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E-Books to Enhance College Learners' English Self-Efficacy

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Abstract

The present study is to explore the effect of E-book reading activities for general purposes on EFL learners' English self-efficacy and language learning perceptions. Self-efficacy, claimed by a large number of researchers, has a direct and powerful influence on learners' academic accomplishments; English picture book reading, moreover, is suggested to be beneficial to language learners. However, there is little research on enhancing the level of English self-efficacy through reading English picture books, particularly in digital forms. The participants, in the study, 101 non-English-majored college students in Taiwan, were required to read E-books and upload their after-reading feedbacks to the Google Drive for the purpose of sharing them with other peers. The findings of the study reveal that the participants' general perceived English abilities and confidence were enhanced after their efforts on E-book reading activities. Furthermore, from the pieces of after-study learners' perceptions, they presented positive attitudes towards English learning.

Key Words: English Self-Efficacy, E-Books, Social Cognitive Theory, Sociocultural Theory

Introduction

For many decades, memorization and rote-learning have almost occupied the ideas of language learning in Taiwan learners' minds (Wei, 2004). From the learners' perspectives, teachers are traditionally deemed as authority figures, dominating the whole classroom instruction, especially in Chinese society. The top-down method of instruction has been widely accepted in Taiwan (Lau, 2006); however, this approach is more likely to make learners more passive. Taiwan teachers' instructional focus, to be noted, should not be on producing perfect test takers but on creating an environment in which language learners are offered chances to practice the target language for different purposes or needs. To encourage students to read authentic materials and use the target language for communication should be the priority in Taiwan's English education.

Children's literature could create opportunities for language learners to become good readers and writers of a new language (Hadaway, Vardell, and Young, 2002). It also brings the learners to the world in which the text is more authentic and meaningful (Rigg and Allen, 1989). Children's literature should not only be applied to children but adult learners. The story of children's literature could also motivate adult learners to learn a new language and lead them to an unknown but intriguing world of literature (Carger, 1993). English picture books, mostly suggested and often applied by language teachers, are of great help for language development and communication abilities (Freeman and Lehman, 2001; Huck, Helper, and Hickman, 1987; Louie and Sierschynski, 2015). The texts of English picture books are not as intimidating as English learning course books. The word numbers of English picture books are fewer than course books. The word difficulty of English picture books is, for most of the time, lower. Therefore, while reading English picture books, language learners' affective filter would be lower. Lower levels of affective filter would be better for language learning (Krashen, 1985).

Environments, based on the perspectives of Social Cognitive Theory and Sociocultural Theory, play a significant role in learning. Besides environments, learners' personal factors and behaviors also interact with each other. Humans, rooted within Bandura's conceptions (1995), are equipped with the distinctive abilities to "symbolize, plan alternative strategies (forethought), learn through vicarious experience, self-regulate, and self-reflect" (Pajares, 2008, p.112). With these abilities, humans would be able to determine their own fortune in which they are actively engaged and moreover, by their own actions, they can make things happen. Self-efficacy beliefs, as defined by Bandura (1995, p.2), are "the beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations." In other words, once people have the confidence in themselves to produce the desired outcomes, they will have the motive and incentive to perform the action and to continue doing so even in the face of difficulties or adversity. While facing difficult tasks, people with a higher level of self-efficacy take them as challenges, and they would do their best to cope with them (Bandura, 1989, 1997; Bandura & Adams, 1977; Cervone & Wood, 1995). As a result, self-efficacy has a direct and powerful influence on whether or not individuals accomplish their goals (Pajares, 2008). The accomplishments could be in academic contexts where students complete a school task and believe that their efforts succeed.

Successful learners with a higher level of self-efficacy would be more able to regulate their behaviors and to accomplish different tasks, even challenging ones (Fong & Yuen, 2016; Lent, Brown, & Larkin, 1984; Schunk, 1991, 2008; Zimmerman, 1989, 1990; Zimmerman & Martinez-Pons, 1990). Many studies across different academic domains suggest that there is a positive correlation between self-efficacy and academic achievement (Bandura, Bararanelli, Caprara, & Pastorelli, 1996; Bandura & Schunk, 1981; Collins, 1982; Elliot et al., 2000; Greene, Miller, Crowson, Duke, & Akey, 2004; Lent, Brown, & Larkin, 1984; Motlagh, Amrai, Yazdani, Abderahim, & Souri, 2011; Pajares, 1996; Schunk, 1995; Shell & Murphy, 1989; Zimmerman & Bandura, 1994; Zimmerman, Bandura, & Martinez-Pons, 1992). In addition to the effect of self-efficacy on performance, classroom environments also have a great influence on learners' self-efficacy and their actual performance. A learner-centered environment could play a significant role in enhancing learners' self-efficacy and their Meece et al. (2003) claimed that secondary school students academic development. demonstrated more positive self-efficacy in the context where learner-centered instruction, which resulted in a supportive learning atmosphere and enhanced higher-order thinking, was

highly emphasized. Technology-assisted language classrooms, to be noted, are claimed to create a learner-centered, supportive, and interactive context in which learners are more autonomous and confident in their learning (Chou, 2010; Elliott, 2016). Learners nowadays do not just learn from teachers, but for most of the time, they learn from their peers and online resources. Online reading or E-books could possibly create chances for learners to select their preferred types of reading materials and to read on their own pace.

To date, there are few studies examining the effects of E-book reading on EFL learners' English self-efficacy. In an EFL context, language input or output seem insufficient; their language production becomes less and less, and their levels of self-efficacy decrease little by little. Lower levels of English self-efficacy would possibly lead to unsatisfactory performance; the performance would make the levels of self-efficacy lower and lower. With the intention to understand the implementation of E-book reading activities, the purpose of the study is to investigate whether E-books can enhance EFL learners' levels of English self-efficacy. This study, thus, is guided by the following three research questions (RQs):

RQ1. Is there any relationship between the participants' English proficiency and self-efficacious beliefs?

RQ2. Are the participants' self-efficacious beliefs enhanced after the E-book reading activities?

RQ3. What are the participants' perceptions about the E-book reading activities?

Method

Participants

The research population consisted of EFL college students from one technology college located in the northern part of Taiwan. Two classes of participants (N = 101) who enrolled in Sophomore English as a mandatory course majored in industry management, industrial design, information management, and electrical engineering. Although the two classes of learners were from different academic departments, their attitudes towards English learning and English proficiency were not significantly different from each other. On the first day of the class, they were asked to share their English learning histories with other classmates. Eight out of ten reported that they had negative feelings about English learning for they had spent so much time learning it, but they still had tremendous difficulties learning and using it. They desired to learn English well, but unsatisfying scores had made them feel hopeless.

The participants have taken Freshman English course for one academic year in the target university, who were chosen based on convenience sampling. Convenience sampling means that "members of the target population are selected for the purpose of the study" (Dörnyei, 2007, p.98). In the study, the participants from the two classes were all college sophomores taught by the same instructor-researcher. Therefore, it would be more convenient for the instructor-researcher to carry out on-site observation and apply E-book reading activities to the study. Below is the description of the participants' background in the study (Table 1).

Descrip	Description of the participants in the study							
Group	N	Age	Gender	Years of	CSEPT			
		(mean)	(%)	English	(Range: 0-			
				Learning	240)			
1	52	18.44	M:59.62%	9.94	205.37			
			F:40.38%					
2	49	18.63	M:79.59%	10.44	207.02			
			F:20.41%					

Table 1	
Description of the participants in the stud	ly

* % = percentage; M = male; F = female;

CSEPT = College Student English Proficiency Test

Moreover, based on the participants' College Student English Proficiency Test (CSEPT) results, the English level of the participants was CEFR B1 level (CSEPT score range: 170-240). CEFR A2 level, in Taiwan, was defined as the English proficiency of typical senior high school graduates; in other words, in the target college, the English proficiency of the participants was nearly equal to that of a senior high school graduate.

The Settings

The participants from the two classes took the Sophomore English course in a technological college in northern Taiwan. The course included four language skills: reading, writing, listening, and speaking. Different from the Freshman English, the course was to provide learners with more advanced language training. The instruction site for all the participants was a face-to-face classroom, but only the experimental group members were required to read E-books on their own from desktop computers and write down their thoughts and feedbacks. After finishing reading and writing, their thoughts and feedbacks needed uploading to the Google Drive. The Google Drive was set up for sharing information and learning from each other.

The Pilot Study

The major instrument (the English learning self-efficacy scale (ELSES)), which has been proved as highly reliable and valid scales (Yang, 2016), was adapted and translated into Chinese and tested for its reliability and validity. The participants in the pilot study were 35 college sophomores in Taiwan. In order to test the reliability for Taiwanese college students, a pilot study was conducted. The pilot results showed good reliability (Cronbach Alpha = .93). Before testing the reliability, ELSES was examined for content and face validity. Two EFL-related experts, who had at least five years of college English teaching experiences, and 15 college EFL learners, who had at least four years of English learning experiences, participated in the pilot study. The two experts agreed that the instruments were readable and relevant to the study purposes. All of the pilot study participants reported that they understood the questions and found them easy to answer. The results, then, showed good validity.

After examining the reliability and validity of the two instruments, the experimental pilot study was conducted. The pilot study participants were college sophomores (N = 30), taking a two-hour Sophomore English course instructed by the researcher. The researcher spared about twenty minutes for two weeks to apply E-books reading activities to the course. The procedure of the instruction is described as follows. First of all, the instructor spent five minutes introducing the reading activities. Second, a good collection of E-books were presented to the learners. Third, the participants were required to select a book and read on their own. Finally, they had to complete the feedbacks and upload them to the Google Drive. After the two-week study, they all reported their perceptions of this kind of learning in a more positive way.

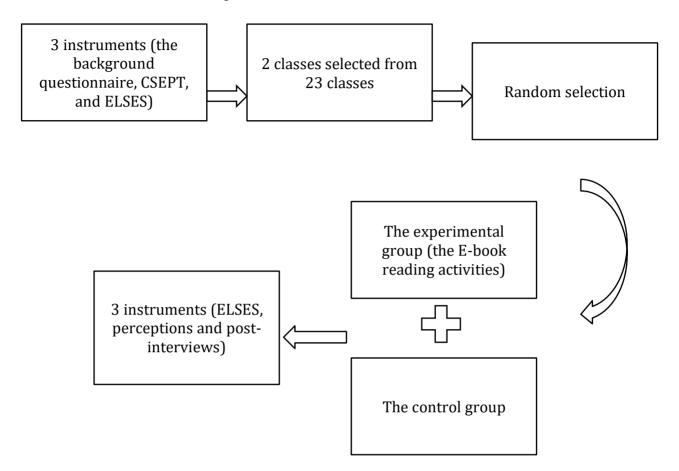
Research Design

The present study integrates the features of quasi-experimental research in order to investigate the effect of E-book reading activities on EFL college learners' self-efficacy and their indepth perceptions of this kind of learning. First of all, ELSES and CSEPT were conducted to examine the differences between the two classes randomly selected out of twenty-three classes from one college. Two classes of learners, based on the instrument results, showed insignificantly different from each other; the two classes were recruited in the study. Secondly, the E-book reading activities were applied to investigate whether there was any difference in the levels of self-efficacy between the experimental and control groups. In the study, the Bandura's Social Cognitive Model and Vygotsky's Sociocultural Theory were adopted, adjusted, and then applied to the research framework.

The learners' linguistic performance, first of all, was measured and studied by one of Taiwan's English proficiency tests, CSEPT. Secondly, the scale, ELSES, in order to measure the learners' affective domain, was administered both before and after the E-book reading activities to discover whether there were any significant differences between the two groups (the control and experimental groups). During the study, the participants from the experimental group took part in the E-book reading activities while the ones from the control group only received instruction in a traditional face-to-face context. By the end of the course (an academic semester), the participants' reading and writing performance were evaluated; their levels of English self-efficacy were investigated. Their perceptions of this kind of learning would also be analyzed through qualitative analysis. The following figure illustrates the framework of the current study (Figure 1).

Figure 1

Framework of the research design



Finally, for the sake of data validation, the teacher-researcher also kept a teaching journal to note down her observations of the experimental group, such as participation, interaction and asking for clarification. With the record of the teaching journal, the findings of the study data would be more reliable and convincing.

Instruments

Five instruments were used in the study to collect data. They were (a) a background information questionnaire, (b) a CSEPT test, (c) an ELSES (adapted from Huang & Chang, 1996), (d) learners' perception survey about the E-book reading activities, and (e) post-interviews. The details of each instrument are described in the following sections.

The background information questionnaire. The background information questionnaire, made up of 13 questions, adapted from the background questionnaire developed by Oxford (1990, p.282). It was particularly designed to elicit the learners' information about personal data and their English learning experiences. All the questions were translated into Chinese by the researcher and answered by all the participants from the two groups.

College Student English Proficiency Test (CSEPT). CSEPT was administered at the beginning of the study in order to examine the learners' general listening and reading ability.

The test was selected from the CSEPT tests designed by The Language Training & Testing Center (LTTC) with approved validity and reliability. The tests, divided into two language skills: listening and reading, were ranged from CEFR A2 to B1.

The English learning self-efficacy scale (ELSES). For the purpose of examining the learners' reading self-efficacy, Huang and Chang's ESL General Self-Efficacy Questionnaire (1996) was adopted and administered in the study. It originally consisted of 29 items (a five-point Likert-type scale) asking four aspects of questions: perceived abilities, perceived aspiration, persistence, and enjoyment, perceived writing affect, and perceived reading affect. In the present study, however, all the items of the questionnaire had the word 'English' added for the purpose of pointing out that English was the target language the researcher would like to examine. After modification, the questions were translated into Chinese and back-translated into English by an EFL-related expert to ensure reliability.

The learners' perception questionnaire on the E-book reading activities. The questionnaire on learners' perceptions of the E-book reading activities was distributed to the participants in the experimental group one week after the study in order to recall their fresh memories and experiences. The purpose of this questionnaire was to investigate how the learners felt about this kind of learning and to investigate whether or not there would be any significant effect on their learning from their own perspectives. In order to elicit their feelings, it was an openended perception survey, consisting four parts: perceptions of the teacher's role and facilitation, perceptions of the E-book reading activities, and their willingness of learning English through E-books in the future. The content of the perception questionnaire was tested for its expert and face validity before actual implementation with the learners.

The materials of the E-book reading activities. The reading materials selected for the study were a good collection of English picture books and graded readers published in Taiwan, along with authentic English texts and vivid images. The contents of the E-books included a variety of themes: family issues, exotic cultures, famous people, tourism, sports, and fairy tales. Each learner was provided with E-books, and he or she was able to select books to read for each class. After reading, the participants had to write their feedbacks and upload them to the Google Drive.

Research Procedures

The present study was a quasi-experimental study. Firstly, the two instruments (ELSES and CSEPT) were conducted to examine the differences between the two classes randomly selected out of twenty-three classes from one college. Two classes of learners, based on the instrument results, showed insignificantly different from each other; the two classes were recruited in the study. Secondly, the E-book reading activities were applied to investigate whether there was any difference in the levels of English self-efficacy between the experimental and control groups. In the study, the Bandura's Social Cognitive Model (1986) and Vygotsky's Sociocultural Theory (1978) were adopted, adjusted, and then applied to the research framework. In addition to the questionnaire, after the study, a post-interview was administered for the purpose of having a better and deeper understanding of the learners' feelings about this kind of learning and their authentic experiences.

The EFL classroom with E-book reading activities

First, all the learners were assigned tasks to complete in small groups which consisted of learners with different levels of English proficiency and self-efficacy. Second, each team member would do brainstorming to come up with as many ideas as possible. Third, they would present their own thoughts in small groups. Fourth, all the team members would discuss, negotiate, and then come to an agreement. Finally, each team should show their agreed solutions or answers in front of the whole class.

In the classroom with E-book reading activities, the selected reading materials were within the range of A2 to B1. As such, the learners would not be too overwhelmed but still had a little challenge to push themselves to a higher level of English learning through this instruction. Basically, the material selection was mainly based on the guidelines proposed by Krashen (1982, 1985). He claims that the difficulty level of learning materials should only be slightly higher than that of the target learners. In other words, the participants would not be easily intimidated by a tremendous number of unknown words and then easily give up reading. The i+1 principle could promote their reading motivation and ignite their passion for reading. Below is the comparison of t the experimental and control groups (Table 2).

Table 2

A comparison of the experimental and control groups

P							
Group A (the experimental group)	Group B (the control group)						
Face-to-face instruction	Face-to-face instruction						
In-class discussion/ interaction	In-class discussion/ interaction						
Quizzes/ drills and practices	Quizzes/ drills and practices						
E-book reading activities							
After-reading feedbacks							

Data Collection

The five instruments mentioned above were used for data collection of learners' background information, a CSEPT test, an ELSES (adapted from Huang and Chang, 1996), learners' perception survey about the E-book reading activities, and post-interviews. Firstly, a CSEPT was conducted, and the results were collected for further analysis. Secondly, in addition to ELSES, the background information questionnaire was distributed to all the participants, including their personal data and English learning experiences. Lastly, the learners' perception survey about the E-book reading activities was answered by all the participants from the experimental group. After the learning, they were able to express how they felt about it and whether there was any influence on their language learning and self-efficacy.

Besides the five instruments, the teaching journal, recorded by the instructor-researcher during the research study, served as the observation of in-class E-book reading activities. Right after each class, the learners' participation, interaction, and questioning were noted

down as part of the data collection process. On-site observation serves as one of the most convincing forms of evidence in a research study (Adler & Adler, 1994). To provide different views on the participants' learning and participation, the instructor-researcher kept a teaching journal to write down her observations of the quasi-experimental study.

Data Analysis

As mentioned in the previous section, the five instruments were administered to collect data on the participants' English learning self-efficacy, English proficiency, and their perceptions of the E-book reading activities. The following section describes the data analysis procedures (Table 3) for each instrument.

Table 3

Summary of the data analysis

Instruments	Statistical Analysis
Background information questionnaire	descriptive statistics/ an independent
	samples <i>t</i> -test
CSEPT	descriptive statistics/ an independent
	samples <i>t</i> -test/ ANCOVA
ELSES	descriptive statistics/ Pearson Correlation/
	ANCOVA
Perception questionnaire about the E-	descriptive statistics/ discourse analysis
book reading activities	
The instructor's on-site journal	content analysis

First of all, the background information questionnaire surveyed the participants' demographic characteristics and English learning experiences. Their responses were collected and analyzed by descriptive statistics. Secondly, the results of the learners' CSEPT and ELSES served as one of the variables in the study to examine the participants' English proficiency through a series of Pearson Correlation and ANCOVA tests. Thirdly, for the closed questions of the learners' perceptions, their answers were analyzed by descriptive statistics (mean and Standard Deviation) and t-tests, while the answers to the open questions were categorized by a systematic content analysis by two raters (EFL teachers) in order to achieve reliability. Lastly, the data from the instructor's on-site journal, serving as a cross-reference to the research findings related to the participants' perceptions of the E-book reading activities, were categorized by qualitative analysis.

Results

The participants of the study consisted of 101 EFL college students in northern Taiwan. Their average age was 18.54, and the average length of English learning was 10.19 years. The participants' perceptions of the importance in learning English were close to 'very important' (M = 2.82) on the scale (very important = 3; important = 2; not so important = 1). They uploaded a total of 320 E-journal writing entries during one semester in 2016. The study results, in the following part, are presented in accordance with the three research questions respectively.

ELSES has four parts: perceived abilities, perceived aspiration, persistence, and enjoyment, perceived writing affect and perceived reading affect. Table 4 shows the level of English self-efficacy by all participants. On average, their overall English self-efficacy is at a medium level (mean = 3.16). The mean scores of English self-efficacy from high to low are Part 2 (mean=3.76), Part 4 (mean = 3.23), Part 1 (mean = 3.06), and Part 3 (mean = 2.59).

Table 4

Levels of English Self-Efficacy by All Participants

	Descriptive Analysis								
	n Min. Max. Mean SD Rank								
Part 1	101	1.50	4.40	3.06	.606	3			
Part 2	101	2.00	7.86	3.76	.767	1			
Part 3	101	1.00	5.00	2.59	.815	4			
Part 4	101	1.17	5.00	3.23	.716	2			
All	101	1.48	4.45	3.16	.568				

Note. Part 1: perceived abilities; Part 2: aspiration, persistence, and enjoyment; Part 3: writing affect; Part 4: reading affect

Among the four parts of English self-efficacy, specifically speaking, the highest level one (aspiration, persistence, and enjoyment) and the lowest one (writing affect) were also examined and illustrated in Table 5 and Table 6. For the part of aspiration, persistence, and enjoyment, the highest scores (mean = 4.06) were gained for Q59 (When I decide to write something in English, I go ahead and do it) while the lowest ones (mean = 3.59), Q75 (If I can't understand English reading the first time, I keep trying until I can). For the part of writing affect, the highest scores (mean = 2.94) were gained for Q53 (I am not very good at learning how to write English) while the lowest ones (mean = 2.19), Q58 (Sometimes I think that I am no good at writing in English). Apparently, the participants were lack of self-confidence in English writing.

Table 5 presented the different levels of English self-efficacy possessed by the two groups (Group 1= the experimental group; Group 2= the control group). The results showed that the participants of Group1 had a slightly higher level of English self-efficacy for all the parts of the self-efficacy scale and for each specific part, compared with Group 2.

Descriptive Analysis							
Group n Mean SD Std. Error							
All	1	52	3.19*	.58	.087		
	2	49	3.08	.56	.096		
Part 1	1	52	3.06*	.63	.095		
	2	49	3.03	.58	.099		
Part 2	1	52	3.92*	.82	.124		

Table 5

Levels of English self-efficacy by different groups of participants

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	2	49	3.53	.63	.109	
Part 3	1	52	2.64*	.85	.128	
	2	49	2.52	.77	.132	
Part 4	1	52	3.21*	.68	.103	
	2	49	3.19	.77	.131	

Note. *= higher level of English self-efficacy

In order to examine the participants' level of self-efficacy as to how they perceive their English proficiency, a t-test was conducted. The results displayed in Table 6 indicate that there was no significant difference between the two groups (P = .394 > .05). In other words, the two groups did not differ significantly from each other in their level of English self-efficacy.

Table 6

An independent samples t-test of English self-efficacy by the two groups Independent Samples Test

	t	df	Sig. (2-tailed)
All	.858	72.10	.394
Part 1	.232	73.63	.817
Part 2	2.39	75.99	.082
Part 3	.627	73.98	.532
Part 4	.132	66.74	.895

Note. * = p < .05; Part 1: perceived abilities; Part 2: aspiration, persistence, and enjoyment; Part 3: writing affect; Part 4: reading affect.

RQ1. Is there any relationship between the participants' English proficiency and self-efficacious beliefs?

Table 7 illustrates the relationship between English proficiency and English self-efficacy. The results showed that English self-efficacy were positively correlated with English proficiency (r = .353, p = .002 < .01).

Table 7

Pearson correlation coefficient of English self-efficacy and English proficiency

	Correla	tions	
		English	English self-
		Proficiency	efficacy
English Proficie	ncy Pearson Correlati	ion 1	
	Sig. (2-tailed)		
English self-	Pearson Correlation	ion .353**	1
efficacy	Sig.(2-tailed)	.002	
<i>Note</i> . ** <i>p</i> < .01;			

RQ2. Are the participants' self-efficacious beliefs enhanced after the E-book reading activities?

Table 8 presents the ANCOVA results of English self-efficacy by the two groups. The results showed that there were significant differences between the two groups in the levels of self-efficacy after the study (F (1,75) = 7.686, p = .007 < .05). Table 9, moreover, displays that Group 1's mean scores of English self-efficacy were significantly higher than those of Group 2 (p = .007 < .05).

Table 8ANCOVA results of all parts of English self-efficacy

Dependent Variable: self-efficacy							
Source						Partial Eta.	
	Type III S	S df	MS	F	Sig.	Squared	
Corrected Model	16.389 ^a	2	8.195	35.780	.000	.488	
Intercept	4.855	1	4.855	21.198	.000	.220	
Part A Strategies	14.534	1	14.534	63.458	.000	.458	
Group	1.760	1	1.760	7.686	.007**	.093	
Error	17.177	99	.229				
Total	786.457	101					
Corrected Total	33.566	100					

Tests of Between-Subjects Effects

Note. R Squared = .488 (Adjusted R Squared = .475); ***p* < .01.

ruble y results of pured comparison resulting rult ristice Stes								
Paired Comparison								
Dependent Variable: Part A Strategies								
(I) Group (J) Group Mean								
	Difference(I-J)	Std. Error	Sig. ^a					
2	.303**	.109	.007					
1	303**	.109	.007					
•	Pairee e: Part A Strategi	Paired Comparison e: Part A Strategies (J) Group Mean Difference(I-J) 2 .303**	Paired Comparison e: Part A Strategies (J) Group Mean Difference(I-J) Std. Error 2 .303** .109					

Table 9 Results of paired Comparison regarding Part A strategies

Note. ***p* < .01.

RQ3. What are the participants' perceptions about the E-book reading activities?

The students' statements showed that their attitudes towards learning English through E-book reading were positive. From being unconfident to confident, they had more positive feelings about English learning. More importantly, they knew more about how to learn a target language effectively and efficiently in an E-book reading environment. In other words, through E-book reading, the learners had greater control of their own learning, they were able to select their preferred genres, and they became more self-confident in their English learning.

To be more specific about the learners' perceptions, the following statements are direct quotes translated into English from the perception questionnaire.

S1: After reading picture books, I started to read more in English. Before I did not have the confidence to read English books. But now, I think it is OK for me to do so.

S2: When I was a high school student, I had no chance or motive to read English picture books. At first, I thought the picture books were for kids. I should not read them. But after reading them, I began to enjoy reading and to be more involved in English learning.

S3: I always felt stressful when I need to read or write in English. I had learned English for so many years, and I knew learning English was important. However, I did not know how to improve my English. This semester, my teacher asked us to read picture books. At first, I still felt a little bit nervous, but after reading for several times, I took English reading as a kind of habits.

S4: I like speaking English, but I do not like English reading and writing. Reading and writing are not interesting. When I was in high school, I always got bad scores in my English reading and writing. But after reading English picture books, I found them so interesting and appealing. The stories are closer to my life, and the image of the characters are so lovely. I think I would like to read picture books on my own in my free time.

S5: I always think I am not good at English. I try to avoid learning English. But our teacher asked us to read English picture books, and I tried to read on my own. After

several trials, I think English learning is not so intimidating or boring. I feel quite happy that I can read an English story.

Discussions

The levels of English proficiency do make significant differences in the level of English selfefficacy. It could be suggested that more proficient learners usually perform better; therefore, the sense of achievement possibly makes the learners feel more self-confident in their learning. The results above are in accordance with previous studies on language self-efficacy (Bandura & Schunk, 1981; Greene et al., 2004; Shell & Murphy, 1989; Zimmerman & Bandura, 1994) which presented that higher-level English learners are those with higher levels of self-efficacy. Lower-level learners possess rather lower self-confidence in learning a target language. In most cases, they would give up learning easily when facing difficulties. Self-confidence is one of the main factors influencing language learning. From the views of Krashen (1985), a learner's affective domains include motivation, attitude, self-confidence, and anxiety. If an affective filter develops, learning input would be inhibited. On the other hand, if the filter is low, the input would possibly reach the acquisition device and acquisition would take place. While the learners were reading English picture books, their affective filter was low, and they started to engage in active reading and meaningful learning.

Conclusions

Given the above results, the study presents that the participants' levels of English self-efficacy are significantly enhanced after the E-book reading activities, and there is a positive correlation between English self-efficacy and performance. In a technology-assisted context, they show higher levels of confidence in their learning (Chou, 2010). It is certainly not easy to learn a language in an EFL context for the insufficiency of language input and output. EFL learners do not possess a context in which they could obtain enough language input and output and a context in which they could interact with different cultures, including inner subcultures and target cultures. However, fortunately, with the assistance of technology, language learning would not be restricted in a classroom context, but to a larger space in which the learners would have more equitable opportunities for language input and output (Warschauer, 1996); moreover, they interact more with each other (Al-Fadda & Al-Yahya, 2010; Chun, 1994; De Andres Martinez, 2012; Ducate & Lomicka, 2008; Elola, 2010; Goertler, 2009; Huang, 2013; Kern, 1995; Kuzu, 2007; Sharma, Ke, & Xie, 2010; Shih, 2013; Warschauer, 2009; Yang, 2009). They could have more opportunities to expand their horizon and to practice the target language through E-book reading. EFL learners' levels of English self-efficacy would be enhanced in this kind of learning environment which makes their world of language input and output wider and wider.

Implications and Limitations

The findings of this current study at least suggest three pedagogical implications. First of all, for Taiwanese language learners, E-book reading could build up their levels of English self-efficacy or confidence. Secondly, for language teachers, the study presents the possibility of

leading learners to an authentic world full of diverse sorts of resources for them to discover in a more pleasant atmosphere. Most importantly, E-book reading activities could be tailored to meet different types of curricula. Different genres of writing would raise learners' interests, and they could have chances to write for different purposes and contexts. For EFL curriculum designers, lastly, should emphasize the importance of children's literature or picture books.

The limitation, firstly, is the external validity or generalizability of the study. The participants in the present study were not representative enough of the whole Taiwan EFL population to make generalizations from this study. Thus, it is suggested that future researchers include participants from diverse backgrounds. Secondly, the study time was not long enough for investigating in-depth reading or writing performances; therefore, it would be better to have it at least one academic year long in order to explore more about the learners' linguistic performances. All in all, E-book reading activities, more or less, serves as a door for language input and output opportunities and English self-efficacy enhancement.

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