

Effects of Input- and Output-based Planning on Korean College **Students' Communication Strategy and Speaking Anxiety**

Dongju Lee Hanyang University, South Korea

Sung-Yeon Kim

Hanyang University, South Korea

This study examined the effects of input- and output-based planning on Korean college students' communication strategy use and speaking anxiety. Two groups of 84 Korean female college students (n=168) have participated in the study, with one group performing reading activities, and the other performing writing activities prior to speaking tasks. The findings of the study indicate that the two groups did not show any meaningful differences in their overall communication strategy use. However, significant differences were found between the groups in light of social-affective strategies and meaning negotiation strategies. Particularly notable is that these strategies were utilized to a greater extent by the writing group, compared to its counterpart, i.e., the reading group. In contrast, the effects of different types of planning were found to be nonsignificant for speaking anxiety. In other words, both groups showed similar levels of speaking anxiety, regardless of planning conditions, although their anxiety decreased over time as a result of strategic planning. These findings bear meaningful implications for the role of strategy training for language learners and for the importance of creating optimal conditions to maximize effectiveness of learning.

Keywords: input-based planning, output-based planning, strategic planning, oral communication strategy, speaking anxiety

Introduction

Strategic planning refers to activities learners undertake before they engage in actual tasks. This planning is different from the opportunity to rehearse the tasks themselves. Strategic planning provides L2 learners with the opportunity to conceptualize the tasks and prepare for their spoken output production. It can better prepare learners for the target tasks, allowing them to formulate and articulate their message (Ellis, 2005). This type of planning, therefore, has an effect of easing the burden on learners' limited capacity of working memory.

The effect of strategic planning on oral performance has been noted in literature (Yuan & Ellis, 2003). Previous studies have examined the effects of different types of strategic planning on L2 learners' oral proficiency in reference to fluency, accuracy, and complexity. Unfortunately, they have not found any significant effects of strategic planning on learners' oral performance. For example, Foster and Skehan's (1999) study of EFL students in England indicated nonsignificant effects for their oral performance due to the type of strategic planning (i.e., meaning-focused vs. form-focused) and the agent of planning (i.e., teacher-guided vs. group-based). Likewise, Sangarun's (2005) study, conducted with Thai students, did not indicate significant effects for learners' oral performance according to task planning.

Particularly, output-based tasks in regards to strategic planning have generated considerable research interest recently, although findings about output based activities, such as writing and speaking, are mixed (Chau, 2014; Kawauchi, 2005; Kim, 2014). For example, Kawauchi (2005) found nonsignificant effects for various types of planning activities (writing, rehearsal, and reading), whereas Kim (2014) reported positive effects of writing with regard to strategic planning. Additionally, Chau's (2014) study indicated that writing before speaking can help learners to speak faster and pause less in the middle of clauses. While findings are inconclusive, a number of studies have addressed more positive effects of output-based tasks, particularly in EFL contexts. Likewise, studies conducted in Korea have also attested the effects of output based strategic planning on speaking skills by using writing as a platform for speaking (Kim, 2014; Lee & Yoon, 2010). In contrast, very few studies have explored the effects of input-based strategic planning and reading, even though they play crucial roles in the development of L2 learners' oral proficiency (Schleppegrell & Colombi, 2002). Despite the notable differences between input- and output-based tasks, there has been little research that has compared the effects of these two types of tasks.

Particularly, there is a paucity of research that has examined if and to what extent different types of planning tasks would influence learner variables, such as strategy and anxiety. Given that learner anxiety has been found to account for individual learner differences (Horwitz, Horwitz, & Cope, 1986; Öztürk & Gürbüz, 2014), studies on the relationship between task planning and anxiety deserve attention from SLA researchers. As one of the recent studies on the relationship between the two, Öztürk and Gürbüz (2014) suggested that planning should have facilitative influence on foreign language learning. While the findings have some pedagogical implications, they are limited as they do not give information about the differential effects of task type. Considering the identified benefits of planning on speaking anxiety, it is imperative to explore if and how different types of planning are associated with speaking anxiety.

In addition to learner anxiety, communication strategy should be considered, as it is one of the learner variables directly related to planning. Taron (1980) claimed that the use of communication strategies can help to minimize communicative disruption and enhance interaction in the target language. It has been also suggested that communication strategies vary according to task type (Mei & Nathalang, 2010). From this point of view, it can be hypothesized that different types of strategic planning can lead L2 learners to employ different communication strategies while performing in a foreign language.

Thus, the present study aims to investigate the effects of different types of planning used before speech production: input (reading)-based and output (writing)-based strategic planning. Their effects were compared in reference to two variables, precisely, communication strategy and anxiety. These variables were chosen because of their direct relevance to speaking performance. The findings of this study would inform practitioners as to if and to what extent planning conditions would influence communication anxiety and strategy.

Literature Review

Role of Input and Output in Oral Communication

The significance of the role of input versus output in second language acquisition continues to incite debate amongst researchers. Krashen (1982), in his "Input Hypothesis," emphasized the role of input in L2 acquisition. Krashen (1985) further argued that input reception should precede output production particularly in the early stage of L2 acquisition, and that extensive opportunities for listening and reading should therefore precede speaking and writing. In other words, the most effective means to teach speaking is to provide comprehensible input, as it leads to the development of oral proficiency over time.

While the majority of research supporting the hypothesis has primarily focused on the effects of reading on L2 learners' vocabulary knowledge (Nation, 1997; Schleppegrell & Colombi, 2002; Urquhart & Weir, 1998), only a few empirical studies have investigated the effects of input on L2 oral performance.

Schleppegrell and Colombi (2002) reported that L2 learners improved their competence in terms of phonology, lexicon, morphology, syntax, and pragmatics as a result of reading L2 texts appropriate to their level. Their study found that the participants incorporated into their discourse the linguistic features from the texts, and relied on their own strategies to develop their speaking skills. This indicates that the benefits of extensive reading are not just limited to reading proficiency development. In order words, input-based activities were found to contribute to improving oral performance. The beneficial effects of extensive reading on speaking skill development was also confirmed by Choi (2014) whose study investigated whether extensive reading and speaking practices would facilitate Korean EFL learners to become better English speakers. The findings of the study indicate that extensive reading could become a useful means of enhancing speaking proficiency, and that selecting appropriate materials for learners was crucial for maximizing the effectiveness of learning.

While these studies highlighted the importance of input, other studies stressed the value of output over input. For instance, de Bot (1996) suggested that "output serves an important role in second language acquisition ... because it generates highly specific input the cognitive system needs to build up a coherent set of knowledge" (p. 529). Swain (2000) also claimed that output "pushes learners to process language more deeply-with more mental effort-than does input" (p. 99). Similarly, Izumi and Bigelow (2000) emphasized the importance of output in SLA.

A plethora of studies, focusing on the role of output in SLA, examined the effect of output-based writing activities on L2 performance. For example, Bangs (1985), in a study on the effects of writing on speaking, reported that writing instruction benefited students as they were taught to speak. The study further suggested that as writing permits the recursive process, the writing-integrated speaking approach would help the students remember the purpose of speaking and writing and communicate ideas better. Aaron and Joshi (2006) also claimed that intensive training in the written language can contribute to developing not only literacy skills but also oral communication skills. In the Korean context, Lee and Yoon (2010) investigated the effects of writing activities on learners' speaking skills. The results of the study indicated that writing had a positive effect on speaking performance over time in terms of fluency and accuracy. More recent studies have also attested the positive effects of writing as strategic planning on L2 performance. For instance, Kim (2014) conducted a study with sixty college students to explore possibilities of using writing as a pre-speaking activity. The study analyzed the effects of the strategic planning on their speaking ability, and found that the students, when they were given 20 minutes to write before their oral performance, improved their overall English speaking ability. Similarly, Chau (2014) reported that planning with writing significantly reduced the number of lexical errors in the participants' oral narratives.

As shown in the previous studies on the relationship of input, output, and oral communication, both input and output seem to facilitate the process of oral communication, and thus contribute to positive outcomes. However, these studies have mostly centered on the effects of input and output on oral performance. For example, Kawauchi (2005) conducted a study to test the hypothesis that learners, engaged in reading activities, would draw linguistic forms from the input in addition to their own interlanguage, whereas learners, engaged in writing, would simply depend on their own interlanguage resources. In the comparison of the two groups, Kawauchi found that learner performance did not vary according to the types of planning, despite the differences in the kinds of resources (e.g., input, oral output, written output) available during planning activities. These findings point to the general effects of input and output-based planning activities in relation to learner variables. Thus, a study that explores the effects of different types of planning on learner variables warrants an investigation. Specifically, it is timely to compare the effects of input- and output-based planning in terms of speaking anxiety and oral output communication strategy.

Oral Communication Strategy and L2 Performance

It is generally accepted that language learners can improve their oral proficiency through the use of communication strategies (Johnson, 2001; Larenas, 2011; Nakatani, 2010). Larenas (2011), for instance, argued that communication strategies help learners to improve oral communication skills. Despite the general agreement on the beneficial effects of communication strategy, it has been defined differently according to scholars. For example, while Faerch and Kasper (1983) emphasized intrapersonal aspects of strategies, Tarone (1980) adopted an interactionist approach, and defined it as "tools used in a joint negotiation of meaning where both interlocutors are attempting to agree as to a communicative goal" (p. 420).

On the other hand, Nakatani (2010) used the term, 'oral communication strategy' instead of communication strategy and defined it as the "interlocutors' negotiation behavior for coping with communication breakdowns and their use of communication enhancers" (p. 118). Based on data collected from 62 Japanese college students, Nakatani (2006) developed the Oral Communication Strategy Inventory (OCSI), in which he identified the following subcategories: "social-affective," "fluency-oriented," "negotiation for meaning while speaking," "accuracy-oriented," "message reduction and alternation," "nonverbal strategies while speaking," "message abandonment," and attempts to "think in English."

More recently, Nakatani (2010) investigated, using the OCSI, the relationship between the students' self-reported oral communication strategy use and their L2 performance. The study found that among the communication strategies, "social-affective strategies" were frequently used and positively associated with oral proficiency. This finding is significant, in that the students who could control their feelings were likely to enjoy speaking and thus improve oral proficiency. It is also notable that "fluency-oriented" strategies and strategies of "negotiation for meaning" were positively correlated with oral performance. Based on these results, Nakatani argued that the strategies used to maintain conversation flow contributed to the development of students' oral proficiency.

Conversely, learner's target language proficiency may influence the selection and the adoption of communication strategy (Chen, 1990; Jung, 2012; Kim, 2010; Li, 2010; Liskin-Gasparro, 1996; Nakatani, 2006). In a study conducted with Chinese EFL learners, Chen (1990) found that high-proficiency learners tended to choose linguistic strategies (e.g., using the semantic features of the target language), whereas low-proficiency learners relied on world knowledge and repetition-based strategies. In line with Chen's investigation, other studies (Kim, 2010; Li, 2010; Liskin-Gasparro, 1996) found that advanced speakers called upon a range of communication strategies, such as social strategies, comparison strategies, accuracy-oriented strategies, and meaning negotiation strategies. These findings confirm the results of Nakatani (2006) that highly proficient students used social-affective strategies, fluency-oriented strategies, and meaning negotiation strategies.

To summarize the earlier findings on the relationship between oral proficiency and communication strategy, highly proficient learners are more likely to utilize linguistic knowledge to convey meaning and select effective strategies for interaction. In contrast, students with low proficiency tend to rely on conceptual strategies, such as the use of demonstration and exemplification, and employ abandonment strategies perhaps because of the lack of L2 knowledge. In light of this, it seems important to design and implement tasks for low-proficiency students and examine their pedagogical effects in relation to their communication strategy use.

As one of the variables associated with communicative strategy, task type has been studied with regard to learner strategy. Mei and Nathalang (2010) compared the differential effects of two types of tasks: one-way and two-way task. In the study conducted with Chinese undergraduate students who were required to perform both a one-way task (i.e., a concept identification task) and a two-way task (i.e., a role play task), they found that the students employed different communication strategies according to task type. Specifically, for one-way tasks (e.g., defining specific words), they frequently utilized interlanguage

strategies, such as generalization, and paraphrasing to get their meaning across and ensure listeners' comprehension. In the two-way task like a role play, however, they used more interlanguage negotiation strategies, including clarification request, positive confirmation checks, and comprehension checks. In the two-way task, they apparently reached communication goals by making requests and performing comprehension or confirmation checks.

More recently, Kaivanpanah, Yamouty, and Karami (2012) examined Iranian EFL students' communication strategy across three different types of tasks: picture description, story-telling, and joke-telling. The results indicated that the picture description task triggered more frequent uses of circumlocution and message abandonment strategies, compared to the story-telling or joke-telling tasks. This is in line with the findings of Rossiter (2003) who concluded that circumlocution was used more frequently in object description tasks. Their study also suggested that the joke-telling task could be useful for eliciting the use of "appeal for help" strategies, as students with motivation for understanding jokes would ask more questions for clarification or repetition.

In summary, communication strategy use appears to vary significantly according to task type and seems to be highly context-dependent. In the same way that one- and two-way tasks elicited different communication strategies, it can be hypothesized that different types of strategic planning would lead learners to employ different communication strategies while performing tasks in a foreign language. Until recently, studies of oral communication strategies in Korean contexts have primarily centered on learner strategies used to compensate for their insufficient L2 knowledge (Jung, 2012; Kang, 2007; Lee, 2005). Lee (2005) closely examined various communication strategies adopted by ESL learners to make up for their limited knowledge. Kang (2007) also reported how the problems regarding both lexis and syntax could be resolved with communication strategies. More recently, Jung (2012) examined Korean college students' use of English speaking strategy. While there are a few studies that examined the association between task type and communication strategy, most of strategy research has primarily focused on learner strategy use, neglecting the relationship between the two. As communication strategy use is expected to vary according to task type, further investigation into their relationship in the Korean context is needed. Thus, a study that compares differential effects of input- and output-based strategic planning in relation to communication strategy use would make an important addition to the field.

Effects of Planning on Foreign Language Speaking Anxiety

Foreign language anxiety (FLA) has enjoyed popularity in the field of SLA as one of the learner variables that determines the success or failure of language acquisition. FLA, often experienced in EFL situations, deserves special attention, as it can result in poor performance, which can lead to greater anxiety, and potentially worse performance in the future (Horwitz et al., 1986; Spielberger & Vagg, 1995). In particular, speaking is known to induce the most serious affective responses among four language skills. Young (1990) found that L2 students identified speaking as the primary source of anxiety. Later, Huang (2004), Liu and Jackson (2008), Öztürk and Gürbüz (2014) confirmed Young's claim that speaking is the most "anxiety-provoking aspect in a second language learning situation" (p. 420). Other studies have also noted that learners experience foreign language anxiety when they are required to listen and speak in the target language (Tsiplakides & Keramida, 2009; Woodrow, 2006).

There has been a great deal of anxiety research since the emergence of the Foreign Language Classroom Anxiety Scale (FLCAS) by Horwitz et al. (1986). The scale has gained wide acceptance as it can measure anxiety specific to various foreign language learning contexts (Aida, 1994; Chen & Chang, 2004; S. Y. Kim, 2009, 2010; Kitano, 2001; Liu & Jackson, 2008). The FLCAS, a self-reported questionnaire composed of 33 items on a five-point Likert scale, includes three factors: communication apprehension, test anxiety, and fear of negative evaluation. With the extensive use of the FLCAS, a plethora of studies have been conducted to explore the association between L2 anxiety and performance. More specifically, a variety of potential sources of speaking anxiety have been identified and analyzed by L2 researchers. For instance, S. Y. Kim (2009) reported that Korean EFL students experienced higher

levels of anxiety in a conversation course than in a reading course. She concluded from the findings that levels of anxiety can vary according to instructional contexts. On the other hand, Tsai (2014) reported other sources of English speaking anxiety in a foreign language environment, such as lack of practice, lack of confidence, fear of making mistakes, and limited English speaking proficiency.

It seems that while one line of anxiety research focused on identifying the sources of speaking anxiety, another line of research attended to ways to lower L2 learner anxiety. In this line of research, the studies attempted to control for the effects of anxiety-provoking factors prior to L2 task completion. For instance, Tsiplakides and Keramida (2009) proposed a small group project as an instructional method to reduce communication apprehension in the English classroom. Öztürk and Gürbüz (2014) also reported that the participants of the study were found to feel less anxious when they were allowed adequate time to plan their speaking performance. Based on this finding, they concluded that students can get more anxious when they have to speak without preparation. More recently, Song and Lee (2015) found that task practice contributed to decreasing the initial negative influence of English speaking anxiety on speaking performance.

The previous studies taken together seem to imply that preparation in the form of strategic planning can positively influence speaking performance. Yet, previous studies have not adequately examined the effects of input-based and output-based planning on speaking anxiety and their relationship to communication strategy. The present study is designed to fill in the gap by comparing the effects of input-and output-based planning in terms of L2 learners' speaking anxiety and communication strategy use.

Method

Research Questions

This study aims to compare the effects of input- and output-based strategic planning on oral communication strategy use and speaking anxiety. The purpose is specified in the following research questions:

- 1. Are there differences between the input-based and the output-based strategic planning groups in their English communication strategy use?
- 2. Are there differences in the students' English speaking anxiety due to the strategic planning conditions?

Participants

For data collection, one hundred and sixty-eight college students, who were taking English conversation courses at a women's university, participated in this study. The students were from diverse fields of study, and their proficiency levels were judged to be low according to the results of the English placement test conducted at the beginning of the semester. The data were from "repeated cross-sectional studies" (Dörnyei, 2007). In other words, the data were collected from a total of six classes over a period of three semesters and combined as the number of participants for each semester was not sufficient enough. Data aggregation was carried out, on the grounds that the samples shared learner characteristics in terms of English competence and proficiency, as verified in their performance on the Korean SAT and the placement test, respectively.

The two classes each semester represented the groups that were different in terms of planning conditions prior to speaking tasks: an input-based planning group and an output-based planning group. The two groups were almost equivalent in terms of other aspects, such as teaching materials, methods, and teacher. Both groups used the same textbooks from the Smart Choice series: *Smart Choice Starter* (Wilson & Healy, 2011) and *Smart Choice 1* (Wilson, 2011).

Instruments

Speaking tasks and strategic planning conditions

Considering the low proficiency of the students, speaking tasks were designed with precise guidelines in order to readily elicit their spoken output (Foster & Skehan, 1996). The tasks were based on the lesson content and topics such as "Describe your favorite restaurant."

The students in the two groups underwent different planning conditions. Those in the output-based planning condition (Writing Group, WG) were given time to write notes in preparation for their speaking performance. They were allowed to have output-based planning, according to Swain's (1993) Output Hypothesis. In consideration of the students' limited proficiency, concise cues were provided to facilitate their planning. In constructing the cues, particular care was taken to avoid any explicit use of target language structures or expressions that can be used or borrowed by the students for their speech production. Examples of the writing cues are as follows:

Speaking task: Describe what you usually do on the weekend.

- ① What you like to do ② What you don't like to do, but need to do ③ Why you do it
- (4) Where you do it (5) Who you do it with (6) When you do it

In contrast, the students in the input-based planning condition (Reading Group, RG) were provided L2 input in the form of model texts prior to their oral performance. The model texts were constructed by a native speaker of English with ten years of teaching experience. The texts contained slightly more target words or structures than what was covered in each lesson. The input contained in the texts was aligned with the writing cues, and the relevant parts were typographically enhanced to foster 'focus on form'. An excerpt of a model text using input enhancement is demonstrated below.

Speaking task: Describe what you usually do on the weekend.

On the weekend, I usually go out with my friends. We like to go to coffee shops and for lunch together on Saturdays. We regularly go to places like Starbucks.

Oral Communication Strategy Inventory (OCSI)

In order to compare communication strategies used by the students in the two groups, the speaking section of the Oral Communication Strategy Inventory (OCSI) developed by Nakatani (2005, 2006, 2010) was employed in this study (see Appendix).

The definitions and examples of each subcategory of the speaking section of the OCSI are presented in Table 1. The OCSI was presented to respondents on a 5 point Likert scale, ranging from 1 (*never true of me*) to 5 (*always true of me*). The reliability coefficient for the total items was .88.

Subcategories of Ord	al Communication Strategies (Nakatani, 2006, p.155-156)
Speaking strategies	Definition and examples
Social-affective	The affective factors of learners in social contexts (e.g., control anxiety, enjoy the process of oral communication, encourage themselves to use English, behave socially, take the risk of making mistakes, etc.)
Fluency-oriented	Intentions to communicate fluently (e.g., pay attention to the rhythm, intonation, pronunciation, clarity of their speech, and take their time to send appropriate messages, etc.)
Negotiation for meaning	Attempts to negotiate with their interlocutors (e.g., conduct modified interaction, check listeners' understanding, repeat their speech, give examples, and pay attention to the reaction of their interlocutor, etc.)
Accuracy-oriented	Desires to speak English accurately (e.g., pay attention to forms of their speech, seek grammatical accuracy by self-correcting, and speak appropriately like a native English speaker, etc.)
Reduction & alteration	Avoidance of a communication breakdown (e.g., reduce an original message, simplify their utterances, or use similar expressions that they can use confidently, etc.)
Nonverbal	Use of nonverbal expressions (e.g., use eye contact, use gestures or facial expression, etc.)
Message abandonment	Giving up communication (e.g., leave the message unfinished, seek help from others to continue the conversation, and avoid mutual understanding, etc.)
Think in English	Thinking as much as possible in English (e.g., show a tendency to think in English, and show a negative attitude toward thinking in their native language, etc.)

TABLE 1

English Speaking Anxiety Scale

In order to measure learner anxiety toward speaking in English, the Foreign Language Classroom Anxiety Scale (FLCAS), originally constructed by Horwitz et al. (1986), was slightly modified. The FLCAS is originally composed of three subscales of language anxiety: communication apprehension, test anxiety, and fear of negative evaluation. For the purpose of this study, only the items directly related to English speaking apprehension were taken from the FLCAS. In other words, the items that measure test anxiety or items that are not relevant to speaking anxiety were discarded.

As a result, the English speaking anxiety scale comprised a total of 18 items measuring the two subscales from Park's (2012) classification: communication apprehension (14 items) and fear of negative evaluation (4 items). The modified questionnaire on a 5-point Likert scale (1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree) was translated into Korean. The reliability coefficient or Cronbach's alpha for the scale was .91.

Data Collection Procedure

The data for this study were collected from a total of six classes (two for each semester) over a threesemester period. The classes met for two hours every week for 15 weeks. On the first day of each semester, the OCSI and English Speaking Anxiety Scale were administered to the students. In the first two classes, they were also shown how to use the voice recording function of Kakao Talk, a mobile instant messaging application. They used the application from week 4 through week 12 to record their oral production while performing speaking tasks. The participants did not receive any prior training regarding communication strategy.

The students in the reading group (RG) were given some model texts for input-based planning prior to their speaking performance. For planning, they just had ten minutes to refer to the model texts. The students in the writing group (WG), on the other hand, were allowed to write notes in response to the cues prepared to facilitate their output-based planning. The students in both groups were allocated ten minutes to plan, following the suggestions from previous studies on strategic planning (Ellis, 2009). As the amount of time was barely enough for planning, the students focused on either reading or writing, according to the planning condition. They were not permitted to use notes or dictionaries, while recording their oral production.

www.kci.go.kr

As a result, a total of 1,344 recordings were collected: 672 recordings from each group, with each student submitting eight recording assignments over nine weeks.¹ Then, posttest questionnaires, identical to the pretests, were administered to the students at the end of each semester.

Data Analysis

TABLE 1

Descriptive statistics were used to summarize means and standard deviations for measures of oral communication strategy use and English speaking anxiety. A multivariate analysis of covariance (MANCOVA) was also performed to analyze the differences in learners' oral communication strategy use and speaking anxiety across the groups: the input-based planning group and the output-based planning group.

The two groups were an independent variable, whereas the posttest measures were dependent variables. The pretest scores were entered as covariates to adjust for initial differences between the two groups. The analysis focused on the comparison between the two groups in terms of learners' oral communication strategy use and speaking anxiety.

Results and Discussion

Strategic Planning and Oral Communication Strategy Use

As shown in Table 1 that summarizes the analysis of the students' responses to the OCSI, the study found that the students utilized oral communication strategies to some extent, regardless of group.

Dependent Variables	Group	Ν	М	SD	Min.	Max.
Social affective strategies	RG	84	2.83	.59	1.33	5.00
Social-affective strategies	WG	84	3.15	.65	1.67	5.00
Fluency-oriented strategies	RG	84	2.88	.71	1.00	4.67
Fluency-oriented strategies	WG	84	3.04	.55	1.67	4.67
Negatistica for meaning while appelving	RG	84	3.04	.63	1.75	5.00
Negotiation for meaning while speaking	WG	84	3.29	.69	1.75	5.00
Accuracy-oriented strategies	RG	84	2.93	.60	1.00	4.60
Accuracy-oriented strategies	WG	84	3.09	.50	2.00	4.60
Message reduction and alteration strategies	RG	84	3.56	.57	2.33	5.00
Message reduction and alteration strategies	WG	84	3.59	.61	2.00	5.00
Nonverbal strategies while speaking	RG	84	3.45	.82	1.50	5.00
Nonverbal strategies while speaking	WG	84	3.57	.71	1.50	5.00
Manage allow down and started	RG	84	3.08	.54	1.50	4.25
Message abandonment strategies	WG	84	3.01	.53	1.50	4.25
Attempt to think in English strategies	RG	84	3.34	.75	1.00	5.00
Attempt to think in English strategies	WG	84	3.40	.66	2.00	5.00

Descriptive Statistics: Posttest Measures of Oral Communication Strategy Use

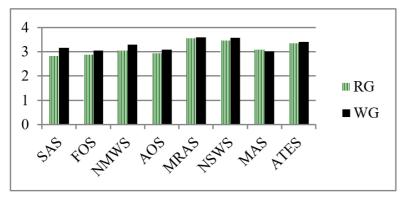
Notes. RG=reading group, WG=writing group

According to Oxford and Burry-Stock (1995), a mean score of 2.5~3.4 indicates medium use and a mean score of 3.5~5.0 reflects high use of strategies. Given that the average score of the RG ranged from 2.83 to 3.56, whereas the WG's score ranged from 3.01 to 3.59, the students seem to have used oral communication strategies at a moderate level or above. Regardless of the groups, the students were found to use "message reduction and alteration strategies" and "nonverbal strategies while speaking" more frequently than other strategies. In contrast, "fluency-oriented strategies," and "accuracy-oriented strategies" were amongst the least frequently used strategies (see Figure 1).

¹ The analysis of the recorded data is not reported here as it is beyond the scope of this paper.

In the comparison of the two groups, the least difference between the groups was found in the following subscales: "attempt to think in English strategies" and "message reduction and alternation strategies." This shows that both groups almost equally attempted to think in English and avoid communication breakdowns. On the other hand, the greatest difference between the two groups was noted in the use of "social-affective strategies" and the second biggest difference was in the strategy of "negotiation for meaning while speaking." More specifically, the students in the WG utilized more "social-affective strategies," the strategies that are generally used by high-proficiency learners (Nakatani, 2006). In other words, they placed more focus on controlling their feelings than those in the RG in order to lower anxiety and enjoy their oral communication.

The mean scores of the WG were also greater than those of the RG in the use of "fluency-oriented strategies," and "accuracy-oriented strategies." Namely, the WG put more emphasis on fluency and accuracy than the RG, while communicating. In contrast, the mean score of the RG was slightly higher than that of the WG only in the subscale of "message abandonment strategies." Specifically, the students in the RG were found to favor "message abandonment strategies," the strategies that are usually associated with low-proficiency learners (Nakatani, 2006). This indicates that the participants from the RG were more likely to give up their attempts to communicate when experiencing problems during actual communication. It can be inferred from the descriptive statistics that output-based planning or writing prior to speaking performance seems to have contributed to a wider use of oral communication strategies, compared to input-based planning.



Notes. RG=reading group, WG=writing group

SAS=social-affective strategies, FOS=fluency-oriented strategies, NMWS=negotiation for meaning while speaking, AOS=accuracy-oriented strategies, MRAS=message reduction and alteration strategies, NSWS=nonverbal strategies while speaking, MAS=message abandonment strategies, ATES=attempt to think in English strategies

Figure 1. Oral communication strategy use across groups

To examine whether the differences between the two groups were statistically significant, a multivariate analysis of covariance (MANCOVA) was performed, but no significant differences were noted between the groups in terms of overall oral communication strategy use (*Wilks' Lambda*=1.48, p = .17). However, the effects of the planning conditions were found to be significant for "social-affective strategies" (*F*(1, 166)=8.694, p < .01) and strategies of "negotiation for meaning while speaking" (*F*(1, 166)=4.975, p < .05). This finding is in line with the descriptive statistics demonstrated earlier. In other words, the students in the WG used significantly more "social-affective strategies," and strategies of "negotiation for meaning while speaking" than those in the RG.

In light of these findings, it appears that the WG tended to use more specific oral communication strategies despite the absence of input materials, while relying on their own interlanguage repertoire. The output-based planning condition might have led the students to actively utilize "social affective strategies" or strategies of "negotiation for meaning." Or it could be said that writing as a pre-speaking task allowed them to be more specifically ready for the speaking tasks, particularly interactional aspects of it, not just language per se.

Source	Dependent Variable	Dependent Variable Type III Sum of Squares		Mean Square	F	р	
	SAS	3.141	1	. 3.141	8.694**	.004	
	FOS	.723	1	.723	2.012	.158	
NMWS AOS Group MRAS NSWS MAS ATES	2.048	1	2.048	4.975*	.027		
	AOS	.622	1	.622	2.241	.136	
	MRAS	.020	1	.020	.060	.806	
	NSWS	.098	1	.098	.182	.670	
	MAS	.257	1	.257	.964	.328	
	ATES	.166	1	.166	.332	.565	

TABLE 2				
MANCOVA Results for	r Oral Communication	Strategy	Use across	Groups

Notes. *p<.05, ** p<.01,

SAS=social-affective strategies, FOS=fluency-oriented strategies, NMWS=negotiation for meaning while speaking, AOS=accuracy-oriented strategies, MRAS=message reduction and alteration strategies, NSWS=nonverbal strategies while speaking, MAS=message abandonment strategies, ATES=attempt to think in English strategies

The RG, on the other hand, seems to have focused more on the relevant meaning and linguistic information contained in the input text or reading materials. The students in the RG simply borrowed expressions from the text, rather than employing oral communication strategies while speaking. In contrast, a greater use of "social-affective strategies," and strategies of "negotiation for meaning while speaking" was noted in the WG. This indicates that output-based planning helped to promote the use of strategies that are commonly associated with high-proficiency learners (Li, 2010; Nakatani, 2010). It can be inferred from these findings that planning conditions can influence the nature and the type of strategies the students utilize. Considering that L2 learners can improve oral proficiency by using specific communication strategies (Li, 2010; Liskin-Gasparro, 1996; Nakatani, 2006), it seems reasonable to expect that the use of those strategies may lead to better performance in speaking.

Strategic Planning and Speaking Anxiety

Table 3 summarizes the descriptive statistics obtained from the analysis of the English speaking anxiety survey for both groups. As seen in the table, the overall mean scores for "communication apprehension" (RG: 2.51, WG: 2.49), and "fear of negative evaluation" (RG: 2.46, WG: 2.43) indicate moderate levels of speaking anxiety (Oxford & Burry-Stock, 1995).

usuies of En	Sush Speak	ung manery			
Group	Ν	М	SD	Min.	Max.
RG	84	2.51	.53	1.29	4.00
WG	84	2.49	.56	1.36	4.00
RG	84	2.46	.66	1.00	4.25
WG	84	2.43	.65	1.00	4.00
	Group RG WG RG	Group N RG 84 WG 84 RG 84	RG 84 2.51 WG 84 2.49 RG 84 2.46	Group N M SD RG 84 2.51 .53 WG 84 2.49 .56 RG 84 2.46 .66	Group N M SD Min. RG 84 2.51 .53 1.29 WG 84 2.49 .56 1.36 RG 84 2.46 .66 1.00

Descriptive Statistics: Posttest Measures of English Speaking Anxiety

Notes. RG=reading group, WG=writing group

TABLE 3

As the table shows, the mean score difference between the two groups was marginal for both "communication apprehension," and "fear of negative evaluation." From the marginal mean score differences between the two groups, it can be inferred that types of planning conditions did not affect learners' speaking anxiety. The nonsignificant difference between the groups was also found in the MANCOVA for speaking anxiety in general (*Wilks' Lambda*=.061, p=.941). In addition, the between-group differences were not statistically significant for both "communication apprehension" (*F*(1, 166)=.022, p=.882) and "fear of negative evaluation" (*F*(1, 166)=.007, p=.935).

While the between-group differences were nonsignificant, the within-group differences were found to

TABLE 4

be significant (See Table 4). In other words, in the comparison of the pretest and the posttest measures of speaking anxiety, the study noted a substantial decrease in anxiety over time as a result of strategic planning, regardless of the groups.

Danan dant Variahla	Group N	N	Pre-test		Post-test		4	
Dependent Variable		IN	М	SD	М	SD	- l	p
Communication Apprehension	RG	84	3.17	.72	2.51	.53	-8.27	.00
	WG	84	3.03	.77	2.49	.56	-6.37	.00
	RG	84	2.91	.73	2.46	.66	-5.35	.00
Fear of Negative Evaluation	WG	84	2.83	.74	2.43	.65	-4.35	.00

Pre- and Post-test Mean Score Differences in English Speaking Anxiety

Notes. RG=reading group, WG=writing group

This implies that strategic planning can be conducive to lowering anxiety. Namely, whether it is inputbased or output-based, planning prior to speaking can contribute to reducing "communication apprehension" and "fear of negative evaluation." This result highlights the importance of planning or preparation, confirming earlier suggestions that speaking without preparation can provoke anxiety from learners in language classroom settings (Kim, 2009; Öztürk & Gürbüz, 2014; Song & Lee, 2015; Tsai, 2014; Young, 1990).

Conclusion

To summarize the key findings of the study, although the difference between the two groups was not significant in terms of overall strategy use, significant differences were noted between the groups for "social-affective strategies" and strategies of "negotiation for meaning while speaking." More specifically, the output-based planning group (WG) was found to employ the two strategies more frequently than its counterpart. In light of this, it could be said that the students in the WG tended to use more interpersonal strategies in planning their speaking, instead of just focusing on what to say. It is important to note here that these strategies are usually associated with high-proficiency learners (Nakatani, 2010). Thus, even though the participants of the study were deficient in their English proficiency, it is encouraging that the students in the WG tried to emulate the characteristics of advanced learners. To put it differently, we can infer that writing-based planning can prompt learners to use those strategies used by advanced learners.

Furthermore, as those strategies are reported to be positively correlated with oral performance (Nakatani, 2010), we can expect some positive changes or gains in learner performance. In contrast, the input-based planning group (RG) focused more on the reading text, specifically utilizing the target words or structures contained in the text. Consequently, the students in the RG may not have used the strategies beyond the boundary of the texts. They might have been so preoccupied with the content of the text that they were perhaps unable to utilize oral communication strategies during the planning and performance stages. As a result, they may have disregarded interpersonal strategies or interactional elements of speaking.

With regard to English speaking anxiety, nonsignificant differences were found between the two groups, not only in overall speaking anxiety but also in "communication apprehension," and "fear of negative evaluation." A substantial decrease in the two categories of anxiety was, however, observed in both groups. These results show that planning in speaking courses, whether it is input-based or output-based, seems to contribute to lowering students' speaking anxiety. This confirms Öztürk and Gürbüz's (2014) finding that the students got more anxious when they had to answer impromptu questions or speak without preparation. Based on the findings, Öztürk and Gürbüz emphasized the value of preparation time prior to speaking performance. In the same vein, Song and Lee (2015) also suggested that increased task practice could help to reduce speaking anxiety during oral performance.

While the findings of this study highlight the beneficial role of strategic planning and differential

effects of planning conditions, they are limited due to possible individual variation. Although the overall proficiency of the students was rated as low, they were not entirely identical in terms of their oral language proficiency. For this reason, the students' ability to plan for their speaking tasks might have varied according to their language proficiency.

Despite the limitation, the finding that output-based planning facilitated the use of interactional strategies, such as social-affective strategies, and meaning negotiation strategies is meaningful, in that the two strategies were found to be used by advanced learners (Li, 2010; Nakatani, 2010). This finding underscores the pedagogical value of writing activities as strategic planning for speaking performance. We can therefore suggest that classroom teachers design writing-based pre-speaking tasks to help learners get ready for their spoken output production. Another notable finding was the effects of strategic planning on speaking anxiety over time. Although the between group differences were not statistically significant, the within-group differences between the pretest and the posttest measures were found to be significant. Namely, regardless of planning conditions, planning contributed to reducing speaking anxiety. Considering that the decrease in speaking anxiety is often associated with better performance or outcomes, classroom teachers should allow students sufficient time to plan before their output production.

In the EFL classroom, there is often little opportunity for output production, not to mention planning or preparation time. This lack of output production and of planning time can arguably hinder students from utilizing the strategies for effective communication. The findings of the study indicate that it is useful to offer students adequate time to think and write to the given cues or prompts prior to their speaking performance so that they can conceptualize and structure ideas. It would be even better to equip them with some effective strategies that can guide their planning process. Classroom teachers can also introduce various kinds of communication strategies in class and train their students to use them for planning their speaking. This is in line with Yu's (2016) study, which demonstrated that strategy instruction positively influenced students' use of communication strategies, and that their strategy use varied according to the task type. In addition to the strategy-based instruction, teachers should encourage their students to monitor and reflect on their strategy use in performing classroom teachers should encourage their students to only comprehensible input that is challenging enough to foster their learning progress, but also opportunities to plan and produce output.

The Authors

Dongju Lee (first author) is an instructor in the Dept. of English Education at Hanyang University in Seoul. Her research interests include second language processing, teaching speaking/writing, and individual learner differences.

Department of English Education College of Education Hanyang University 222 Wangsimri-ro, Seongdong-gu Seoul, 04763, Korea Tel: +82 22201140 Email: leedj0703@hanyang.ac.kr

Sung-Yeon Kim (corresponding author) is Professor in the Dept. of English Education at Hanyang University. She is interested in language teaching methods, language testing, language policy, and computer-assisted language learning (CALL).

Department of English Education College of Education Hanyang University 222 Wangsimri-ro, Seongdong-gu Seoul, 04763, Korea Tel: +82 22201141 Email: sungkim@hanyang.ac.kr

References

- Aaron, P. G., & Joshi, R. M. (2006). Written language is as natural as spoken language: A biolinguistic perspective. *Reading Psychology*, 27(4), 263-311.
- Aida, Y. (1994). Examination of Horwitz, Horwitz, and Cope's construct of foreign language anxiety: The case of students of Japanese. *Modern Language Journal*, 78(2), 155-168.
- Bangs, T. (1985). Integrating speech communication and composition in the classroom. Paper presented at the annual meeting of the International Communication Association, Honolulu. (Eric Document Reproduction Service No. ED 303 830)
- Chau, H. T. (2014). *The effects of planning with writing on fluency, complexity, and accuracy of L2 oral narratives* (Unpublished doctoral dissertation). Michigan State University, Michigan.
- Chen, S. Q. (1990). A study of communication strategies in interlanguage production by Chinese EFL learners. *Language Learning*. 40(2), 155-187.
- Chen, T. Y., & Chang, G. B. (2004). The relationship between foreign language anxiety and learning difficulties. *Foreign Language Annals*, 37(2), 279-289.
- Choi, J. (2014). Developing speaking ability through extensive reading of children's literature: A study on Korean college-level EFL students (Unpublished doctoral dissertation). Hanyang University, Seoul.
- de Bot, K. (1996). Review article the psycholinguistics of the output hypothesis. *Language Learning*, 46(3), 529-555.
- Dörnyei, Z. (2007). Research methods in applied linguistics: Quantitative, qualitative and mixed methodologies. Oxford, UK: Oxford University Press.
- Ellis, R. (2005). Planning and task-based performance: Theory and research. In R. Ellis (Ed.), *Planning and task performance in a second language* (pp. 3-34). Philadelphia, PA: John Benjamins.
- Ellis, R. (2009). The differential effects of three types of task planning on the fluency, complexity, and accuracy in L2 oral production. *Applied Linguistics*, 30(4), 474-509.
- Faerch, C., & Kasper, G. (1983). On identifying communication strategies in interlanguage production. In C. Faerch & G Kasper (Eds.), *Strategies in interlanguage communication* (pp. 210-238). London: Longman.
- Foster, P., & Skehan, P. (1996). The influence of planning and task type on second language performance. *Studies in Second Language Acquisition, 18*(3), 299-324.
- Foster, P., & Skehan, P. (1999). The influence of source of planning and focus of planning on task-based performance. *Language Teaching Research*, *3*(30), 215-247.
- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *Modern Language Journal*, 70(2), 125-132.
- Huang, H. (2004). The relationship between learning motivation and speaking anxiety among EFL non-English major freshmen in Taiwan (Unpublished master's thesis). Chaoyang University of Technology, Taiwan.
- Izumi, S., & Bigelow, M. (2000). Does output promote noticing and second language acquisition? TESOL Quarterly, 34(2), 239-278.
- Johnson, K. (2001). An introduction to foreign language learning and teaching. England: Pearson.
- Jung, M. A. (2012). English speaking strategies used by Korean EFL university students. *Journal of Studies in Language*, 28(1), 133-165.
- Kaivanpanah, S., Yamouty, P., & Karami, H. (2012). Examining the effects of proficiency, gender, and

task type on the use of Communication strategies. Porta Linguarum, 17, 79-93.

- Kang, S. J. (2007). Communication strategies for dual lexical-syntactic problems in L2 oral communication. *Foreign Languages Education*, 14(3), 125-147.
- Kawauchi, C. (2005). The effects of strategic planning on the oral narratives of learners with low and high intermediate L2 proficiency. In R. Ellis (Ed.), *Planning and task performance in a second language* (pp. 143-164). Philadelphia, PA: John Benjamins.
- Kim, E. J. (2010). English learners' perceived preferences for different types of achievement communication strategies. *Modern English Education*, 11(3), 22-39.
- Kim, J. S. (2014). Effects of English writing as a pre-speaking activity on Korean EFL university learner's speaking ability and anxiety. *English Language & Literature Teaching*, 20(1), 329-356.
- Kim, S. Y. (2009). Questioning the stability of foreign language classroom anxiety and motivation across different classroom contexts. *Foreign Language Annals*, 42(1), 138-157.
- Kim, S. Y. (2010). Is foreign language classroom anxiety context free or context dependent? *Foreign Language Annals*, 43(2), 187-189.
- Kitano, K. (2001). Anxiety in the college Japanese language classroom. *Modern Language Journal*, 85(4), 549-566.
- Krashen, S. D. (1982). Principles and practice in second language acquisition. Oxford: Pergamon Press.
- Krashen, S. D. (1985). The input hypothesis: Issues and implications. London: Longman.
- Larenas, C. (2011). Exploring knowledge of English speaking strategies in 8th and 12th graders. *Profile: Issues in Teachers' Professional Development, 13*(2). 85-98.
- Lee, E. J. (2005). Working with what you have: A corpus driven analysis of Korean ESL learners' use of communication strategies. *Korean Journal of the Applied Linguistics*, 21(2), 117-136.
- Lee, E. N., & Yoon, H. S. (2010). The effects of writing as a pre-speaking activity on the college students' speaking performance. *English Language Teaching*, 22(3), 143-166.
- Li, R. L. (2010). The relationship between speaking anxiety and speaking strategies among university students in Taiwan (Unpublished master's thesis). National Ping Tong University of Education, Taiwan.
- Liskin-Gasparro, J. E. (1996). Circumlocution, communication strategies, and the ACTFL proficiency guidelines: An analysis of student discourse. *Foreign Language Annals*, 29(3), 317-330.
- 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.
- Mei, A., & Nathalang, S. (2010). Use of communication strategies by Chinese EFL learners. *Chinese Journal of Applied Linguistics*, 33(3), 110-125.
- Nakatani, Y. (2005). The effects of awareness-raising training an oral communication strategy use. *Modern Language Journal*, 89(1), 76-91.
- Nakatani, Y. (2006). Developing an oral communication strategy inventory. *Modern Language Journal*, 90(2), 151-168.
- Nakatani, Y. (2010). Identifying strategies that facilitate EFL learners' oral communication: A classroom study using multiple data collection procedures. *Modern Language Journal*, 94(1), 116-136.
- Nation, P. (1997). The language learning benefits of extensive reading. The Language Teacher, 21, 13-16.
- Oxford, R. L., & Burry-Stock, J. A. (1995). Assessing the use of language learning strategies worldwide with the ESL/EFL version of the strategy inventory for language learning (SILL). *System*, 23(1), 1-23.
- Öztürk, G., & Gürbüz, N. (2014). Speaking anxiety among Turkish EFL learners: The case at a state university. *Journal of Language and Linguistic Studies*, 10(1), 1-17.
- Park, G. P. (2012). Investigation into the constructs of the FLCAS. English Teaching, 67(2), 207-220.
- Rossiter, M. J. (2003). It's like chicken but bigger: Effects of communication strategy in the ESL classroom. *Canadian Modern Language Review*, 60, 105-121.
- Sangarun, J. (2005). The effects of focusing on meaning and form in strategic planning. In R. Ellis (Ed.), *Planning and task performance in a second language* (pp. 111-142). Philadelphia, PA: John

Benjamins.

- Schleppegrell, M. J., & Colombi, M. C. (2002). *Developing advanced literacy in first and second languages meaning with power*. New York, NY: Lawrence Erlbaum.
- Song, B. S., & Lee, J. H. (2015). The effects of task practice and task type on L2 English oral performance. *Korean Journal of Applied Linguistics*, 31(2), 57-82.
- Spielberger, C. D., & Vagg, P. R. (1995). Test anxiety: A transactional process model, test anxiety theory, assessment, and treatment. Washington, D.C.: Taylor & Francis.
- Swain, M. (1993). The output hypothesis: Just speaking and writing aren't enough. *Canadian Modern* Language Review, 50(1), 158-164.
- Swain, M. (2000). The output hypothesis and beyond: Mediating acquisition through collaborative dialogue. Sociocultural Theory and Second Language Learning, 97, 114.
- Tarone, E. (1980). Communication strategies, foreigner talk, and repair in interlanguage. Language Learning, 30(2), 417-431.
- Tsai, C. (2014). English as a foreign language speaking anxiety among university of technology students in Taiwan. *Modern Journal of Language Teaching Method*, 4(4), 44-48.
- Tsiplakides, I., & Keramida, A. (2009). Helping students overcome foreign language speaking anxiety in the English classroom: Theoretical issues and practical recommendations. *International Education Studies*, *2*(4), 39-44.
- Urquhart, A. H., & Weir, C. J. (1998). *Reading in a second language process, product, and practice.* NY: Addition Wesley Longman.
- Wilson, K. (2011). Smart choice 1 (2nd ed.). Oxford, UK: Oxford University Press.
- Wilson, K., & Healy, T. (2011). Smart choice-starter (2nd ed.). Oxford, UK: Oxford University Press.
- Woodrow, L. (2006). Anxiety and speaking English as a second language. RELC Journal, 37, 308-328.
- Young, D. J. (1990). An investigation of students' perspectives on anxiety and speaking. Foreign Language Annals, 23(6), 539-553.
- Yu, K. A. (2016). Effects of strategy-based instruction on Korean EFL college-level students' English speaking abilities and their communication strategy use. *Journal of Linguistic Studies*, 21(1), 165-188.
- Yuan, F., & Ellis, R. (2003). The effects of pre-task planning and on-line planning on fluency, complexity and accuracy in L2 monologic oral production. *Applied linguistics*, 24(1), 1-27.

www.kci.go.kr

Appendix

Oral Communication Strategy Inventory (OCSI)

No.	Items
1	I think first of what I want to say in my native language and then construct the English sentence.
2	I think first of a sentence I already know in English and then try to change it to fit the situation.
3	I use words which are familiar to me.
4	I reduce the message and use simple expressions.
5	I replace the original message with another message because of feeling incapable of executing my original intent.
6	I abandon the execution of a verbal plan and just say some words when I don't know what to say.
7	I pay attention to grammar and word order during conversation.
8	I try to emphasize the subject and verb of the sentence.
9	I change my way of saying things according to the context.
10	I take my time to express what I want to say.
11	I pay attention to my pronunciation.
12	I try to speak clearly and loudly to make myself heard.
13	I pay attention to my rhythm and intonation.
14	I pay attention to the conversation flow.
15	I try to make eye-contact when I am talking.
16	I use gestures and facial expressions if I can't communicate how to express myself.
17	I correct myself when I notice that I have made a mistake.
18	I notice myself using an expression which fits a rule that I have learned.
19	While speaking, I pay attention to the listener's reaction to my speech.
20	I give examples if the listener doesn't understand what I am saying.
21	I repeat what I want to say until the listener understands.
22	I make comprehension checks to ensure the listener understands what I want to say.
23	I try to use fillers when I cannot think of what to say.
24	I leave a message unfinished because of some language difficulty.
25	I try to give a good impression to the listener.
26	I don't mind taking risks even though I might make mistakes.
27	I try to enjoy the conversation. I try to relax when I feel anxious.
28	I actively encourage myself to express what I want to say.
30	I try to talk like a native speaker.
31	I ask other people to help when I can't communicate well.
32	I give up when I can't make myself understood.

www.kci.go.kr