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Heightening Advanced Adult Second-Language Learners' Awareness of Strategy Use in Speaking: A Little Can Go a Long Way

In my teaching experience, nonnative speakers often feel the sentiment that speaking is critical for functioning in the target language environment and that it is the most challenging aspect of using language in everyday life. Surveys of English as a Second Language (ESL) learners have found that even learners with high TOEFL (Test of English as a Foreign Language) scores feel they lack speaking skills and regard improving their speaking ability as highly important (e.g., Ferris, 1998). However, there has been relatively little research on speaking skills and on the development of speaking at different language levels (Hughes, 2002). In the field of language-learning strategies, far more articles have dealt with written than spoken communication. Though second language (L2) strategy research has expanded over the past three decades, speaking has received limited attention. This study uses Vygotsky's sociocultural theory and Halliday's systemic functional linguistics to explore the effects of raising awareness of strategy use on learners' strategy use and oral production.

Theoretical Background

In this section, I first briefly review language-learning strategies in second language acquisition (SLA) and research relevant to speaking. Next, I present relevant concepts associated with Vygotskian sociocultural theory and discuss the theoretical relevance of systemic functional linguistics.

Language-Learning Strategies in Second Language Acquisition

Debate concerning how language-learning strategies and terminology should be defined remains unresolved (e.g., Cohen, 1998; Dörnyei, 2003; O'Malley & Chamot, 1990; Oxford, 1990b; Purpura, 1999). Early studies identified learner strategy types and their frequency (e.g., Naiman, Fröhlich, & Todesco, 1978). The generation of learner strategy lists has led to different ways of organizing and classifying language-learning strategies (LLS) into frameworks and to differing opinions about how learner strategies should be categorized (e.g., O'Malley & Chamot, 1990; Oxford, 1990b; Cohen, 2002). While there are many and varied systems, there is also some overlap among the strategy groups within a system, as well as among various systems. Still, some issues remain, such as: the validity of considering strategies as individual entities; how some techniques might be classified within different categories or involved in more than one strategy group; and how many strategies are available to language learners. In addition, some studies have suggested that good learners generally employ more strategies and are more aware of their learning process (e.g., Sanaoui, 1995). One must question the assumption that there are "good" language-learning strategies, because, as Ellis (1994) pointed out, effective strategy use may relate to various learner variables, as well as to the kinds of tasks at hand. There is also a lack of consensus about whether strategies must be conscious to be effective. Drawing on Leont'ev's (1978) Activity Theory, when a behaviour reaches

automaticity such that the learners are unaware of or unable to identify any strategies associated with it, then the behaviour is referred to as an *operation*, not a strategy. *Operations* are routinized behaviours that learners perform automatically, without the same level of consciousness required of *actions*. In this study, a strategy represents the conscious or subconscious thoughts and goal directed behaviours used by learners.

Since the 1980s, the focus has shifted from a product to a process orientation. This shift has generated much interest in the study of strategy use in language acquisition (e.g., O'Malley & Chamot, 1990; Wenden & Rubin, 1987). During the past decade, SLA researchers have been developing an empirically-based framework for analyzing learning strategies. Research on language-learning strategies has established the role that learner strategies play in making language-learning more efficient and successful (e.g., Chamot, 1993; Cohen, 1990; O'Malley & Chamot, 1990; Oxford, 1990b; Rubin, 1975; Wenden & Rubin, 1987). Several studies have addressed how strategies can help learners develop oral communication ability (e.g., Cohen & Olshtain, 1993; Cohen, Weaver, & Li, 1996; Nunan, 1996). Much research has demonstrated the positive effects of strategy instruction on speaking proficiency (e.g., Dadour & Robbins, 1996; Nunan, 1996; O'Malley & Chamot, 1990). Oxford and Ehrman's (1995) study also established a significant correlation between cognitive strategy use and speaking proficiency. Although studies have supported the claim that strategy use correlates with improved performance, some researchers (e.g., Gu, 1996) have pointed out that there is no definite relationship between strategy use and language performance. Researchers also have recognized the complex array of individual learner variables, as well as context, task, and instructor factors that may affect how strategy instruction facilitates language learning.

Until now, the general conclusion in the SLA field has been that no single method has proven to be effective for all learners across all contexts (Oxford, 2001). Topics such as the directness of the positive effect on learning of using certain types of strategies, the casual relationship between strategy use and second language performance, the correlation between learners' strategic behaviours and second language development require further investigation. As Rees-Miller (1993) also urged, more empirical evidence is needed to demonstrate relationships among conscious awareness of strategy use, progress in language proficiency, and ways learners benefit from strategy use.

In this study, I used Oxford's Strategy Inventory for Language Learning (SILL) (1990b) to assess participants' typical strategies across a variety of possible tasks and changes in their general strategy use over time. The instrument is structured based on Oxford's classification system, which includes the following six major categories: (a) *memory strategies* (i.e., relating new material to existing knowledge as new information is stored and retrieved); (b) *cognitive strategies* (i.e., manipulating the target language for understanding and producing language); (c) *compensation strategies* (i.e., using the target language despite missing knowledge); (d) *metacognitive strategies* (i.e., examining the learning process to organize, plan, and evaluate efficient ways of learning); (e) *affective strategies* (i.e., involving self-talk or mental control over affect); and (f) *social strategies* (i.e., interacting with others to improve language learning).

Despite some criticism (e.g., Cohen, 1998; LoCastro, 1994; Ellis, 1994), LLS researchers have used the SILL widely across various language-learning and cultural contexts (see Oxford, 1996b); the results make it possible to compare findings across studies using the same instrument and also serve as a source for data triangulation. This triangulation is important because (a) different methods of assessing strategies may provide different responses (e.g., LoCastro, 1994) and (b) learners' responses to questionnaires regarding what they think they do may not reflect what they actually do when they engage in an actual speaking task.

Sociocultural Theory

This research used the theoretical framework developed within the Vygotskian school of sociocultural theory (Vygotsky, 1978). One major theme of Vygotsky's approach is genetic analysis, which examines developmental processes in transition (Vygotsky, 1981b; Wertsch, 1985). The continuity of human behaviours over time suggests that past problem-solving strategies are reproduced by using tools and practices that work as solutions in the present. Researching the development of language-learning strategies by employing a genetic approach becomes critical for understanding the emergence, restructuring, development, and transformation of strategy use that take learners' goals and histories into account.

The concept of mediation. In sociocultural theory, mediation is important in the construction of activity and the generation of higher mental processes. Higher mental processes, such as verbal thought, logical memory and attention, problem solving, and planning and evaluation, are closely related to various categories of LLS. Learning strategies are not viewed merely as cognitive predispositions; instead, these higher mental functions are generated in goal-directed, mediated activity in sociocultural settings. Vygotsky's other important, relevant concept is that private speech mediates mental processes (Lantolf, 1994). McCafferty (1994) explained that private speech has metacognitive, cognitive, social, and affective functions. As described later, in this study, cards were used as a form of private writing throughout the experimental period; this activity produces learning by fostering a new form of mediation for learners' thinking about strategy use. This technique also is used for planning future courses of action and for monitoring language development; it is consistent with the Vygotskian approach to learning and the genetic approach to research.

From social interaction to self-reflection Vygotsky (1978) viewed learning as a social process, emphasized the relation between cognitive development and social interaction, and regarded both *reflective control* and *deliberate awareness* as critical components of formal learning. From this perspective, reflection is an invaluable tool that helps foster critical thinking, self-assessment, and self-directed learning that can contribute to L2 development. It assumes that individual learners can see themselves as sources of action and as the subjects of purposeful change (Lampert, 1995). Reflection also provides developing learners with perspective on their own development.

The Integration of Systemic Functional Linguistics

The functional approach to SLA holds that “the acquisition of a language arises from general circumstances of use and communicative interaction” (Tomlin, 1990, p. 157). This is consistent with the view held in Systemic Functional Linguistics (SFL), but, beyond that, SFL proposes that the clause is organized along metafunctional lines. In all utterances, individuals make choices regarding the metafunctions that constitute the act of meaning.

According to SFL, lexis and grammar constitute a unified resource called lexico-grammar (Matthiessen, 1991); lexis and grammar are interdependent. A speaker’s linguistic choices in any social situation are realized through lexico-grammatical choices, in other words, through the words and structures that he or she used (Eggins, 1994). According to Halliday (1994), the structure of language is functionally motivated. SFL views language as a social activity occurring within a situational context and fulfilling various functions. Halliday (1994) posited that the English language combines three functional metafunctions -- to construe experience (*experiential* function), to sustain interaction between interlocutors (*interpersonal* function), and to create connected discourse (*textual* function), and that “the three functional components of meaning...are realized throughout the grammar of a language” (p. 179). This research focuses on how each metafunction is realized at the lexico-grammatical level. The analysis is by no means exhaustive, but focusing on a set of “key concepts” serves the study’s purpose; that is, it furthers examination of the effects of raising awareness of strategy use on advanced adult second language learners’ linguistic output. An important aspect of the SFL theory is that there is no generalized system “inside” the speaker’s head, but the system is what is realized on the occasions of use. This conceptualization enables the researcher to explore the possibility of change in the systems realized in the process of learners’ talk.

During the last several years, researchers have begun to recognize similarities between the theories of Halliday and Vygotsky, as well as how these theories might complement each other (Wells, 1999). The functional approach to language and socioculturally based ideas of learning recognize the context-specific nature of interaction (Vygotsky, 1978). Through interaction, learners appropriate the processes involved, through internalization and integration with existing resources. Such opportunities transform how learners tackle similar problems in the future.

Research Questions

This study explored the effects of raising awareness of strategy use by examining the following two questions:

- (1) Does raising awareness of strategy use in speaking have varying effects on adult second language learners’ oral production, as manifested through (a) lexico-grammatical features involving lexical complexity and grammatical intricacy, and (b) lexico-grammatical resources used by learners to realize experiential, interpersonal, and textual metafunctions?

- (2) What is the difference in strategy use between the experimental group members, who participated in an awareness-raising session in week 1 and engaged in ongoing post-speaking activity strategy-specific reflection, and members of the comparison group, who did not participate in a speaking strategies awareness-raising session in week 1 and engaged in post-speaking activity freewheeling reflection?

Research Methods

Context and Participants

The main study involved two adult ESL learners' groups of four learners each, all full-time university graduate students who voluntarily signed up for a non-credit English conversation course and were randomly assigned to the two groups before the course began. Each group met 2 hours per week for 10 weeks. The primary purpose of the course was to provide learners with opportunities to speak in the target language, opportunities that L2 learners have reported to be lacking. Table 1 presents the individual learners' profiles.

Table 1
Individual Learners' Profile

Group	Experimental			
	Eva	Erica	Edward	Emily
Gender	F	F	M	F
Age	26	30	34	32
Program	M.Sc.	M.Sc.	M.Sc.	M.A
Area of Specialization	Engineering	Engineering	Computer Science	Sociology
First Language	Taiwanese	Spanish	Japanese	Spanish
Second Language	Mandarin	English	English	English
Third Language	English	French	French	N/A
LSEC (month)	1	6	1	3
Group	Comparison			
	Cathy	Collin	Chris	Carol
Gender	F	M	M	F
Age	26	28	27	31
Program	M.A	M.Sc.	M.Sc.	M.D.
Area of Specialization	Communication Studies	Engineering	Engineering	Biology
First Language	Cantonese	Spanish	Mandarin	Mandarin
Second Language	Mandarin	English	English	English
Third Language	English	French	French	Japanese
LSEC (month)	1.25	4	1	1.5

Note. LSEC = Length of stay in English speaking countries

Data Collection

Data collection included Individual Learner's Profile Questionnaire, the SILL, Learners' Reflective Cards, Post-activity Strategy Recall Checklists, and audio tape recordings. The questionnaires were used to elicit information/histories about participants' backgrounds to provide a profile of the participants. For oral production, I used audio-taped recordings of learners' weekly speaking tasks to assess and compare the difference in oral production among members of the two groups. For strategy use, I assessed and compared learners' change in strategy use, using data from pre- and post-experiment SILL scores, weekly post-activity Reflective Cards for both groups, and weekly post-activity Strategy Recall Checklists as part of the awareness-raising for the experimental group. Although not all SILL items are relevant to speaking, because speaking relies on other linguistic skills, the SILL results were a valuable resource for exploring and assessing the changes in both groups' strategy use. As for the cards, being *reflective* refers to the metacognitive act of intentionally looking back on experience; *cards* constitute a regular, sustained pattern for written entries on 3 x 5 blank cards. Learners wrote their post-speaking activity thoughts on the cards. The Post-activity Strategy Recall Checklists included strategies generated from sharing the strategies used to prepare for, perform, and evaluate a speaking task used by the experimental group in week 1. The checklist was distributed to the experimental group after the Reflective Cards were completed and collected. Having the reflection activity before the checklist meant that participants' reflections would be less likely to be directly affected or prompted by the listed strategies.

Procedural Differences between Groups

In the first session, the experimental group received speaking strategies awareness raising in a single 50-minute session, which I carried out, that proceeded with "brainstorming strategies – role-playing scenarios– discussing strategies used – sharing strategies" activities. This session aimed to develop learners' awareness of strategies through consciousness raising and strategy assessment. The comparison group did not receive the strategies awareness-raising session, but simply performed the two identical role-playing speaking tasks without discussion or assessment of strategy use. Each week throughout the experimental period, both groups engaged in a variety of identical speaking activities that were free from instructional intervention. To maximize condition equivalence, neither group was informed of the topic or task in advance. Both groups engaged in a 10- to 20-minute reflection in class, but members of the experimental group were asked to reflect specifically on their strategy use and members of the comparison group were asked to reflect freely on their execution of the speaking activity. Members of the experimental group also were asked to complete a post-speaking activity reflection on their strategy use through a Strategy Recall Checklist.

Data Analysis

Analysis of Spoken Data

The discourse transcript consisted of one weekly speaking activity by members of both the experimental and comparison group over a 10-week period. The tapes were fully transcribed. To have a valid and reliable measure of TTR, I used the VOCD (VOCabulary Density) program (Malvern & Richards, 1997). I used the VP (VocabProfile) software (Laufer & Nation, 1995), which places words into four categories by frequency, to examine lexical richness. To calculate grammatical intricacy, I divided the total number of clauses in the spoken text by the total number of sentences (Eggins, 1994). For clauses that were cases of simple repetition, or reformulation, only one clause was counted. Minor clauses, such as lexicalized minor clauses, textual continuity adjuncts, and elliptical or incomplete clauses/sentences, which occur more frequently in conversational exchanges and do not contribute to measuring grammatical intricacy, were not included when counting clauses.

To examine the three metafunctions, I analyzed each text using three strands: transitivity analysis (experiential metafunction), mood analysis (interpersonal metafunction), and cohesive devices (textual metafunction). Using the clause complex as a unit of analysis allows for full consideration of the sentences' functional organization (Halliday, 1994, p. 216). Analyses of the three strands of metafunction followed the categories and methods set out in SFL (see Butt *et al.*, 2000; Eggins, 1994; Halliday, 1994; Martin *et al.*, 1997; Thompson, 1996). A comparison based on mere frequencies of usage in various lexico-grammatical resources cannot lead to meaningful group comparisons, because each group produced spoken texts of different lengths. Thus, the tabulation of ranking clauses becomes necessary, and, in this process, the raw number of occurrences may be transformed as frequencies in proportion to the spoken texts' length. After the analyses were completed, comparisons were made synoptically by quantifying the overall choices that each group made, and the totals then were computed as proportions. This tabulation thus enabled comparison of the two groups' usage of various lexico-grammatical resources in the realization of the three metafunctions.

Analysis of Strategy Use Data

The first stage of the content analysis consisted of examining learners' Reflective Cards to determine the types of problems and learning strategies that both groups mentioned. Forms of data analysis included labeling, categorical aggregation, direct interpretation, patterns and themes, and description, using qualitative data analysis software N6. Further analysis included counting the variety and frequency of different strategies in both groups. The identified strategies also were categorized according to Oxford's strategy typology. Excerpts of the coding of problems and strategies mentioned in the Reflective Cards are presented in Tables 2 and 3. Both intra-coder and inter-coder reliability checks were conducted.

Table 2

An Excerpt of the Coding of Problems Mentioned by Both Experimental and Comparison Groups in Reflective Cards

Problem	Example
Vocabulary	“Sometime I cannot find the vocabulary I’d like to use.”
Nervousness	“I get nervous when others are quiet, listening to my speech.”
Grammatical accuracy	“I am trying to use perfect tenses. They are very difficult for me.”
Paraphrase	“It took me a while to think of another way to express my thoughts.”
Lack of practice	“Maybe I spent too much time writing essays and did not speak English so much in daily life.”
Using formulaic expressions	“My inability to come up with some common phrases that allow time to prepare comments.”
Pronunciation	“I keep fighting my pronunciation.”
Translating from L1	“I was always thinking in my mother tongue and trying to translate.”
Worrying about making mistakes	“I am afraid of making mistakes.”

Table 3

An Excerpt of the Coding of Strategies Mentioned by Both Experimental and Comparison Groups in Reflective Cards

Strategy	Example	Strategy Type
Simplifying	“Simplify my message and break it into shorter sentences.”	Compensation
Practice/interact more	“I think that I need to practice speaking with others whenever I can in order to improve my skills.”	Social
Self-correct	“I tried to correct my mistakes the next time.”	Metacognitive
Self-monitor	“I monitor how fast I talk and try to speak slowly.”	Metacognitive

Use formulaic expressions	“I try to use common phrases I have learned to fill the gap before I am ready to express my ideas.”	Compensation
Feel relaxed/calm	“I tried to calm myself down before I started to talk.”	Affective
Encourage oneself to take risks	“I told myself to take risks and start talking; otherwise I miss good chance to speak English and join the conversation.”	Affective
Speak to NSs	“I will speak with native speakers in order to learn more about different ways to express ideas in English.”	Social
Write notes	“I can take more notes in English on what I want to say and on what others have said.”	Cognitive
Think in English	“I tried to think in English.”	Cognitive
Memorize	“I am going to memorize certain ways of saying things.”	Memory
Use gestures	“Sometimes I use gestures to help me express myself.”	Compensation

Statistical Analyses

I used SPSS Version 11.5 to perform *t* tests of independent samples to determine whether there were any statistically significant differences between the experimental and the comparison groups in oral production and strategy use, as well as whether the experimental group had made statistically significantly greater gains than the comparison group. I used parametric tests because: (1) the *t* test is robust against the absence of normality when the sample sizes are equal. It assumes that the *underlying* distribution of the variables would most likely be normal, and, with increasingly larger samples (i.e., >30), the probability of normality would only increase; (2) non-parametric tests lack the precision of parametric tests. *T* tests indicate significance specifically down to degrees of freedom (df) = 1, i.e., a sample size of 2; in this study for N = 8, df = 7, and N = 4, df = 3 (Porte, 2002); (3) I computed the skewness (asymmetry) of the distribution to determine whether the data were sufficiently symmetric to permit use of the parametric test. Skewness indicates the degree of symmetry in a given sample's distribution. Ranges of skewness scores for the oral production and strategy use variables for the experimental group were $\sigma = -0.58$ to 0.07 and $\sigma = 0.29$ to -1.41 respectively; for the comparison group, they were $\sigma = -1.32$ to 0.66 and $\sigma = -0.44$ to 0.48 respectively. A skewness

score within the +2.0 to -2.0 range suggests that the distribution can be treated as symmetric and that the variables can be used in parametric analyses that require normally distributed variables (Pavkov & Pierce, 2001).

To perform the *t* tests, each respondent's weekly values were summed for weeks 2 to 10 and divided by 9, to obtain the week 2 to 10 mean for the oral production and strategy use variables. The means were used as input to compute independent sample *t* tests for mean differences between the experimental and comparison groups. Levene's test for homogeneity of variances is robust in the face of departures from normality (Norusis, 1995). I used it to test whether the variation was significantly different for the experimental and comparison groups, because an assumption for *t* test analysis is that the two groups being compared have equal variances. The alpha level was arbitrarily chosen as $\alpha = .05$, with no adjustment for multiple tests used for the same participants. I also calculated the effect sizes (Hedges' *g*) from the *t* tests of significance by computing the standardized mean difference between the two groups to measure the experimental effect's relative magnitude. Because the sample was small, adjusted estimates of Hedges' *g* effect sizes and 95% confidence intervals were calculated for correcting sampling error bias (Hedges & Olkin, 1985; Rosenthal, 1991).

I conducted correlational analyses to measure the direction and magnitude of associations among the oral production and strategy use variables. Because there were more variables than participants, I used averages to compensate for the resulting limitation involving degrees of freedom. Averages were computed for all variables by using Excel and dividing by the number of elements (nine for the number of weeks and the number of items for each category). A one-tailed test was used to determine whether the SILL variables and Reflective Cards correlated positively with all oral production variables.

To examine differences between groups over time, I used a repeated measures design to compare the variation of individuals over the nine weeks (within-subjects variation) to the variation between groups (between-subjects variation), as well as a trend analysis to assess the underlying trend over time. Using repeated measures allowed me to explore these questions: Do mean values differ over time and between groups? Is there a statistically significant linear trend over time in the means? Because the number of participants was insufficient to calculate Mauchly's Test of Sphericity, the Huynh-Feldt correction for repeated measures was used to adjust the degrees of freedom for tests of statistical significance (Huynh & Feldt, 1976).

The advantages of using repeated measures are: (a) errors caused by individual differences across groups are eliminated; (b) measuring the same participants across time decreases sample variability and indicates interpretation that any difference between groups is likely due to the treatment; and (c) a smaller sample size is permitted for studying effects over time. To address potential dangers associated with repeated measures designs, first, measurements were not from learners' standardized tests, but from their freewheeling expressions of thoughts in response to the weekly speaking task. This measure minimized potential progress error effects. Second, neither group was informed of the topic or task in

advance, and participants did not know the specific lexico-grammatical features of their oral production or the nature of their strategy use to be analyzed. Thus, blind participation further reduced potential progressive error effects. Third, in addition to within-subjects tests, I also included a between-subject analysis of variance. The results from the repeated measures analyses complemented the results from the *t* tests. By using multiple statistical measures, I enhanced my findings' reliability. Finally, regarding assessing unwanted associations, this would require as many groups as would be needed to order randomly 10 items over 10 weeks, that is, $k = 10!$ (i.e., 3,628,800 groups). This would not be feasible at this point.

Results and Discussion

Oral Production

In broad terms, the D values generated by the VOCD program offer insight into the range of vocabulary that both groups used. Overall, the experimental group had a higher D value than the comparison group (55.00 vs. 46.32). In the results regarding the lexical richness of the spoken text, both groups were similar across the three lists, as shown in Table 4, with the experimental group having more word family members across all word lists than the comparison group. The experimental group also showed a higher overall average grammatical intricacy score (2.05 vs. 1.86).

Table 4
Lexical Frequency Profile Measured by VP

	Word List	<i>Experimental Group</i>			<i>Comparison Group</i>		
		Token	Type	Families	Token	Type	Families
A	First 1,000 base list	88.1%	62.0%	561	87.6%	66.7%	541
B	Second 1,000 base list	6.5%	15.5%	185	7.3%	15.3%	150
C	Academic base list	2.1%	9.0%	97	1.8%	7.1%	67
D	Off list	3.3%	13.5%	-	3.3%	10.9%	-

The findings regarding the three metafunctions that learners used to realize meaning at the lexico-grammatical level revealed that both groups were similar in their use of various processes considered categorically and aggregately in proportion to each group's total oral output. They shared the same dominant process choices (i.e., material, mental, verbal, and relational) in proportion to the total number of processes used, both weekly and aggregately. The four main process types found in both groups' spoken texts are consistent with the Hallidayan topology of four core process types that represent clauses in English (Martin *et al.*, 1997). In terms of circumstances, besides sharing the same dominant circumstance type (i.e.,

location), overall, the experimental group used more circumstances in proportion to its total oral output than the comparison group. The frequency of circumstantial detail contributes to the spoken text's experiential density (Eggins, 1994) because they add specificity to the information given; speakers commonly use them to expand a prior contribution.

From an interpersonal perspective, there were no noticeable differences between the two groups in most of their selections of mood choices that reflect the speech roles of the speaker and the listener. The comparison group engaged in less negotiation, as shown by the percentage of polar interrogatives (4% vs. 11%). The percentage of ellipsis, which is a sign of sharing in dialogues, showed that the experimental group had a higher percentage overall (16% vs. 9%). As for the use of subject choice, both groups began the same (i.e., using 'I'), but the experimental group eventually showed a greater variety of choices than the comparison group.

From a textual perspective, overall, both groups showed similar proportions in the usage of each type; lexical cohesion (experimental: 45% vs. comparison: 41%) was the dominant type, followed by reference (23% vs. 25%), conjunction (21% vs. 22%), and ellipsis and conjunction (11% vs. 12%). Because neither group received instruction in cohesion, there was no major difference in usage patterns of various types between the two groups, as was originally speculated. Overall, in proportion to the text length, the experimental group used more cohesive devices than the comparison group (3.67 vs. 2.86).

Learners' Strategy Use: Results from the SILL

The results generated from the SILL were intended to gauge each group's frequency of using general language-learning strategies, pre- and post-experiment. As Table 5 shows, the initial SILL results indicated that members of both groups were all 'medium' users of language-learning strategies in week 1. Over the course of the experimental period, all participants showed an increased SILL. However, the experimental group showed a greater change in all participants' averages than the comparison group (24% vs. 7%, respectively).

Table 5
Changes in Average Frequency of Strategy Use by the Experimental and Comparison Groups Measured by SILL

Group	Participant	Average FSU (Week 1)	Average FSU (Week 10)	Change
Experimental	Eva	3.19	3.77	↑ 18%
	Erica	3.41	4.39	↑ 29%
	Edward	3.49	4.25	↑ 22%
	Emily	3.34	4.23	↑ 27%
Average		3.36 (medium FSU)	4.16 (high FSU)	↑ 24%

Group	Participant	Average FSU (Week 1)	Average FSU (Week 10)	Change
Comparison	Cathy	2.98	3.36	↑ 13%
	Collin	2.86	3.12	↑ 9%
	Chris	3.04	3.17	↑ 4%
	Carol	3.04	3.13	↑ 3%
Average		2.98 (medium FSU)	3.20 (medium FSU)	↑ 7%

Note. An average 3.5 to 5 is categorized as high FSU; 1.5 to 3.4 is categorized as medium FSU; and below 1.5 is categorized as low FSU (Oxford, 1989).

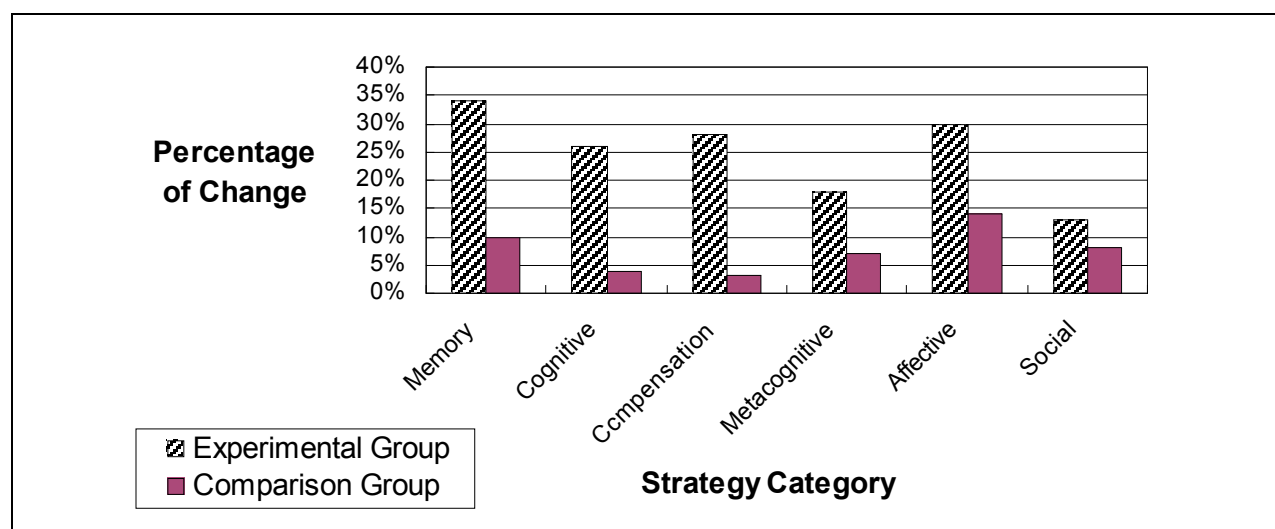


Figure 1. Total percent of change grouped by strategy type for the experimental and comparison groups.

Regarding changes in each language-learning strategy category measured by the SILL, Figure 1 shows that the two strategy groups that showed the most differentiation in the change in strategy use between the experimental and the comparison groups were compensation (28% vs. 3%) and cognitive strategies categories (26% vs. 4%). It is interesting that the affective strategies category showed one of the top two increases in the frequency of strategy use for both groups. This differed from most findings, which have identified affective strategies as one of the least mentioned types (e.g., O'Malley & Chamot, 1990). Reflection through writing weekly Reflective Cards facilitates learners' engaging in a form of "self-talk," in which, depending on each individual's reaction to the task, learners' perception of self-efficacy may vary. From this perspective, self-talk is an affective strategy in itself; this may have influenced the present study's results in the affective strategy category. Graham (1997) also linked heightened awareness and affect; increasing learners' awareness of the strategies employed and their

respective outcomes may enhance learners' "sense of control over their own learning" and serve as "a powerful source of motivation harnessed" (p. 123).

Learners' Strategy Use: Results from the Reflective Cards

Content analysis of the Reflective Cards showed that the problems the experimental group members most commonly identified were those related to lack of vocabulary, grammatical accuracy, and fluency. Comparison group members identified the lack of vocabulary most often. Strategies that the experimental group members most commonly identified included organizing thoughts, identifying the goal of speaking, self-monitoring, using an outline, paraphrasing, and fostering relaxation by taking deep breaths. For the comparison group, the most commonly mentioned strategy was practicing outside class. For members of the experiment group, among the commonly shared strategies, organizing thoughts before speaking was mentioned most frequently (16 times over the experimental period), closely followed by identifying the speaking goal (15 times), and self-monitoring (10 times). In contrast, comparison group members had no commonly shared strategies. Overall, results showed that the experimental group had more problems and strategies, but there was no major difference in number of problems identified (16 vs. 12). In addition, the groups were found to share many common speaking challenges. However, overall, the experimental group generated 1.75 times (28 vs. 16 times) more strategies to solve the various speaking problems identified, and mentioned its strategy use 3.5 times (125 vs. 35) more than the comparison group did.

Of the six types of strategies, the top three that the experimental group used were metacognitive (54%), followed by compensation (15%), and cognitive (10%) and affective (10%). Both groups used memory strategies the least often, which differed from the findings of most language-learning strategies studies that have included diaries (see Oxford, 1996b). The experimental group most frequently used compensation strategies. The results of this analysis also did not agree with the SILL results for both groups. This can be attributed to the fact that reflection focused specifically on executing speaking tasks, rather than on language-learning strategies in general.

Quality of reflection The following excerpts from the Reflective Cards illustrate how differently members of each group approached solving many of the commonly shared speaking problems.

Experimental Group: Edward

Week 4: "My ideas were not being understood by others, and it took me a while to think of another way to express my thoughts. I will learn to express the same meaning in other ways and to give others specific examples to help them understand."

Week 5: "There were moments when I was at a loss for words, but I tried to say things in different ways, and I found that I was able to do that more quickly than before. I will also try to simplify ideas or think about what it is in general that I am trying to say. I found myself worried

about making mistakes today. I think I need to learn to relax and tell myself not to worry excessively about trivial parts of the idea.”

Week 6: “I told myself to relax, and that worked. I am more happy with my participation than before, because, rather than paying attention to every grammatical bit when I am trying to say something, I tried organizing my thoughts before speaking. This was also helpful in making me feel more relaxed and confident about what I have said or wanted to say. I think that making a general outline first may work well.”

Experimental Group: Emily

Week 6: “I feel more confident speaking in English, but I’d like to be more fluent. I could not help stop speaking. I think I should prepare and think more before presenting my opinion. I can learn to organize my thoughts while speaking, and to relax by taking a few deep breaths. I think it will also be very useful to use my knowledge and experience to discuss and express my opinion.”

Week 7: “During the discussion, I tried thinking in English, and I predicted grammatical structures and vocabulary that I would need. This helped overcome not having the word I needed to use. I think I have to learn to reorganize my ideas in English, and to continue to try to think in English.”

Week 8: “I found the best strategy to overcome the problem is to have a clear idea of what I want to say. Definitely when I concentrate, I get better results, and to have some written words beside me was useful. I used the outline for speaking and concentrated on the conversation or discussion.”

Content analysis of the Reflective Cards showed that the experimental group members engaged in a more *transforming*, constructive type of reflection. Their reflection involved elements of recognizing problem(s) (e.g., “All my ideas got mixed up when I was speaking”), identifying the causes of the problem(s) (e.g., “I think this is because of nervousness and lack of practice”), hypothesizing strategies (e.g., “I think that making a general outline first may work well”) or ways to overcome problems (e.g., “I will try to take a few deep breathes and relax, and write down notes or a simple structure of my ideas to help me participate in discussions”), and evaluating strategies (e.g., “Writing down the main points and structure really worked. This also helps me to have less nervousness”). As Emily put it: ‘I have established my confidence in overcoming speaking challenges through *the process of problem solving*’ (emphasis mine).

In contrast, the comparison group’s reflection appeared to be less elaborated than that of the experimental group. For example:

Comparison Group: Chris

Week 4: “I have problems when I participate in English. I should use new English phrases.”

Week 5: “I still got problems when I speak because I don’t have much experience expressing my own opinion.”

Week 6: "I still have some problems -- Lacking vocabulary. I need to learn more by reading and watching TV."

Week 7: "I stopped so many times. I think I should try to find some topics to practice".

Week 8: "I need to think in English."

Week 9: "I have problems with my pronunciation, so my talk was not clear."

Comparison Group: Cathy

Week 4: "I found that when I was asked a question suddenly, I couldn't express my opinion. When in fact I usually can speak correctly, if I want to say the same thing."

Week 5: "When I faced an unfamiliar topic, I couldn't express my opinion. Perhaps I can start with a simple opinion, think carefully before speaking."

Week 6: "I couldn't organize my thoughts quickly enough. I am wondering how I can translate my thought from Chinese into English quickly."

Week 7: "I couldn't organize my thoughts quickly enough to keep up with others. Maybe a helpful way to overcome to improve my communication ability is to think about what others will respond to me first."

Week 8: "I was thinking about how to express the same meaning in a different way. I need to practice more."

Week 9: "I feel nervous when listening, and I need to relax. Ask others to slow down, or ask some questions."

In the comparison group, learners engaged more in *naming* types of reflection (e.g., 'I have *problems* when I participate in English' or 'I should expand my vocabulary'), with limited elaboration regarding kinds of problems, reasons for them, or what one should do to resolve them. However, reflections by the comparison group members also revealed traces of problem-solving intentions. For example, up until week 5, Chris did not identify what types of 'problems' he was experiencing. In weeks 6 and 7, he identified specific problems (e.g., vocabulary) and generated means for further improvement (e.g., reading and practicing). Cathy, who majored in Communication Studies, clearly identified problems and hypothesized about some solutions, but showed no signs of having reflected about the strategies used to solve the identified problems.

Results indicated that both groups were capable of reflection, though their reflection differed qualitatively. The difference between the two groups allows the inference that (a) reflection alone is insufficient -- pushing development forward would require that learners engage in goal-directed activities; and (b) the depth of reflection demonstrated by the experimental group members helped expand their breadth of understanding, generated learning, and developed their capacity to become self-aware learners.

Learners' Strategy Use: Results from the Strategy Recall Checklists

The results showed that, overall, predicting vocabulary was one of the most used and most useful strategies in preparing for and performing speaking tasks. The top three *most used* strategies in speaking were: (a) predict vocabulary (33 times); (b) self-monitor (30 times); and (c) predict grammatical structure and identify the goal and purpose of the task (each 28 times). The top three *most useful* strategies in speaking were: (a) identify the goal and purpose of the task; (b) prepare an outline and predict the vocabulary; and (c) predict grammatical structure. The finding also points to the fact that strategies learners reported using most frequently are not always considered the most useful; conversely, strategies that are considered the most useful may not be ones that are used most frequently. In addition, strategies that the experimental group identified contain elements of *assessment*. That is, they involve the participants setting communicative goals, planning for a speaking task or language use, and executing or implementing the speaking task. I categorized the data from the Checklists according to Oxford's six types of strategies, as a source of data triangulation. The results were consistent with those generated from the weekly post-activity reflection on strategy use by the experimental group. That is, the top three strategy groups were metacognitive, compensation, and cognitive.

Statistical Findings Addressing Oral Production and Strategy Use

Oral Production

To determine whether the mean gains for the experimental and the comparison groups were significantly different, the means of each group were compared using *t* tests. All null hypotheses regarding the oral production average group mean were rejected at $p < .05$. The bias-corrected effect sizes (Hedges' *g*) ranged from $g = 0.19$ to $g = 2.05$. Levene's test for homogeneity of variances was used to test whether the variances of means in the experimental and comparison groups differed significantly. The *p* values indicated that none of the variances was significantly different between the groups; the null hypotheses of equal variances were not rejected, and the exact learner's *t* values could be used.

Strategy Use Analyses

Results from the SILL analyses. The results of Levene's test for homogeneity of variances indicated that on all six SILL scales, the variances were approximately equal. Therefore, the exact learner's *t* tests could be conducted. The two-tailed statistical significance levels for the six scales concluded that the only null hypothesis rejected was that for the Affective Strategy scale ($p = .007$). On all other SILL scales, there were no statistically significant differences between the experimental and comparison groups. Therefore, additional *t* tests for independent groups were conducted on five scales (Memory, Cognitive, Compensation, Metacognitive, and Social), while an analysis of covariance was performed on the Affective Strategy Scale.

Descriptive statistics showed that the experimental group mean was higher than the comparison group mean for all five scales. The results of Levene's test for homogeneity of variances indicated that, on all five SILL scales, the variances were approximately equal. The results concluded that four of the five null hypotheses were rejected: Compensation ($p = .018$, large effect size, $g = 1.91$; 95% CI, .24 – 3.59), Cognitive ($p = .010$, large effect size, $g = 5.32$; 95% CI, 2.37 – 8.27), Metacognitive ($p = .018$, large effect size, $g = 1.97$; 95% CI, .28 – 3.65), and Social ($p = .019$, small effect size, $g = 0.29$; 95% CI, -1.11 – 1.68). The null hypothesis was *not* rejected for Memory ($p = .053$; 95% CI, .20 – 3.52), as the observed p value was slightly greater than .05.

Because the means for the SILL Affective Strategies scale were significantly different, the assumption of equality at the outset of the experiment was violated. Statistical analysis showed that the experimental group mean for Affective Strategies was 3.17, whereas the mean for the comparison group was 2.58. This difference was found statistically significant at the $p = .005$ level. Therefore, an analysis of the covariance was used to evaluate the posttest Affective Strategies scale means. ANCOVA uses the pretest values to adjust the posttest values for equality between groups. The results showed that after covariance adjustment using the pretest, there was no difference between the two groups on the posttest mean of the SILL Affective scale ($p = .92$, $\eta_p^2 = .00$).

Results for Reflective Cards. For the Reflective Cards, each respondent's weekly values were added for weeks 2 to 10 and divided by 9 to obtain the means. These means then were used as input to compute t tests for the differences between the experimental and comparison groups. The alpha level was arbitrarily chosen as $\alpha = .05$ with no adjustment for multiple tests taken by the same participants. The results concluded that the null hypothesis regarding Reflective Cards was rejected at $p < .05$, with a large effect size, $g = 4.42$; 95% CI, 1.85 – 6.99. The results of Levene's test for homogeneity of variances indicated that the variance was significantly different between groups.

Correlations Between the Strategy Use and Oral Production Variables

In addition to the results obtained from the group comparisons, a correlational analysis provided an assessment of the strength of association between strategy use and oral production. *Pearson* correlation tests were conducted to determine the correlation between these variables and its statistical significance. As shown in Table 6, the results of this analysis indicated that learners' SILL scores in weeks 1 and 10 did not correlate statistically significantly with their usage of process types. For circumstance types and cohesive devices, learners' SILL scores tended not to correlate statistically significantly with SILL week 1 (pre-experiment) averages, but correlated positively with week 10 (post-experiment) averages. For the correlations between strategy use measured by the Reflective Cards and learners' oral production variables, overall, a strong positive association was found in the cases of the variables of circumstance types and cohesive devices, with the use of Reflective Cards and post-experiment SILL scores.

Table 6
Correlations between the Strategy Use and Oral Production Variables

Strategy Use Variable		Oral Production Variable					
		PT		CT		CD	
		<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
SILL (Pre)	MS01	.69(*)	.03	.58	.07	.49	.11
	CS01	.55	.08	.02	.48	.09	.42
	CP01	.62	.05	.45	.13	.50	.11
	MT01	-.55	.08	-.03	.47	.01	.49
	AF01	.19	.33	.79(**)	.01	.79(*)	.01
	SS01	-.37	.18	.46	.13	.55	.09
SILL (Post)	MS10	.53	.09	.82(**)	.01	.79(**)	.01
	CS10	.39	.17	.77(*)	.01	.77(*)	.01
	CP10	.44	.14	.81(**)	.01	.85(**)	.00
	MT10	-.40	.16	.44	.14	.47	.12
	AF10	.26	.27	.78(*)	.01	.86(**)	.00
	SS10	.00	.50	.70(*)	.02	.83(**)	.01
Reflective Cards	RC	.223	.29	.90(**)	.00	.89(**)	.00

Note: One-tailed tests were used. PT = Process Types; CT = Circumstance Types; CD = Cohesive Devices; CP = Compensation Strategies; CS = Cognitive Strategies; MS = Memory Strategies; MT = Metacognitive Strategies; SS = Social Strategies.

* Correlation is significant at the 0.05 level. ** Correlation is significant at the 0.01 level.

Repeated Measures Tests for Oral Production and Strategy Use

To explore differences between the two groups over time, repeated measures, which can provide an omnibus test of mean differences over a set of time points, were used to analyze the variables measured over the experimental period. The repeated measures analyses over the 9 weeks within subjects resulted in a statistically significant difference at $p < .05$. Thus, variation in the raw data was statistically significant, i.e., the highest and lowest points on a line were significantly different within each group. There was no statistically significant interaction between any variable and treatment, all $p > .05$. Thus, the best-fit lines did not intersect within the range of observed values.

I also performed a trend line analysis to assess the data for the presence of trend components. This analysis helped determine which models/lines offered the best fit for the raw data, and whether the means of the tested factors had a general tendency to increase steadily as time progressed. Table 7 shows the results from the tests for significant trends. Statistically significant linear trends were determined by the highest F values and p values for the best-fitting

model at $p < .001$. This indicates that there was a statistically significant tendency for the data to fall on a straight line; in other words, the mean level of the oral production variables tended to increase in a linear fashion over time.

Table 7
Results of the Trend Lines Analyses for Within-Subjects Measures and for Variable by Treatment Interactions

Tests of Within-Subjects Contrasts

Source		Trend	Type III Sum of Squares	Mean Square	F	p
Oral Production	GI	Linear	6.21	6.21	58.11	.00
	GI * TREAT	Order 4	0.16	0.16	6.41	.05
	PT	Linear	20397.17	20397.17	535.29	.00
	PT * TREAT	Linear	1296.92	1296.92	34.04	.00
	CT	Linear	3619.01	3619.01	273.05	.00
	CT * TREAT	Linear	120.00	120.00	9.05	.02
	CD	Linear	128969.63	128969.63	121.66	.00
	CD * TREAT	Linear	15504.13	15504.13	14.63	.01
Strategy Use	RC	Quadratic	8.73	8.73	24.07	.00
	RC * TREAT	Quadratic	4.39	4.39	12.10	.01

Note: All $df = 1$. GI = Grammatical Intricacy; PT = Process Types; CT = Circumstance Types; CD = Cohesive Devices; RC = Reflective Cards.

The treatment interaction linear trend was also significant at $p < .05$; that is, during the experimental period, a significant linear trend of progression was found for the oral production variables. The effect sizes were large or greater than large, all $d > 0.80$. The results for Reflective Cards indicated a significant quadratic trend; that is, rates of usage were uneven across the experimental period (see Figure 2). Unlike research that has suggested that more effective learners tend to use more strategies, the results suggest that what matters is not accumulating more strategies, but managing a repertoire of strategies in response to the task at hand. In addition, being at the advanced learning stage as members of both groups were, is not a necessary condition for effective strategy use, and strategies vary across tasks.

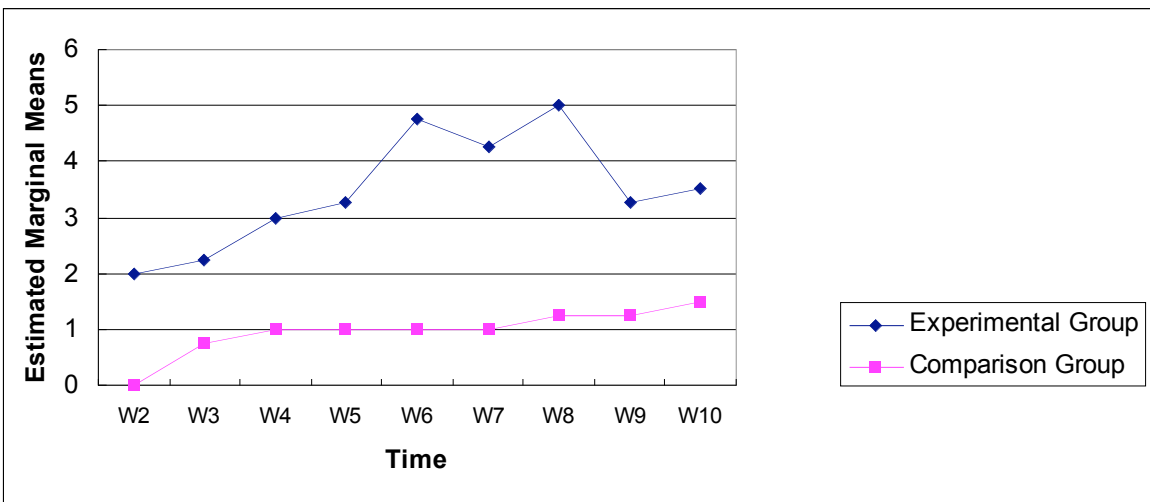


Figure 2. Group Reflective Cards means as a function of time.

The results of the between-subject tests for each variable indicated that the main effects were statistically significant at $p < .001$. That is, the averages of the untransformed variables, at which the lines across the Y axis were different from zero, were significantly greater than zero. The overall average values of the lines were significantly different between the experimental and comparison groups, at $p < .05$; that is, the distance between the best-fit lines of the two groups was statistically significant for each variable. Thus, one can postulate that the longitudinal trends for the two groups would be significant. This finding corroborated the t test results generated for the nine-week averages, as reported earlier.

Previous studies have demonstrated a positive association between proficiency level and the use of certain types of strategy, especially metacognitive (e.g., Purpura, 1999; Flaitz & Feyten, 1996; Dreyer & Oxford, 1996), cognitive (e.g., Oxford & Ehrman, 1995) and compensation (Dreyer & Oxford, 1996; Oxford and Ehrman, 1995). Based on the results generated from SILL, the Reflective Cards, and the Strategy Recall Checklists, the experimental group's much higher percentage of change and usage of metacognitive, cognitive, and compensation strategies might be related to differential oral production between members of the experimental and comparison groups. Thus, these strategies might contribute positively to learning outcomes. The findings also suggest that those who experienced the strategy awareness-raising session and task-specific reflection transformed into what Cohen and Olshtain (1993) called "metacognizers." The newly developed patterns of such learners indicated their enhanced awareness about their oral output and strategy use.

This study's findings indicate that students might not always be consciously aware of using learning strategies. Therefore, pedagogical interventions should develop learners' awareness of learning strategies and promote learners' experimentation with appropriate strategies to make learning more effective. Figure 3 shows that raising awareness of strategy use

in this research encompassed the following processes. As previously explained, first there must be learner consciousness. Activities must expose learners to the idea of language-learning strategies, which, in this study, took the form of an awareness-raising session. The effect of awareness-raising was continued by conducting a weekly speaking activity, followed by a Reflective Card and a Strategy Recall Checklist that aimed to help learners notice successes and/or areas of challenge that they faced before, during, or after the performance. This noticing, situated within the Vygotskian view of language learning that entails a socio-psychological process, is necessary for learning to occur.

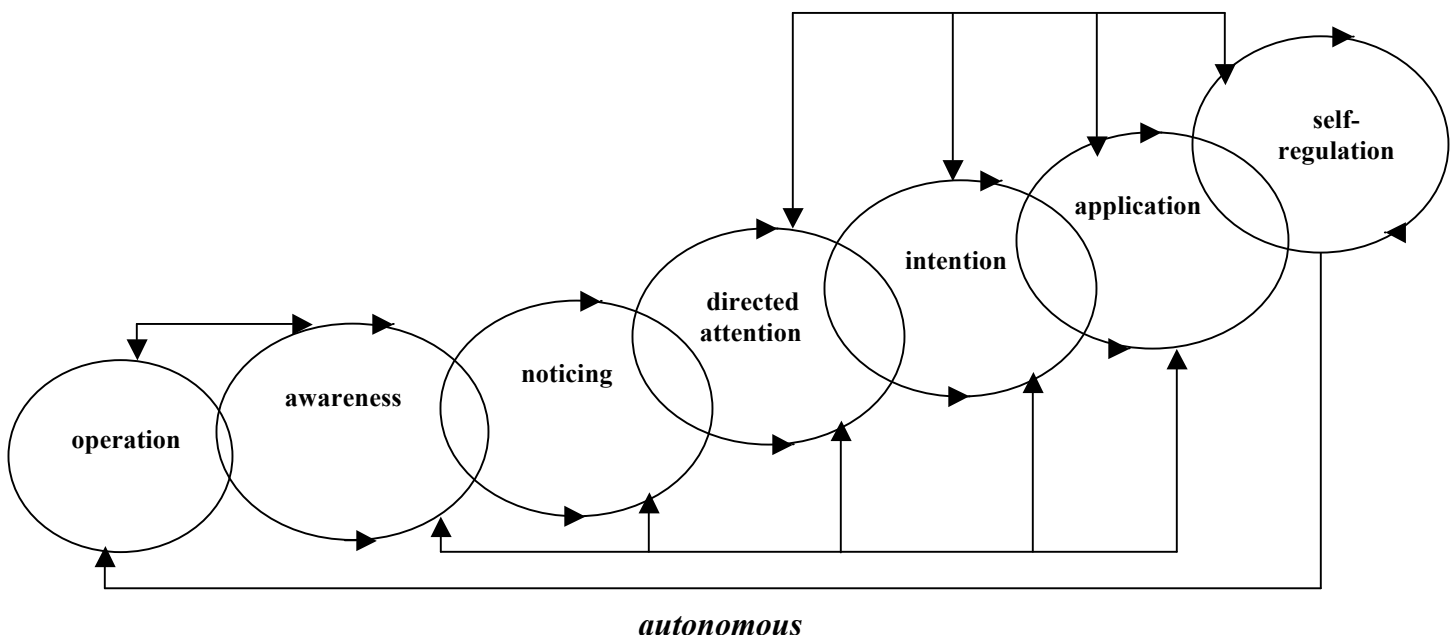


Figure 3. Model of awareness raising.

Embedded in this proposed model is the notion of recursiveness. That is, the model is not uni-directional, but recurring and on-going. This notion parallels Vygotsky's (1978) premise regarding the development of higher mental functions: "Development proceeds not in a circle, but in a spiral, passing through the same point, at each new revolution, while advancing to a higher level" (p. 56). Facing a similar situation, a learner may decide to apply a certain strategy based on his/her last reflection, to create a more successful outcome. If the outcome is negative, the learner may repeat the process of attention and generation of goal-directed action again to produce a more desirable result. A learner who has gained control over a certain strategy still may repeat the process a number of times, which helps to continue moving toward self-regulation; this also facilitates the learner's transfer of strategies to other tasks. As participant Erica shared:

I found that anticipating words and grammatical structures that I will need, organizing my thoughts, and rehears[ing] really worked. I have an example to illustrate that. Yesterday I went to the U.S. Consulate to apply for my visa and have my interview, and I spen[t] time to prepare and plan and rehearse what I was going to say. When I got there, I think I did a very good job because even when the person behind the window was not looking at me, she was looking at the paper, even [then], she understood perfectly what I was saying, and I got my visa!

The above example from the experimental group reflect the insights that learners gained from using the Reflective Cards, and the benefit of heightening awareness of strategy use beyond the classroom context is evident. In line with and borrowing from what Vygotsky proposed concerning the teaching of reading and writing, the teaching of strategies must be organized so that they are “meaningful,” and can “be incorporated into a task that is necessary and relevant for life” (1978, p. 117-118). The Reflective Card provides a mediational tool to develop and expand learners’ awareness of strategy use and foster active, personal attention to strategies and the learning process, in class and beyond. New situations require responses derived from understanding what has and has not previously worked. Reflecting on previous actions to guide future ones can help learners benefit from the past and better understand what they should be doing in the learning/speaking context. Verbal thinking, embodied in the writing of Reflective Cards in this study, brings form to conscious experience and provides a handle on what might be less tangible thoughts and feelings. Here, private writing functions strategically for learners, enabling them to construct the content of their experience and gain control of it. As Emerson (1996) said: “If you cannot talk about an experience, at least to yourself, you did not have it” (p. 127).

Interpreted within the socio-cultural theoretical perspective, the findings reinforce the potential benefits of raising learners’ awareness of language-learning strategies and of enacting the classroom practice of reflection. As an alternative to ‘training’ learners to use encapsulated strategies, this study’s approach was not intended to simply introduce a new concept/strategy to learners, but to create activities that may facilitate ‘meaningful’ strategies that learners themselves form through “inter-“ (socially interactive) and “intra-“ (self-reflective) actions. This practice can be fostered to shift strategy use from mere consumption to critical analysis and reflective construction of language-learning strategies (Donato & McCormick, 1994; Engeström, 1991). Such activities may influence favourably the development of higher mental processes of voluntary attention that Vygotsky (1986) considered as having the primary status in developing higher mental functions. As the findings in this research indicate, it is worthwhile to consider creating deliberate, sustained opportunities for goal-oriented reflection in the course of pedagogical activities.

Limitations and Future Research

The study is limited in several ways. First, the findings generated from a 10-week experimental period might reveal only the short-term effects of awareness-raising on L2 oral

production and strategy use. While the initial results appear promising, longitudinal empirical research into the value of raising awareness of strategy use is required to determine at what levels (e.g., level of awareness raising/training, level of proficiency) it is most useful.

Second, one might question whether, when measuring learners' performance over time, the underlying assumption is that learners will develop progressively. While the treatment may remain equivalent, learners, through mediational means, presumably change, and this change may alter how each individual approaches the different speaking tasks as time progresses. Can one still claim that the conditions for task performance remain equivalent as learners develop progressively? Future studies might seek an answer to this question.

Third, one also might question the statistical strength of the findings from a study using a small sample. I am aware that sample size is related to statistical power, and that a small sample size increases the chance of making a Type II error. An examination of the statistics literature indicates that the limits of sample size are unclear (Pett, 1997). There is a definite lack of agreement regarding what a 'very small sample size' means specifically. Though the larger the sample size the more likely it is to be able to detect small but significant differences among groups, I argue that the effect, whether large or small, is worth detecting. Statistical tests in this study were used to gauge indicators, rather than to conclude whether the sample was representative of the population. In addition, results generated from small sample sizes still can contribute to reliable outcomes in later studies, because studies of all sizes are included in a meta-analysis, and it is the combined sample size of all studies that determines the reliability of the meta-analytic results. Sample size limitations center on the difficulty of obtaining statistical significance. Once significant results are found, such limitations are moot for those results.

All quantitative and qualitative research methods have strengths and limitations. A study using a combination of complementary research instruments provides a fuller picture of multifaceted insights about learner strategies than a study using a single quantitative or qualitative research method. It is not my intention to argue from samples to populations, because classrooms are too complex to control all the relevant variables. It would be interesting, however, to see whether multiple research sites would generate similar results.

Conclusion

Although previous empirical findings have supported the proposition that language-learning strategy instruction in the classroom can lead to greater L2 achievement, until now, the general conclusion in the SLA field has been that no single method is effective in aiding language acquisition for all learners across all contexts. Various institutional, contextual, teacher-related, and learner-related factors come into play. Considering all of these challenges and issues, research on raising learners' awareness of LLS deserves more attention and further investigation.

The findings of this research support the benefits of shorter time-frame strategies for interventions in language learning for advanced adult second language learners. It seems clear that a little can go a long way. Strategy awareness raising, ongoing self-reflection about learners' own language-learning process, and learners' self-evaluation of the methods/strategies they have employed seem to benefit the strategy use of those participants who learn to engage in these activities. If learners develop a well-functioning repertoire and individualized approaches to learning, the strategies will help learners utilize the language and facilitate additional language-learning processes.

Few studies have explored the potential benefit of adapting strategy instruction to shorter term, manageable frameworks, and to time- and cost-effective methods. More investigation of this approach is merited, so that more teachers, who might not be able to implement comprehensive, full-scale strategy instruction due to various practical impediments, can help students benefit from shorter-term strategy interventions that will make language learning more efficient and effective.

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