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Use of Oral Reflection in Facilitating Graduate EAL Students' Oral-Language Production and Strategy Use: An Empirical Action Research Study

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Abstract

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Research in the fields of second-language acquisition and education has supported the value of written reflection, but scant research has explored how other types of reflection may come into play when learners employ strategies and produce oral language. This paper reports findings from an action research study that focused on integrating individual oral reflection using digital recorders to facilitate 18 graduate-level English-as-an-additional-language (EAL) students' learning of academic speaking skills. The qualitative and quantitative results provide important empirical information about what strategies graduate students used, the relationships between the learners' strategic behaviours and oral performance, and differences in the quality of reflection between advanced and non-advanced proficiency learners. The study's findings indicate that weekly spoken reflection functions as a mediational tool that learners can use to deal with their language-learning-related thoughts and emotions, which have important implications because of the online nature of speaking. In addition to generating empirical knowledge about a modality of reflection that has direct pedagogical implications, the paper includes a personal reflection on the challenges involved in conducting action research, for the purpose of inviting further dialogue and reflection among action researchers.

Keywords: graduate English-as-an-additional-language (EAL) learners; spoken reflection; second-language speaking; strategic behaviours

INTRODUCTION

As Emerson once said: "If you cannot talk about an experience, at least to yourself, you did not have it" (1996, p. 127). At some point or another in our learning journeys, we all probably have been asked to reflect on our experiences through writing. The value of written reflection has been supported by research in the fields of second-language acquisition (SLA) and education in general (e.g., Anderson, 2005; Butke, 2006; Pavlovich, Collins, & Jones, 2009; Varner & Peck, 2003), but very little research has explored how the various modalities of reflection may come into play in second-language (L2) learners' reported strategy use and oral-language production. The present study originated from my ongoing desire to find a pedagogical tool that I could incorporate into my teaching of academic speaking skills to graduate-level students across disciplines to help them develop their speaking and strategic repertoires. In my years of teaching, many graduate English-as-an-additional-language (EAL) students have expressed that speaking is the most challenging aspect of using language in their everyday lives, especially in academic settings. Most importantly, graduate EAL students report a strong desire to participate in academic dialogues, because they

realize that this participation may affect their future academic or professional choices and prospects. Pedagogically, this study represents my quest as a practitioner and action researcher to find learner-centered, cost-effective, theoretically sound, and empirically substantiated pedagogical methods to help the ever-growing number of graduate EAL students at different proficiency levels develop their speaking skills more successfully.

LITERATURE REVIEW

Learner Strategic Behaviours

Strategic behaviours are defined as the conscious, goal-oriented thoughts and actions that learners use to regulate cognitive processes with the goal of improving language learning or language use (e.g., Huang, 2010; O'Malley & Chamot, 1990; Oxford, 1990; Phakiti, 2003). For this study, they are operationally defined as EAL learners' conscious actions for acquiring or manipulating information, such as attending, predicting, linking, translating, planning, and monitoring, as well as their thoughts about these actions, as elicited through learners' weekly spoken reflections. In this study, learners' reported strategic behaviours were analyzed using classification taxonomies generated in previous studies (e.g., Huang, 2010; O'Malley & Chamot, 1990; Oxford, 1990; Pressley & Afflerbach, 1995; Swain, et al., 2009), with the following six major categories: (a) *approach strategies* (i.e., orienting oneself to the speaking task); (b) *communication strategies* (i.e., involving conscious plans for solving a linguistic problem in order to reach a communication goal); (c) *cognitive strategies* (i.e., manipulating the target language for understanding and producing language); (d) *metacognitive strategies* (i.e., examining the learning process in order 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/use).

Research in the field of SLA has demonstrated that learners' reported strategy use is associated with L2 learning and performance (e.g., Cohen, Weaver, & Li, 1996; Cohen & Macaro, 2007; O'Malley & Chamot, 1990). Although most studies have supported the claim that strategy use correlates with improved performance, some (e.g., Huang, 2010; Purpura, 1999; Swain, et al., 2009) have pointed out that there is no definite relationship between strategy use and language performance. Until now, learners' reported strategic behaviours have lacked attention from a language-use perspective (e.g., Bachman, 2002; Kunnan, 1995; Purpura, 1999), even though they have been included in the theoretical framework of communicative competence (Canale, 1983; Canale & Swain, 1980; Bachman & Palmer, 1996; Fulcher, 2003). Furthermore, in recent years, some researchers have established the importance and efficacy of strategy awareness (e.g., Feyten, Flaitz, & LaRocca, 1999; Nakatani, 2005; Simard & Wong, 2004), but very limited research has addressed second-language learners' speaking skills at the graduate level.

The present study's pedagogical approach aimed to raise learners' awareness of strategy use through weekly oral reflection that drew upon learners' own language-learning experiences and knowledge to engage in a meaningful evaluation of the strategies used for completing speaking tasks at hand. The approach is unlike "strategy-based instruction" (Cohen, 1998; McDonough, 1999; Weaver & Cohen, 1997), which, as Macaro (2006) pointed out, "appears to be effective if it is carried out *over lengthy periods of time*" (emphasis added) (p. 321). The number or hours of training sessions needed for this type of instruction to be successful has not yet been empirically substantiated, and there is also a lack of research evidence to support whether the time taken to engage learners in strategy training justifies the gains

from both learners' and instructors' perspectives. Furthermore, research on strategy-based instruction has indicated that it leads to qualified or mixed success (e.g., O'Malley 1987; cf. Oxford & Crookall, 1989; Politzer & McGroarty, 1985).

The Concept of Reflection

This study focused on learners' reflection on their use of language-learning strategies in order to develop their speaking skills. The concept of reflection dates back to the work of John Dewey (1933), who defined reflection as "active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusion to which it tends" (p. 9). Dewey's idea of reflective learning entails a state of perplexity in which thinking originates as an act of inquiry that will resolve the perplexity. Since then, Schön (1983, 1987), Boyd and Fales (1983), Kolb (1984), Boud et al. (1985), Mezirow (1991), Fogarty (1994), Langer (1997), Kember et al. (1999), Kember et al. (2000), Hay et al. (2004), and others have all attempted to describe reflective processes using various terms, such as *knowing-in-action*, *reflective learning*, *experiential learning*, *transformative learning*, *metacognitive reflection*, *mindfulness*, *awareness, critical analysis and change*, among others.

Consistent with Dewey's concept of reflective thinking, Boud et al. (1985) defined "[r]eflection in the context of learning [as] a generic term for those intellectual and affective activities in which individuals engage in exploring their experiences in order to lead to new understandings and appreciations" (p. 19). Both Mezirow and Dewy distinguished a more explicit, critical level of reflection from a non-reflective one. Vygotskian approaches to learning also emphasize the importance of explicit reflection (Vygotsky, 1978). According to Vygotsky, "tools" (in this case, spoken reflection), which function as mediators that come between the *subject* (the individual) and the *object* (the goal towards which the individual's action is directed) enable individuals to shape their worlds according to their own motives and goals, and thus to alter learning processes. In this learning context, self-reflection functions as a mediational tool that individual learners can use to internalize their learning through critical thinking, self-assessment, and self-direction in ways that contribute to speaking development. In the context of this research, such an approach is based on meaningfully evaluating the most effective strategies for completing the speaking tasks at hand. Specifically, this research examines weekly individual spoken reflection as a potential pathway for learners to identify what might be less immediate thoughts and feelings. Reflection also heightens learners' awareness so that they can become more attentive to their own learning processes and strategic behaviours.

In terms of the benefits of reflection in facilitating students' learning, while there is a recognition among educators of its importance across a wide variety of educational settings, a close examination of the literature indicates a lack of consensus and clarity. Areas that lack consensus include the terms used to talk about reflection, the definition of reflection and its process, and the outcomes of reflection (for a thorough review of the issues, see Rogers, 2001). From a practitioner's perspective, the efficacy of reflection and methods to foster it among students remain unresolved issues. Despite its wide applicability across contexts, reflection remains a challenging concept for educators to firmly grasp in practice. This calls for more empirical evidence especially that derived from classroom-based and action research.

The present study defines reflection on the basis of the careful examination and synthesis of reflection by Rogers (2001), who pointed out that various scholars share definitions of

reflection that involve "the individual's active engagement" and "examining the manner in which one responds to a given situation," with the goal of "integrat[ing] the understanding gained into one's experience in order to enable better choices or actions in the future as well to enhance one's overall effectiveness" (p. 41). In terms of *processes*, reflection is facilitated through deliberate, planned actions that involve following cyclical steps, each of which may not have a clear beginning and end: "identification of a problem and a deliberate decision to seek a solution," "hypothesizing and reasoning" in the information collection step, and "plan and decision to act." *Outcomes*, as interpreted by most scholars and researchers, involve the products of, as they occur in each unique instructional context. In this case, the anticipated outcomes include learners' awareness of speaking challenges, ways of dealing with the challenges identified, and of a change in oral-language production. These outcomes are closely related to self-regulated learning (Hadwin, 2008).

The framework put forward by Mezirow (1991), along with other prominent thinkers, to assess different levels of reflective thinking later influenced Kember et al.'s (2000) development of a valid way to measure reflective thinking that includes *habitual actions*, *understanding*, *reflection*, and *critical reflection*. *Habitual actions* refer to "[learners'] way of dealing with similar cases [that] becomes quite routine" (p. 384). *Understanding* describes "understanding without relating to other situations" beyond the task at hand (p. 384). *Reflection* refers to "the process of internally examining and exploring an issue of concern, triggered by an *experience*, which creates and clarifies meaning in terms of self, and which results in a changed . . . perspective" (emphasis added, Boyd & Fales, 1983, p. 100, as cited in Kember, 2000). *Critical reflection* represents "a higher level of reflective thinking" that is needed to "undergo a perspective transformation" (p. 385).

Since the publication of Schön's (1983) work, *The Reflective Practitioner*, the literature on education has been enriched by a wealth of articles and books on reflection. The use of reflection, particularly in teaching practices (e.g., Farrell, 2008; Richards & Lockhart, 1996), has increased substantially during the last few decades. The demonstrated benefit of written reflection within the SLA field (e.g., Anderson, 2005; Riley & Harsch, 1999), and in the field of education in general (e.g., Butke, 2006; Connor-Greene, 2000; Pavlovich, Collins, & Jones, 2009), prompts this question: Are there differences in reported strategy use, depending on the modalities of reflection? As we all know, people can share their experiences in ways other than writing, such as through talking or sharing with others. Not only do people talk about experiences in various ways, but the modalities of discourse for carrying out particular reflective activities also need to be considered. This is because each mode has limitations as a medium for knowledge building (e.g., spoken language is time-bound and dynamic, while written language is space-bound and permanent) (Wells, 1999). The use of digital voice recorders in the present study provides a learner-centered, accessible means for learners to reflect in a different modality.

GUIDING QUESTIONS

This study used action research to empirically evaluate the use of spoken reflection in facilitating graduate-level learners' development of strategy use and oral-language production. It was guided by the following inquiry questions:

1. In their spoken reflections, what strategic behaviours do learners report they employ to develop their speaking skills?

2. Are there differences in reported strategy use depending on learners' proficiency levels and their test scores?

3. What are the relationships between the reported strategy use and learners' oral-language production, as measured by the pre- and post-test scores?

METHOD

Participants

The study involved 18 graduate-level, Chinese-speaking, EAL learners from across disciplines (e.g., business, engineering, computer science, law, education, English, Asian-Pacific studies, and economics) at a Canadian university. In 2011, the students, 13 females and 5 males, were registered voluntarily in an eight-week-long, non-credit academic speaking skills course offered by the university's Learning and Teaching Centre. The course is open and free to all graduate EAL students. At the time of the study, the participants' mean age was 29, with a mean length of stay in English-speaking countries of two years and an average 11 years of formally learning English.

Data Collection

The study used the following data-collection methods.

1. *Ethics:* In week one, ethics guidelines were followed as per the university's ethics board requirements. I clarified for the participants information such as the purpose of the research, what would be involved if the participants chose to participate in the study, and their right to withdraw from the study at any time without the need to provide an explanation. Among the 30 students who expressed interest in the course, 23 students signed the consent forms and voluntarily participated in the study. Among them, five students missed one or two sessions and, therefore, were excluded from the study.

2. *Background questionnaire*: In week one, all learners filled out a questionnaire that elicited background information (e.g., gender, age, place of birth, educational experience, language-learning experience, length of stay in English-speaking countries, primary languages used at home, work and socially, scores of standardized language proficiency tests already taken), as reported in the Participants section.

3. *Language proficiency*: In week one, each potential participant took a language proficiency test using the Test of Spoken English (TSE ®). Given that (a) language-proficiency requirements for admissions are not uniform across disciplines, (b) some graduate EAL students at my institution are not required to complete a speaking proficiency test as part of the admission requirements, and (c) only 7 out of the 18 participants were able to recall their TOEFL scores (which ranged between 88 and 100 for the TOEFL® iBT test), administering a language proficiency test was necessary to determine each participant's proficiency level.

4. *Digital voice recordings of individual spoken reflection*: Individual learners' reported strategic behaviours were elicited through their engagement in a weekly post-task, goal-oriented, task-specific oral reflection; this approach is in line with the study's theoretical approach drawing on Vygotsky's (1978) concept of mediation mentioned in the

theoretical section. Throughout the eight-week period, each individual participant was provided a digital voice recorder to recorded his or her thoughts after performing each weekly speaking task. Participants were given 10 minutes at the end of each class to think about and record their personal thoughts about what they did *before, during*, and *after* the speaking task and what they would do differently in the future to help them perform the task (Huang, 2011).

5. *Speaking tasks*: A "task" is defined as "an activity that involves individuals in using language for the purpose of achieving a particular goal or objective in a particular situation" (Bachman & Palmer, 1996, p. 44). The study focused on oral-presentation tasks, which require learners to present monologues regarding their research areas and topics that learners are often required to present in academic settings. Each week, all learners were given the same amount of preparation and speaking time to carry out their tasks.

6. *Audio recordings of oral-language production*: Learners' oral-language production data were collected through audio recordings of their weekly speaking tasks. Three raters rated the oral-production data before and after the experimental period to ascertain any changes in learners' oral-language production.

Data Analysis

To address the guiding questions for this action research, the oral-reflection data gathered from participants were fully transcribed, and two coders independently coded all data using the classification schemes that other researchers of learner strategies have established over the past four decades (e.g., Swain, et al., 2009). Any disagreements on coding decisions were discussed until a 100-percent level of agreement was reached. For the pre- and post-tests, three raters independently and holistically rated the oral-production data for delivery, language use, and topic development, criteria identified in the independent-speaking scoring rubric established by the Education Testing Service. Scores below 2.0 represent the beginner level of proficiency, between 2.0 and 2.5 represent the intermediate, and scores of 3.0 and above are considered advanced. The results were corroborated, when possible, with the participants' self-reported test scores indicated on their profile questionnaires. Among the 18 participants, 4 were beginners, 6 were intermediate-level learners, and 8 were at the advanced level.

For the qualitative analysis, the data were coded using the levels of reflection developed by Kember et al. (2000) in assessing outcomes, as discussed in the literature review section. For the quantitative analyses, binomial probability calculations were conducted to ascertain differences in the amounts of strategies used (Pett, 1997), and chi-square tests were used to examine differences in patterns of reported strategy usage by genders, proficiency levels, and oral production scores. To address the question concerning the direction and magnitude of the relationship between the percentages of strategies reported and test scores, correlational analyses were conducted. A detailed description of further statistical analyses to address whether the strategy-usage rates were related to the degree of improvement made in oral-language production is presented in the Results section. All analyses were carried out using SPSS Version 14.

RESULTS

Guiding question 1: *In their spoken reflections, what strategic behaviours do learners report they employ to develop their speaking skills?*

To answer the first research question, the frequency of strategy use was analyzed by individual strategies and by strategy categories. The results showed that learners reported using 40 different individual strategies over the experimental period. Among the strategies used, 52% were metacognitive strategies, followed by a fairly even split between cognitive (13.27%), approach (12.81%), and affective (11.99%) strategies (see Table 1).

Table 1

Reported Strategy Use Categorized by Strategy Type

	APP	COM	COG	META	SOC	AFF
M	6.11	4.06	6.33	24.83	.67	5.72
Std. Dev.	4.60	2.51	4.42	8.87	.97	3.80
Sum	110	73	114	447	12	103
Median	5.50	3.50	5.50	25.00	.50	5.00
Min	0	0	1	9	0	1
Max	18	8	18	40	4	16
% of Total	12.81%	8.50%	13.27%	52.04%	1.40%	11.99%

Note. Percentages may not sum to 100 because of rounding. APP = approach strategies; COM = communication strategies; COG = cognitive strategies; META = metacognitive strategies; SOC = social strategies; AFF = affective strategies.

The top-five most frequently reported individual strategies were: self-evaluation (metacognitive), goal setting (metacognitive), making choices (approach), monitoring affective state (affective), and attending (cognitive). Furthermore, strategy use exhibited similar patterns among the three proficiency levels. For example, within the most frequently used strategy category, metacognitive, the percentages of use among the three proficiency levels were: beginner: 49.57%; intermediate: 52.75%; and advanced: 52.13%. Within the least-used strategy category, social, usage percentages among the three proficiency levels were: beginner: 4.35%; intermediate: 0.58%; and advanced: 1.25%. The rank orders of the strategy-category usage percentages were identical between genders, with metacognitive strategies used most frequently, followed by cognitive, affective, approach, communication, and social strategies.

Guiding question 2: *Are there differences in reported strategy use depending on learners' proficiency levels and their test scores?*

Learners at the *beginner* proficiency level used significantly fewer strategies than those at the *intermediate* level who, in turn, used fewer strategies than those at the *advanced* level ($p < .0001$). Comparing learners classified as non-advanced (score < = 3; $n = 9$) vs. advanced (score > 3; $n = 9$) on the pre-test, the non-advanced group used significantly fewer strategies than the advanced group ($p = 0.24$). Comparing learners classified as non-advanced vs. advanced by the same criteria on the post-test, the advanced group used significantly more strategies than the non-advanced group, $p = .0047$. Comparing patterns of strategy-category usage between the non-advanced and advanced groups produced a significant chi-square ($p = .015$) on the post-test, indicating that the two groups employed

different mixes of strategies, but such a comparison was non-significant (p = .43) on the pre-test.

Guiding question 3: *What are the relationships between the reported strategy use and learners' pre-test to post-test changes in oral-language production?*

The main goal of this research was to examine the relationship between pre-test to post-test changes in oral-language production and the relative frequencies of individual self-reported strategy use. Although the difference between pre-test and post-test scores was not statistically significant, Table 2 shows that with the exception of two learners whose performance remained the same in the pre- and post-tests and one learner who dropped 0.5 point, the remaining 83% of participants (shaded cells) showed an increase between their pre- and post-test scores.

Table 2

Individual Learners' Pre- and Post-tests

Learner	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Pre-test	3	3.5	2.5	3	1.5	1	3.5	3	2.5	3.5	2.5	3.5	2.5	3.5	1.5	1.5	2.5	2.5
Post-test	3.5	4	2.5	3.5	2.5	2	4	4	3	3.5	3.5	3	3	4	3	2.5	3	3.5
Change	.5	.5	0	.5	1	1	.5	1	.5	0	1	-.5	.5	.5	1.5	1	.5	1

Results from the correlational analyses indicated that only the metacognitive strategy category was positively correlated with the pre-test (r = .502, p = .034); none of the strategy categories was significantly correlated with the post-test, however. To examine the relationships among the strategy categories, inter-correlations were calculated. The results indicated that the only significant relationships were positive and occurred in five cases: The cognitive strategies were significantly positively correlated with approach (r = .611, p = .007) and communication (r = .571, p = .013) strategies; the metacognitive strategies were significantly positively correlated with approach strategies (r = .495, p = 037). Finally, the affective strategies were also significantly positively correlated with approach (r = .473, p = .048) and metacognitive (r = .724, p = .001) strategies.

To address whether the strategy-usage rates of the strategy categories were related to the degree of improvement made in oral-language production, the sample was further divided into two groups on the basis of the amounts of the pre-test to post-test change: The low-change group included all subjects whose change was .5 or less, and the high change group included all subjects whose change exceeded .5. The frequency with which each participant used each strategy category was divided by the participant's total number of uses of the respective strategy category. This produced a proportion reflecting the relative frequency of each strategy category's usage that was comparable across subject and strategy categories, respectively. The descriptive statistics for the low- and high-change groups for the usage rates of each strategy category are presented in Table 3.

Table 3

Descriptive Statistics for Strategy Category Usage Rates by Change Groups

Pre-Post Change	Strategy Category	*N*	*Min.*	*Max.*	*M*	*SD*
Low Change	APP	11	0.059	0.200	0.112	0.044
	COM	11	0.026	0.145	0.080	0.045

Pre-Post Change	Strategy Category	N	Min.	Max.	M	SD
	COG	11	0.031	0.277	0.123	0.072
	META	11	0.354	0.727	0.558	0.095
	SOC	11	0.000	0.020	0.008	0.010
	AFF	11	0.031	0.208	0.119	0.055
	APP	7	0.000	0.247	0.129	0.078
	COM	7	0.000	0.138	0.092	0.044
High Change	COG	7	0.071	0.185	0.135	0.044
	META	7	0.390	0.607	0.498	0.080
	SOC	7	0.000	0.098	0.031	0.038
	AFF	7	0.043	0.214	0.116	0.056

Note. APP = approach strategies; COM = communication strategies; COG = cognitive strategies; META = metacognitive strategies; SOC = social strategies; AFF = affective strategies.

The distributions of each change group were tested for departures from normality for each strategy-category usage-rate variable, with the results shown in Table 4.

Table 4

Results of Shapiro-Wilk Tests of Normality for Strategy Category Usage Rates by Change Group

Strategy Category	Change Group	Shapiro-Wilk		
		Statistic	df	Sig.
APP	Low	.929	11	.399
	High	.973	7	.919
COM	Low	.869	11	.075
	High	.828	7	.077
COG	Low	.933	11	.444
	High	.898	7	.320
META	Low	.941	11	.532
	High	.958	7	.799
SOC	Low	.702	11	.001
	High	.841	7	.102
AFF	Low	.941	11	.536
	High	.968	7	.885

Note. APP = approach strategies; COM = communication strategies; COG = cognitive strategies; META = metacognitive strategies; SOC = social strategies; AFF = affective strategies.

In only one case, the low-change group on the social category, did the distribution of usage rates depart significantly from normality. A second assumption of parametric statistical tests is homogeneity of variance. This was evaluated using Levene's test, with the results reported in Table 5. The only usage-rate variable on which the homogeneity of variance assumption was not met was that of social strategies.

Table 5

Results of Levene's Test of Homogeneity of Variance of the Change Groups on Each Strategy Category Usage Rate Variable

Strategy Category	F	df1	df2	Sig.
APP	2.116	1	16	.165
COM	1.365	1	16	.260
COG	1.310	1	16	.269
META	.006	1	16	.939
SOC	17.633	1	16	.001
AFF	.282	1	16	.603

Note. APP = approach strategies; COM = communication strategies; COG = cognitive strategies; META = metacognitive strategies; SOC = social strategies; AFF = affective strategies.

Given the results of the above tests of the parametric statistical assumptions, the method selected for use in testing for differences between high- and low-change groups in strategy-category usage rates was analysis of variance (ANOVA). In the case of the social-strategy usage rate, supplemental tests were also performed to address the heterogeneity of variance problem and the lack of normality. The results of the six ANOVAs are reported in Table 6.

Table 6

Results of Analyses of Variance of Strategy Category Usage Rates by Change Group

Source	Dependent Variable	df	F	Sig.
Change group	APP usage rate	1	.391	.541
	COM usage rate	1	.281	.603
	COG usage rate	1	.149	.704
	META usage rate	1	1.965	.180
	SOC usage rate	1	3.553	.078
	AFF usage rate	1	.010	.920
Error	APP usage rate	16	(.003)	
	COM usage rate	16	(.002)	
	COG usage rate	16	(.004)	
	META usage rate	16	(.008)	
	SOC usage rate	16	(.001)	
	AFF usage rate	16	(.003)	

Note. Values in parentheses are mean squared errors. APP = approach strategies; COM = communication strategies; COG = cognitive strategies; META = metacognitive strategies; SOC = social strategies; AFF = affective strategies.

The application of the Brown-Forsythe correction for heterogeneity of variance to the *F* for the social-strategy usage rate produced a corrected *F* of 2.321 with $df = 1, 6.503$ and $p = .175$. The application of the Mann-Whitney test to the comparison of the change groups on the social-strategy usage-rate variable produced a $p = .425$.

As a further check for the existence of any relationship between the strategy-category usage rate and pre-test to post-test change, correlations were computed and tested for

significance between the change scores and the usage rates for each strategy category. The results are presented in Table 7. Although over 52% of the strategies used were in the metacognitive category, and 83% of the participants showed an increase between their pre- and post-test scores, none of the correlations in Table 7 reach statistical significance.

Table 7

Correlations Between Pre-test to Post-test Change Scores and Strategy Category Usage Rates

Strategy Category Usage Rate	Correlation with Pre-Post Change	
	r	*Sig.*
APP	.022	.931
COM	.337	.171
COG	.169	.503
META	-.402	.098
SOC	.301	.225
AFF	.049	.846

Note. N = 18 for all correlations. APP = approach strategies; COM = communication strategies; COG = cognitive strategies; META = metacognitive strategies; SOC = social strategies; AFF = affective strategies.

Learners' spoken reflection

In addition to the analysis of strategic behaviours that generated the quantitative results, a qualitative analysis of reflection data also involved examining the data by drawing on Mezirow's (1991) work and Kember et al.'s (2000) reflective-thinking construct. Here below are examples of learners' post-task individual spoken reflections during the later stages of the study from advanced vs. non-advanced groups. The examples illustrate the differences in the levels of reflection. The examples were chosen from the later stages, because during the initial weeks, all learners were adapting to the new practice, and the quality of reflection naturally focused mainly on description of *habitual actions* and *understanding*.

In Excerpt 1, Amy reflected on her *habitual action* ("carefully drafted almost all my presentation"). Her reflection indicated that she engaged in *reflection-in-action* when she was surprised by the realization that she "seldom return[ed] to [her script]" and that "the only time [she] returned to it . . . actually hampered [her] flow of thinking." This realization led her to reflect about generating alternative ways of proceeding, which included "rely[ing] more on [her] knowledge," "drop[ping] the details," and "focus[ing] on important key points," with the goal of delivering an organized talk. In the subsequent week (Excerpt 2), Amy reflected on her reflection and actions from the previous experience and evaluated her modified actions in terms of enhancing the clarity of her talk. She then further identified the problems she had encountered in her speaking experiences and reflected on her feelings of hesitancy before moving on to identify a new set of strategies to deal with a speaking situation when she has only a vague recollection of details.

Excerpt 1: Before my presentation, I carefully drafted almost all my presentation text. However, just before presenting it the instructor asked us, do you always draft a text before your talk? I felt enlightened by this question. The fact is, during my presentation with the

help of writing devices, I seldom return to my text, and I realized that for the only time I returned to it, it actually hampered my flow of thinking, which was a surprise to me. I think in the future I will rely more on my knowledge which is, which is already becoming, an organic part to me… and will drop the details and focus on important key points that, which will make my presentation better structured…. [Amy, pseudonym, advanced]

Excerpt 2: Umm… umm during my presentation I, I learned from last talk and I drought, draw some key points of my presentation instead of write down the whole draft and then try to deliver. Therefore, during my presentation, I think it is more clear for me to, to find the outline and to divide it into four key parts so that the audience will get a clearer idea of what I am talking about, umm, I think the problem of my presentation is that umm, the works I mentioned, I had read long ago and I'm not, I'm not quite sure about the details about of those books and, therefore, when I, when I was hmm explaining what the plot and the complex relationships of the characters, I was a little bit hesitant, and so this part I think of ways to improve in the future…. [Amy, pseudonym, advanced]

In Excerpt 3, Hank first monitored his level of confidence, evaluated his performance, and identified challenges ("wasn't really organized" and "wasn't sure" about how to respond to a question for which he didn't have an answer"). He then proceeded to generate alternative solutions ("postpone[ing] the question"). During the subsequent week (Excerpt 4), Hank felt that he had performed better by referring to what he had learned from his previous reflection ("I . . . learned from [my] previous, experience [about] how to organize my talk"). He also demonstrated "reflection-in-action" in the sense that he monitored his performance and emotional temperature during his speaking; he noticed that his level of anxiety subsided after the initial few minutes. He then evaluated his responses to questions that he received from his audience; that is, he successfully dealt with a question that was not related to his talk, and, in another case, he used an example to clarify a point.

Excerpt 3: Um, in today's presentation, I was still, had the lack of confidence… my presentation wasn't really organized, and a question was asked and I wasn't sure about the answer so I didn't really handled the situation. What I should have done was to postpone it, the question, or I should have, um, told the person who asked the question, um, to have a talk after the presentation….and I need to emphi, emphasize more on some key words and on using appropriate order to draw more attention to my presentation….[Hank, pseudonym, advanced]

Excerpt 4: This presentation was much better, uh, because I had, uh…I, uh, I learned from previous, experience how to organize my, my talk, and uh, uh during the presentation, uh the hardest, most fearful, um, time was, I think, the first two minutes. Then, uh, I noticed everything uh, was better. Uh, in, uh, in answering the questions, um, …one of them wasn't related to my uh presentation but, uh, I answered it though. The other question was, uh, um, directly related to to my presentation. Uh, and uh, I explained it, uh, in a way that, uh…by giving, um, an example, uh, which I think was uh, much uh, much clearer for the, for the person who asked the question…. [Hank, pseudonym, advanced]

In Excerpts 5 and 6, George reflected on his *habitual actions* regarding his choice of topics. The reflection fostered *reflection-in-action* during one week that involved his verbal ("speak clearly"), vocal ("speak slowly"), and nonverbal language ("keeping eye contact"). He also generated ways to enhance his fluency. The subsequent week (Excerpt 6) provides clues that he had strategically "writ[ten] the draft and organize[d] the sentence[s] in a [logical] way" in order to enhance his fluency. He also linked to his personal knowledge and used examples to facilitate the audience's understanding. George's evaluation of his performance

during that week revealed that he still regarded fluency as an issue; he stated that he still needed to "express [his] idea[s] more smoothly and fluently." However, it is not clear whether the strategies that he tried had worked or not, nor did he reflect on how he intended to enhance his fluency this time around, other than "practice[ing] more," a very general goal that likely did not emerge from deeper reflection.

Excerpt 5: I always to choose uh appropriate topic and … mm, meanwhile, I learned much from my partner improving my script. Mm, I tried, during the task I tried, I was trying to speak slowly and clearly and keeping eye contact with audience and if I, I would prac, practice more times and speak more flu, fluently next time. [George, pseudonym, advanced]

Excerpt 6: Mm. before the task, I elect uh, I want to, elect an accept, acceptable and understandable topic. I, I tried to write the draft and organize the sentence in the rational way so that audiences can understand what I said more easily. In order, in order to perform the task, I, I was trying to draw the facts and give some familiar examples so that, so that, audiences can understand it. Um, if, next time, I think I still need to express my idea more smoothly and fluently and my pronunciation, pronunciation should be more clear. [George, pseudonym, advanced]

In Excerpts 7 and 8, Martha reflected on her general approach to the task ("choose a specific topic"). Excerpt 7 illustrates how Martha described the process and what she had monitored (the "time frame" of her talk). Even though she suspected that there were grammatical and pronunciation errors, she didn't think that they affected the audience's understanding of her message. She hypothesized that she "could do it better," and "felt more comfortable," but other than an intention to "practice" and "put[ing] [her] attention to
. . . grammar, pronunciation, [and] speed," there was nothing concrete about the possible alternatives she generated. In the subsequent week (Excerpt 8), Martha did not follow up on her reflections from the previous week. She described her approach to the task (e.g., using mechanical means, but avoiding reliance on notes to prevent feelings of distraction). She positively and vaguely evaluated her performance ("better than previous times" and "feel more comfortable"), and again identified that she had "made some grammar mistake[s]," but judged that there were fewer errors than in her previous talks and was pleased with her performance.

Excerpt 7: Before the task I choose a specific topic and outline … a very specific part of a topic to cover... Uh, fortunately, I have a specific topic so I didn't have any issue with that. Just outline what I wanted to talk. During the talk I tried to think and keep in mind the … and the time frame I had and also I put attention to my position, my body language, as well as to try to speak in a clear way. However, after the task, I got the impression that I made several mistake, grammar and pronunciation for instance, but, I do think that the audience receive the message. I think I could do it better the next time. Uhm,…well, I think this is a matter of practice. So in the next time I probably will be more comfortable with eh my body language so I probably would put my attention to er grammar pronunciation and speed. Probably I would pay a bit more attention to the time frame… I think it's good to keep eh, to respect the time frame. [Martha, pseudonym, non-advanced]

Excerpt 8: Ah, ah, with a specific topic…I tried to think … the idea. I … ran out of idea today. But I didn't write, I didn't wrote, I didn't wrote anything until I have more or less two things I could say. Later I wrote them just to keep them in mind, ah, but for instance when I did my task I just went … paper. So, I have my all speech in my mind. Uh, just to avoid any distraction with having the paper in my hands. Um, I think I did, mmm, I did it better than previous times. I feel more comfortable I still think that I made some grammar mistake but

I think there was less than the previous seasons. So I happy. I quite happy with respect to that. I think... it went very well. [Martha, pseudonym, non-advanced]

Excerpts 9 and 10 are from another non-advanced learner. In Excerpt 9, Jasmine reflected on the problems of her talk ("was not clear . . . wasn't logical"), and her goal was to "make a logical presentation," but she did not generate any solutions or actions from her experience. During the subsequent week (Excerpt 10), she managed her emotional state by "stay[ing] calm." She monitored her talk by "clearly pronounc[ing]" words and expressed her desire to "practice more . . . with other friends."

Excerpt 9: Er…before my presentation I picked some parts of from my thesis to make a presentation. However, my organiza- organization was not clear and my presentation wasn't logical. I would like to make a logical presentation…. [Jasmine, pseudonym, non-advanced]

Excerpt 10: Before, before my presentation I tried to stay calm and just pick up the most important part of my thesis, thesis statement to present in front of the class. During the, during the presentation, I tried to hmm clearly pronounce the vocabularies and uhh, I'd like to practice more and uh uh, practice with other friends…. [Jasmine, pseudonym, non-advanced]

DISCUSSION OF FINDINGS

The main goal of this action research was to examine individual spoken reflection as a mediational means to facilitate the development of oral-language production. Although the improvements made by learners across proficiency levels were not statistically significant, Table 2 indicates that 83% of the participants (shaded cells) showed an increase between their pre- and post-test scores. One could argue that the improvement in learners' oral-language production may simply be the result of learning in general and are not necessarily related to their spoken reflection. One could also argue, however, that task-specific, individual spoken reflection serves as a tool that helps learners develop metacognitive strategies (representing 52% of all strategies used, Table 1) that involve *consciously examining the learning process in order to organize, plan, and evaluate effective ways of learning*, as illustrated in the excerpts, all of which can contribute to L2 speaking development. Previous SLA research also found that metacognitive processes have a regulatory function that, in turn, has a positive impact on performance (e.g., Flaitz & Feyten, 1996; Purpura, 1999). As educational psychologists Perkrun et al. (2002) expressed it: "self-regulation of learning implies planning, monitoring, and evaluating one's own learning in flexible ways, and, in doing so, adapting learning strategies to task demands and the progress made" (p. 98). The definition of "self-regulation of learning" in educational psychology is akin to that of metacognitive strategies in the SLA field. The fact that the advanced-learner group's use of strategies increased significantly, whereas the non-advanced learners' use decreased significantly may point to the advanced group's experimentation with and exploration of their repertoires of strategies during the experimental period. Such experimentation is important in learners' developing an ability to manage their own learning in flexible ways during the process of becoming self-regulated learners.

With a larger sample size, findings from the present study support a previous study that also explored the use of different reflection modalities (Huang, 2010). Most strikingly, in line with the previous study, the use of affective strategies by learners who engaged in individual spoken reflection was the third most frequently used set of strategies in the current study.

Moreover, the use of affective strategies was prominent across proficiency levels. Affective strategies have been among the least reported and studied strategies in the SLA literature. Engagement in a weekly individual spoken reflection in this study not only provides a tool that learners can use to assess what they have done and what they need to do next, but it also provides a potentially useful way to explore affective variables over time. Reflection heightens learners' awareness in a way that enables them to become more attentive to their own learning processes and strategy use (e.g., Bailey, 1983; Huang, 2004). As Luria stated, "self-regulation is realized through the [participant's] expanded [talk]" (1982, p. 103). Individual spoken reflection facilitates the attainment of self-regulation by providing opportunities for the emergence of self-guidance, a process in which the learners perform self-assessments and plan specific courses of goal-oriented actions.

Although affective factors have been recognized as critical components of effective self-regulated learning (e.g., Hadwin, 2008; Oxford, 2010; Schutz & Davis, 2000), the links among affective strategies used to regulate emotions and cognitive processes in learning to speak an additional language have not been explored. In addition to the noteworthy use of affective strategies discovered in this study, affective strategies were also found to be significantly positively correlated with approach and metacognitive strategies. This correlation suggests that affect (which may trigger the deployment of affective strategies) might be related to antecedents (the use of approach strategies), processes (the use of metacognitive strategies to plan and monitor), and, presumably, consequences (the use of metacognitive strategies to evaluate oral-language production). Affect has particular implications for cognitive processes and learning because of the online nature of speaking. Reflection data also showed that many learners in the study monitored and evaluated their affective state because of their perceived inability to adequately express their thoughts verbally or because they were afraid of being judged negatively while speaking outside of the class. Such strong emotions use cognitive resources and can direct learners' attention away from the task at hand. In line with Pekrun et al.'s (2002) study, affective factors are connected with students' self-appraisals of competence, and with the goals they attach to learning and performance. As such, the effective use of strategies to manage or control affect deserves greater research and pedagogical attention.

Findings from the qualitative analysis, as the excerpts in this paper illustrated, showed that advanced and non-advanced learners' reflections are qualitatively different. Advanced learners' reflection shows levels of thinking that are important for a perspective transformation (Kember et al., 2000; Mezirow, 1991), whereas non-advanced learners tended to focus on describing events and identifying more general goals (e.g., "practice more"). In addition, non-advanced learners rarely attempted to link previous actions, current experience, and future situations when reflecting on their own performance. The relationship between learners' ability to reflect and their language proficiency levels is beyond the scope of this action research, but the finding raises several questions. First, although reflection in the target language may complement the goal of speaking skills development, an assumption could be made that learners' levels of proficiency might positively or negatively affect the quality of reflection. What is the relationship between learners' proficiency levels and levels of reflective thinking? With more guided reflection, will non-advanced learners be able to engage in higher levels of reflective thinking? If non-advanced learners are given the opportunity and *encouraged* to reflect in whatever language comes more naturally to them, will their reflection involve higher levels of reflective thinking? All these questions have pedagogical implications and merit further study.

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RESEARCHER'S REFLECTION

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Reflection on the Research Findings

As previously mentioned, I initiated the present study in response to my own amazement and questioning that arose from hearing that both my students' students and my own students seem to persistently perceive their instructors as the only source of learning. A widespread perception seems to be that instructors' feedback on one's learning process holds the key to attaining desired speaking goals. Can such perceptions be altered through intervention? I developed this learner reflection study on the basis of my previous research and teaching experiences to explore methods and tools for fostering self-regulated learning.

Although actions taken based on the data gathered throughout the research period were restricted by the research design (e.g., without a comparison group) and the ethical guidelines, and I also fully recognize the importance of reflection-in-action (i.e., concurrent reflection) rather than reflection-on-action (i.e., retrospective reflection), which enables action researchers to take action based on the data gathered through their research, the results of the study have prompted me to explore the role that emotions play in learners' self-regulated learning and performance. As Pekrun et al. (2002) pointed out, emotions are "significantly related to students' motivation, learning strategies, cognitive resources, self-regulation, and academic achievement" (p. 91). Previous research about learners' emotions, which has been dominated by studies of test anxiety, has shown that negative affect can "reduce working memory resources, leading to an impairment of performance at complex or difficult tasks that draw on these resources" (Pekrun et al., 2002, p. 96). Although the use of affective strategies fails to reach a level of statistical significance in this exploratory study, likely because of the sample size, such use correlates positively with the oral-production scores. In addition, the use of individual spoken reflection makes it possible to recognize differences in individuals' preferred learning approaches; it also acknowledges emotional diversity in individuals' journeys to learning to speak for academic purposes by providing a resource that can be used to explore learners' emotions.

This particular discovery leads me to pay attention to self-regulated L2 learning strategies, specifically, the use of "meta-affective" strategies (Wen 1996, 2003, as cited in Oxford, 2010) that are linked with learners' emotions, beliefs, attitudes, and motivation and that are integral to all learning (e.g., Damasio, 1994; Wolters, 2003). Strategies, such as learners' paying attention to affect, planning for affect, obtaining and using resources for managing affect, implementing plans for affect, monitoring affect, and evaluating affect, must be attended to, especially when graduate-level learners face stressful and challenging academic conversations that require them to communicate sophisticated knowledge or information from their areas of expertise. Researchers (e.g., Oxford, 2010) have pointed out that the role of affective and meta-affective strategies is critical, especially for learners at lower levels of proficiency. This study has provided a glimpse of the strategies' empirical importance for graduate-level learners across *all* levels of speaking proficiency. Instructors who intend to incorporate learner reflection in various learning and teaching contexts must consider that a change in modality may potentially help learners identify underlying thoughts and feelings, and also help them understand the links between their internal intentions and external actions.

Reflection on Action Research

In addition to the empirical insights that I have gained from this study, I have been wrestling with various challenges associated with engaging in action research. The pragmatic notion of testing theory-informed hypotheses seems fitting when experimental procedures can be designed and applied. When one is dealing with ethical guidelines for research that involves human participants, however, instructors must refrain from examining the data. The goal is to minimize power-over relationships between instructors and students. This guideline limits the actions that an action researcher can take in response to the data gathered on an ongoing basis during the experimental period. Second, research in a real classroom involves many issues outside the scope of the study, and, as such, one risks losing sight of cues and information that may be peripheral to or outside the zone of the present study, but is still central to the students' learning. As action researchers, you might have find yourselves pondering those same questions. At such junctures during the research, I found myself going back my starting point: my desire to develop empirically substantiated, actionable knowledge derived from real-world classroom contexts that can be applied beyond current classroom contexts to second/foreign-language classrooms. The challenges have guarded against neglecting the complexity within classrooms and against applying a reductionist approach to research, which would hold that situations are best studied by analyzing their constituent variables and that using the "scientific method" is the only way to solve practical classroom issues.

Another issue that I have been grappling with concerns the ways reflective skills can be fostered among learners. Reflection is hard work, and the inductive nature of reflection means that the outcomes of one's learning through reflection are often not immediately apparent and that patience is required. To move from the lower level of reflection in order to reap the potential benefits from critical reflection requires openness, willingness, and engagement in the process (Rogers, 2001). Is it realistic to expect that students will attend a course with all the qualities needed to make reflection work? The levels of individual learners' openness, willingness, and engagement inherently vary, and the variations can directly contribute to differences in the quality of reflection. I envision the process of sharing with learners the relevant findings of research such as this inquiry as a starting point that may encourage learners' openness. However, I quickly find myself in a dilemma. On one hand is the need to adhere to standards driving systematic, scientifically rigorous research by refraining from introducing variables that could potentially influence learners' behaviours. On the other hand is the pedagogically driven thinking that the ultimate of goal of our work is to enhance learners' learning outcomes. Unlike the assumptions underlying traditional social-science methodology, in action research, "reality" is derived from the dynamic nature of learning settings and events, and is defined by interpretation and action (Carr & Kemmis, 1986, 2009; Radford, 2007). As such, intervention intended to accommodate the diverse needs of learners in specific situations is seen as a natural component throughout the process. Then again, without some kind of systematic measure of "validated" or objectively derived outcomes, how do practitioners know that what we are doing really matters in our students' learning?

Perhaps the way we approach action research needs to be reconsidered. This new way of thinking about action research might bring to the center the primacy of questions derived from real-world pedagogical issues that need to be addressed in order to broaden and deepen our understanding, and also challenge our thinking about the complex phenomena related to our day-to-day teaching. Such an approach contrasts with an a priori determination of the methods to be used or guidelines to be followed. Practitioners across

various teaching contexts face both similar and unique institutional, contextual, and personal demands. When it comes to engaging in action research, what is possible for one practitioner may not be feasible for another. Action researchers must maintain a delicate balance in research and teaching in the midst of rapidly unfolding pedagogical events. Ideally, both learners and instructors should be encouraged to engage in reflection-in-action and reflection-on-action, and, like learners, practitioners should model cyclical reflection and take action based on data, but this question needs to be asked: Would a lengthened cycle of action research still allow us to meet our commitment to research-based pedagogy and professional development goals?

CONCLUSION

As Rogers (2001) put it, "Perhaps no other concept offers higher education as much potential for engendering lasting and effective change in the lives of students as that of reflection" (p. 55). The present study offers empirical and pedagogical contributions to understanding the strategies that graduate-level learners have reported using in individual spoken reflection and underscores the consideration of modality of reflection and the importance of affective and meta-affective strategies for learners of various oral proficiency levels. Researchers and teaching practitioners should not neglect these strategies. Methodologically, the research has raised my awareness of the challenges and dilemmas inherent in conducting action research. In working with these dilemmas both within ourselves and through our work, as action researchers, we can develop a critical stance by becoming more aware of our decisions and practices from the perspectives of the learners involved. Through questioning of oneself, others, theories, knowledge, actions, and practice,
we, as both learners and instructors, may become more critical and responsive individuals in our search for alternative ways of proceeding.

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