METACOGNITIVE STRATEGY TEACHING IN THE ESL ORAL CLASSROOM
RIPPLE EFFECT ON NON-TARGET STRATEGY USE

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While strategy instruction research generally focuses on the effect of the teaching on learners’ use of the strategies targeted for instruction, the present study examines the ‘wash over’ effect on learners’ use of pre-existing, non-target strategies. The study involved a treatment class and a comparison class in the ESL oral classroom in Hong Kong. A quasi-experimental design was adopted in which the treatment class received metacognitive strategy instruction to enhance students’ ability to manage English group discussion tasks. A data collection method comprising observations and stimulated recall interviews that aimed to tap respectively overt strategy use and covert strategic thoughts was employed. The findings indicate that, for the treatment class, while there seemed to be no ‘wash over’ effect from target to non-target strategies in the frequency of use of the whole sample of non-target strategies over time, there were increases in the frequency of use of individual, non-target strategies that were pertinent to the specific nature of small group discussion tasks. The findings are discussed with respect to the differential and desirable effects of the strategy teaching and to the relationship between task type and strategy choice. Implications for strategy instruction will also be drawn.

INTRODUCTION

Reactions to strategy instruction have been mixed and conclusive findings about the value of strategy instruction are yet to be established (e.g. Hassan et al. 2005; Rubin et al. 2007). Moreover, among the few intervention studies on strategy instruction, the focus was invariably on the effect of the teaching on learners’ use of the strategies targeted for teaching (e.g. Cohen, Weaver and Li 1998; Lam 2009). Little attention, however, has been given to investigating the ‘wash over’ effects (if any) on learners’ use of strategies which are not targeted for teaching but are pre-existing strategies employed by the learners. To address this research gap, the present study aims to gauge the impact of
metacognitive strategy instruction on learners’ use of pre-existing, non-target strategies in the English as a second language (ESL) oral classroom.

**METACOGNITIVE STRATEGIES**

According to O’Malley and Chamot (1990), metacognitive strategies are ‘higher order executive skills that may entail planning for, monitoring or evaluating the success of a learning activity’ (p.44). Cohen (1998, p. 7) espouses that metacognitive strategies ‘deal with pre-assessment and pre-planning, on-line planning and evaluation, and post-evaluation of language learning activities’. Putting these together, metacognitive strategies are defined as thoughts or behaviours consciously employed by the learner to think about the learning task, plan for the task, monitor the task, and evaluate how well he/she has completed the task.

The present study proposes seven metacognitive strategies for teaching. The first four strategies might be beneficial to task completion and performance in second language (L2) oral communication; they include ‘Problem identification’, ‘Planning content’, ‘Planning language’, and ‘Evaluation’. First, ‘Problem identification’ aims to facilitate the global planning of an L2 oral communication task by enabling the learner to assess the purpose and expected outcome of the task (Wenden 1998). Next, the learners try out ‘Planning content’ and ‘Planning language’ to prepare respectively for ideas and for language needed for the task. Ellis (2005) regards planning for content and planning for language as strategic planning believed to be beneficial to task performance. ‘Evaluation’ is also targeted for teaching as it may promote reflection after the L2 task is completed (Rubin 2005).

The next three strategies are derived from Macaro’s (2006) strategy framework which subsumes social strategies and affective strategies (recognized as different categories by O’Malley and Chamot 1990) under metacognitive strategies. Social strategies are ‘clusters of cognitive and metacognitive strategies that lead to Strategic Plans’ (Macaro 2006, p. 328) while ‘affective strategies require the knowledge of oneself as a learner through recurrent monitoring of one’s learning’ (Macaro 2006, p. 328). On the basis of Macaro’s (2006) framework, three social-affective strategies i.e. ‘Asking for help’, ‘Giving help’ and ‘Positive self-talk’ were also selected for instruction in this study. ‘Asking for help’ and ‘Giving help’ are social strategies that may benefit task performance if students are encouraged to cooperate with peers, to help each other with linguistic aspects of the task, and to offer scaffolded help. Such favourable, social environment may be conducive to task performance. ‘Positive self-talk’ is an affective strategy whereby the speaker thinks
positively to encourage himself/herself to reduce anxiety for the task. The strategy may help students maintain a favourable, psychological state that could facilitate the successful completion of a task.

To sum up, the seven metacognitive strategies (‘Problem identification’, ‘Planning content’, ‘Planning language’, ‘Evaluation’, ‘Asking for help’, ‘Giving help’, and ‘Positive self-talk’) targeted for teaching in this study may help the L2 speakers to develop an executive ability to plan for task performance, to assess how well one has completed the task, and to create positive, social and psychological environments conducive to task completion. (For the operational definitions of these target strategies, see Appendix 1.)

**METACOGNITIVE STRATEGY TEACHING**

Despite the importance of metacognitive strategies to language learning and language use, the number of metacognitive strategy instruction studies pertaining to the speaking skill in the ESL context remains small to date (Cohen, Weaver and Li 1998; Hassan et al. 2005). We now visit the few studies to support the rationale for the present study.

The effect of strategy training for speaking skills on strategy use was investigated in Dadour and Robbins’s (1996) study (as cited in Nakatani and Goh 2007). A Problem-Solving Process Model was used to teach learning strategies to learners of foreign languages in Japan. The Model followed a four-step metacognitive approach i.e. planning, monitoring, problem-solving, and evaluation. Six weeks into the semester, a questionnaire was administered to 46 students and students reported general strategy use in the questionnaire. The findings indicated that 78% students reported that they had employed strategies for speaking. Notwithstanding the promising results, the questionnaire data could not reflect actual strategy use as the strategies asked were not directly linked to the oral tasks in which the learners had been engaged.

In an attempt to tap the use of task-specific strategies, Cohen, Weaver and Li (1998, as cited in Nakatani and Goh 2007) conducted an intervention study to investigate metacognitive strategy development for enhancing speaking. Thirty two foreign language university students in the US were taught strategy use over a ten-week period. They were instructed to use metacognitive strategies for preparing to speak and to self-monitor during speaking and for self evaluation after having spoken. The effects of the instruction were measured by the students’ performance on three tasks: self-description, story retelling, and city description. Students were also requested to make checklists of their use of task-specific strategies before, during and after these tasks. Superior results in overall speaking performance shown by the experimental group on the city description task were attributed
to the use of strategies, some of which were affective. Nonetheless, the study employed self report data from the learners’ own check lists, so other more objective means would be needed to gauge strategy use.

Bejarano, Levine, Olshtain, and Steiner’s (1997) study (as cited in Nakatani and Goh 2007) employed objective, observational data to track strategy development. The study integrated modified interaction strategies and social interaction strategies [classified under metacognitive strategies in Macaro’s (2006) framework] into their strategy instruction. Thirty-four high school students in Israel were engaged in small group discussions and each group in the experimental and control groups was video-taped before and after the six-week period. An observation-tally form was developed to measure (1) overall participation and non-interactive participation and (2) use of interaction strategies in terms of frequency. Results indicated that the experimental group used significantly more interaction strategies than the control group. While observed frequency of strategy use was used, other forms of investigation would be desirable to help paint a fuller picture of the impact of training on strategy use.

More recently, Nakatani (2005) focused on metacognitive awareness-raising instruction for interactional strategy development and employed retrospective methods to gauge strategy use. In the experiment, 62 Japanese female learners of English were involved. Over 12 weeks, the treatment group received metacognitive strategy instruction whereas the comparison group received only the normal communication course. The effects of instruction were assessed by speaking test scores, transcription data from the tests, and retrospective protocol data for their task performance. The findings revealed that participants in the treatment group improved their oral proficiency test scores but those in the control group did not. Moreover, the results of the transcription and retrospective protocol data confirmed that their success was partly due to an increased general awareness of strategy use brought about by the instruction. However, the methods of assessing the effects of strategy instruction were rather limited.

Lam (2009), therefore, adopted a multi-method approach to examine the effects of metacognitive strategy teaching on learners’ performance and on strategy use. Two classes in the secondary ESL oral classroom in Hong Kong participated in the study; one class received eight sessions of strategy teaching and the other served as a comparison group. Data were collected from the learners’ performance in group work discussions, from the self-report questionnaires, from the observations of learners’ strategy use, and from the stimulated recall interviews. The findings indicate that the treatment class generally outperformed the comparison class in the group discussion task in terms of English proficiency and task effectiveness. In addition, the learners tended to deploy ‘Problem
identification’ as a global planning strategy to cope with an upcoming prioritization group discussion task. No attention, however, was given to the ripple effect (if any) of the strategy instruction on the use of non-target strategies which were not targeted for teaching in the treatment.

Rubin et al. (2007) summarizes research into strategy-based instruction in general, succinctly highlighting a few outstanding issues for further investigation. The number of studies which were truly experimental was small and only one third of the number of studies involved younger, school-aged students. There was inadequate evidence that the effect on speaking was prominent. Overall, teaching strategy use was effective in the short-term but whether the effectiveness was sustainable was unclear. Last, all of the studies focused on the effects of strategy instruction on learners’ use of target strategies explicitly taught to the students; there were few reports on the impact on non-target strategy use.

THE PRESENT STUDY

The present study, therefore, aims to investigate whether strategy instruction in the use of target strategies taught to students could activate learners’ use of pre-existing, non-target strategies used by but not taught to the students. Also, this study investigates ESL learners’ observable strategy use and reported strategy use from observations and stimulated recalls respectively, the purpose of which is to provide a more comprehensive picture of strategy use by studying the impact of metacognitive strategy instruction from both the product (i.e. overt strategic behaviours) and process (i.e. covert strategic thoughts) points of view. The key research questions are:

1. What are the effects of teaching in the use of the target strategies on the learners’ observed use of non-target strategies?
2. Does the teaching have differential effects on the observed use of individual, non-target strategies? If so, in what way(s)?
3. What are the effects of teaching in the use of the target strategies on the learners’ reported use of non-target strategies?
4. Does the teaching have differential effects on the reported use of individual, non-target strategies? If so, in what way(s)?
METHODOLOGY

PARTICIPANTS
An intervention study was conducted with Secondary Two students (aged about 13 to 14) who had had seven years of English in Hong Kong. Two intact classes were selected and randomly allocated to two treatment conditions. The mean scores of the two classes in a 3-part standardized English examination were 61.13 and 60.80, and the one-way ANOVA test indicated that the scores showed no statistically significant differences (ANOVA, p= .1593). The teachers of both classes possessed a Bachelor’s degree in English language and literature, had a qualified teacher status and had taught in the school for some years. Whereas the teacher in the E class had undergone some training in conducting strategy instruction and felt positive about it, the teacher in the C class was not exposed to strategy instruction at all and was told to teach the class in her usual way.

TREATMENT AND PROCEDURE
Strategy intervention in oral lessons was implemented over a span of five months (i.e. Week 1 to Week 20) through eight strategy sessions for the E class, each of which lasted one hour and twenty minutes. In Lesson One, to help students understand how to use ‘Problem identification’ in order to successfully complete the task, the E class was taught how to analyse the purpose of and the requirements for completing a ‘treasure hunt’ task. In Lesson Two, to help students think of as many ideas as possible, the E class was taught to deploy ‘Planning content’ by using mind mapping. In Lesson Three, to help students conduct ‘Planning language’ to enhance performance, the E class was taught how to plan for the vocabulary, pronunciation, and structures that might be needed for an upcoming, description task. In Lesson Four, to help the learners understand how to improve in future tasks, the E class was taught how to conduct ‘Evaluation’ to identify strengths and weaknesses in the tasks they had just completed. In Lessons Five and Six, the E class was taught how to ‘Ask for help’ and ‘Give help’ as appropriate to overcome difficulties with language and/or ideas. In Lesson Seven, to help students cope with a demanding task, the E class was asked to try ‘Positive self-talk’ by thinking positively about their performance. In Lesson Eight, the E class was asked to freely use whatever strategies they had learnt hitherto to tackle a new task as a means of consolidating strategy use.

The instructional approach adopted for the E class was explicit strategy instruction (Chamot 2005). Students were informed of the rationale and the value of strategy instruction, given names and examples of the seven target strategies to model on, and provided
with opportunities to use and consolidate the target strategies. As for the C class, the
teacher conducted the oral tasks based on her knowledge and skills and experience with
no reference whatsoever to strategy use.

During the oral lessons, all the 20 students in each class were asked to work in five
groups of four. Each group was engaged in a variety of discussions involving problem
solving, ranking, and opinion sharing. The teaching materials of both the C and E classes
were designed by the researcher, field-tested and revised in the light of the feedback from
the teachers and students in a pilot study (Lam 2004). Both teachers were requested not
to interact with each other regarding their teaching approaches and materials so as not
to affect the outcome of the strategy instruction.

INSTRUMENTATION

GAUGING OBSERVED STRATEGY USE

Two ‘pull-out’ groups of four students each in the E class and in the C class (i.e. a total
of four groups) were invited to do a 10-minute English group discussion task outside
normal class hours. Prior to the task proper, each group was given six minutes to conduct
L1 pre-discussion planning. The planning phase was particularly designed to generate
data for the deployment of metacognitive strategies (target and non-target) by the learners
to facilitate the conduct of the upcoming English discussion task. While this planning
phase might have forced both the C and the E classes to engage in strategy use which
they might otherwise not have done, this would not bias the findings as the focus of the
study was to examine whether the E class differed from the C class in terms of strategy
use as a result of strategy instruction. The L1 pre-discussion planning talks conducted
by the same ‘pull-out’ groups engaging in the same English group work discussion were
recorded for qualitative analysis of observed strategy use in Weeks 1, 10 and 20. Each
recording consisted of six minutes of pre-discussion planning talk in L1; a total of 12
recordings of the planning talk (translated into English) were analysed.

A speaker’s turn in the transcript was identified as the unit of analysis. As observed
strategy use was the focus of this part of the study, every turn was segmented into units
in which each indication of the use of a target or non-target strategy type was categorized
and coded. Below is an example of coded, target strategy:

/ Some of the words could be used. Look, this phrase is useful. We can
say ‘a powerful liver can turn anything you eat into nutrients’. /

<Functional planning>
Below is an example of coded, non-target strategy:

/ Well we’ll take turns to talk about one item at a time. OK? /  
<Suggesting turn-taking tactics>

Two independent raters, using the software NUD*IST (QSR, 1997), identified and coded strategies in the 12 transcripts. The inter-rater reliability coefficient was .9388.

A frequency count of the observed use of all the strategies observed in each discussion group was conducted to gauge the effects of the instruction. As the group varied in the amount of talk and the number of turns produced, to standardize comparisons, the frequency of strategy use for every 10 turns produced by each class (i.e. eight participants in the two pull-out groups) was used as the standardized measure.

GAUGING REPORTED STRATEGY USE

To go beneath the surface evidence of overt, strategic behaviour, stimulated recall interviews were conducted to investigate whether the instruction altered students’ covert strategic thoughts during the L1 preparatory talks. Immediately after the ‘pull-out’ groups finished the English group discussion in Weeks 1, 10 and 20, each of the four students in every group was individually interviewed in their L1 by the researcher. During the interview, a video-tape of the pre-discussion group planning in L1 was played back to the student who was then asked to pause the tape when he/she could recall what he/she had been thinking about when the group was preparing for the English task proper (Gass and Mackey 2000).

All the stimulated recall interviews were audio-taped; each interview lasted about 12 minutes including video play-back. The dataset consisted of 48 recordings of stimulated recall interviews, which were translated into English, transcribed and analysed. Each recall protocol was segmented into unit(s) so that each mention of a strategy type (if any) could be categorized and coded (Green 1998). The units were segments of the interviews which represented strategies or non strategies. Non strategies were remarks made by the student during the preparatory talk which were not directed towards helping the group to cope with the discussion task proper. Non strategies were also counted as they constituted the total number of coded segments. Two coders were asked to independently identify and code target strategies, non-target strategies, and non strategies in all the interviews. The inter-rater reliability coefficient was .8816.

A frequency count of all the strategies reported per interview (i.e. per student) was conducted. To standardize comparisons, the proportional frequencies (%) of recall seg-
ments coded as target strategies, non-target strategies or non-strategies in relation to the total number of recall segments coded were used.

RESULTS

To answer research question (1), we are interested to know whether the E class, given the instruction in the development of metacognitive strategy use, would show consistent increases in the use of non-target strategies over time as compared with the C class. There were six non-target strategies which were not taught to the students but were observed to be used by them. They included: Strategy 1 (‘Enhancing task knowledge’), Strategy 2 (‘Checking meaning’), Strategy 3 (‘Rehearsing’), Strategy 4 (‘Monitoring contributions’), Strategy 5 (‘Suggesting turn-taking tactics’), and Strategy 6 (‘Facilitating progress’). (For their operational definitions, see Appendix 2.) Table 2.1 presents descriptive statistics to compare C’s and E’s raw frequency counts (N) and standardized frequencies per 10 turns (F) of observed strategy use across Weeks 1, 10 and 20. T represents the total number of turns produced by each class.

<table>
<thead>
<tr>
<th>Class</th>
<th>N / T</th>
<th>N / T per 10 turns (F)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C class</td>
<td>E class</td>
</tr>
<tr>
<td>Week</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Target strategies</td>
<td>36/89</td>
<td>46/127</td>
</tr>
<tr>
<td></td>
<td>4.0</td>
<td>3.6</td>
</tr>
<tr>
<td>Non-target strategies</td>
<td>48/89</td>
<td>72/127</td>
</tr>
<tr>
<td></td>
<td>5.4</td>
<td>5.7</td>
</tr>
</tbody>
</table>

Table 2.1 Raw frequency counts (N) and standardized frequencies per 10 turns (F) of the observed use of the whole sample of target and non-target strategies

Table 2.1 shows that, for the E class, there were consistent and steady decreases (6.4, 5.9, 5.2) in the aggregated use of non-target strategies but obvious increase (i.e. 3.3) in the aggregated use of the target strategies in Week 10 and a marginal increase (i.e. 2.4) in Week 20 as compared with 2.3 in Week 1. For the C class, there were no consistent patterns of increase or decrease over time for both target and non-target strategy uses. These results seemed to indicate that the instruction did not bring about expected increases (i.e. overall increased strategic awareness and use of both target and non-target strategies) but rather steady decreases in the use of the whole sample of observable, non-target strategies.
strategies over time. It should be noted, however, that the use of small samples (i.e. two groups in each class) did not permit tests to check for statistical significance of the descriptive findings.

To address research question (2), let us study Table 2.2 to see whether the strategy instruction had differential effects on individual, non-target strategies. Table 2.2 sets out standardized frequencies per 10 turns of individual, non-target strategies for each class over time.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>C Class</th>
<th>E Class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wk 1</td>
<td>Wk 10</td>
</tr>
<tr>
<td>1. Enhancing task knowledge</td>
<td>1.3</td>
<td>0.1</td>
</tr>
<tr>
<td>2. Checking meaning</td>
<td>0.5</td>
<td>0.3</td>
</tr>
<tr>
<td>3. Rehearsing</td>
<td>2.3</td>
<td>4.9</td>
</tr>
<tr>
<td>4. Monitoring contributions</td>
<td>0.3</td>
<td>0.2</td>
</tr>
<tr>
<td>5. Suggesting turn-taking tactics</td>
<td>0.9</td>
<td>0.0</td>
</tr>
<tr>
<td>6. Facilitating progress</td>
<td>0.1</td>
<td>0.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5.4</td>
<td>5.7</td>
</tr>
<tr>
<td><strong>Aggregated types of strategy</strong></td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 2.2: Standardized frequencies (per 10 turns) of the observed use of individual, non-target strategies

The findings in Table 2.2 suggest differential effects on individual, strategies. Regarding the frequencies of the observed use of Strategies 1, 2 and 3, both the E class and the C class demonstrated a clearly consistent, downward trend for each of Strategies 1 and 2 and an upward trend for Strategy 3 over time. In contrast, the finding was quite different for Strategies 4, 5 and 6. While the E class showed a general, upward trend in the observed use of each of the two Strategies 4 and 5, the C class showed a consistent, downward trend over time. Moreover, as for Strategy 6, there were dramatic increases (0.3, 1.1, 1.0) in the E class but only very marginal increases (0.1, 0.2, 0.2) in the C class. Last, while the E class could sustain in using a range of strategy types (6, 6, 5), the C class displayed a consistent, declining trend (6, 5, 2) over time. These findings suggest that the metacognitive strategy teaching seemed to have been associated with the E class using more of ‘Monitoring contributions’, ‘Suggesting turn-taking tactics’ and ‘Facilitating progress’ and deploying a wider range of strategies as compared with the C class. It
should, however, be noted that the use of small samples (i.e. eight participants in each class) did not permit tests to check for statistical significance of the descriptive findings.

To answer research question (3), it would be interesting to find out whether the proportions (%) of recall segments coded as non-target strategies for the E class would increase over time, compared with the C class, on the assumption that strategy instruction would possibly raise the learners’ overall strategic awareness including non-target strategies and would consequently motivate learners to report using them. Table 2.3 presents raw frequency counts (N) and proportional frequencies (%) of each class (i.e. a total of eight students) in Weeks 1, 10 and 20.

<table>
<thead>
<tr>
<th>Class</th>
<th>Raw frequencies (N)</th>
<th>Proportional frequencies (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C class</td>
<td>E class</td>
</tr>
<tr>
<td>Week</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 10 20</td>
<td>1 10 20</td>
</tr>
<tr>
<td>Target strategies</td>
<td>12 8 16</td>
<td>12 35 18</td>
</tr>
<tr>
<td>Non-target strategies</td>
<td>24 34 10</td>
<td>44 42 22</td>
</tr>
<tr>
<td>Non strategies</td>
<td>18 14 22</td>
<td>21 12 11</td>
</tr>
<tr>
<td>Total</td>
<td>54 56 48</td>
<td>77 89 51</td>
</tr>
</tbody>
</table>

Table 2.3 Raw frequency counts (N) and proportional frequencies (%) of the reported use of target and non-target strategies

The figures in Table 2.3 indicate that the E class decreased in the reporting of the whole sample of non-target strategies (57.1%, 38.2%, 35.3%) but increased in that of the target strategies (15.6%, 39.3%, 35.3%) across Weeks 1, 10 and 20. On the other hand, the C class showed no consistent patterns of increase or decrease in the reporting of target and non-target strategies. So far, the results have lent support for the view that there were no teaching effects for the E class in that the instruction did not bring about the expected increased strategic awareness and reporting of both target and non-target strategies but rather steady decreases in the reporting of non-target strategies over time.

To address research question (4), we now turn to Table 2.4 to study the proportional frequencies (%) of individual, non-target strategies to see whether the E class, as compared with the C class, showed any consistent pattern of increase across Weeks 1, 10 and 20.
The findings in Table 2.4 suggest differential effects on the reported use individual, non-target strategies. Regarding Strategies 1, 2 and 3, the E class demonstrated a clearly consistent downward trend over time while the C class displayed no consistent pattern of increase or decrease except with Strategy 2. This declining trend was, in general, consistent with the findings from the whole sample of strategies. The trend was, however, very different with Strategies 4, 5 and 6. The E class demonstrated obvious increases of the reported use of each of these three strategies over time while the C class did not. Overall, the E class also reported a broader range of strategy types (6, 6, 4) when compared with those (5, 3, 1) reported by the C class. These results indicate that the metacognitive strategy instruction seemed to have been related to the E class reporting more of ‘Monitoring contributions’, ‘Suggesting turn-taking tactics’, and ‘Facilitating progress’
as well as mentioning a wider repertoire of non-target strategies as compared with the C class.

**DISCUSSION AND CONCLUSION**

With respective to aggregated strategy use, this study has provided evidence that, while the metacognitive strategy instruction brought about general increases in both the observed use and reported use of the target strategies, there were consistent decreases in both the observed use and reported use of non-target strategies. This finding strengthens the view that strategy instruction did produce differential and desirable effects on the target strategies i.e. increases in target strategy use in the predicted direction, thereby lending support for the value of consciousness raising in strategy instruction (Nakatani 2005). Also, while Rubin et al. (2007) concludes that there was no evidence of whether the effects of strategy instruction persisted over time, this study lends support for the view that the impact could sustain over a period of five months.

The finding, however, suggests that the effect of strategy instruction may not automatically ‘wash over’ from target to non-target strategies and that it may probably not be possible to raise learners’ overall strategic awareness - as one would hope - by focusing on target strategies only. Explicit focusing may, therefore, be desirable to bring about learning of strategy use, be it target or non-target.

According to the information processing theory (e.g. Ericsson and Simon 1996), in strategic awareness and subsequent reporting of strategy use (i.e. declarative knowledge) and in the development of observed strategy use (i.e. procedural knowledge), students’ attention can be shifted, and in the case of the present study, from non-target to target strategies as evident in the decreased, observed and reported non-target strategy uses but increased, observed and reported target strategy uses. If students’ attention to non-target strategies can be redirected, it raises the ethical issue in education as to whether it is desirable to direct students’ attention away from their own repertoire of preferred, pre-existing, non-target strategies and to make them focus only on those strategies targeted in the instruction. Perhaps, the aim of strategy teaching should be to raise general strategic awareness (Nakatani 2005) instead of inadvertently instructing students to replace non-target with target strategies.

Hence, it may be desirable to raise learners’ overall strategic awareness by directing learners’ attention not just to strategies targeted for learning, but existing strategies which learners feel comfortable and effective in using. To achieve this, strategy instruction for learners may begin with helping them become aware of what strategies are and which
strategies the learners are already using (Rubin et al. 2007). It may be necessary for the teachers to first elicit students’ prior knowledge about strategies, help them explore their existing repertoire of strategies that they might deploy for different tasks and evaluate the effectiveness of those pre-existing strategies. This consciousness-raising may help students begin to think about their own learning processes, thereby facilitating the ‘wash over’ effect from target to non-target strategies and in turn enhancing the overall efficacy of strategy teaching.

Regarding the use of individual, non-target strategies, it is interesting to note that the strategy instruction appeared to be associated with general increases in both the observed and reported uses of ‘Monitoring contributions’, ‘Suggesting turn-taking tactics’ and ‘Facilitating progress’. This is striking given the fact that, generally speaking, the impact of strategy training did not seem to spread over from target to non-target strategies and that students’ attention was not drawn to these strategies during the teaching. Let us examine the general nature of these strategies a view to understanding why the metacognitive strategy instruction seemed to have a distinctive impact on them.

‘Monitoring contributions’, ‘Suggesting turn-taking tactics’ and ‘Facilitating progress’ are respectively the strategies for monitoring group members’ contributions to the discussion to ensure equal participation, for facilitating smooth turn-taking during the discussion, and for facilitating the progress of the group discussion task to ensure its completion within the time limit. These strategies are task-specific in that they are particularly relevant to two-way, interactive, small-group oral tasks (e.g. group discussions). These task-specific strategies are important in that they may play a facilitative role in assisting target language input, receiving feedback, offering opportunities for modifying output, thereby promoting L2 proficiency development in interactive speaking (Nakatani and Goh 2007).

On the other hand, ‘Enhancing task knowledge’, ‘Checking meaning’ and ‘Rehearsing’ are respectively the strategies for trying to understand the nature of an upcoming discussion task, for checking unfamiliar words in the rubrics, and for rehearsing the discussion in L1 prior to the task proper. These strategies are cognitive strategies ‘which operate directly on incoming information, manipulating it in ways that enhances learning’ (O’Malley and Chamot 1990, p. 44). These strategies enable the speakers to get familiar with the content, ideas and the learning materials. They are non-task-specific as they can be applied to any oral tasks such as one-way, non-interactive oral tasks and two-way, participatory group tasks.

As such, it could be argued that non-target strategies that are pertinent to the specific nature of the task, and in this case, the group discussion tasks, are more likely to be activated by the metacognitive strategy teaching than those strategies that are non-task-
specific. This may, in turn, result in students’ attention being drawn away from non-task-specific strategies towards task-specific strategies, thus resulting in increasing uses of ‘Monitoring contributions’, ‘Suggesting turn-taking tactics’ and ‘Facilitating progress’. This may indicate that task type impacts strongly on strategy choice (Oxford, Cho, Leung and Kim 2004). That is, group work discussions could have favoured the use of ‘Monitoring contributions’, ‘Suggesting turn-taking tactics’ and ‘Facilitating progress’, rendering it more amenable to reporting particularly when the learners are provided with time and space to do so during the pre-task planning phase. To enhance the efficacy of metacognitive strategy instruction, it may, therefore, be necessary to match strategy use with task type (e.g. oral presentations, recounting experiences, picture description, debating, etc.) for optimal teaching effects.

Last, it is noteworthy that the metacognitive strategy tuition seemed to have activated the treatment class to deploy or sustain in using a wider spectrum of strategies as compared with that of the control class. This once again confirms the value of metacognitive strategy tuition in raising learners’ awareness in trying more types of strategies. To further enhance the effectiveness of strategies-based instruction, it may, therefore, be desirable that the teacher focuses on helping learners explore a variety of strategies used by their classmates as this may motivate them to deploy not just their own, existing non-target strategies but try out new strategies recommended by their peers. This way, they may become better ‘orchestrators’ of a range of strategies at their disposal (Macaro and Erler 2008, p. 114).

To conclude, it may well be the case that strategy teaching reaps benefits if ESL students are alerted to their preferred, pre-existing, non-target strategies (in addition to those strategies that are in focus in the instruction) and are encouraged to harness the use of both target and non-target strategies. To achieve this, strategy instruction might focus on raising learners’ overall strategic awareness by directing learners’ attention to their own strategies as well as those currently experimented by their peers. This could broaden the spectrum of learners’ strategy use. Moreover, it might be worth matching strategy choice with task type as pre-existing, task-specific strategies are likely to be activated more by metacognitive strategy instruction than those that are non-task-specific.

As with all research studies, the present investigation has limitations. Coding observed and reported strategy use is laborious and hence only a small sample size was used. This rendered statistical tests for significant results inappropriate and only descriptive findings were available; hence, the possibility that the ‘trends’ identified in the data were just random variation could not be entirely ruled out. In addition, objective measures of oral proficiency are required to gauge the effects of strategy instruction. Last but not least,
learners’ views on the effectiveness of strategy teaching may be used to triangulate quantitative findings from observations and stimulated recalls to provide a fuller picture of the impact of strategy teaching. These limitations have implications for future strategy-based intervention studies.

**APPENDIX 1**

**DEFINITIONS OF TARGET STRATEGIES**

1. **Problem identification**
   
   The speaker identifies the purpose of an upcoming discussion task and the requirements for completing it.

2. **Planning content**
   
   The speaker plans for the ideas in an upcoming task.

3. **Planning language**
   
   The speaker plans for the language (e.g. vocabulary, structures) needed in an upcoming task.

4. **Evaluation**
   
   The speaker suggests reflecting on how well one has performed during an upcoming task.

5. **Asking for help**
   
   The speaker suggests asking for help from a group-mate regarding the ideas and/or language needed for an upcoming task.

6. **Giving help**
   
   The speaker suggests providing help to a request for help regarding the ideas and/or language needed for an upcoming task.

7. **Positive self-talk**
   
   The speaker suggests thinking positively to encourage himself/herself in order to reduce anxiety for an upcoming task.
APPENDIX 2
DEFINITIONS OF NON-TARGET STRATEGIES

1. Enhancing task knowledge
   The speaker tries to understand the nature (e.g. divergent or convergent) of an upcoming English discussion task as well as the context in which the discussion takes place.

2. Checking meaning
   The speaker tries to understand the meaning of words in the instruction sheet in order to better prepare for an upcoming discussion.

3. Rehearsing
   The speaker tries to conduct an English task once in L1 during the preparation session with a view to preparing what to say in the English task proper.

4. Monitoring contributions
   The speaker suggests ways to monitor the contribution of members to ensure even participation in an upcoming English group discussion.

5. Suggesting turn-taking tactics
   The speaker suggests ways to facilitate turn-taking manners during an upcoming English group task to ensure that the requirements of the task will be satisfied.

6. Facilitating progress
   The speaker suggests ways to monitor the progress of an upcoming English task to ensure that the goal of the discussion task will be achieved within a time limit.
REFERENCES


