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English Language Learners' Strategy Use and Self-Efficacy Beliefs in English Language Learning

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ABSTRACT

This study examined self-efficacy and language strategy use of college-level English Language Learners (ELLs) at a southeastern university in the United States. It analyzed the relationship between self-efficacy and strategy use. An English Language Learning Survey was used to collect data from 198 college-level ELLs. Participants had positive self-efficacy toward their English learning and the most often used strategies were compensation, social and metacognitive strategies. Self-efficacy was positively correlated with cognitive, compensation, memory, metacognitive, and social strategy. The study suggested that teachers provide scaffolding for ELLs through strategy instruction. Teachers can teach self-regulated learning strategies and focus on ELLs' improvement and mastery of content to enhance their self-efficacy, language proficiency and learning autonomy required for their academic courses learning.

Keywords: English language learner, higher education, scaffolding, self-efficacy, strategy use

INTRODUCTION

Many universities have considered recruiting international students as a high priority. According to the 2016 Open Doors Report on International Educational Exchange, the number of international students at colleges and universities in the United States had the highest rate of growth in 35 years,

and the number increased by seven percent from the previous year to a record high of 1,044,000 students in the 2015–2016 academic year. It has been confirmed that the United States (U.S.) remains the destination of choice for higher education (Institute of International Education, 2016). Many non-English speaking industrialized countries devote their effort to students' English language education because English is significant in many fields and widely used in the world. However, many English language learners (ELLs) still do not acquire the expected competency after many years of formal education when they come to the U.S. Mastering a foreign or second language requires the learner to overcome many difficulties such as a skillful use of phonological, syntactic, and semantic codes (Sparks & Ganschow, 1993).

Many institutions and programs in universities are designed to provide regular academic English language courses for international students or scholars. However, these programs continue to experience difficulty in developing listening and speaking competency and many ELLs do not acquire English skills quickly enough to achieve academic success in colleges or ensure subsequent success in life. College-level ESL courses are often limited only to developing students' decoding skills and knowledge of syntax or vocabulary for literal comprehension (Grafals, 2013). Researchers in the field of second language acquisition (SLA) claimed that previous studies did not address students' individual learning needs and were not able to offer effective solutions to improve language learners' autonomy and performance (Crookes & Schmidt, 1991; Dörnyei, 1994). Strategy instructions have been identified as effective to enhance these learners' independent and autonomous learning (Ellis, 1997; Zimmerman, Bonner, & Kovack, 2006). The more strategies a learner uses, the more the learner feels self-efficacious (Zimmerman et al., 2006). With this in mind, understanding ELLs' strategy use and how it relates with self-efficacy could make significant contributions to academic success of ELLs.

Purpose of Study

To assist ELLs in post-secondary levels to achieve English competency required for effectively functioning in the daily communication and academic courses classroom is a significant undertaking for ELLs as well as educators. This study examined self-efficacy beliefs and strategy use of college-level ELLs and suggested effective pedagogical practices for higher education faculty, bilingual education specialists, and teacher

educators who teach ELLs in university courses. The research questions are as follows:

- What are the self-efficacy beliefs of college-level ELLs?
- What is the relationship between language strategy use and demographic characteristics for college-level ELLs?
- What is the relationship between self-efficacy and language strategy use for these college-level ELLs?

LITERATURE REVIEW

Various factors have been found to influence learners' choice of language learning strategies. The successful language learners are more likely to use strategies according to specific tasks, context, or different needs. They are more self-regulated, flexible and appropriate in their use of learning strategies (Weinstein, Acee, & Jung, 2011). The more effective learners used strategies more "appropriately, with greater variety, and in ways that helped them complete the task successfully" (Chamot & Kupper, 1989, p. 17). Chamot and Kupper (1989), Ellis (2008), Oxford (2003), Oxford and Ehrman (1995) identified factors that influenced the choice of language learning strategies including gender, age, cultural background, motivation, attitudes and beliefs, type of task, learning style and teacher perceptions. Motivated learners are more likely to use more strategies than less motivated learners and the reasons for studying the language also contribute to the choice of learning strategies. Learners with negative attitudes or beliefs often use less effective strategies (Oxford, 1994; Oxford & Nyikos, 1993). Teachers and researchers have recognized the importance of training learners in effective strategy use to promote learner autonomy and self-regulation (Oxford, 1996; Weinstein et al., 2011). Teachers are encouraged to teach learners how to choose appropriate strategies to enhance levels of self-directed learning (Murray, 2004; Reder & Strawn, 2001).

In recent research about self-efficacy and SLA, focus has been shifted from expanding Bandura's theories to developing empirical evidence through the creation of standardized instruments to measure learner's self-efficacy. Studies also have focused on a variety of factors and correlations, such as the relationship between self-efficacy and language performance (i.e., Gahungu, 2007; Hsieh & Kang, 2010; Magogwe & Oliver, 2007), and the relationship between self-efficacy beliefs and strategy use (i.e., Naseri &

Zaferanieh, 2012; Wong, 2005). Previous studies identified that gender, academic major, English fluency, learning strategies and career goals are all associated with students' self-efficacy (Chiu & Chow, 2010; Kim, 2009; Lee & Zentall, 2012; Naseri & Zaferanieh, 2012). ELLs with high levels of self-efficacy tend to experience lower levels of stress and are motivated to improve their attitude of cultural adjustment (Kim, 2009). Compared with domestic students, ELLs lack the factors that contribute to increasing their self-efficacy such as family, friends, and social support. ELLs rated themselves lower in academic efficacy and rated their classmates as more likely to follow class rules (Leclair, Doll, Osborn, & Jones, 2009). But in terms of these studies, the generalization is limited to a certain community. It was reported that interest in topics influenced self-efficacy, and teachers played a large part in learners' self-efficacy (Huang & Chang, 1996). These studies have explored effective ways to help K-12 ELLs to learn English effectively and efficiently (Slavin & Yampolsky, 1992). But there have been few studies that focus on ELLs at the postsecondary level (Bifuh-Ambe, 2011).

Many studies have reported the positive relationship between self-efficacy and learning strategies (Diseth, 2011; Gahungu, 2007; Yusuf, 2011). Naseri and Zaferanieh (2012) identified a significant strong positive correlation between high self-efficacy scores and improvement in reading comprehension skills. There was also a relationship between high self-efficacy scores and students reading strategy use. Four strategies were identified in this study—cognitive, metacognitive, compensatory, and testing. Results showed that students who employed a combination of the four strategies also proved to have the highest self-efficacy scores. The results indicated a need for learning strategies to be explicitly taught to learners. Strategy training can enhance self-efficacy and help learners to become autonomous (Magogwe & Oliver, 2007; Yusuf, 2011; Zimmerman et al., 2006). Wong (2005) examined the overall language self-efficacy of ELLs in Malaysia and how self-efficacy influenced their language learning strategy use. It was found that participants who had a higher level of self-efficacy also reported greater use of learning strategies. Strategies most often mentioned were cognitive (i.e., use of English listening, reading, and writing outside of classroom) and social (i.e., assistance from interlocutors). The study also found that participants with low self-efficacy used context to guess meanings they did not understand while those with high self-efficacy tried to find the meaning of misunderstood information by enlisting

interlocutors or seeking print resources. The results of this study suggested that self-efficacy might be increased by teaching learning strategies to students, particularly the strategies that were most often mentioned by learners. Idrus and Sivapalan (2010) suggested that it was important for teachers to be aware of the self-efficacy level of their students, and teaching learning strategies can increase self-efficacy, and the negative attitude of learners with low self-efficacy should be addressed within the classroom to improve overall performance. But these studies were not able to offer effective solutions to improve language learners' motivation, autonomy, and self-directedness, and learners' self-efficacy and learning strategy have not yet been integratively examined in an ESL context. According to Dörnyei (1994), strategies are not the end for language instruction, but are suggestions or techniques for enhancing ELL's self-efficacy and confidence in language learning.

THEORETICAL FRAMEWORK

According to cognitive learning theories, learners are active participants in the learning and teaching process rather than passive recipients. They do not just receive information from teachers as learning process involves learners processing information which includes mental activities (Hosenfeld, 1976; O'Malley & Chamot, 1990; Oxford, 1990). Oxford (1989) defines language learning strategies as "the often-conscious steps of behaviors used by language learners to enhance the acquisition, storage, retention, recall, and use of new information" (p. 4). The aim of using strategies is to "affect the learner's motivational or affective state, or the way in which the learner selects, acquires, organizes, or integrates new knowledge" (Weinstein & Mayer, 1986, p. 315). Oxford (1990) proposed a classification model of language learning strategies and divided language learning strategies into direct strategies and indirect strategies. Direct strategies include memory strategies, cognitive strategies, and compensation strategies. Indirect strategies include metacognitive strategies, affective strategies, and social strategies (Oxford, 1990).

Self-efficacy is an approach to understanding human cognition, motivation, and emotion. Self-efficacy refers to self-perceptions or beliefs of the capability to learn or perform tasks at designated levels (Bandura, 1997). According to Bandura (1997), learners' level of affective states and actions are strongly influenced by what they believes. This theory assumes that

people possess the ability to reflect and regulate their actions and to shape their environment rather than merely react to it. A person's self-efficacy determines success or failure in completing tasks (Bandura, 1977; Schunk, 1989). "Self-efficacy determines aspect of task engagement including which tasks individuals choose to take on, the amount effort, persistence, and perseverance they demonstrate with regard to the task, and their feelings related to the task" (Caraway, Tucker, Reinke, & Hall, 2003, p. 423). When students believe they are capable of performing well on an academic task, they are motivated to perform well and persist longer in the task, which are essential for academic success (Bandura, 1997).

RESEARCH METHOD

An English language learning survey was used in the study. The survey consists of demographic information, the Motivated Strategies for Learning Questionnaire (MSLQ), and version 7.0 of the Strategy Inventory for Language Learning (SILL) (see Appendix). The demographic information was developed based on previous studies (Oxford, 1990; Park, 1995; Yang, 1992). It was designed to elicit students' demographic information such as gender, age, country of origin, native language, educational background, self-assessed level of English proficiency, and reasons to learn English. The Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich, Smith, Garcia, & McKeachie, 1991) was used in this study to measure ELLs' self-efficacy beliefs. The MSLQ has been validated and used by many studies (e.g. Pintrich, 2003; Pintrich et al., 1991, 1993). This questionnaire is a self-report instrument designed to assess college students' motivational orientations and self-regulated learning for a specific course (Pintrich et al., 1991). This study used the self-efficacy subscale in MSLQ to measure students' self-efficacy beliefs. Students rate themselves on a 7-point Likert scale, from 1 (not at all true of me) to 7 (very true of me). The SILL (Oxford, 1990) was used to measure students' language learning strategy use. The questionnaire contains 50 items (ESL/EFL version) with six categories of strategies: memory, cognitive, compensation, metacognitive, affective, and social strategies. The questionnaire is self-scoring and students rate themselves on a 5-point Likert scale, from 1 ("never or almost never true of me") to 5 ("always or almost always true of me").

The participants of this study were ELLs who were taking English academic courses at a southeastern university in the U.S. They were selected

because they were enrolled in English language classes in the U.S. university during the period of time of this study and they had to have attended at least one semester of ESL class. Permission to conduct this research was granted by the IRB office.

Table 1. Demographic Characteristics of Participants (N =198)

Characteristics	N
Gender	
Female	88
Male	110
Age	
18-24	115
25-29	83
Geographic Background	
Asian	139
Non-Asian	59
Years of English	
Less than 5 years	61
5-10 years	82
More than 10 years	55
Highest Educational Level	
High school	93
Bachelor's	67
Graduate student (master's and PhD)	38

Both descriptive and inferential statistics were used to analyze the collected data, and the analysis methods were chosen and employed based on each research question. The descriptive analyses were conducted to scrutinize demographic variables and students' self-efficacy beliefs; independent sample t-test, and one-way ANOVA were used to investigate students' strategy use in relation to demographic characteristics. In order to answer the question regarding the relationship between self-efficacy and language learning strategy, the Pearson product-moment correlation coefficient was used in this study.

RESULTS

The total number of students who participated in this research was 207. Among those responses, 9 were eliminated because they were incomplete. Therefore, 198 responses were included in the analysis for this study. Table 1 shows the numbers of survey participants disaggregated by each demographic group.

The descriptive statistics analyzed the scores of self-efficacy beliefs. The mean score of self-efficacy is 5.48. The subscale of MSLQ used to measure self-efficacy is a 7-point Likert scale, which indicates that participants in this study have a positive self-efficacy belief about their English language learning.

The independent sample t-test and one-way ANOVA were used to examine the relationship between strategy use and demographic characteristics for these college-level ELLs. According to Oxford and Burry-Stock (1995), a mean score of all participants in the range of 3.5 to 4.4 (always or almost always used) and 4.5 to 5.0 (usually used) on a SILL item was considered to reflect high use of that strategy, 2.4 to 3.4 (sometimes used) medium use, and 1.0 to 1.4 (never or almost never used) and 1.5 to 2.4 (usually not used) low use.

Among six categories of strategies, the metacognitive ($M=3.81$), social ($M=3.76$), and compensation strategies ($M=3.73$) were the most often used strategies for participants in this study. The means of overall strategy use ($M=3.60$) showed that participants in this study had high use of language learning strategies in their English language learning process.

In terms of differences of strategy use based on age, there was a significant difference of overall strategy use between students who were more than 25 years old ($M=3.50$) and ones who were less than 25 years old ($M=3.67$), $t(198)=2.519$, $p=.013<.05$. The value of Cohen's d was 0.35 indicating a moderate effect size. Four of six strategy categories except for the metacognitive and memory category had significant differences between students who were less than 25 years old and ones who were more than 25 years old. Students who were less than 25 years old ($M=3.40$) had a significantly greater affective strategy use than ones who were more than 25 years old ($M=3.11$), $t(196)=3.11$, $p=.002<.01$. The effect size (Cohen's $d=0.45$) was moderate. Students who were less than 25 years old ($M=3.74$) utilized cognitive strategies significantly more frequently than students who were more than 25 years old ($M=3.58$), $t(196)=2.16$, $p=.032<.05$. The value

of Cohen's d was 0.30 indicating a moderate effect size. In addition, students who were less than 25 years old used compensation strategies ($M=3.80$) significantly more frequently than students who were more than 25 years old ($M=3.62$), $t(196)=2.09$, $p=.038<.05$. The effect size (Cohen's $d =0.30$) was moderate. Finally, students who were less than 25 years old used social strategies ($M=3.87$) significantly more frequently than ones who were more than 25 years old ($M=3.60$), $t(196)=2.62$, $p=.009<.01$. The effect size (Cohen's $d =0.37$) was moderate. There was no significant difference of other learning strategies in relation to age.

Concerning the differences of strategy use between Asian students and non-Asian students, the independent sample t -tests showed that Asian students ($M=3.42$) had a significantly higher level of memory strategy use than non-Asian students ($M=2.99$), $t(198)=2.99$, $p=.003<.01$, and the effect size (Cohen's $d =0.62$) was large. There was no other significant difference of strategy use between Asian students and non-Asian students.

A one-way ANOVA is based on the assumptions of having independent random samples, homogeneity of variance, and a normal distribution of variables. The results of the homogeneity of variance showed that no statistically significant difference existed at the .05 level. Concerning the differences of strategy use based on the previous educational level, the results of one-way ANOVA displayed a mean score of 3.69, 3.56, 3.44 for overall strategy use of the participants who had high school diplomas, bachelor's degree, and master's and doctoral degree respectively. The differences of overall strategy use among them were statistically significant, $F(2, 195) = 4.07$, $p = 0.019<.05$, and the effect size ($\eta^2=0.04$) was moderate. The Boferroni post-hoc test showed that the participants who had high school diplomas had a significantly higher level of overall strategy use than participants who had master's and doctoral degree ($p = .021<.05$). Specifically, the differences of affective strategy use among participants who had high school diplomas ($M=3.42$), bachelor's degree ($M=3.22$), and master's and doctoral degree ($M=3.02$) were statistically significant, $F(2, 195) = 5.46$, $p = 0.005<.01$, and the effect size ($\eta^2=0.05$) was moderate. The Boferroni post-hoc test showed that the participants who had high school diplomas had a significantly higher level of affective strategy use than participants who had master's and doctoral degree ($p = .005<.01$). The differences of memory strategy use among participants who had high school diplomas ($M=3.42$), bachelor's degree ($M=3.43$), and master's and doctoral degree ($M=3.10$) were statistically significant, $F(2, 195) = 3.50$, $p =$

0.032<.05, and the effect size ($\eta^2=0.03$) was moderate. The Boferroni post-hoc test showed that the participants who had high school diplomas had a significantly higher level of memory strategy use than participants who had master's and doctoral degree ($p = .045<.05$). There was no significant difference of strategy use based on gender and years of English learning.

A Pearson product-moment correlational analysis was conducted to examine if there was any statistically significant relationship among self-efficacy, overall strategy use, affective strategy, cognitive strategy, compensation strategy, memory strategy, metacognitive strategy, and social strategy. The results are illustrated in Table 2. There was a positive correlation between self-efficacy and overall strategy use ($r=.28, p<.01$), self-efficacy and cognitive strategy ($r=.29, p<.05$), self-efficacy and compensation strategy ($r=.24, p<.05$), self-efficacy and memory strategy ($r=.16, p<.05$), self-efficacy and metacognitive strategy ($r=.32, p<.01$), and self-efficacy and social strategy ($r=.29, p<.01$). But all these correlations were not strong. There was no significant relationship between self-efficacy and affective strategy.

Table 2. Pearson Product Correlations of Measured Variables

Variables	1	2	3	4	5	6	7	8
1. Self-efficacy	—	.28**	.15	.29*	.24*	.16*	.32**	.29**
2. Overall strategy		—	.77**	.86**	.65**	.73**	.79**	.82**
3. Affective strategy			—	.55**	.35**	.54**	.53**	.57**
4. Cognitive strategy				—	.62**	.57**	.64**	.66**
5. Compensation strategy					—	.31**	.37**	.43**
6. Memory strategy						—	.49**	.42**
7. Metacognitive strategy							—	.65**
8. Social strategy								—

* $p < .05$, ** $p < .01$

DISCUSSION AND CONCLUSIONS

ELLs in this study have a positive self-efficacy belief about their English language learning. Although previous studies (e.g. Leclair et al., 2009) reported that compared with domestic students, ELLs lack the factors that contribute to increasing their self-efficacy, this study found ELLs felt positively about their English language learning. It is also affirmed by the responses from demographic information in the survey that 96% of the participants rated their overall English proficiency as “good.” This finding can be explained further by the fact that the most often mentioned reasons for these ELLs to learn English in the demographic information were as follows: “I have friends who speak English,” “Need it for traveling,” “I have an interest in learning English”, “I am interested in English speaking countries,” and “English is a tool of communication.” It indicated that interest in topics influenced self-efficacy (Huang & Chang, 1996), and ELLs in this study have great interest and motivation to learn the language and they want to have a better understanding of the people or culture of that language.

Six categories of language learning strategies have been proposed by Oxford (1990). Memory strategies help learners store and retrieve new information, such as grouping, creating mental linkages, applying images and sound, reviewing, and employing action. Cognitive strategies enable learners to understand and produce new language, such as reasoning, practicing, receiving and sending messages, analyzing and summarizing. Compensation strategies allow learners to use the new language for comprehension or production despite limited knowledge, including guessing meanings from context or using gestures when the learners do not know the precise expression. Metacognitive strategies help learners to regulate their learning, such as paying attention, planning, self-evaluating and monitoring one’s errors or the learning process. Affective strategies help learners to deal with their own emotions, motivation, and attitudes, such as lowering anxiety, self-rewards, self-encouragement. Social strategies refer to ways in which learners learn the language through interactions with native speakers or the target language, such as asking questions, cooperating with peers and improving cultural understanding.

Metacognitive, social, and compensation strategies were the most often used strategies for the participants in this study. Participants in this study frequently used language learning strategies in their English language

learning process. Students who were less than 25 years old had a higher level of overall strategy use than students who were more than 25 years old. Specifically, students who were less than 25 years old used more affective, compensation, cognitive, social strategies than ones who were more than 25 years old. It was also concluded that participants who had high school diplomas had a significantly higher level of overall strategy use than ones who had master's and doctoral degree. Specifically, participants who had high school diplomas had a significantly higher level of affective strategy and memory strategy use than participants who had master's and doctoral degree.

These findings seemed different from the previous studies which showed that older or more advanced learners used more complex strategies (e.g., Ehrman & Oxford, 1989). The discrepancy may be due to the greater limited English language proficiency of older learners since language learning is different from the other subject learning which requires an optimal or younger learning age. Besides, since it is found that affective and memory strategy were used more often by participants who had high school diplomas, it indicated that these learners compared with more advanced learners were more likely to use surface processing strategies like memorization instead of deep processing or functional strategies to increase their communicative competence (Elliot, McGregor, & Gable, 1999; Huang, & Van Naerssen, 1987).

It is also concluded that Asian students had a significant higher level of memory strategy use than non-Asian students. It affirmed the previous studies (e.g. Reynolds & Costantine, 2007) that students from different cultures used different strategies, and Asians used more rote memorization strategies and less social strategies compared with Hispanics (Politzer, 1983; Tyacke & Mendelsohn, 1986).

Self-efficacy was found positively correlated with overall strategy use, cognitive strategy, compensation strategy, memory strategy, metacognitive strategy, and social strategy. It means that participants who had a higher level of self-efficacy also reported greater use of learning strategies (except affective strategies). This finding affirmed a previous finding that participants who had a higher level of self-efficacy also reported greater use of learning strategies (e.g., Gahungu, 2007; Wong, 2005). It indicated that self-efficacy might be increased by teaching learning strategies to students.

Implications

An effective use of strategies facilitates learners' control of developing language skills and increasing confidence in the learning process (Oxford & Shearin, 1994). Strategy instructions promote learners' independent and autonomous learning (Ellis, 1997; Schunk, 1995). Since strategy training or instruction can enhance learners' self-efficacy and autonomous learning, teaching learners about different strategies is essential to improve students' actual performance and achievement in language learning.

Teachers can support their learners in the following ways. First, provide scaffolding for learners by teaching strategy. Scaffolding helps learners to comprehend and understand their academic classes. Learners know how to do both in and outside of classroom. Second, strategies can be incorporated into curriculum and classroom activities to let students know how to use strategies and choose strategies that best work for them. Using strategy to influence self-efficacy can be achieved by making the task appear easier so that students feel in more control of their learning process. Third, provide learners with access to different learning resources, modeling strategies, scaffolding strategies, hands-on activities, and guidance for selection, explanation and evaluation in learning process. The more students feels self-efficacious, the more strategies they use (Pintrich & DeGroot, 1990). Subsequently teachers can withdraw support as students gain greater autonomy and consequently achieve their academic success at colleges.

Since ELLs' self-efficacy could be influenced by their interest and motivation, increasing motivation and interest helps to enhance learners' self-efficacy. In order to increase sense of self-satisfaction and motivation, it is better to design meaningful classroom activities to encourage learners to persist longer in the learning tasks and involve students actively in the class work. Teachers plays a large part in learners' self-efficacy, and in order to increase ELLs' self-efficacy teachers are also encouraged to emphasize the significance of regular praise, positive reinforcement, and supportive environment, teach ELLs problem-solving, communication, and information processing skills, and emphasize students' abilities rather than inabilities.

Suggestions for Future Research

This study explored ELLs' self-efficacy beliefs and strategy use that influenced learners' language learning from a student's perspective in the university classrooms. It focused on only one university in the U.S. More participants from different majors and countries and ELLs from larger

communities can be explored in the future. The follow-up interviews and focus group discussions can be used to examine the further differences of ELL's self-efficacy and strategy use. Teacher's perspective can be explored together with students' perspective to examine effective instructions and services for these ELLs.

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