

DEVELOPMENT OF SELF-REGULATED VOCABULARY LEARNING STRATEGY INSTRUCTIONAL MODULE: FROM THEORY TO PRACTICE

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Abstract: *This study applied Self-Regulated Learning (SRL) as a framework to develop a strategy instructional module for Chinese EFL learners at pre-university level in Malaysia with an aim to explore the potentials of SRL to enhance learners' strategy use, motivational beliefs (i.e., self-efficacy) and performance in vocabulary learning. With a focus on three quality criteria (i.e., validity, practicality, and effectiveness), a developmental research approach was conducted in three phases, i.e., needs analysis, design and development, implementation and evaluation of the module. The findings presented here focus on a classroom trial of the module with 10 Chinese EFL learners to examine the practicality and potential impact of the module on students' learning. Overall, students gave positive feedback to the usefulness and interest of the most instructional activities, and the initial effectiveness of the instruction was evident in enhanced strategy use awareness, self-efficacy and performance in vocabulary learning. Moreover, a variety of individual responses indicated the importance of being aware of both personal and environmental factors for developing strategy instruction. The findings of the study provide support that SRL has potentials to enrich learning strategy instruction in language learning curriculum.*

Keywords: *self-regulated learning, learning strategies, strategy instruction, vocabulary learning strategies*

INTRODUCTION

Since the 1980s, Self-Regulated Learning (SRL), a multidimensional construct which involves cognitive, metacognitive, motivational, environmental and social aspects of learning has been well theoretically established. It has consistently proved that students' self-regulation abilities in learning are crucial for their academic achievement (Zimmerman & Martinez, 1986). The theory and research findings of SRL have been extensively used in learning strategy interventions (Hattie, Biggs, & Purdie, 1996). Evidence has shown that the learning strategy intervention focusing on specific areas in self-regulatory contexts are more effective than the direct teaching of a singular strategy or set of strategies in promoting learners' self-regulation and academic performance (Hattie et al., 1996). Moreover, SRL has distinctly stressed the reciprocal influence between cognitive and motivational factors in developing self-regulation in learning (Schunk & Ertmer, 2005). The teaching of cognitive skills is insufficient to enable learners to manage learning on their own; motivational factor (i.e., self-efficacy, task interest) should be addressed in order to support and sustain learners' use of self-regulatory strategies

(Schunk & Ertmer, 2005). In language education, vocabulary, as an internal link among all language skills and knowledge is considered as one of the deciding factors for the success of language acquisition (Jordan, 1997). With the research shift from teaching methods to the study of learner characteristics, Vocabulary Learning Strategies (VLS), as a subcategory of Language Learning Strategies, have also been gaining attention since the 1970s (Schmitt, 1997). A number of researchers (Nation, 2001) have strongly advocated that VLS play a vital role in improving students' vocabulary acquisition and preparing them to be independent and strategic word learners. However, most VLS interventions have focused on cognitive learning strategies (e.g., word association strategies), and there has been a lack of concern for metacognitive and motivational factors in vocabulary learning (Rasekh & Ranjbar, 2003). With this as background, this study attempts to apply SRL as a framework to develop a strategy instructional module to investigate how the notions of SRL could contribute to the development of vocabulary learning strategy instruction so as to enhance ESL/EFL learners' strategy use, motivation and performance in vocabulary learning. It is expected to provide insights into the development of explicit strategy instruction to promote self-regulation in the classroom.

A cyclic model of SRL

Social cognitive learning views SRL as an interaction between personal, behavioural and environmental influences (Bandura, 1986). Personal factor refers to beliefs and attitudes learners have in a certain learning situation, such as, self-efficacy, i.e. the degree of confidence one possesses in reaching target learning goals in a given learning situation (Bandura, 1986); behavioral factor means responses or reactions students make in a given learning situation and it consists of three subfunctions of SRL, i.e., self-observation, self-evaluation and self-judgment; environmental factors, which are external as apposed to internal control of personal factors, such as, curriculum modules and materials, the role of teachers, parents, and peers during the learning process (Zimmerman, 2000). With regard to the issue on how the self-regulation processes are structurally and systematically interrelated with each other, Zimmerman (2000) proposes a cyclic model of SRL to categorize self-regulatory processes and personal beliefs into three phases, namely, forethought, performance, and self-reflection phase. During the forethought phase, self-regulated learners form a full picture of the task in terms of situational factors, i.e., clarifying a task, setting goals, and planning specific strategies, and personal factors, i.e., setting up motivational beliefs about the task, such as, self-efficacy beliefs, namely, the perceived capability on finishing the task and self-expected outcomes. The second is performance phase that includes self-control and self-observation. Self-control refers to carrying out the strategies and tactics specified in the first phase by using self-control methods, such as, attention-focusing, self-instruction, and task strategies. Self-observation means self-recording events to control learning behavior. The last phase is self-reflection which includes self-judgment and self-reaction during which students self-evaluate their performance against their prior performance or external standards set by others, and then

reconstruct new information and make adaptive strategy changes toward their learning goals.

VLS and instruction

The learning of a word can be viewed from two distinctive ways (Gu, 2005), i.e., knowing a word and using a word. Thus, vocabulary learning strategies should include both strategies for knowing a word and strategies for using a word (Gu, 2005). Knowledge oriented strategies focus on remembering form-meaning pairs, such as mnemonic strategies. Skill oriented strategies involve the use of words in meaningful contexts and aim to develop automaticity in retrieving and producing those words (e.g., reading extensively, and deliberately using a word in one's writing).

METHOD

With an emphasis on how theoretical concepts and principles in educational psychology could be effectively applied to guide and inform teaching and learning practice in the classroom, developmental research has been increasingly highlighted particularly in the domain of learning and instruction (van den Akker, 1999). It usually consists of iterative processes of analysis, design, evaluation and revision to improve the three quality criteria, namely, validity, practicality and effectiveness of the interventions (Nieveen, 2007). Based on the preliminary study of needs analysis and the cyclic process of student and expert evaluation to examine the validity and practicality of the module, this study is a part of development process, that is, a small scale implementation of the module with 10 participants. It attempts to obtain information on the students' responses to the instructional activities of the module and the initial impact of the instruction on students' strategy use, motivational beliefs and vocabulary performance so as to get a better understanding to improve the module.

Participants

The ten students with low, medium and high English proficiency levels from the target group (38 Chinese EFL learners studying at University of Malaya) voluntarily participated in the study, which is expected to provide a balanced picture of students' perceptions of the module.

Instruments

First, a structured interview developed by the researcher was conducted at the end of the implementation of the course to identify the students' perceptions of the program. Second, the vocabulary size test developed by Nation and Beglar (2007) was administrated before and after the intervention to ascertain whether learners had enhanced their passive vocabulary knowledge after the intervention. Third, the calculation of the frequency of strategy use through structured interview was conducted before and after the intervention, and a follow-up interview was done to acquire further information on why learners used those strategies. Forth, a structured interview was conducted to assess learners' self-efficacy in using vocabulary strategies before and after the intervention. The students were required

to state how sure they were in using the strategies and a follow-up interview was conducted with each learner to acquire further information.

Description of intervention

An intensive course consisting 10 sections and post assessment were conducted over 5 weeks. Each section lasted for 3 hours. The aim of this module is to raise Chinese EFL learners' awareness of their strategy use and learning process and to assist them in acquiring self-regulatory strategies in vocabulary learning. The module consists of three sections. Section I is aimed at preparing learners for strategy training. Several awareness raising activities are designed to make learners aware of their attitudes, strategy use and self-efficacy in vocabulary learning. The concepts of SRL and the purpose of the course are also introduced to the learners. Section II focuses on explicit instruction in the selected VLS and self-regulatory strategies in each learning task. The first stage is for students to assess their strategy use performance. Several awareness raising activities are designed to enable them to be aware of the strong and weak points of their strategy use in the related vocabulary learning tasks. In the second stage, the target strategies are introduced to the learners, and they are informed about the importance of each strategy and further guided to set a learning goal for the day's lesson. In the third stage, the strategies are modelled and explained to students, and each sub strategy is practised. In the fourth stage, learners are provided the opportunity to work out a task using the strategies they learned, or using their self-constructed strategies during which it is important that teachers provide feedback on the effectiveness of strategy use. Finally, students are asked to respond to some questions which serve as prompts to guide learners' self-reflection in a learning log. Section III is aimed at providing learners with a self-regulated vocabulary learning experience using the learned strategies as well as self-constructed strategies to expand their vocabulary knowledge.

RESULTS

Perceptions of the module

This section presents the findings from the post structured interviews on learners' perceptions of the module. Four aspects were explored: students' overall impression of the module; their perceptions of the usefulness and interest of the strategy-based activities in the module; the extent to which the module fulfilled their expectations of the course; and their intention to use the strategies.

Overall impression of the module

Generally, the participants gave positive comments about the module. Only one participant found it "a bit boring"; nevertheless, he still considered the strategy instruction quite good as "it provides a lot of strategies when we are reading or doing an exam and makes us aware of using strategies to solve the problems." All the respondents did not express "dislikes" of the module except Learner13 who had a lower language proficiency compared to the others. He explained that "some strategies, like guessing and word parts, I cannot use in my study now, maybe later. All these I don't like." Besides, all the learners found the language "easy."

understand" or "not so difficult and not too easy either". Only Learner13 and Learner4 faced some difficulties in understanding the instruction because of their limited vocabulary.

Perceptions of the instructional activities in the introduction of the module

Almost all the learners considered the activities in Section I: Introduction useful, except the activities on self-efficacy in using strategies, which needed more explanation and demonstration.

Perceptions towards the usefulness of the strategy based activities

The written rating shows that the majority of the learners perceived both metacognitive and cognitive strategy-based activities as either useful or very useful except one negative comment "not useful" given to selective attention, word parts and guessing strategies, and two negative comments "not useful" to word cards and grouping methods. The follow-up interview indicated the reasons for these beliefs: (a) students were used to their old ways and were reluctant to try the strategies; (b) students found the methods such as using word cards troublesome in practice; (c) language proficiency constraints on using strategies effectively, such as using guessing.

Perceptions of the interest of strategy-based activities

Overall, the majority of the students found both metacognitive and cognitive strategy-based activities interesting. A few learners commented "not interesting" for metacognitive control strategies, namely self-assessment, goal-setting and planning, and self-reflection and cognitive vocabulary learning strategies, i.e., selective attention, dictionary use, word cards, organizing methods and review strategies. It appears that the participants felt that the strategies were useful but they were not interested in the strategy-based activities.

Expectation of the course

The data from the post interviews indicated that the majority of learners considered the course did in a way meet their expectations of acquiring the strategies or new ways of learning vocabulary to improve their vocabulary. The strategy training seemed very helpful particularly for those learners who lacked experience in using strategies. For example, Learner6 said: "I expected to find good and easy ways to learn vocabulary. Yes, I did. I learned many ways to learn vocabulary." Learner13 had this to say: "I feel very good, because I learned many strategies. I can use them in my study in the future!" Only Learner11 who had already been practising the strategies, especially the SRL processes seemed dissatisfied. He said: "I expected a new way of thinking, but I only acquired some skills for learning vocabulary through reading." This suggests that differences in self-regulatory capacity among students should be considered. Learners who may have higher self-regulation capacity may not be interested in learning such kinds of strategy training, especially metacognitive control strategies.

Intention to use the strategies

The data shows that the majority of the learners expressed their intention to use the strategies they learned in the programme. However, a few students ticked "not sure" in response to these strategies: "self-assessment", "guessing", "word cards" and "activation" strategies. This could be due to their uncertainty about how to use the strategies in practice, such as guessing, self-assessment and activation strategies. Five learners indicated they did not intend to use word card strategies. The main reasons given by the learners were: "lazy to make word cards" and "they are not suitable for university students".

Initial effectiveness of the instruction

Given the limited number of participants, the mean differences were calculated in strategy use, self-efficacy in using vocabulary learning strategies and vocabulary learning performance before and after the intervention to indicate the initial impact of the intervention on the students' passive vocabulary knowledge, strategy use and self-efficacy in using the vocabulary learning strategies.

Passive vocabulary knowledge.

The mean difference of the pre and post test at each level showed there was an increase in the passive vocabulary knowledge after the intervention, especially at level 4 ($M = 0.9$), level 5 ($M = 1.2$), level 6 ($M = 1.3$) and level 7 ($M = 0.7$). However, starting from level 8 and above, no difference was detected, and even negative difference results were identified, e.g., level 8 ($M = -0.3$), and level 9 ($M = -0.9$) between pre and post tests. The test items are presented in a multiple-choice format; thus, this was more likely due to attempts at guessing. Thus, the more rigorous t-test with the larger sample of the students should be applied to assess the effectiveness of the intervention on the learners' passive vocabulary knowledge.

Strategy use

The initial effectiveness of the intervention on learners' strategy use was assessed using a structured interview before and after the intervention. Two key findings were identified in terms of strategy use awareness and the frequency of strategy use. First, in comparison with the data on learners' strategy use in the pre assessment, the post strategy use interview revealed an increase in strategy use awareness. An increase in strategy use awareness was evident in both metacognitive control (e.g. setting a learning goal, planning the strategies and implementing and evaluating strategy use) and task-based vocabulary learning strategy use (e.g., selective attention, dictionary use, guessing). The second key finding was that there was not much difference in the frequency of strategy use before and after the intervention. The results indicated a slight difference in selective attention ($M = 0.7$) and goal setting ($M = 0.6$). This could indicate that the students used similar patterns of strategies before and after the intervention, and the general impact of the intervention on learners' actual application of strategy use might be weak. Several factors that might account for it according to post strategy use interview. One possible factor could be insufficient strategy practice. For example, Learner 7 voiced her experience that "all these strategies, when I learned them in class, they seemed

easy, but it's difficult when I try to apply the strategies in my study." It might indicate that more scaffolding and practice seem to be needed so that learners could be better acquainted with the strategies and effectively apply them on their own. Another factor to account for the weak impact of the intervention could be the characteristics of the college students. All the participants were young adults who already had 12 to 13 years of English learning experience in China. Thus, their prior learning experiences could have shaped their cognition and learning behaviours so strongly that they were likely to approach the learning tasks in the ways they were used to. A short-term course and insufficient instructional time may fail to affect the old strategy use system entrenched in the students. One more factor would be the constraints of their language proficiency, especially in the case of students with low language proficiency. They encountered more difficulties in acquiring the strategies than those students with higher language proficiency.

Self-efficacy in using vocabulary learning strategies

The written ratings showed that learners' perceptions of their capability in using the strategies were enhanced, especially in using selective attention, dictionary use, word parts, notebook and review strategies. However, there was not much difference in self-efficacy in using guessing, activation, and memorization strategies. It might be that the more aware students were of VLS, the more efficacious they would feel about themselves in using the strategies.

DISCUSSION

Through the implementation of the module with a small group of learners, the learners expressed positive responses to the usefulness and appeal of the majority of the strategy-based activities in the module, though less interest was reported for using the word card and grouping methods. Various cognitive and metacognitive strategies covered in the module had essentially fulfilled the students' expectations of the course. Moreover, the participants expressed their intention to use the strategies they learned in the programme, except word card strategies. This suggests that there is likely to be transfer of the strategy use to other areas of their studies. The initial effectiveness of the module was evident in the three aspects. First, an increase in passive vocabulary knowledge identified between the pre and post vocabulary size test seems to provide support for the effects of strategy instruction on learners' vocabulary learning performance. Second, increased strategy use awareness in both metacognitive control strategies and vocabulary learning strategies was evident from pre and post strategy use assessment. This indicates that the use of metacognitive control strategies can increase students' strategy use awareness. It is consistent with the previous studies which identified the positive effects of metacognitive strategy instruction on vocabulary acquisition (e.g., Rasekh & Ranjbar, 2003; Zaki & Ellis, 1999). However, there was no difference in terms of perceived strategy use before and after the intervention. This might be explained by insufficient instructional time and the learners' prior language learning experience. Third, increased self-efficacy in using strategies, such as selective attention, dictionary use, word parts, notebook and review strategies, was identified. This was consistent with increased awareness of strategy use. It appears to support

the substantial correlation between strategy use and self-efficacy beliefs as identified by researchers (Pintrich & De Groot, 1990) and provides evidence that self-efficacy can be enhanced through strategy instruction.

CONCLUSION

In conclusion, the initial effectiveness of the module has confirmed the findings of the previous studies (e.g., Souvignier & Mokhesgerami, 2006; Tan & Bromeley, 2006) that the incorporation of SR components into language learning instruction may lead to more successful learning outcomes.

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