A Survey of Metacognitive Strategy Use in English Classroom by High School Students

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Keywords: Language Low Achievers, Metacognitive Strategies, Questionnaire, Training.

Abstract. Language learning is a complicated process involving a lot of individual factors; therefore, language learning effects vary greatly among individual learners. The research intends to examine the frequencies of high school students’ metacognitive strategy use in BaiTa Middle School and to discuss whether it is necessary to propose an effective metacognitive strategy training model targeted at them.

1. Introduction

Metacognitive strategies help learners plan, monitor and evaluate their learning process. Different studies found that what distinguished language low achievers was not the lack of appropriate strategies but the inability to choose the right strategy for the task. We take reading as examples and see in what aspects language high and low achievers differ in the use of learning strategies. In reading, first, language high achievers are aware of the general goals of reading and of the specific objectives of a particular task. In contrast, language low achievers do not tend to read for meaning. They do not adjust their reading behaviors to different kinds of content or reading situations. In addition, they do not slow down for difficult passages. Second, language high achievers are aware of and use “fix-it” strategies when problems occur. In this way, difficulties are solved before they become major problems. In contrast, language low achievers use by-pass strategies when they meet problems. Third, the strategy use of language high achievers is more flexible than that of language low achievers in two important ways. They are more likely to use different strategies in different situations, and adapt question-asking strategies to different kinds of texts. Language low achievers, in contrast, tend to apply a single strategy across contexts. Even though they may use strategies, such as context clues, they do not apply them spontaneously. Thus some researchers conclude in using learning strategies language high achievers allocate their time and effort differently for different tasks, use “fix-it” strategies when problems occur. That is to say they are more flexible in strategy use than language low achievers [9].

The research intends to examine the frequencies of high school students’ metacognitive strategy use in BaiTa Middle School and to discuss whether it is necessary to propose an effective metacognitive strategy training model targeted at them. For these purposes, a comprehensive research has been carried out, in which 103 students from BaiTa Middle School were involved. Modified SILL questionnaire was administrated to all the participants, and data were collected and analyzed using the statistical software of SPSS.

2. Literature Review

2.1 A review of metacognitive strategy

Cohen A. D. (2000) defined metacognitive strategies were higher order of executive skills that might entail planning for, monitoring, or evaluating the success of a learning activity [1]. He noted that metacognitive strategies were sequential processes that one used to control cognitive activities, and to ensure that a cognitive goal had been met. These processes help to regulate and oversee
learning, and consist of planning and monitoring cognitive activities, as well as checking the outcome of those activities.

Nuttall. C. regarded metacognitive strategies as general skills including planning, monitoring, and evaluating, through which learners manage, direct, regulate, and guide their learning [5].

According to the definition of metacognitive strategies listed above, it is clear that there are similarities and agreements in these definitions. To put it simply, metacognitive strategies are skills, approaches, and thinking and actions that learners use to control their cognition and learning process.

2.2 The relationship between metacognitive strategy and other learning strategies

Although scholars agree that learning strategies play an important role in improving students’ performance and gradually developing independent learners, they have different opinions as to the relationship between metacognitive strategies and other learning strategies. Some claim that all the learning strategies are at the same level by supporting and connecting with each other. Others argue that metacognitive strategies are at a higher level, managing and regulating other learning strategies.

Take Oxford and O’Malley for instance. Oxford (1990) divided strategies into two main classes, direct and indirect, which were further subdivided into six groups [6]. Indirect strategies include metacognitive strategies, social strategies and affective strategies; direct strategies include cognitive strategies, memory strategies and compensation strategies. All the six groups of strategies operate at the same level and interact with each other. But, according to O’Malley and Chamot learning strategies have been differentiated into three categories depending on the level or type of processing involved: metacognitive strategies, cognitive strategies and social and affective strategies. Metacognitive strategies are higher-order executive skills that may entail planning for, monitoring, or evaluating the success of a learning activity. They include an awareness of what one is doing and the strategies one is employing, as well as knowledge about the actual process of learning. They also include an ability to manage and regulate consciously the use of appropriate learning strategies for different situation. Obviously, O’Malley’s viewpoint more complies with the definition of metacognitive strategies. The notion of metacognition was advanced as an awareness of one’s own mental processes and ability to reflect on how one learns, in other words, to understand one’s own understanding. Therefore, metacognitive strategies which are at a higher level play a more important role in language learning than cognitive strategies [4].

3. Methodology

3.1 Research questions

The present study aims at probing into the metacognitive strategy use frequency of 103 students from BaiTa Middle School and to discuss whether it is necessary to propose an effective metacognitive strategy training model targeted at them.

3.2 Subjects

The subjects in this study consist of 103 students from BaiTa Middle School for the questionnaire.

3.3 Instruments

There are two instruments involved in the research: Modified Strategy Inventory for Language Learning (SILL) of Oxford (1990) and CEE (College Entrance Examination).

3.4 Modified SILL of Oxford

Based on Part D of Oxford’s 1990 SILL (version 5.1 and 7.0), the present questionnaire is designed with slight modifications. The adoption of SILL is due to the fact that multiple choice questions in this kind of more-structured survey can be objectively scored and analyzed so that the results are easy to summarize. Furthermore, in various versions, the SILL has been used in many parts of the world with learners of many different languages including Chinese. In order to make the
questionnaire better suited to the research, the subjects are required to provide background information such as their names, majors, departments and CEE scores. Besides, the whole questionnaire is translated from its English version into Chinese so that misunderstanding of the strategy use can be reduced to the minimum. Moreover, the frequency of use of language learning strategy also follows Oxford’s (1990) standard: “average of 4.5 to 5.0 means that the strategies are ‘always or almost always used’; average of 3.5 to 4.4 means that the strategy are ‘generally used’; average of 2.5 to 3.4 means that the strategies are ‘sometimes used’; average of 1.5 to 2.4 means that the strategy are ‘generally not used’; average of 1.0 to 1.4 means that the strategy are ‘never or almost never used’; and as for the strategy use level: average of 3.5 to 5.0 means ‘high level’; average of 2.5 to 3.4 means ‘medium level’; average of 1.0 to 2.5 means ‘low level’”.

4. Results and Discussion

4.1 Metacognitive strategy use frequency

Table 1. Mean and SD.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall strategies</td>
<td>2.20</td>
<td>0.480</td>
</tr>
<tr>
<td>Centering</td>
<td>1.95</td>
<td>0.575</td>
</tr>
<tr>
<td>Overviewing</td>
<td>1.53</td>
<td>0.928</td>
</tr>
<tr>
<td>Paying attention</td>
<td>1.79</td>
<td>0.685</td>
</tr>
<tr>
<td>Delaying speech</td>
<td>2.54</td>
<td>1.118</td>
</tr>
<tr>
<td>Arranging and planning</td>
<td>2.22</td>
<td>0.557</td>
</tr>
<tr>
<td>Finding</td>
<td>2.54</td>
<td>1.087</td>
</tr>
<tr>
<td>Organizing</td>
<td>2.60</td>
<td>0.611</td>
</tr>
<tr>
<td>Setting goals</td>
<td>1.97</td>
<td>0.764</td>
</tr>
<tr>
<td>Identifying</td>
<td>2.31</td>
<td>1.064</td>
</tr>
<tr>
<td>Planning</td>
<td>2.14</td>
<td>1.136</td>
</tr>
<tr>
<td>Seeking practice</td>
<td>1.78</td>
<td>0.654</td>
</tr>
<tr>
<td>Evaluating</td>
<td>2.42</td>
<td>0.592</td>
</tr>
<tr>
<td>Self-monitoring</td>
<td>2.28</td>
<td>0.749</td>
</tr>
<tr>
<td>Self-evaluating</td>
<td>2.57</td>
<td>0.849</td>
</tr>
</tbody>
</table>

Note: N = 103 persons

From Table 1, it can be seen that students have a low use of the overall strategies (M = 2.20). The order of the 3 strategy groups used by students is ranked from the most used to the least as follows: Evaluation, Arranging and planning, Centering, all at the low level.

In terms of the 11 strategy categories, the mostly frequently used are Organizing, Self-evaluating, Finding and Delaying speech, which are at the medium level. The use frequency of Identifying (M = 2.31), Self-monitoring (M = 2.28), Planning (M = 2.14), Setting goals (M = 1.97), Paying attention (M = 1.79), Seeking practice (M = 1.78) and Overviewing (M = 1.53) are all at low level.

From the analysis, we can see: (1) students from Baita Middle School can not overview and link with already known material, that is to say, they can not preview the basic principles and/or material for an upcoming language activity, and linking these with what the learners already know; (2) students can not use direct attention and selective attention comprehensively; (3) they are without aims and do not know where they are going, so they might never get the destination! Goals are generally considered to be long-range aims referring to the outcome of many months or even years. Objectives are short-term aims for hours, days, or weeks. (4) They don’t know the purpose for doing something and they can not channel their energy in the right direction. (5) They have difficulties in identifying the general nature of the task, the specific requirements of the task, the resources available within the learner, and the need for further aids. (6) Language learners must seek
out or create opportunities to practice any and all the skills. If students want to reach moderate to high proficiency, classroom time cannot usually provide adequate practice opportunities. However, they do not find additional chances to practice the language although this strategy underscores students’ responsibility to generate their own opportunities to practice. (7) They are not used to trying to determine overgeneration from a native language rule, or inappropriate verbatim translation, help learners understand more about the new language or about their own use of learning strategies. Therefore, according to the analysis, the strategy training program should be designed focusing on these low level used strategies.

5. Practical Implications

Through the analysis of the questionnaire a conclusion can be reached that students from BaiTa Middle School lack strategies of Identifying, Self-monitoring, Planning, Setting goals, Paying attention, Seeking practice and Overviewing. Furthermore, the three strategy groups and eleven strategy categories, another focus can be Identifying, Self-monitoring, Planning, Setting goals, Paying attention, Seeking practice and Overviewing.

Metacognitive strategies are a powerful tool for students both in and out of the classroom as it includes “having knowledge and having understanding, control over, and appropriating use of that knowledge” [7]. It is important for language learners to master them as the following reasons:

5.1 Helping students prepare for and plan their learning

Preparation and planning are important and can improve their learning. Students, with the help of metacognitive strategies, can set a realistic goal within a set time for accomplishing that goal. Setting clear, challenging, and realistic goals can help them see their own progress hopefully, by becoming consciously aware of their progress, the students’ motivation for learning would be increased [2].

5.2 Helping students select, use, and orchestrate appropriate strategies

The metacognitive ability to select and use particular strategies in a given context for a specific purpose means that the learner can think and make conscious decisions about the learning process [3]. Knowing how to orchestrate the use of more than one strategy is an important metacognitive skill. The ability to coordinate, organize, and make associations among the various strategies available is a major distinction between language low and high achievers. In this study, it has shown that language high achievers tend to select strategies that work well together in a highly orchestrated way. They can easily explain the strategies they use and why they employ them.

5.3 Helping students examine and monitor their strategy use

By examining and monitoring their use of learning strategies, language low achievers can have more chances of success in meeting their learning goals [8]. They can keep themselves on track to meet their learning goals and check periodically whether or not these strategies are effective and whether or not they are still using these strategies as intended.

5.4 Helping students achieve learner autonomy

Most of language low achievers fail to realize they are the person who should be responsible for their study and they still expect their teachers to explain everything to them [10]. Metacognitive strategies can help them take charge of their study and stimulate students’ potentials and make them believe they are capable of handling their study.

Acknowledgement

The paper was supported by the social science program of Sichuan City, Nanchong (No. NC16B125).
References


