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## STUDENT LEARNING, CHILDHOOD & VOICES | RESEARCH ARTICLE

# Interactive effects of English-speaking anxiety and strategy use on oral English test performance of high- and low-proficient Chinese university EFL learners

Meihua Liu<sup>1\*</sup>

**Abstract:** This study investigated the interactive effects of English-speaking anxiety and strategy use on oral English test performance of high- and low-proficient Chinese university EFL learners. In total, 1092 first-year undergraduates answered the English-speaking Anxiety Scale (ESAS), the Oral Communication Strategy Inventory (OCSI) and other questionnaires, and took the English-speaking test. Based on test scores, data gathered from 178 low- and 214 high-proficient students were used in the study. The results were: (1) the low-proficient students were significantly more apprehensive of negative evaluation and speech communication than their high-proficient counterparts. Meanwhile, they deployed social affective, fluency-oriented, meaning-negotiating, and message reduction and alteration strategies significantly less frequently while message abandonment strategies, nonverbal strategies and strategies of attempting to think in English significantly more often; (2) ESAS and OCSI scales were significantly interrelated for both groups, and (3) both ESAS and OCSI were good predictors for English-speaking test performance for both groups.

### ABOUT THE AUTHOR

Dr. Meihua Liu is associate professor of Applied Linguistics at the Department of Foreign Languages and Literatures, Tsinghua University, China. Her research interests mainly include EFL teaching and learning, reticence and anxiety, EFL writing, and International education. Presently she is working on citation practices in research papers written by Chinese undergraduate and postgraduate EFL learners. The present paper reports on the results of a study on interactive effects of English speaking anxiety and strategy use on oral English test performance of high- and low-proficient Chinese university EFL learners.

### PUBLIC INTEREST STATEMENT

To many second/foreign language (SL/FL) learners, it is terrifying to speak the SL/FL, especially in front of others. This study examined the interactive effects of English-speaking anxiety and strategy use on oral English test performance of high- and low-proficient Chinese university EFL learners. The data gathered from 178 low- and 214 high-proficient students showed that (a) the low-proficient students were significantly more apprehensive of negative evaluation and speech communication than their high-proficient counterparts, they deployed more effective strategies significantly less frequently but less effective strategies significantly more often; (b) English-speaking anxiety scales (ESAS) and oral communication strategy inventory (OCSI) were significantly interrelated for both groups, and (c) both ESAS and OCSI were good predictors for English-speaking test performance for both groups. These findings further attest to the importance of anxiety and strategy use in SL/FL learning.

**Subjects: Interpersonal Communication; Higher Education; Study Skills; Language Teaching & Learning**

**Keywords: speaking anxiety; strategy use; effect; proficiency; test performance**

## 1. Introduction

The importance of foreign language anxiety (FLA) in second/foreign language (SL/FL) learning has long been recognized (Dewaele & MacIntyre, 2014; Horwitz, Horwitz, & Cope, 1986; Liu, 2016, 2018; MacIntyre & Gardner, 1991, 1994a; Zhang & Liu, 2013). It is the same with language learning strategies (Chu, 2008; Liu & Thondhlana, 2015; Lu & Liu, 2015; Nakatani, 2006). Even so, most studies focus on general FLA or strategy use, research on specific types of FLA and language strategy use is far from sufficient, as reviewed below. Moreover, research shows that FLA works with language strategy use to impact the learning of an SL/FL (Liu & Chen, 2014; Lu & Liu, 2015; Oxford, 1990). Nevertheless, future research is called for to explore the interrelations of the two considering the complex nature of SL/FL learning. Furthermore, the interrelations of language task-specific (namely, speaking, listening, reading and writing tasks, etc.) anxiety and strategy use, and their effects on learning outcomes are under-researched (Huang & Van Naerssen, 1987; Liu, 2016; Liu & Thondhlana, 2015; Nakatani, 2006; Zhang & Liu, 2013). In particular, though speaking activities are acknowledged to be the most anxiety-provoking and caught most attention of researchers, speaking strategies are much under-researched, and little research can be found on the interaction of FL speaking anxiety and strategy use, as reviewed below.

In addition, proficiency is influential in mediating SL/FL learners' anxiety levels and strategy use frequencies (Bremner, 1999; Dewaele & Tsui, 2013; Han, 2014; Liu, 2016). It is the same with oral English test anxiety and English-speaking strategy use (Zhang & Liu, 2013) and English listening anxiety and strategy use (Liu & Thondhlana, 2015). Even so, the findings need to be further confirmed in more research. Meanwhile, whether it is the same with other specific types of SL/FL anxiety and strategy use needs to be further researched.

Consequently, the quantitative research aimed to examine the interactive effects of English-speaking anxiety and strategy use on Chinese undergraduate EFL (English as an FL) learners' performance in an oral English test.

## 2. Literature review

### 2.1. FL speaking anxiety

Anxiety research started with native speakers when psychologists noted that people displayed anxiety in different situations such as driving, testing and stage performance. Spielberger (1972, p. 12) described anxiety as "an emotion based on the appraisal of threat, an appraisal that entails symbolic, anticipatory, and other uncertain elements". Rachman (1998, p. 2) referred to anxiety as "a feeling of uneasy suspense". As signified by these definitions, anxiety occurs when people are not sure of the coming event, when they are aware that their performance is to be evaluated, when they worry about the consequence of an event, and/or when they feel uncomfortable or threatened in a situation (Rachman, 1998; Spielberger, 1972). It seems that anxiety is not good. Nevertheless, as discussed in Goodwin (1986), anxiety could be good for people because it built character, enhanced creativity and enlarged awareness of life's possibilities, while abnormal anxiety was not good.

Then, language educators and researchers found that SL/FL learners displayed greater anxiety in SL/FL learning. Research on anxiety in SL/FL learning of the early time often drew on Spielberger's (1972) Trait-State theory of anxiety (state anxiety is transitory and trait anxiety is stable) and adopted or adapted the State-Trait Anxiety Inventory (STAI) designed by Spielberger (1972), interviews, self-designed questionnaires, and/or other methods to measure anxiety levels in SL/FL learning (Scovel, 1978). Mixed findings were revealed at the time due to the lack of widely

agreed definition of foreign language anxiety (FLA) and data-collection methods (Scovel, 1978). Scovel (1978) thus urged researchers to specify the type of anxiety they were measuring. Since then, acknowledging that FLA is situation-specific and often makes an individual less responsive to language input (Krashen, 1982), researchers have been cautious in specifying the type of FLA they study (Gardner, 1985; Horwitz et al., 1986; MacIntyre & Gardner, 1991, 1994b; Zhang & Liu, 2013). For example, Tobias (1979) explained the cognitive effects of FLA on formal classroom learning which divided learning into three stages: input, processing and output. Based on this model, MacIntyre and Gardner (1994b) proposed three scales: Input Anxiety Scale, Processing Anxiety Scale, and Output Anxiety Scale to measure SL anxiety at input, processing and output stages. Gardner's (1985) socio-educational theory on motivation included French class anxiety. Horwitz et al. (1986) advanced the foreign language classroom anxiety theory to explain students' emotional reactions to FL learning and developed the corresponding Foreign Language Classroom Anxiety Scale (FLCAS). What is common in these definitions and measures is that FLA is associated with fear of negative evaluation and the fear of making mistakes.

Of various types of FLA, SL/FL speaking anxiety has been researched the most extensively, which stemmed from research on public speaking anxiety in the native language. As a form of situation-specific anxiety, public speaking anxiety has long merited researchers' attention and been measured in terms of the STAI scale (and)/or the Personal Report of Communication Apprehension (Behnke & Sawyer, 1999; MacIntyre & MacDonald, 1998). The studies reveal that trait anxiety is relatively stable but state anxiety is dynamic and that public speaking anxiety negatively affects public speaking performance.

Speaking publicly in a SL/FL has proved to be particularly anxiety-provoking for many learners, even those who feel (fairly) comfortable when learning other aspects of the SL/FL (Dewaele & Alfawzan, 2018; Gregersen & Horwitz, 2002; Gürsoy & Akin, 2013; Hilleson, 1996; Horwitz et al., 1986; MacIntyre & Gardner, 1994b; MacIntyre & MacDonald, 1998). SL/FL speaking anxiety involves communication apprehension and fear of negative evaluation (Gregersen & Horwitz, 2002; MacIntyre & Gardner, 1994b). Communication apprehension refers to the shyness indicative of the fear of or anxiety about interpersonal communication (Horwitz et al., 1986, p. 127). Fear of negative evaluation is the fear of being negatively evaluated by others (Horwitz et al., 1986). People who often consider themselves intelligent and socially competent in their mother tongues often become nervous when communicating in an SL/FL because of uncertain, unexpected or unknown linguistic and socio-cultural standards (Horwitz et al., 1986). People fearful of negative evaluation seldom start conversations and interact little (Gregersen & Horwitz, 2002). SL/FL speaking anxiety has often been measured by the FLCAS, self-developed interviews based on the FLCAS, and/or diaries (Dewaele & Al-Saraj, 2015; Dewaele & Tsui, 2013; Gregersen & Horwitz, 2002; Gregersen, Meza, & MacIntyre, 2014; Hilleson, 1996; Horwitz et al., 1986; Liu, 2018; Liu & Jackson, 2008; MacIntyre & Gardner, 1989, 1991, 1994a, 1994b; Mak & White, 1997; Phillips, 1992). As MacIntyre and Gardner (1989) study indicated that anxiety led to deficiency in learning and performance, there is a persistent inverse relationship between language anxiety and students' (test) performance (Gregersen & Horwitz, 2002; Gregersen et al., 2014; Liu, 2018, 2016; Phillips, 1992; Zhang & Liu, 2013). FLA probably causes some students to be more reluctant or afraid to speak or participate in oral communication activities (Gregersen & Horwitz, 2002; Hilleson, 1996; Horwitz et al., 1986; Liu, 2018; Tsui, 1996). The less/low anxious learners tend to be more confident and their speech also tends to be more fluent (Liu, 2016; MacIntyre & Gardner, 1991; Tsui, 1996). High-anxious students use such expressions as "nervous", "intimidated", "tense", and "worried" to depict their emotional reactions to public speaking in an FL/SL, especially in an evaluative situation (Hilleson, 1996; Phillips, 1992). Meanwhile, studies show that SL/FL speaking anxiety might be related to diverse variables such as attitudes towards mistakes and errors (MacIntyre & Gardner, 1989, 1991; Mak & White, 1997); learning style and learning strategies (Liu & Chen, 2014; Lu & Liu, 2015; Young, 1991), confidence and self-esteem (MacIntyre & Gardner, 1991; Mak & White, 1997), peer pressure (Gregersen & Horwitz, 2002; Liu, 2016), teaching style (Mak & White, 1997), preparation (Mak & White, 1997), and proficiency in the SL/FL (Hilleson, 1996; Tsui, 1996).

## 2.2. Foreign language speaking strategy use

Language learning strategies refer to “techniques, approaches or deliberate actions that students take in order to facilitate the learning and recall of both linguistic and content area information” (Chamot, 1987, p. 71). They are also “the behaviors and thoughts that a learner engages in during learning that are intended to influence the learner’s encoding process” (Weinstein & Mayer, 1986, p.315). Scholars and educators have long recognized the roles of learning strategies in SL/FL learning (Chu, 2008; Green & Oxford, 1995; Huang, 2010; Liu & Thondhlana, 2015; Nakatani, 2006; Politzer & McGroarty, 1985).

To measure strategy use in SL/FL learning, Oxford (1990) designed the Strategy Inventory for Language Learning (SILL), which has been widely employed in empirical studies and achieved high reliability and validity (Bremner, 1999; Chu, 2008; Oxford & Burry-Stock, 1995). It is found that strategies are utilized by students to diverse degrees in SL/FL learning, that strategy use facilitates SL/FL learning, that good SL/FL learners employ more effective learning strategies, and that strategy use interacts with different variables like anxiety, proficiency in SL/FL, motivation, personality, and learning style. Much research on the interrelation between FLA and language strategy use can be found (Chu, 2008; Gürsoy & Akin, 2013; Liu & Thondhlana, 2015; Lu & Liu, 2015). For example, Chu’s (2008) study of 364 university students using the FLCAS and SILL as well as other questionnaires showed that students with higher anxiety tended to employ effective strategies less. In order to examine the relationship between FL listening anxiety, listening proficiency and listening metacognitive strategy use, Han (2014) collected questionnaire and interview data from 95 year-2 university EFL learners. The researcher found that low anxious students were more likely to utilize more planning, monitoring and evaluation strategies, thus becoming more proficient English listeners. Yet little difference in listening metacognitive strategy use was observed between intermediate and high anxious students. Lu and Liu (2015) explored the relationships between FL reading anxiety, FL reading strategy use and their interactive effect on the FL reading comprehension performance of 1702 Chinese university students. The researchers found that FL reading anxiety was significantly negatively correlated with FL reading strategy use, and that overall FL reading anxiety, general anxiety about FL reading, and FL predicting strategies powerfully predicted students’ performance in the FL reading comprehension test.

As more research has been done on language learning strategy use, researchers came to realize that SILL mainly measures general strategy use in SL/FL learning while learners use strategies differently according to specific language learning tasks (Green & Oxford, 1995; Han, 2014; Lu & Liu, 2015; Nakatani, 2006, 2010; Oxford, 1990). Yet not much research on the use of strategies related to a specific SL/FL can be found. It is the same with FL speaking strategy use (Chwo, Jonas, Tsai, & Chuang, 2010; Huang, 2010; Lopez, 2011; Maleki, 2007; Nakatani, 2006; Razmjoo & Ardekani, 2011). As defined in Faerch and Kasper (1983, p. 36), speaking or communication strategies (CSs) are “potentially conscious plans for solving what to a participant in a communicative exchange presents itself as a problem in reaching a particular communicative goal”. Tarone (1980, p. 420) defined CSs as “mutual attempts of two interlocutors to agree on a meaning in a situation where the requisite meaning structures do not seem to be shared”. Researchers generally group CSs into two categories: achievement or compensatory strategies and reduction or avoidance strategies (Dörnyei & Scott, 1997; Faerch & Kasper, 1983; Nakatani, 2006). Achievement or compensatory strategies enable students to figure out other plans to achieve the initial goal via whatever available resources, while reduction or avoidance strategies allow students to avoid handling a speech problem or conveying the original message. To measure CS use, researchers often use self-reported inventories (Huang & Van Naerssen, 1987; Nakatani, 2006; Zhang & Goh, 2006), which are often criticized for lacking validity and/or being unrelated to FL speaking tasks (Nakatani, 2006). Hence, Nakatani (2006) designed the Oral Communication Strategy Inventory (OCSI), which included eight types of strategies for dealing with speaking problems and seven types of dealing with listening problems during communication. Nakatani (2006) tested the validity of OCSI in different ways and found that learners of high proficiency were more likely to employ specific speaking strategies like social affective and fluency-oriented

strategies. In Zhang and Liu (2013) investigation of the effects of oral test anxiety and speaking strategy use on oral English performance, 1697 and 493 Chinese university EFL learners filled in the OCSI (speaking part) and other measures, respectively. The study showed that speaking strategies both negatively and positively affected the participants' oral test performance and that oral test anxiety was significantly related to speaking strategy use frequencies. The study also revealed that high proficient learners utilized more effective speaking strategies more frequently.

### 3. Rationale for the present study

As reviewed, both foreign language anxiety and strategy use play influential roles in SL/FL learning. Empirical research further shows that both change depending on SL/FL language-specific tasks like listening, reading, speaking and writing (Han, 2014, Liu, 2016, 2018; Lu & Liu, 2015; Nakatani, 2006; Oxford, 1990). Surprisingly, research on task-specific anxiety and strategies and their interactions is not sufficient (Liu & Thondhlana, 2015; Lu & Liu, 2015; Nakatani, 2010). In particular, though speaking activities are acknowledged to be the greatest source of anxiety and has caught most attention of researchers, speaking strategies are much under-researched, and little research can be found on the interaction of FL speaking anxiety and strategy use, as reviewed above. In addition, as discussed in Liu (2016, 2018)), proficiency mediates anxiety levels and strategy use frequencies in the learning of a SL/FL, such as oral English test anxiety and English-speaking strategy use (Zhang & Liu, 2013) and English listening anxiety and strategy use (Liu & Thondhlana, 2015). Even so, the findings need to be further confirmed in more research. Meanwhile, whether it is the same with other specific types of FL anxiety and strategy use needs to be further researched. Moreover, the reviewed literature shows that great difference in FLA levels and/or language strategy use frequencies often exists between low- and high-proficient learners (Han, 2014; Zhang & Liu, 2013). Hence, the present quantitative research, focusing on high- and low-proficient Chinese university EFL students, sought to investigate the interactive effects of English-speaking anxiety and strategy use on students' performance in an oral English test. And the research aimed to answer the following questions:

- (1) Is there any difference in English-speaking anxiety and strategy use frequency between low- and high-proficient students?
- (2) How do English-speaking anxiety and strategy use relate to each other for high- and low-proficient students, respectively?
- (3) How do English-speaking anxiety and strategy use predict English-speaking test performance?

## 4. The present research

### 4.1. Participants

The present research was conducted in a university in Beijing, 1092 of whose first-year undergraduate EFL learners participated in the study. With an average age of 18.47 and an age range of 17 to 23, the participants were from diverse disciplines such as Mathematics, Architecture, Software Engineering, Computer Engineering, and International Politics.

### 4.2. Instruments

The data in the research were collected via the following methods: the 17-item English-speaking Anxiety Scale, the 32-item Oral Communication Strategy Inventory (speaking part) (OCSI) (Nakatani, 2006), a background information questionnaire, and an English-speaking test, as elaborated below.

#### 4.2.1. The English-speaking anxiety scale

To measure respondents' English-speaking anxiety levels, the FLCAS designed by Horwitz et al. (1986) was modified in the present research. As proposed in Horwitz et al. (1986) and supported in subsequent research (Liu & Jackson, 2008), the FLCAS has three dimensions: fear of negative

evaluation (FLCAS1) which covers 10 items reflective of fear of making mistakes and/or being negatively evaluated in FL class, communication apprehension (FLCAS2) which includes seven items suggestive of the fear of speaking a FL in class, and test anxiety (FLCAS3) which involves two items expressing feelings about tests in the FL. Since communication apprehension and fear of negative evaluation are critical dimensions of public speaking anxiety (Gregersen & Horwitz, 2002; MacIntyre & Gardner, 1994b), only items covering FLCAS1 and FLCAS2 were used in the present study, with “foreign languages” being changed to be “English” in all items. Thus, the resulted English-speaking Anxiety Scale (ESAS) in the present study had 17 items and two components: 10-item ESAS1 (fear of negative evaluation) indicating fear of making mistakes and/or being negatively evaluated when speaking English, and 7-item ESAS2 (communication apprehension) suggestive of the fear of speaking English.

#### 4.2.2. Oral communication strategy inventory (speaking part)

The 32-item Oral Communication Strategy Inventory (speaking part) (OCSI) developed by Nakatani (2006) was used in the present study to address strategies for coping with speaking problems. As analyzed in Nakatani (2006) and Zhang and Liu (2013), OCSI has eight dimensions: the 6-item OCSI1 (social affective strategies), the 6-item OCSI2 (fluency-oriented strategies), the 5-item OCSI3 (accuracy-oriented strategies), the 4-item OCSI4 (negotiation for meaning while speaking strategies), the 4-item OCSI5 (message abandonment strategies), the 3-item OCSI6 (message reduction and alteration strategies), the 2-item OCSI7 (nonverbal strategies while speaking), and the 2-item OCSI8 (strategies of attempting to think in English).

Both the ESAS and the OCSI were 5-point Likert scales, with each item having five alternatives. The five descriptors ranged from “strongly disagree” to “strongly agree” for ESAS items, and from “never or almost never true of me” to “always or almost always true of me” for OCSI items, with values of 1–5 assigned to the alternatives, respectively. The reliability of the two scales was computed (see Table 1).

#### 4.2.3. Background information questionnaire

The Background Information Questionnaire intended to gather such information about the respondents as gender, discipline and age.

**Table 1. Characteristics of instruments (N = 1092)**

	No. of items	Reliability	Mean item-total correlation ( $p = .01$ )
ESAS1	10	.81	.298
ESAS2	7	.784	.342
ESAS	17	.882	.305
OCSI1	6	.823	.356
OCSI2	6	.843	.315
OCSI3	5	.783	.278
OCSI4	4	.771	.189
OCSI5	4	.801	.305
OCSI6	3	.79	.301
OCSI7	2	.728	.273
OCSI8	2	.762	.254
OCSI	32	.874	.178

**Notes:** ESAS1 = fear of negative evaluation; ESAS2 = communication apprehension; OCSI1 = social affective strategies; OCSI2 = fluency-oriented strategies; OCSI3 = accuracy-oriented strategies; OCSI5 = message abandonment strategies; OCSI4 = negotiation for meaning while speaking strategies; OCSI6 = message reduction and alteration strategies; OCSI7 = nonverbal strategies while speaking; OCSI8 = attempt to think in English strategies; coefficient of determination: small =  $r \leq 0.1$ ; medium =  $r = 0.3$ ; large =  $r \geq 0.5$  (Cohen, 1988)

#### 4.2.4. *The English-speaking test*

The English-speaking test consisted of two parts: a 1-minute teacher-student conversation and a 3-minute student-student interaction in which a dialogue in pairs on a topic chosen on their own was required. The test was holistically scored on the scale of 1–20.

#### 4.3. *Procedure*

The research was conducted in weeks 15–16 of the 18-week term when around 1600 first-year undergraduates were required to take an English-speaking test. Students formed pairs and took the speaking test by turn. While waiting for the speaking test, they were invited to complete the survey which was translated into Chinese and double-checked, as well as a consent form. The test was then scored by the instructor and the researcher, with an inter-rater reliability score of .92. Of collected questionnaires, 1092 were complete for further analyses.

#### 4.4. *Data analysis*

The collected data were analyzed by using SPSS 20. Test scores were computed in terms of mean and standard deviation to differentiate the respondents into high-, intermediate- and low-proficient groups. Means and standard deviations of ESAS and OCSI scales were computed to identify the general pattern of English-speaking anxiety levels and strategy use frequencies of low- and high-proficient students. Independent samples t-tests were then conducted to examine the differences in the measured scales between low- and high-proficient students. Correlation and regression analyses were then run to explore the relationship between English-speaking anxiety and strategy use and their effects on respondents' English-speaking test performance.

### 5. *Findings*

Analyses of the test scores indicated that the respondents scored 9 to 19.5 in the speaking test, with a mean of 13.51 and a standard deviation of 2.04. Based on these scores (mean plus or minus 1 standard deviation), the respondents were divided into low-proficient ( $9 \leq \text{scores} < 11.47$ ), intermediate-proficient ( $11.47 \leq \text{scores} < 15.55$ ), and high-proficient ( $15.55 \leq \text{scores} \leq 19.5$ ) groups. In total, 178 (16.3%) of the respondents fell in the low-proficient group, 700 (64.1%) were in the intermediate-proficient group, and 214 (19.6%) were in the high-proficient group.

#### 5.1. *Differences in English-speaking anxiety level and strategy use frequency between low- and high-proficient learners*

To examine the differences in English-speaking anxiety level and strategy use frequency between low- and high-proficient learners, means and standard deviations of ESAS and OCSI scales were computed. A higher ESAS score indicated a higher speaking anxiety level, and a higher OCSI score suggested a higher speaking strategy use frequency. The results are presented in Table 2, which shows that the low-proficient group scored higher on ESAS1, ESAS2, OCSI5, OCSI7 and OCSI8 but lower on other OCSI scales than their high-proficient counterparts. As seen in Table 2, statistically significant differences occurred between the two groups in all scales except OCSI3, with a medium but to the lower end effect size. This suggests that the low-proficient learners were significantly more apprehensive of being negatively evaluated (ESAS1) and anxious (ESAS2) when speaking English than their high-proficient peers. Meanwhile, they deployed social affective (OCSI1), fluency-oriented (OCSI2), meaning-negotiating (OCSI4), and message reduction and alteration strategies (OCSI6) significantly less frequently while message abandonment strategies (OCSI5), nonverbal strategies (OCSI7) and strategies of attempting to think in English (OCSI8) significantly more often than their high-proficient peers.

#### 5.2. *Relations between English-speaking anxiety and strategy use scales*

To examine the interrelation between English-speaking anxiety and strategy use, correlation analyses were conducted between ESAS and OCSI scales for the low- and high-proficient learners, respectively. The results are summarized in Table 3 (To avoid Type I errors, Bonferroni correction was carried out in the analyses, with the threshold of  $p$  lowered from .05 to be at .005 and from .01 to be at .001.).

**Table 2. Means and standard deviations of ESAS and OCSI scales for low- and high-proficiency groups**

	Low-proficiency (N = 178)		High-proficiency (N = 214)		t-test results		
	Mean	SD	Mean	SD	t	p	Effect size (Cohen's d)
ESAS1	2.85	.735	2.53	.582	2.61	.022	.26
ESAS2	3.13	.802	2.71	.564	2.84	.001	.29
OCSI1	3.36	.685	3.77	.647	-2.67	.000	.27
OCSI2	3.33	.791	3.58	.704	-2.38	.031	.24
OCSI3	3.34	.603	3.45	.534	-.106	.795	/
OCSI4	3.19	.781	3.51	.649	-2.91	.001	.29
OCSI5	3.13	.647	2.87	.582	3.33	.001	.34
OCSI6	3.21	.757	3.63	.801	-3.88	.000	.39
OCSI7	3.43	.841	3.13	.794	2.88	.001	.29
OCSI8	3.27	.876	3.03	.761	2.38	.034	.24

Notes: effect size of Cohen's d: small =  $d \leq 0.2$ ; medium =  $d = 0.5$ ; large =  $d \geq 0.8$  (Cohen, 1988)

**Table 3. Correlations between ESAS and OCSI scales**

	Low-proficient group (N = 178)		High-proficient group (N = 214)	
	ESAS1	ESAS 2	ESAS 1	ESAS 2
OCSI1	-.331** .000	-.456** .000	-.320* .000	-.300** .000
OCSI2	-.421** .000	-.481** .000	-.598** .000	-.641** .000
OCSI3	-.280** .000	-.403** .000	-.427** .000	-.517** .000
OCSI4	-.341** .000	-.351** .000	-.342** .000	-.247** .000
OCSI5	.426** .000	.338** .000	.164 .014	.183 .012
OCSI6	.242* .002	.197 .018	-.345** .000	-.161 .014
OCSI7	-.516** .000	-.552** .000	-.495** .000	-.372** .000
OCSI8	-.006 .839	-.019 .836	.011 .871	-.173 .013

Notes: \* =  $p \leq .005$ ;

\*\* =  $p \leq .001$ ; coefficient of determination: small =  $r \leq 0.1$ ; medium =  $r = 0.3$ ; large =  $r \geq 0.5$  (Cohen, 1988)

As shown in Table 3, for the low-proficient group, ESAS1 and ESAS2 were significantly inversely related to OCSI1, OCSI2, OCSI3, OCSI4 and OCSI7 while significantly positively related to OCSI5 and OCSI6, generally with a medium effect size. Alternatively, a respondent who feared negative evaluation the more was likely to use less frequently such strategies as social affective strategies (OCSI1), fluency-oriented (OCSI2) and accuracy-oriented (OCSI3) strategies, meaning-negotiating (OCSI4) and nonverbal (OCSI7) strategies, but tended to employ more often message abandonment strategies (OCSI5) while speaking English. It was the same with a respondent who was more apprehensive of speaking English. For the high-proficient group, ESAS1 was significantly negatively related to OCSI1, OCSI2, OCSI3, OCSI4, OCSI6 and OCSI7, and ESAS2 was significantly negatively

correlated with OCSI1, OCSI2, OCSI3 and OCSI7, with a medium to large effect size. Namely, the more apprehensive of negative evaluation (ESAS1) a respondent was, the less frequently she/he used social affective (OCSI1), fluency-oriented (OCSI2), accuracy-oriented (OCSI3), meaning-negotiation (OCSI4), message reduction and alteration (OCSI6) and nonverbal (OCSI7) strategies when speaking English. The more apprehensive of speech communication (ESAS2) a respondent was, the less often she/he utilized social affective (OCSI1), fluency-oriented (OCSI2), accuracy-oriented (OCSI3), and nonverbal (OCSI7) strategies when speaking English.

### 5.3. Predicting effects of English-speaking anxiety and strategy use on English-speaking test performance

To explore the predicting effects of English-speaking anxiety and strategy use on students' English-speaking test performance, multiple stepwise regression analyses were conducted for the low- and high-proficient learners, with ESAS and OCSI scales as independent variables and speaking test scores as the dependent variable, respectively. Table 4 presents the coefficients and significance levels of the predictors from the regression models.

As shown in Tables 4, 3 models resulted from the regression analyses for the low-proficient group, with the change in  $R^2$  being significant: .03 for model 1 (ESAS1,  $p = .003$ ) for the low-proficient group, .033 for model 2 (ESAS1 and OCSI2,  $p = .034$ ) and .071 for model 3 (ESAS1, OCSI2, and OCSI5,  $p = .037$ ). With a medium but to the lower end effect size, ESAS1 (fear of negative evaluation) and OCSI5 (message abandonment strategies) acted as negative predictors, while OCSI2 (fluency-oriented strategies) acted as a positive predictor, explaining 7.2%, 2.1% and 5.1% of the total variance for the low-proficient group, respectively. Table 4 indicates that the regression analyses produced two models for the high-proficient group with the change in  $R^2$  being significant: .021 for model 1 (OCSI2,  $p = .011$ ), and .08 for model 2 (OCSI2 and ESAS2,  $p = .023$ ). With a medium but to the lower end effect size, OCSI2 (fluency-oriented strategies) acted as a positive predictor and ESAS2 (communication apprehension) served as a negative predictor, accounting for 4.6% and 2.3% of the total variance, respectively.

## 6. Discussion

### 6.1. Correlations between English-speaking anxiety and strategy use

The present research revealed that English-speaking anxiety was hardly related to strategies involving attempting to think in English (OCSI8) regardless of English proficiency. Meanwhile, the findings showed that students of low or little anxiety were more likely to employ more effective strategies to accomplish an English-speaking task, while a student of high anxiety tended to deploy more often less effective strategies, as revealed in studies on general or other types of FLA and strategy use (Liu & Thondhlana, 2015; Lu & Liu, 2015; Nakatani, 2006; Zhang & Liu, 2013). For example, high-anxious students tended to use more often such strategies as “reducing messages and using simple expressions” and “thinking first of what to say in the native

**Table 4. Regression coefficients and significance of predictors for test performance**

		Speaking test performance					
		$\beta$	t	p	VIF	Variance	Cohen's $f^2$
Low-proficient group (N = 178)	ESAS1	-.282	-2.33**	.003	1.000	7.2%	.031
	OCSI2	.221	2.29**	.034	1.000	5.1%	.034
	OCSI5	-.137	-2.17**	.037	1.000	2.1%	.076
High-proficient group (N = 214)	OCSI2	.256	2.35**	.011	1.000	4.6%	.021
	ESAS2	-.145	-2.21**	.023	1.000	2.3%	.087

Notes: \*\* =  $p \leq .01$ ; effect size of Cohen's  $f^2$ : small =  $f^2 \leq .02$ ; medium =  $f^2 = .15$ ; large =  $f^2 \geq .35$  (Cohen, 1988)

language and then constructing the English sentence". By contrast, low-anxious students tended to utilize more often such strategies as "trying to make eye-contact" and "paying attention to listeners" reactions' while talking. Considering the largely debilitating nature of anxiety (Horwitz et al., 1986; MacIntyre & Gardner, 1991, 1994a; Tobias, 1979; Zhang & Liu, 2013), anxious students, especially high-anxious students, are advised to abandon and/or reduce some messages to accomplish an English-speaking task. It is also beneficial for them to purposefully train themselves to pay more attention to accuracy, fluency and negotiation of meaning in their speeches in the SL/FL.

### **6.2. Predicting effects of English-speaking anxiety and strategy use on test performance**

As found in the present study, ESAS1 (fear of negative evaluation), ESAS2 (communication apprehension), OCSI2 (fluency-oriented strategies) and OCSI5 (message abandonment strategies) were good predictors for both high- and low-proficient groups' test performance. These findings further support the belief that English-speaking anxiety and strategy use play critical roles in learners' performance in English-speaking tests, as revealed in research on other types of anxiety and strategy use (Chwo et al., 2010; Collier, 2010; Golchi, 2012; MacIntyre & Gardner, 1989; Razmjoo & Ardekani, 2011; Sioson, 2011). These findings also clearly indicate that ESAS was consistently a negative predictor but OCSI2 consistently a positive predictor for speaking test performance for both low- and high-proficiency groups. This further endorses the belief that anxiety inversely affects SL/FL learning (Liu, 2016, 2018; Liu & Jackson, 2008). It also supports the belief that good strategies are conducive to accomplishing an SL/FL learning task, but some strategies debilitate the accomplishment of the task (Collier, 2010; Lu & Liu, 2015; Oxford, 1990; Zhang & Liu, 2013). Clearly, it is important to take proper strategies to improve speaking test performance during the learning process. This is achievable by participating in various explicit or implicit classroom teaching and learning activities, as done in Dörnyei (1995) and Maleki (2007). For example, it helps improve spoken English but reduce anxiety to do pair work and group discussion, it helps students feel more comfortable to try to relax when feeling anxious, it helps avoid silence and embarrassment to use fillers when not knowing what to say, ... and it helps better the communication to use gestures and facial expressions when not knowing how to express ideas.

### **6.3. Proficiency difference in English-speaking anxiety and strategy use**

As previously presented, the low-proficient students reported to be significantly more apprehensive of negative evaluation and speech communication than their high-proficient counterparts in the present research, consistent with the reviewed literature (MacIntyre & Gardner, 1991; Zhang & Liu, 2013). Meanwhile, they were likely to utilize less often effective strategies and turn to compensation strategies more often, as happened in the current literature (Green & Oxford, 1995; Huang, 2010; Lopez, 2011; Nakatani, 2006; Politzer & McGroarty, 1985; Zhang & Goh, 2006; Zhang & Liu, 2013).

The present research also found that ESAS scales were generally significantly correlated with OCSI scales for both low- and high-proficient learners, signifying the existence of a strong relation between FL speaking anxiety and strategy use regardless of proficiency in the target language (Chu, 2008; Gürsoy & Akin, 2013; Lu & Liu, 2015; Zhang & Liu, 2013). What was different was that a more anxious low-proficient learner tended to employ less frequently such strategies as social affective, fluency-oriented, accuracy-oriented, meaning-negotiating and nonverbal strategies, but was more likely to use more often message abandonment strategies while speaking English. On the other hand, a more anxious high-proficient respondent tended to employ less frequently such strategies as social affective, fluency-oriented, accuracy-oriented, and nonverbal strategies when speaking English. This indicates that anxiety really inhibits learners' use of social-affective, fluency-oriented, accuracy-oriented, and nonverbal strategies while processing an FL speaking task, which helps enhance the quality or effectiveness of a speech communication (Oxford, 1990). Just as Tobias (1979) discussed, anxiety inhibits or even blocks a person's mental thinking and cognitive behavior. In addition, this finding shows that even a high-anxious high-proficient learner would not abandon messages in speech communication, further elucidating the role of proficiency in the

learning of a SL/FL (Liu & Jackson, 2008). It further supports the belief that fear of making mistakes and the desire of making positive social impressions could be sources of anxiety for some individuals when speaking an SL/FL (Dewaele & Thirtle, 2009; Hilleson, 1996; Horwitz et al., 1986; Tsui, 1996).

The present research also revealed that fear of negative evaluation, message abandonment and fluency-oriented strategies powerfully predicted the low-proficient group's test performance, while communication apprehension and fluency-oriented strategies powerfully predicted the high-proficient group's test performance, partly consistent with the finding in Zhang and Liu (2013). This indicates that low-proficient learners are more worried about making mistakes and being negatively evaluated and tend to abandon messages when speaking an SL/FL, which impairs their performance in the language. By contrast, high-proficient learners seem to be more worried about speaking an SL/FL itself, which negatively affects their performance in the language. Seeking fluency helps improve learners' performance in the SL/FL, regardless of their proficiency levels in the language, further indicating that fluency may be a natural element of an effective speech communication.

All these findings reveal that proficiency is critical in SL/FL learning, mediating the effects of ESAS and OCSI on the learning outcomes of speaking an SL/FL. Therefore, it is beneficial for SL/FL instructors and learners to use various means to improve learners' proficiency in the target language, like organizing diverse classroom activities, increasing exposure to and practice of speaking the language, and being supportive and empathetic to one another (Gregersen et al., 2014; Hilleson, 1996; Tsui, 1996). Concurrently, individualized teaching and learning also benefit SL/FL learners in regard to their anxiety levels and strategy use.

## 7. Conclusions and implications

The present study investigated the interactive effects of English-speaking anxiety and strategy use on test performance of high- and low-proficient Chinese university EFL students. The main findings were:

- (1) the low-proficient students were significantly more apprehensive of negative evaluation and speech communication than their high-proficient counterparts. They also deployed social affective, fluency-oriented, meaning-negotiating, and message reduction and alteration strategies significantly less frequently but message abandonment strategies, nonverbal strategies and strategies of attempting to think in English significantly more frequently than the high-proficient group;
- (2) ESAS scales were significantly related to OCSI scales for both high- and low-proficient learners; and
- (3) both ESAS and OCSI were good predictors for English-speaking test performance for both low- and high-proficient groups.

As such, it is important to help SL/FL learners reduce anxiety levels while speaking English or other SLs/FLs. To do this, first and foremost, it is crucial for both instructors and learners to be aware of the existence of anxiety when speaking an SL/FL. Then, as practice makes perfect, it is critical for instructors to organize adequate and various speech activities both in and outside the classroom and for learners to actually participate in these activities. As discussed in Vygostky (1978), participation in activities involving the target language is the best way to improve proficiency in the language, which in turn helps enhance self-confidence and self-esteem. During the process, it is important for instructors to be helpful, empathetic, encouraging and friendly, as discussed in a multitude of studies (Gregersen et al., 2014; Hilleson, 1996; Liu, 2018; Tsui, 1996; Young, 1991). By creating student profiles and sharing SL/FL learning experiences with students, instructors can keep a better track of learners and build a friendly rapport with them, leading to a lower anxiety level in them. Nevertheless, instructors need to be cautious when scaffolding

speech activities since a certain degree of anxiety may be facilitating (Bailey, 1983; Goodwin, 1986; Liu & Jackson, 2008) and students of various proficiency levels worry about different aspects of an SL/FL speech task, as found in the present research. Learners, on the other hand, had better develop proper attitudes towards mistakes and errors, acknowledging that they are natural parts of SL/FL learning. At the same time, they should voluntarily seek opportunities to increase their access and exposure to the FL/FL, use the language in various situations, and improve their proficiency in the language (Gregersen & Horwitz, 2002; Young, 1991). Being well-equipped and/or prepared, they may become more confident and less anxious when speaking the SL/FL (Liu, 2016; Mak & White, 1997; Tsui, 1996).

It is the same with oral communication strategies. It is equally crucial for SL/FL instructors to be aware of the interaction of FL speaking anxiety and strategy use as well as the existence and roles of speaking strategy use in completing FL/SL speaking tasks. Then, both implicit and explicit teaching of specific speaking strategies can be organized in class, depending on students' proficiency and anxiety levels (Huang, 2010; Liu, 2018; Zhang & Liu, 2013). With teaching and practice, learners may gradually come to realize what strategies are helpful to them and what strategies inhibit their performance. During the process, they may learn to use more and more the strategies that aid their learning of SL/FL speaking.

Finally, though the present research revealed insightful findings, they need to be further verified in further research. Practical research is particularly called for to examine how teaching can be organized to help learners reduce anxiety levels and better the use of speaking strategies.

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#### References

- Bailey, K. M. (1983). Competitiveness and anxiety in adult second language learning: Looking at and through the dairy studies. In H. W. Seliger & M. H. Long (Eds.), *Classroom oriented research in second language acquisition* (pp. 67–103). Rowley, MA: Newbury House Publishers, Inc.
- Behnke, R. R., & Sawyer, C. R. (1999). Milestones of anticipatory public speaking anxiety. *Communication Education*, 48(2), 165–172. doi:10.1080/03634529909379164
- Bremner, S. (1999). Language learning strategies and language proficiency: Investigating the relationship in Hong Kong. *The Canadian Modern Language Review*, 55(4), 496–514. doi:10.3138/cmlr.55.4.490
- Chamot, A. U. (1987). The learning strategies of ESL students. In A. Wenden & J. Rubin (Eds.), *Learner strategies in language learning* (pp. 71–85). Hemel Hempstead: Prentice-Hall.
- Chu, H.-N. (2008). *Shyness and EFL learning in Taiwan: A study of shy and non-shy college students' use of strategies, foreign language anxiety, motivation and willingness to communicate* (Unpublished Ph.D dissertation), The University of Texas at Austin.
- Chwo, G. S., Jonas, A., Tsai, C.-H., & Chuang, C.-M. (2010). Adopting supplementary materials to enhance listening and speaking strategy use by Taiwanese college EFL learners. *The Journal of Hungkuang University*, 59(1), 25–40. doi:10.6615/HAR.201006.59.03
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). New Jersey: Lawrence Erlbaum Associates.
- Collier, S. (2010). Getting things done in the L1 and L2: Bilingual immigrant women's use of communication strategies in entrepreneurial contexts. *Bilingual Research Journal: the Journal of the National Association for Bilingual Education*, 33(1), 61–81. doi:10.1080/15235881003733365
- Dewaele, J.-M., & Alfawzan, M. (2018). Does the effect of enjoyment outweigh that of anxiety in foreign language performance? *Studies in Second Language Learning and Teaching*, 8(1), 21–45. doi:10.14746/ssllt.2018.8.1.2
- Dewaele, J. M., & MacIntyre, P. D. (2014). The two faces of Janus? Anxiety and enjoyment in the foreign language classroom. *SSLLT*, 4(2), 237–274. doi:10.14746/ssllt.2014.4.2.5
- Dewaele, J.-M., & Thirtle, H. (2009). Why do some young learners drop Foreign languages? A focus on learner-internal variables. *International Journal of Bilingual Education and Bilingualism*, 12(6), 635–649. doi:10.1080/13670050802549656
- Dewaele, J.-M., & Tsui, T. (2013). The link between foreign language classroom anxiety, second language tolerance of ambiguity and self-rated English proficiency among Chinese learners. *SSLLT*, 3(1), 47–66. doi:10.14746/ssllt.2013.3.1.3
- Dewaele, N. M., & Al-Saraj, T. M. (2015). Foreign language classroom anxiety of Arab learners of English: The effect of personality, linguistic and sociobiographical variables. *SSLLT*, 2(2), 205–208. doi:10.14746/ssllt.2015.5.2.2
- Dörnyei, Z. (1995). On the teachability of communication strategies. *TESOL Quarterly*, 29(1), 55–85. doi:10.2307/3587805
- Dörnyei, Z., & Scott, M. L. (1997). Communication strategies in a second language: Definitions and

- taxonomies. *Language Learning*, 47(1), 173–210. doi:10.1111/lang.1997.47.issue-1
- Faerch, C., & Kasper, G. (1983). Plans and strategies in foreign language communication. In C. Faerch & G. Kasper (Eds.), *Strategies in interlanguage communication* (pp. 20–60). London: Longman.
- Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. London: Edward Arnold.
- Golchi, M. M. (2012). Listening anxiety and its relationship with listening strategy use and listening comprehension among Iranian IELTS learners. *International Journal of English Linguistics*, 2(4), 115–128. doi:10.5539/ijel.v2n4p115
- Goodwin, D. W. (1986). *Anxiety*. Oxford: Oxford University Press.
- Green, J. M., & Oxford, R. (1995). A closer look at learning strategies, L2 proficiency, and gender. *TESOL Quarterly*, 29(2), 261–297. doi:10.2307/3587625
- Gregersen, T., & Horwitz, E. K. (2002). Language learning and perfectionism: Anxious and non-anxious language learners' reactions to their own oral performance. *The Modern Language Journal*, 86(4), 562–570. doi:10.1111/1540-4781.00161
- Gregersen, T., Meza, M. D., & MacIntyre, P. D. (2014). The motion of emotion: Idiodynamic case studies of learner's foreign language anxiety. *The Modern Language Journal*, 98(2), 574–588. doi:10.1111/modl.12084
- Gürsoy, E., & Akin, F. (2013). Is younger really better? Anxiety about learning a foreign language in Turkish children. *Social Behavior and Personality*, 41(5), 827–842. doi:10.2224/sbp.2013.41.5.827
- Han, J. (2014). A study on the influence of anxiety and metacognitive strategies on listening proficiency. *Journal of Chemical and Pharmaceutical Research*, 6(6), 2484–2496.
- Hilleson, M. (1996). "I want to talk with them, but I don't want them to hear": An introspective study of second language anxiety in an English-medium school. In K. M. Bailey & D. Nunan (Eds.), *Voices from the language classroom* (pp. 248–282). Cambridge: Cambridge University Press.
- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70(1), 125–132. doi:10.1111/j.1540-4781.1986.tb05256.x
- Huang, L.-S. (2010). Do different modalities of reflection matter? An exploration of adult second-language learners' reported strategy use and oral language production. *System*, 38(2), 245–261. doi:10.1016/j.system.2010.03.005
- Huang, X.-H., & Van Naerssen, M. (1987). Learning strategies for oral communication. *Applied Linguistics*, 8(2), 287–307. doi:10.1093/applin/8.3.287
- Krashen, S. (1982). *Principles and practice in second language acquisition*. Oxford: Pergamon.
- Liu, H.-J., & Chen, T.-H. (2014). Learner differences among children learning a foreign language: Language anxiety, strategy use, and multiple intelligences. *English Language Teaching*, 7(6), 1–13. doi:10.5539/elt.v7n6p1
- Liu, M. (2016). Changes, causes and consequences of FLCA: A cohort study with Chinese university EFL learners. *European Journal of Applied Linguistics and TEFL*, 5(2), 101–120.
- Liu, M. (2018). Bilingual/multilingual learners' willingness to communicate in and anxiety on speaking Chinese and their associations with self-rated proficiency in Chinese. *International Journal of Bilingual Education and Bilingualism*, 21(1), 54–69. doi:10.1080/13670050.2015.1127889
- Liu, M., & Jackson, J. (2008). An exploration of Chinese EFL learners' unwillingness to communicate and foreign language anxiety. *The Modern Language Journal*, 92(1), 71–86. doi:10.1111/j.1540-4781.2008.00687.x
- Liu, M., & Thondhlana, J. (2015). A study of Chinese University EFL learners' foreign language listening anxiety, listening strategy use and listening performance. *Indonesian Journal of English Language Teaching*, 10(1), 30–51.
- Lopez, M. M. (2011). Speaking strategies used by BA ELT students in public universities in Mexico. *MEXTESOL Journal*, 35(1), 1–22.
- Lu, Z., & Liu, M. (2015). An investigation of Chinese university EFL learner's foreign language reading anxiety, reading strategy use and reading comprehension performance. *Studies in Second Language Learning and Teaching (SSLLT)*, 5(1), 65–85. doi:10.14746/ssllt.2015.5.1.4
- MacIntyre, P. D., & Gardner, R. C. (1989). Anxiety and second-language learning: Toward a theoretical clarification. *Language Learning*, 39(2), 251–275. doi:10.1111/j.1467-1770.1989.tb00423.x
- MacIntyre, P. D., & Gardner, R. C. (1991). Methods and results in the study of anxiety and language learning: A review of the literature. *Language Learning*, 41(1), 85–117. doi:10.1111/j.1467-1770.1991.tb00677.x
- MacIntyre, P. D., & Gardner, R. C. (1994a). The effects of induced anxiety on three stages of cognitive processing in computerized vocabulary learning. *Studies in Second Language Acquisition*, 16(1), 1–17. doi:10.1017/S0272263100012560
- MacIntyre, P. D., & Gardner, R. C. (1994b). The subtle effects of language anxiety on cognitive processing in the second language. *Language Learning*, 44(3), 283–305. doi:10.1111/j.1467-1770.1994.tb01103.x
- MacIntyre, P. D., & MacDonald, J. R. (1998). Public speaking anxiety: Perceived competence and audience congeniality. *Communication Education*, 47(4), 359–365. doi:10.1080/03634529809379142
- Mak, B. S., & White, C. (1997). Communication apprehension of Chinese ESL students. *Hong Kong Journal of Applied Linguistics*, 2(1), 81–95.
- Maleki, A. (2007). Teachability of communication strategies: An Iranian experience. *System*, 35(4), 583–594. doi:10.1016/j.system.2007.04.001
- Nakatani, Y. (2006). Developing an oral communication strategy inventory. *The Modern Language Journal*, 90(1), 151–168. doi:10.1111/j.1540-4781.2006.00390.x
- Nakatani, Y. (2010). Identifying strategies that facilitate EFL learners' oral communication: A classroom study using multiple data collection procedures. *The Modern Language Journal*, 94(1), 116–136. doi:10.1111/j.1540-4781.2009.00987.x
- Oxford, R. (1990). *Language learning strategies: What every teacher should know*. Boston, MA: Heinle & Heinle, Inc.
- Oxford, R. L., & Burry-Stock, J. (1995). Assessing the use of language learning strategies worldwide with the ESL/EFL version with the strategy inventory of language learning (SILL). *System*, 23(1), 1–23. doi:10.1016/0346-251X(94)00047-A
- Phillips, E. M. (1992). The effects of language anxiety on students' oral test performance and attitudes. *The Modern Language Journal*, 76(1), 14–26. doi:10.1111/j.1540-4781.1992.tb02573.x
- Politzer, R. L., & McGroarty, M. (1985). An exploratory study of learning behaviors and their relationship to gains in linguistic and communicative competence.

- TESOL Quarterly*, 19(1), 103–123. doi:10.2307/3586774
- Rachman, S. (1998). *Anxiety*. Hove: Psychology Press.
- Razmjoo, S. A., & Ardekani, S. G. (2011). A model of speaking strategies for EFL learners. *The Journal of Teaching Language Skills (JTLS)*, 3(3), 115–142. doi:10.22099/JTLS.2012.380
- Scovel, T. (1978). The effect of affect on foreign language learning: A review of the anxiety research. *Language Learning*, 1(1), 129–142. doi:10.1111/j.1467-1770.1978.tb00309.x
- Sioson, I. C. (2011). Language learning strategies, beliefs, and anxiety in academic speaking tasks. *Philippine ESL Journal*, 7(1), 3–27.
- Spielberger, C. D. (Ed.). (1972). *Anxiety: Current trends in theory and research* (Vol. 1). New York: Academic Press.
- Tarone, E. (1980). Communication strategies, foreigner talk, and repair in interlanguage. *Language Learning*, 30(4), 417–431. doi:10.1111/j.1467-1770.1980.tb00326.x
- Tobias, S. (1979). Anxiety research in educational psychology. *Journal of Educational Psychology*, 71(5), 573–582. doi:10.1037/0022-0663.71.5.573
- Tsui, A. B. M. (1996). Reticence and anxiety in second language learning. In K. M. Bailey & D. Nunan (Eds.), *Voices from the language classroom* (pp. 145–167). Cambridge: Cambridge University Press.
- Vygostky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Weinstein, C. E., & Mayer, R. E. (1986). The teaching of learning strategies. In M. Wittrock (Ed.), *Handbook of research on teaching* (pp. 315–327). New York, NY: Macmillan.
- Young, D. J. (1991). Creating a low-anxiety classroom environment: What does language anxiety research suggest? *The Modern Language Journal*, 75(4), 426–439. doi:10.1111/j.1540-4781.1991.tb05378.x
- Zhang, D., & Goh, C. C. M. (2006). Strategy knowledge and perceived strategy use: Singaporean students' awareness of listening and speaking strategies. *Language Awareness*, 15(3), 199–218. doi:10.2167/la342.0
- Zhang, W., & Liu, M. (2013). Evaluating the impact of oral test anxiety and speaking strategy use on oral English performance. *The Journal of Asia TEFL*, 10(2), 115–148. Retrieved from <http://www.earticle.net/article.aspx?sn=201615>



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