Conceptions of Learning English with Synchronous Online Tutoring: A Case Study in Taiwan

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Abstract
With the advent of information and communication technologies (ICT), an increasing number of educational institutions are incorporating Internet tools in their teaching programs. In Taiwan, for example, private tutoring is now being transformed from face-to-face mode into distance mode. The purpose of this study was to explore 74 college students' (around 20 years old) conceptions of learning English and their self-efficacy in learning English in synchronous online program with native English tutors. The research data were gathered from surveys called the Conceptions of Learning English (COLE) and the Academic Self Efficacy (ASE). The COLE survey included the following seven factors, in a hierarchical order: learning English as "Memorizing," "Testing," "Drills & knowledge," "Grammar, "Communication," "Application," and "Understanding & seeing in a new way." The results of the t test analysis indicated that except students' conceptions of learning English as "testing," their conceptions of learning English as "Memorizing, "Drills & knowledge ," "Grammar, " "Communication," "Application," and "Understanding & seeing in a new way" were significantly improved after the online tutoring program. In addition, students' self-efficacy of learning English was also significantly promoted. Finally, some possible explanations for the results were discussed.

Keywords: Conceptions of learning; Online learning; EFL learning

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Introduction

The popularity of information communication technology over the past two decades has brought about the innovative use of the Internet in language learning and teaching, particularly in the area of English as a foreign language (EFL) (Bañados, 2006; Dashtestani, 2014; Miyazoe & Anderson, 2010). Discussion boards, online chat rooms, blogs, social networks, and learning management system have been integrated in EFL learning and teaching materials for English teachers and learners (Aljumah, 2012; Cantor Barragán, 2009; Ferenz, 2005). Obviously, information communication technology (ICT) has changed the language learning environment. Also, the use of computer-mediated communication has made language learning settings more communicative, interactive and student-centered.

In Taiwan, English education has received a lot of attention. However, it still faces the challenge such as the heavy demand of meeting native speakers of English in schools. Synchronous online tutoring provides students with individual instruction and support from native speakers without time and space constraints. The aim of this paper is to explore students' conceptions of learning English and their academic self-efficacy with the use of synchronous online tutoring in Taiwan.

Literature Review

English education in Taiwan

In Taiwan, official English education starts in the third year of primary education. During primary school years, the focus of English education is on increasing the student's interest in English. Students are encouraged to participate in activities such as singing songs and playing games. However, the class size of approximately 30 students always makes it hard for the teacher to interact with the students.

In secondary education, grades are considered the most important part by both the students and their parents because of the entrance exam competition. The overemphasis on the reading and grammar skills of English tends to leave the students with very little time prating listening and speaking skills. Consequently, students have very little confidence in communicating with native speakers of English.

Higher education in Taiwan includes technical college education and ordinary university education. In either education, English is taught in relatively large classes. Technical colleges tend to focus on business or professional English whereas universities tend to focus on the academic side of English. At this point, the students are no longer under the stress of entrance examinations. Rather, the students spend much time and effort in taking EFL (English as a Foreign Language) tests which are required for many job applications. The students see university education as the last chance to improve their English and hence take English courses to obtain certificates which will be useful in job applications.

Despite English education received a lot of attention in Taiwan, it still faces the challenges such as the heavy demand of meeting native speakers of English in school or social contexts to provide exposure to authentic English.

Conceptions of learning

Conceptions of learning refer to a cluster of interrelated beliefs about different aspects of learning or can be described as students' ideas about the nature of learning (Klatter et al, 2001). Research on learner beliefs about language learning is based on the cognitivist assumption that learning attitudes and behaviors are conditioned by a higher order of mental representations concerning the nature of language and language learning (Benson & Lor, 1999). If learners believe that the best way to learn a foreign language is to memorize its component parts, it seems likely that they will hold more positive attitudes towards vocabulary and grammar learning. On the other hand, if learners believe that the best way to learn a foreign language is to immerse themselves in natural contexts and use it, it is likely that they will hold more positive attitudes towards communication with speakers of the language. Although it is generally acknowledge that learners can learn equally well with their own styles and preferences, it is also assumed that certain attitudes may be more enabling than others. Therefore, if language teachers wish to enhance learners' attitudes, they will need to address the underlying conceptions on which they are based.

Research on conceptions of learning originates in the field of educational psychology within a tradition known as 'Student Approaches to Learning' (SAL) (Watkins, 1996). SAL theory begins from the perspective of the learner and recognizes the importance of the content of the learning task and its context. The emphasis on the learner's perspective is reflected in the view that learning should be seen as a qualitative change in a person's way of seeing, experiencing and understanding something in the real world (Marton, Dall'Alba, & Beaty, 1993).

In Marton and Säljö's study (1976), they asked students to read a passage and then interviewed them to find out what they had learned and how they had approached the learning task. Responses were coded into four categories of content and two categories of processing. Since Marton and Säljö (1976), many related studies have found similar ranges of conceptions of learning (Marton, Dall'Alba, & Tse, 1996; Tsai, 2004; Tsai & Kuo, 2008). Summarizing conclusions from earlier studies, Tsai (2004) referred to seven distinct conceptions of learning as:
A. memorizing
B. Preparing for test
C. Calculating and practicing tutoring problems
D. Increases of knowledge
E. Applying
F. Understanding
G. Seeing in a new way

These seven conceptions are assumed to be ordered hierarchically in relation to approaches as well as outcomes of learning. Conceptions A, B and C are described as quantitative and are associated with surface approaches to and less successful outcomes of learning. Conceptions D, E, F and G are described as qualitative and are associated with deep approaches to and more successful outcomes of learning (Prosser, Trigwell, & Taylor, 1994; Purdie & Hattie, 2002). It is generally found that conceptions of learning are related to approaches to learning (Lee, Johanson, & Tsai, 2008) and learning process, and therefore to learning outcomes (Cano, 2005; Tsai, 2004).

Academic self-efficacy

Self-efficacy is a context-specific assessment of competence to perform a specific task, a judgment of one's capabilities to execute specific behaviors in specific situations (Pajares & Miller, 1994). Social Cognitive Theory assumes that a mixing of external social systems and internal self-influence factors can motivate and regulate behavior (Bandura, 2012; Schunk &Parajes, 2002). Self efficacy (SE) is a major part among these internal factors described as "the belief in one's capabilities to organize and execute courses of action required to produce given attainments" (Bandura, 1997, p. 3). It is concluded that self-efficacy is a powerful motivation construct that strongly predicts academic self-beliefs and performances (Pajares, 2002).

In academic settings, SE is frequently described in terms of Academic Self Efficacy (ASE), which reflects students' judgments about their ability to successfully achieve tasks in the academic domain (Elias & MacDonald, 2007). A wealth of literature exists that highlights the importance of ASE for learning and subsequent academic performance. This relationship has been studied in a range of learning settings, including English writing (Pajares, Johnson, & Usher, 2007), Mathematics (Chen, 2003; Hall & Ponton, 2005; Skaalvik, Federici, & Klassen, 2015), Engineering (Ernst, Bowen, & Williams, 2016; Marra, Rodgers, Shen, & Bogue, 2009), Music (Hewitt, 2015; McPherson & McCormick, 2006), language learning (Magogwe & Oliver, 2007), etc. Many researchers have attempted to uncover what distinguishes successful foreign language learners from less successful ones. It has been suggested that SE has a powerful influence on learners' effort and achievement (Zajacova, Lynch, & Espenshade, 2005).

Research questions
The purpose of this study was to explore the use of synchronous online tutoring in a medical college in Taiwan. Students' conceptions of learning English as well as their self-efficacy in learning English were investigated before and after the use of synchronous online tutoring. Specific questions explored in the study include the following:
1. What are the college students' self-efficacy in learning English and conceptions of learning English?
2. Can students significantly improve their self-efficacy in learning English via synchronous online tutoring?
3. Will students' conceptions of learning English be influenced via the use of synchronous online tutoring?

Method

Subjects

The sample included 74 students from a medical college in central Taiwan. Among them were 56 females and 18 male students. Their average age is 20.7. These students participated in the programs of synchronous online tutoring on a voluntary basis for a semester. They took the online course two hours once a week.

Instruments for assessing students' conceptions of learning

A Chinese version of COLE questionnaire developed by Chuang (2015) was administered to assess students' conceptions of learning before and after the experience of online tutoring. A detailed description of the COLE questionnaire seven scales is presented below:

1. Memorizing: Learning English is seen as the memorization of vocabularies or word usages, etc; e.g. Learning English means memorizing new vocabulary and pronunciation rules.
2. Testing: Learning English is to pass the examinations or to get high scores in English tests; e.g. Learning English means getting high scores on examinations.
3. Drills and increasing knowledge: English learning is viewed as lots of exercises and accumulation of English language knowledge; e.g. I think that taking exercises will help me improve my performance in English courses.
4. Grammar: Learning English is perceived as learning grammar rules; e.g. Learning English means knowing a lot of grammar rules.
5. Applying and communication: Learning English means learning how to apply language skills I already have to resolve problems; e.g. Learning English means learning how to apply language skills I already have to resolve problems.
6. Communication with foreigners: Learning English is learning skills necessary to communicate and interact with people from different countries.
7. Understanding and seeing in a new way: English learning is viewed in terms of understanding people from other cultures and getting a new perspective; e.g. Learning English helps me view other cultures and social events in new ways.

The questionnaire consists of bipolar agree and disagree statements on a 7-1 Likert scale. Students' responses were scored as follows: the 'strongly disagree' response was assigned a score of 1, while the 'strongly agree' response was assigned a score of 7. All of these scales were designed to investigate students' conceptions of learning English. The conception of learning in EFL survey contains 4 items for "memorizing" factor (Alpha=0.82), 7 items for "testing" factor (Alpha=0.90), 6 items for "drills and increasing knowledge" factor (Alpha=0.74), 2 items for "grammar" factor (Alpha=0.92), 3items for "communication with foreigners" factor (Alpha=0.82), 3 items for "application" factor (Alpha=0.77) and 8 items for "understanding & seeing in a new way" factor (Alpha=0.92). In Chuang (2015) version of COLE Survey, the *Drills and practices* factor is combined to *Increasing kn*owledge, and the factors of *Understanding* and *seeing in a new way* were merged into one factor. In addition, two new factors named *Grammar* and *Communication with foreigners* emerged from the factor of *Drills and practices* and the factor of *Application*, respectively. The alpha value of the whole questionnaire is 0.85, and these factors explained 66.68% of the total variance.

The academic self-efficacy survey (ASE) modified by Chuang (2015) contains 9 items. The Cronbach's alpha is 0.95, and it explained 73.34% of the total variance. Therefore, the survey could be viewed as a valid instrument sufficiently examining learners' academic self-efficacy. A sample item was, "When I take English courses, I am confident that I can perform well on any tasks."

Results

Students' mean scores on the two surveys

Table 1 presents students' average total scores and standard deviations on the self-efficacy and seven subscales in the COLE. In the self-efficacy scale, students' mean score was 4.49, which was above the value of 3.5, the mean of 1-7 likert scale. These students, on average show high self-efficacy in learning English. In the COLE scale, students scored highest on the Understanding & Seeing in a new way subscale (an average of 4.85 per item) and followed by the Grammar subscale (an average of 4.84 per item), the Application subscale (an average of 4.80 per item), and the Communication subscale (an average of 4.64 per item). These results imply that students, in general, tended to appreciate the understanding and communication aspects of language learning. The relatively lower scores on the Testing and Memorizing subscales suggest that only some of the students might become focused either on passing tests or memorizing rules rather than learning to improve their language skills.

Table 1: Students Scores on the COLE and Self-efficacy

Factor	Items	Possible Range	Range (actual)	Mean	S.D.
Memorizing	4	1-7	1-6.5	3.71	1.54
Testing	7	1-7	1-7	3.37	1.42
Drills & Knowledge	6	1-7	1-7	4.59	1.47
Grammar	2	1-7	1-7	4.84	1.66
Communication	3	1-7	1-7	4.64	1.71
Application	3	1-7	1-7	4.80	1.72
Understanding & Seeing in a new way	8	1-7	1-7	4.85	1.67
Self-efficacy	9	1-7	1-7	4.49	1.50

The Correlations between Factors of the Two Surveys

In order to acquire the quantitative results about the interplay between students' conceptions of learning and self-efficacy, the relationships between students' responses on SE questionnaire and their scores on the COLE scale were explored; the correlation coefficients are also presented. Table 2 describes the correlations among the factors resulting from each survey. Factors in students' conceptions of leaning in EFL consisted of *Memorizing, Testing, Drills and practices & Increasing knowledge*, *Grammar, Communication with foreigners, Application*, and *Understanding & seeing in a new way* in the current study. The outcome indicated that all the factors were positively and significantly related to each other ($r = 0.34$ to 0.86, $p<0.05$).

In a similar fashion, academic EFL self-efficacy was found to be positively related to conceptions of learning ($r = 0.25$ to 0.73, $p <0.05$). It is worth noticing that "testing" seemed to play the least important role in academic self-efficacy ($r = 0.25$, $p <0.05$) while "understanding & seeing in a new way" play the most important role in academic self-efficacy ($r = 0.73$, $p <0.01$).

Table 2: The correlations among the subscales of the two surveys

	MEM	TES	DRI	GRA	COM	APP	UND	ASE
MEM	1	0.70**	0.55**	0.45**	0.47**	0.62**	0.51**	0.34**
TES	0.70**	1	0.46**	0.45**	0.37**	0.46**	0.44**	0.25*
DRI	0.55**	0.46**	1	0.75**	0.67**	0.70**	0.65**	0.59**
GRA	0.45**	0.45**	0.75**	1	0.82**	0.75**	0.75**	0.55**
COM	0.47**	0.37**	0.67**	0.82**	1	0.86**	0.73**	0.47**
APP	0.62**	0.50**	0.69**	0.75**	0.86**	1	0.84**	0.54**
UND	0.51**	0.44**	0.65**	0.75**	0.73**	0.84**	1	0.73**
ASE	0.34**	0.25*	0.59**	0.55**	0.47**	0.54**	0.73**	1

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

Note: MEM: *Memorizing;* TES: *Testing;* DRI: *Drills & Knowledge;* GRA: *Grammar;* COM: *Communication;* APP: *Application;* UND: *Understanding and seeing in a new way;* ASE: *Academic self-efficacy*

Differences on the two scales before and after the online tutoring

This study further compared students' score on the self-efficacy and the seven subscales of the COLE before and after they had experienced the online tutoring program. Paired t tests were used to examine differences between student scores before and after the online tutoring. Table 3 reveals that students' score on the conception of learning English as "Testing" did not show statistical differences at the 0.05 significance level. That is, the students perceived similar levels of the "Testing" conception before and after the online program, and their lower scores suggested that only some of them considered that learning English is passing tests. However, on the other subscales of COLE, students expressed statistically higher scores after the online tutoring programs. In other words, the conceptions of "Memorizing," "Drills & Knowledge," "Grammar," "Communication," "Application," "Understanding & seeing in a new way" were improved. Their academic self-efficacy was also enhanced.

Table 3: Paired t tests for the subscales of the two surveys

	Pre-test Score		Post-test Score		
	Mean	S.D	Mean	S.D	T-test
Memorizing	3.71	1.54	4.25	1.39	-2.14*
Testing	3.37	1.42	3.83	1.40	-1.82
Drills & Knowledge	4.59	1.47	5.49	1.00	-4.41***
Grammar	4.84	1.66	5.48	1.05	-2.66*
Communication	4.64	1.71	5.42	1.05	-3.34**
Application	4.80	1.72	5.76	0.83	-4.17***
Understanding & Seeing in a new way	4.85	1.67	5.77	0.88	-4.24***
Self-Efficacy	3.71	1.54	4.25	1.39	-3.04**

*$p<.05$, **$p<.01$, ***$p<.001$

Discussion and Conclusion

Situated in a Chinese EFL context, the present study aimed to explore the use of synchronous online tutoring in a medical college in Taiwan. Students' conceptions of

learning English as well as their self-efficacy in learning English were investigated before and after the use of synchronous online tutoring. By gathering 74 students' responses of the COLE and SE scales, this study attempted to shed light on the combination of language learning and ICT that can enhance college students' language learning.

When investigating students' self-efficacy and conceptions of learning English, it was found that students generally showed high self-efficacy in learning English. In addition, they attained the highest score on the conception of "understanding & seeing in a new way" and the lowest score on the conception of "testing." This result indicated that most students considered English learning as an important means for understanding foreign cultures and broadening their perspectives of the worlds. However, some of them still associated English learning with taking tests. As studies (Rezazadeh & Tavakoli, 2009; Young, 1986; Zhang, Liu, Zhao, & Xie, 2011) reported that test anxiety affected language learners' performance negatively, language educators are therefore suggested to adopt multiple assessment methods and avoid traditional tests when evaluating students' learning in EFL classrooms.

This study further revealed that there were some relationships between student conceptions of learning English and self-efficacy in learning English. By and large, students' conceptions of learning were positively related to their self-efficacy. The interaction between factors in COLE and SE indicated that "testing" seemed to play the least important role in academic EFL self-efficacy while "understanding & seeing in a new way" played the most important role in academic EFL self-efficacy.

It is also encouraging to find that students' self-efficacy was significantly improved after the online tutoring. In Honicke and Broadbent (2016) review about ASE, it is suggested that ASE is a highly malleable construct that is influenced by the learning environment, can influence both academic performance and positive learning emotions associated with academic success. According to Mahyuddin et al. (2006), self efficacy was enhanced when students perceived they performed well. Therefore, teachers are suggested to provide students with this kind of learning activities to help language learners improve self-confidence and eventually self-efficacy.

This study was not conducted with an experimental research design in place; hence, it is limited to correlation analyses between students' conceptions of learning English and academic self-efficacy. However, this research strongly suggests that student conceptions of learning were an essential component in determining students' academic self-efficacy and vice versa. The main thrust of the findings derived from this study indicated that language teachers need to be highly aware of students' conceptions of learning when designing online learning experiences.

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