feedback from significant others such as parents and teachers about an academic performance (Usher & Pajares, 2008). Similar to VE, VP alone does not become an influential source of self-efficacy (e.g., Britner & Pajares, 2006) because of its weak influence on self-efficacy, which is easily negated by unsuccessful results (Schunk, 1995, p. 282). Concerning VP, there was an interesting result in this study. Though several studies have found that VP often has a weak influence on self-efficacy (e.g., Usher & Pajares, 2008), it showed fairly strong correlations with pre-survey in-class/out-of-class self-efficacies (r = .75, r = .74, $p < .001$, respectively). These high correlations reveal that the students with initially high self-efficacy had more positive feedback about their English. Table 1 demonstrates this. In addition, interviews and open-ended questions demonstrated this.

The High SE group seemed to have received a great deal of praise and positive feedback from their host family or university teachers in the United States (see also Appendix), as shown in the higher mean of VP than those of the other two groups in Table 1. This is what one student said in the interview:

> What delighted me most was my teacher's remark, "Your English is beautiful." What's more, I received a letter from my host family, saying that I can communicate well using simple English. I am

now more and more eager to study English.（H3）

Regarding the Middle SE group, two of them stated that they were praised by their host mothers, saying “Your English is getting better.” but the others did not mention anything special. This result shows that the members in the Middle SE group might have received fewer encouraging words and less positive feedback than those in the High SE group.

With regard to the Low SE group, they did not mention any particular positive feedback from local people, which demonstrates their struggle with speaking English.

The students’ written statements（Appendix）also revealed that the amount of positive feedback provided to the students varied significantly among the three self-efficacy groups. The High SE group obviously received more encouraging words about their English from various people, including their host family, their teachers at the university, and local people. It was interesting that three out of five students in the High SE group referred to praise as a crucial event which gave them confidence. Two out of eight students in the Middle SE group were also given praise, but it was limited to their host family. Meanwhile, none of the Low SE group wrote down any encouraging feedback provided to them by local people.

The interviews and responses to open-ended questions reveal that the higher the students’ initial self-efficacy is, the more positive feedback they are provided, helping them establish greater confidence. In particular, the praise given by local people seems to have become motivation for the students. The results above accord with those of this study that VP correlated strongly with pre-survey in-class/out-of-class self-efficacies.

Summary of Research Question 1

RQ. 1 asked how the student groups divided by a cluster analysis differ regarding the four sources of self-efficacy information, which can be answered from the quantitative and qualitative results as follows. Concerning the High and Middle SE groups, it was shown that the higher the students’ initial self-efficacies were, the more beneficial experiences they obtained to increase their self-efficacy, which was clarified by the High SE group’s higher means of the four sources of self-efficacy information compared to those of the Middle SE group（Table 1）. Regarding the high means of VE in the High and Middle SE groups, it can be assumed that the students are eager to imitate their role models to improve their speaking skills. The qualitative results also revealed that both these SE groups seemed to have numerous experiences based on the four sources of self-efficacy information, which contributed to their self-efficacy gain. However, the High SE group showed more extensive and meaningful experiences to boost their self-efficacy than the Middle SE group, which may have been derived from their initially high self-efficacy.

The Low SE group demonstrated much lower means of ME, VP and ES than the High and Middle SE groups. However, they showed high means of VE, which was found to work negatively in the interview. The qualitative results also showed that their limited English

skills kept them from accumulating self-efficacy gains, which might have made them feel diffident throughout the sojourn.

In other words, students who originally possessed high self-efficacy accumulated more successful and meaningful experiences interacting with local people (= ME), acquiring more positive influence from speaking models (= VE), obtaining more opportunities to be praised by others (= VP), and accordingly gaining more confidence and a greater sense of fulfilment (= ES) than the lower self-efficacy students (cf. Cubillos & Ilvento, 2012). Meanwhile, students who initially possessed low self-efficacy failed to accumulate successful interpersonal experiences (= ME), tended to acquire a negative influence from speaking models (= VE), and received less encouragement from local people than higher self-efficacy students (= VP), which resulted in reducing their confidence and motivation (= ES).

Results of Qualitative Analysis (***Research Question 2***)

RQ. 2 raised the question of how the student groups divided by a cluster analysis differed in terms of in-class/out-of-class self-efficacies.

In this current study, the correlations between self-efficacies on the pre-survey and their gains turned out to be negative though the relationships are weak (Table 3), which indicates that the students with initially high self-efficacy did not necessarily make more gains in self-efficacy than those with low initial self-efficacies, despite their substantial experiences. This result needs to be examined together with that of the interviews. In analyzing each SE group (Table 2), it was clarified that the High and Middle SE groups enhanced their self-efficacies more than the Low SE group. The interview excerpts below might also help confirm that the High and Middle SE groups actually maintained higher confidence and self-efficacy even two months after the program than the Low SE group. The following are three students' accounts of this:

> When my host family told me that I could speak English well, using grammar and vocabulary that I learned in my home country, I thought that I actually could. They made me realize that I was doing pretty well using L2, which has given me a lot of confidence. (H5)

> The other day I had a chance to talk with a native English teacher. He asked me some difficult questions, such as, how I felt if other subjects were taught in English. Experiences in the United States enabled me to answer his questions willingly, and have become a source of confidence for me. (M7)

> Actually, there were many things I felt were difficult. I could not communicate well with my host family, nor could I understand them even though they talked to me a lot, so I felt sorry for them. I felt staying in Japan is more comfortable. (L1)

These accounts may reveal that the higher the students' self-efficacies were, the more experiences to boost their self-efficacies they had. Therefore, considering both the quantitative

and qualitative results above, it would be difficult to conclude only from the negative correlation on Table 3 that the students with initially high self-efficacy actually made smaller gains.

In addition, there were several students whose self-efficacies were lowered on the post-survey, H4 and H5, M8 and L1 (Table 2). In terms of students H4 and H5, they showed almost no additional gains through the program in spite of their positive remarks about their experiences abroad in the interview. As aforementioned, there was only a slight gain in in-class self-efficacy (0.44) with the High SE group. Students H4 and H5 had lowered in-class self-efficacy on the post-survey, -0.50 and -0.33, respectively. This might be because their original self-efficacy on the pre-survey was high, 7.00 and 8.00, so it might have been difficult for them to assess much higher self-efficacies on the questionnaire scale on the post-survey. Freed (1990) claims that students in the higher self-efficacy group are situated closer to the upper limit of the scores, so they might have less headroom to present their further growth.

For of M8, her out-of-class self-efficacy dropped on the post-survey (-1.34). It can be assumed that she may have obtained fewer experiences to boost her self-efficacy than she had expected, but on the contrary she talked about her useful experiences quite positively in the interview. What can be inferred from the open-ended questions is that she had difficulty with her poor pronunciation (Appendix), which she said prevented her from being understood by local people. This may be the reason why she obtained a lower out-of-class self-efficacy on the post-survey and underestimated her own self-efficacy. Concerning student L1, her peculiar situation was already analyzed in *Vicarious Experiences (Interview Results)* section, and therefore additional explanation is omitted here.

Judging from the interviews and the possible reasons why several exceptional students lowered their self-efficacy score on the post-survey, it seems that the High SE group kept their self-efficacy high while the Low SE group maintained a sense of inferior ability during their study abroad.

Discussion

In the quantitative analysis, pre-survey in-class/out-of-class self-efficacies had negative and weak correlation with their gain, (r = -.25, r = -.06, respectively), as shown in Table 3. Moreover, the gain in-class self-efficacy was especially lower with the High SE group. These results show that the High SE group does not always have a larger self-efficacy gain than lower SE groups, but this point needs to be examined carefully.

It was also found from the quantitative result that the high mean of VE in the Low SE group (Table 1) did not contribute to self-efficacy gain. Rather, it was revealed from the qualitative result that this high mean of VE shows just high admiration for desirable speaking models, which in turn makes the Low SE group feel intimidated or overwhelmed by such models. This finding above can be drawn from the result of low and nonsignificant correlation of VE with pre-survey in-class/out-of-class self-efficacies in Table 3 and interview results in

Vicarious Experiences (Interview Results). It can be said that VE might work negatively toward the Low SE group in the study abroad setting, comparing themselves with their superior models, and making them feel demotivated.

So far, conflicting arguments have been found on self-efficacy gain between the studies which claim that high self-efficacy or highly motivated groups had a larger gain (e.g., Isabeli, 2000) and those with the opposite result (e.g., Cubillos and Ilvento, 2012). Isabelli (2000) found in her research on motivation and SLA in a study abroad context that learners who were highly motivated interacted with local people more extensively using L2 than those who were not, which correlated with their linguistic gains. On the other hand, Cubillos and Ilvento (2012) demonstrated that students who possessed initially higher speaking self-efficacy showed lower gains, regardless of the length of the program. This current study suggests that students should first cultivate basic language proficiency and confidence before studying abroad for meaningful communication with L2 community members and enhance their self-efficacy. This is because gaining higher language proficiency is related to higher self-efficacy (e.g., Asakereh & Dehghannezhad, 2015). If students went abroad without sufficient language proficiency, their self-efficacy would not be able to increase sufficiently during the sojourn.

The results of face-to-face interviews and responses to open-ended questions including the four sources of self-efficacy information clarified that students with initially high self-efficacy had more meaningful experiences to boost their self-efficacy. It is likely that the higher quantity and quality of interactions that the High and Middle SE students had with local people were the main cause of their larger gains of self-efficacy than the Low SE students (Table 2).

The negative correlations with pre-survey in-class/out-of-class self-efficacies and their gains might be attributed to the ceiling effect, which could also explain the results of Cubillos and Ilvento (2012) mentioned above. In Results of Quantitative Analysis, it was pointed out that the High SE group showed only a slight gain in in-class self-efficacy (0.44), but they showed a larger gain in out-of-class self-efficacy on the post-survey (2.23). This might be because their pre-survey in-class self-efficacy score was already high (7.13) and their pre-survey out-of-class self-efficacy score was low (5.67). It might be difficult for the High SE students to mark even higher scores on the post-survey in-class self-efficacy scale because they had already reached almost the highest score on the pre-survey, with less headroom to show more growth. This is consistent with Freed's (1990) assertion that lower-level students are likely to demonstrate more linguistic gains than high-level students due to the limiting ceiling effect. Though Freed (1990) is about linguistic gains, and not about self-efficacy, this could happen with any measurement if the initial value is considerably high.

Considering these findings aforementioned, it could be interpreted that the small gain in self-efficacy in the High SE group was produced due to the ceiling effect. Therefore, it might be possible to think that the High SE group may have showed larger gain in self-efficacy than they actually did, though the gain was small in number.

Summarizing all the quantitative and qualitative data, research questions, and other researchers' findings aforementioned, several main findings result from this study.

1. Interviews and responses to open-ended questions reveal that the students with initially high self-efficacy have more experiences based on the four sources of self-efficacy information, especially ME, VP and ES, than those with initially low self-efficacy.
2. Students with initially high self-efficacy may have experienced better improvement of self-efficacy than those with low initial self-efficacy.
3. It is possible that students with initially low self-efficacy lessen their self-efficacy even more through study abroad programs.
4. VE can work negatively for low self-efficacy students.
5. It is desirable to acquire sufficient language proficiency before studying abroad.

Limitations

This study has a few limitations that should be resolved in future studies. Firstly, the qualitative part of the analyses relied on a limited number of comments from a few selected participants. This was done because this study is composed of quantitative and qualitative analyses, where the qualitative part was examined referring to the quantitative results. Therefore, several interview excerpts were selected based on the result of the quantitative analysis. Still, the generalizations made here should be read with reservations, and should be verified in future studies. Secondly, the author was not in the position to join this study-abroad program with the participants, which prevented the author from obtaining more detailed and valid data about the participants' own experiences in the U.S. Had the author joined the program, the study could have included memos or diary entries of day-to-day experiences of the participants. This should wait for another study in the future.

Conclusion

RQ. 1 and RQ. 2 clarified that students with initially high self-efficacy had more meaningful experiences which could boost their self-efficacies than those with initially low self-efficacy. Especially, the negative effect of VE on the Low SE group was noteworthy.

The results of this study show that students who are planning to study abroad should first enhance their language proficiency enough to interact sufficiently with local people. Though numerical data concerning English proficiency was not obtained in this study, improving one's language proficiency might be regarded as one measurement for heightening self-efficacy. This hypothesis might explain why other researchers insisted on the importance of acquiring initial language skills. Segalowitz et al. (2004) affirmed that threshold levels of linguistic skills might be required for students who study abroad to develop their speaking skills. Furthermore, Schunk (1995, p. 283) asserted that even highly self-efficacious students cannot perform well if they lack the necessary knowledge and skills.

However, this does not deny the positive effects of study abroad for even low

self-efficacy students with initially lower language proficiency. It can certainly be said that study-abroad programs are not only for advanced and intermediate level students but also for novice level students. Martinsen (2010) asserted that significant oral proficiency gains were found by the majority of participants in a short-term study abroad program. Nevertheless, it may also be true that students will not be able to interact willingly and confidently with people of the target language unless they possess a certain level of language skills. Therefore, raising L2 proficiency in their home country will contribute not only to sojourners' further gains in their self-efficacy but to their confidence and willingness to interact with people and culture of the target language.

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Appendix（Responses to Open-Ended Questions）

Ⓟ（positive）means gained confidence and Ⓝ（negative）means lost confidence.

Group	Written Statements
Cluster 2 High SE group	Ⓟ I was praised by the teacher, my host family, and other native speakers for my English proficiency. Ⓝ I could not communicate well with the clerks, nor understand conversations between native speakers because they spoke really fast.（H1）
	Ⓟ I could mostly understand the lecturers at university except fast speakers. I asked them many questions. Ⓝ My awful pronunciation prevented me from making myself understood in English.（H2）
	Ⓟ I was praised by the teacher and my host family for my English ability. Ⓝ I could not make my partner understand my English.（H3）
	Ⓟ I enjoyed talking with the teachers at university as well as my host family. I gained confidence from understanding what others said in English. Ⓝ I sometimes had to ask my partner to repeat what he/she told me.（H4）
	Ⓟ I gained confidence from speaking English when I was praised by my host family. Ⓝ I could not convey in English what I wanted to, nor understand the clerks.（H5）
Cluster 3 Middle SE group	Ⓟ I could understand what the native speakers said. Ⓝ I could not keep up with the speed at which native speakers spoke.（M1）
	Ⓟ My host family praised me for my improving English-speaking. They answered my questions honestly. Ⓝ I could not understand what the clerks said at all.（M2）
	Ⓟ I could do some shopping. I made some Chinese friends. Ⓝ I could not keep up with the speed at which native speakers spoke.（M3）
	Ⓟ I talked willingly without worrying about grammatical mistakes. Ⓝ I could not understand what the clerks said because they spoke really fast.（M4）
	Ⓟ I could improve my listening skills. I got confidence when my host family told me that my speaking was getting better. Ⓝ I could not make myself understood in English, nor understand what the clerks said at all.（M5）
	Ⓟ I enjoyed talking with my host family a lot. Ⓝ I could not understand what my partner said.（M6）
	Ⓟ I could not gain a lot of confidence, but I enjoyed talking with my host family and learned to use new words. Ⓝ My awful pronunciation and lack of vocabulary prevented me from making myself understood in English.（M7）
	Ⓟ I could understand the contents of movies. I enjoyed talking with my host family. Ⓝ I couldn't make myself and my pronunciation understood by native speakers.（M8）
Cluster 1 Low SE group	Ⓟ At last three weeks passed and the training program was over. I was relieved. Ⓝ I could not speak English at all or understand what others spoke in English.（L1）
	Ⓟ I could talk with native speakers other than my host family. Ⓝ I could not explain in English what I wanted to convey.（L2）
	Ⓟ I gained confidence from speaking English. I talked with my host family a lot. Ⓝ I could not find suitable words when speaking.（L3）
	Ⓟ I could listen to what others said in English. Ⓝ I found my English grammar and pronunciation were not good.（L4）

Note. $N = 17$. Brackets at the end of each statement correspond to the students in Table 2.

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編集者(代表)　原　　隆　幸

発　行　所　大学英語教育学会 九州・沖縄支部事務局
〒808-0135 北九州市若松区ひびきの1-1
北九州市立大学 基盤教育センター
ひびきの分室
筒井英一郎研究室内
TEL 093-695-3728
FAX 093-695-3712
E-mail: e-tsutsui@kitakyu-u.ac.jp

印　刷　所　株式会社 キャンパスサポート西南
〒814-0006 福岡市早良区百道1-14-29
TEL 092-823-3271
FAX 092-823-3272