Self-regulated learning: Goal setting and self-monitoring

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Even at an early age, students have their own ideas about school, studying, and their role as learners. As young students gain experience their ideas about learning change and develop, sometimes in positive ways and sometimes in negative ways. The most successful learners take responsibility for their learning. They set realistic goals and work to achieve their goals, overcoming difficulties as necessary.

Self-Regulated Learning (SRL) describes students' use of strategies to achieve learning objectives and their continuous regulation and adjustment of such strategies to ensure success. Self-regulated learners can accurately assess their own knowledge and skill level. They take the initiative to find and master essential information. They figure out how to learn successfully, even when faced with obstacles, and they take responsibility for the results of their effort (Zimmerman, 1990).

Upon examining research in SRL, I've found that self-regulation is not limited to cognitive strategies such as the memorization techniques and problem-solving skills which often come to mind when considering SRL, but also includes goal setting and monitoring one's own progress. These are global and fundamental self-regulatory functions, in that they are applicable to all areas of learning, and form the foundation for a healthy metacognitive approach to learning. This paper will examine the SRL strategies of goal setting, language learning strategy usage, and self-monitoring, and provide instructors with some practical ideas to help students use these techniques to become more autonomous learners.

Goal setting

Several studies have shown a significant relationship between goal setting and positive student outcomes—such as higher grade point averages, increased self-confidence, and a greater sense of learner autonomy.

Morisano, Hirsh, Peterson, Pihl, & Shore (2010) carried out research in which university students, who were struggling in their studies, showed significant academic improvement. Students completed a web-based program designed to lead them through a process of reflection on

The focus of this article is Self-Regulated Learning (SRL). Students who can effectively use strategies to regulate their own learning tend to show higher academic achievement, make greater effort to resolve problems, overcome obstacles in understanding and show greater motivation to learn (Zimmerman, 1990). Although there are a wide variety of ways in which students self-regulate, this essay focuses on three specific types of SRL: goal setting, language learning strategy usage, and self-monitoring. It examines research in each of the three categories and discusses some practical implications for teachers.

本論は、自己調整学習（SRL：Self-Regulated Learning）に焦点を当てたものである。自分の学習を調整するストラテジーを効果的に用いる学生は、より優れた学習成果を示し、問題解決により努力し、理解への障害を克服し、より明確な学習動機を持つ傾向がみられる（Zimmerman, 1990）。学生の自己調整の方法は幅広く多岐に富んでいるが、本論ではSRLの特定の3 つの型（目標設定、言語学習ストラテジーの用い方、セルフ・モニタリング）に焦点を当てた。この3種類についての各研究結果を調査し、更に教師に役立つ指導方法についても考察する。

short and long term goals. They were also asked to consider what strategies they might use to accomplish those goals. Students were asked to write about their ideal future, then specify goals that would lead to their ideal future, evaluate the achievability of these goals, consider strategies to realize these goals, consider possible obstacles to reaching their goals and how they might overcome these obstacles, and to set benchmarks so that they could monitor their progress towards achieving the goals they had set for themselves. The experimental group showed significant GPA increases post treatment, compared with the control group. A higher proportion of students from the goal-setting group also maintained a full course load the semester following the treatment.

Sim (2007) worked with a group of ESL students in an English language and study skills university preparation program in Australia. The study had students in the experimental group self-monitor by writing out a weekly report in which they reflected on their use of English outside of class. Students also filled out a worksheet in which they outlined goals for the week and how they would achieve these goals. They were also encouraged to list any strategies they could think of that would help them increase their goal's achievability. At the end of the course, students in all groups were given a questionnaire intended to measure their attitudes towards learning. Students who outlined their goals and considered strategies that might help them achieve those goals showed a significant increase in strength and level of beliefs about the importance of autonomy in learning. Self-confidence was also shown to be positively affected by these weekly reflection reports.

Relationship between goal setting, self-efficacy and motivation

As students set goals, they become more conscious of their own strengths and weaknesses; moreover their approach to learning becomes more reflective. They judge their ability to succeed at accomplishing these goals and adjust their effort, studying strategies, and affective regulation accordingly. Once they see that goals can really be achieved, feelings of self-efficacy become stronger and motivation increases as a result.

Zimmerman (1990) highlighted the reciprocal relationship between goal setting and self-efficacy. Students who set goals effectively can see their progress more tangibly, thereby increasing their sense of self-efficacy. This in turn leads them to set more challenging goals. According to Zimmerman, "An important aspect of theories of self-regulated learning is that student learning and motivation are treated as interdependent processes that cannot be fully understood apart from each other" (p. 3).

If students have confidence in their ability to complete a given task, they will persevere in the face of difficulties and find ways to regulate their learning to achieve their goals. If, however, they feel overwhelmed at the outset, it is natural that motivation will be low, and increasing motivation becomes much more challenging. It is therefore of the utmost importance that teachers encourage students in such a way that cultivates a strong sense of self-efficacy. Tasks need to be chosen that are appropriate for students' ability levels. Students should feel that course goals as well as goals they have set for themselves are accessible and achievable.

Language learning strategies

A number of studies have shown that when L2 students are taught how to use language-learning strategies effectively, such strategies are used more frequently and language competence improves as a result.

In a study by Zhang (2012), Chinese university students studying English as a foreign language were given 15 weeks of listening strategy training. The training focused on metacognitive, cognitive, and social affective strategies, and included self-monitoring and motivation regulation. At the end of the course they were tested on three listening tasks (a story, a news report, and a scientific story) and finally they were given a questionnaire to check frequency of strategy usage. Results showed that students who received the language learning strategy training outperformed the comparison group. Students in the experimental group also reported higher frequency of listening strategy usage on the post course questionnaire.

Birjandi and Rahimi (2012) confirmed the effectiveness of metacognitive strategy instruction. In their study, English translation and literature students in Iran were given listening strategy instruction, which focused on planning, comprehension monitoring, performance evaluation, and socio-affective and linguistic strategies. The students participated in six sessions of 45 minutes. Birjandi used the listening section of

the TOEFL and a series of oral texts on a variety of topics to measure outcomes and compare groups. Students in the experimental group outperformed the control group after completing the metacognitive strategy instruction.

Mizumoto and Takeuchi (2009) studied the effectiveness of explicit Vocabulary Learning Strategy (VLS) instruction. The students were all humanities majors from two different private universities located in Japan. The explicit strategy instruction was implemented in a TOEIC preparation course over a period of four months. The following strategies were taught: consciously previewing, using imagery to remember new words, grouping related words, attempting to use new words, using notes and cards, self-testing of new vocabulary, setting a goal to remember a specific number of words, mnemonics, and word associations. Instructors introduced and modeled the target strategy. Students discussed each strategy with classmates and thought of possible applications. Then time was given to practice using the target strategy. To evaluate the effectiveness of the instruction, Mizumoto and Takeuchi had students write study logs pertaining to strategy usage. They also interviewed students who participated in the study. Students were given review quizzes on the previous lesson's target vocabulary. Finally, students took a vocabulary test and answered a questionnaire about strategy usage.

Students in the experimental groups showed improved vocabulary test scores compared with the control group. The students, who reported low or moderate use of vocabulary learning strategies before the course, reported an increase of strategy usage after the treatment. It also became evident during interviews with learners in the experimental group that explicit instruction of VLSs resulted in an increase in intrinsic motivation.

Goal setting and language learning strategies in the classroom

Paris and Newman (1990) have suggested that effective SRL instruction promotes active participation and collaboration. They also recommended SRL instruction that provokes students to change their theories about learning. I find that small group discussions about goals and language-learning strategies is a great way to encourage students to cultivate metacognitive thinking and help them continue to develop a sense of responsibility as learners.

Students collaborate to discover strategies that will enhance learning and help them reach their goals. This also gives me a chance to identify and address any misconceptions students may have and introduce strategies students have not yet considered.

Sometime around the beginning of the semester, I talk to students as a class about the importance of self-regulation and strategies they might use to become successful learners. During the initial introduction students write out some short and long term goals concerning English communication. Then each week I write an aspect of language learning on the board (e.g., vocabulary, grammar, motivation, listening). Students brainstorm in small groups specific goals for the language skill of the week and strategies they might use to achieve those goals. This leads to a class discussion, during which I write key ideas on the board. I don't take too much class time during this activity, just 15-20 minutes per week. By the end of the term, students have thought of many learning strategies they can apply both inside and outside of the classroom to reach their goals.

This should be combined with a more in-depth focus on language learning strategies students can use for each language skill. For example, during the week when we consider listening goals and strategies, I might explain the idea of inference and prepare an activity in which students practice inferring meaning from context. It is important that any explicit strategy instruction includes concrete examples and that students are given the opportunity to practice and apply the target strategy.

Self-monitoring

Studies have shown that learning is greatly enhanced when students take the time to monitor their own effort and progress.

A study of college students in a statistics class done by Lan, Bradley, and Parr (1993) showed that students who monitored their learning and level of self-efficacy performed better on the four regular course examinations. This was an experimental study in which students in the control group simply took the course as usual with no specific emphasis on self-monitoring. Students in the experimental group, on the other hand, filled out a worksheet to monitor their SRL usage. This worksheet also prompted them to consider the degree to which they felt a sense of self-efficacy in understanding the statistical concepts covered

in the course. The self-monitoring worksheet, given at regular intervals through the semester, in a sense indirectly taught the students how to go about monitoring their learning. The worksheet asked students to record the amount of time spent on activities needed to master each statistical concept (e.g., the time spent attending lectures, reading the textbook, completing assignments, participating in group discussion, receiving tutoring), and the number of times they engaged in each activity (Lan, Bradley, & Parr, 1993). Students in the self-monitoring group performed better than students in the control groups on each course examination. Students who monitored their SRL usage also expressed appreciation for the process (though initially they felt it would be cumbersome) because they felt it enhanced their learning.

Self-monitoring in the classroom

As Zhang (2012) points out, it is important for teachers to encourage students to reflect on their own learning, including their strengths and weaknesses, with the goal of increasing learner autonomy.

In order to provoke this kind of reflection and encourage self-monitoring, I have students fill out a self-evaluation form at various intervals throughout the school year (see Appendix), similar to the worksheet/questionnaire used by Sim (2007) and Morisano et al. (2010). Students reflect on areas that they have done well in, and think about areas that need improvement. Students are asked to rate their performance on a scale of one to ten for various categories such as effort, vocabulary, grammar, listening, and pronunciation. They are then asked to assess their performance in class and write a short paragraph in self-evaluation. The next section asks students to write out some goals. They write specifically what area they'd like to work on and they're given space to write out steps they might take to accomplish their goals.

Finally, I like to take time mid-semester to meet with students individually to go over their progress in light of the goals they set for themselves. We look at the goals they set at the beginning of the semester (e.g., understand movies in English without looking at subtitles), and I then ask the students if they feel they've made progress in this area. We also look at test results, homework assignments, and classroom performance. At this point I can add comments about areas they have identified as needing improvement. When

students are unable to think of specific steps they might take to reach the goals they have come up with, I might add my own suggestions to help them to achieve those goals.

I find this worksheet is a great way to foster metacognitive thinking. It compels students to set concrete goals. It also makes my mid-term student-teacher meeting more productive. The combination of self-evaluation and teacher feedback reinforces other class activities and explicit instruction about self-regulation given previously in the semester.

Explicit instruction considerations

Garavalia and Grelder (2002) examined to what degree students accurately perceived their own self-regulatory skill usage and how explicit strategy instruction influenced this perception. In their study self-regulation was divided into "Typical Study Strategies" (frequently taking and studying class notes) and "Task Preparation Strategies" (rereading notes and text in preparation for a class meeting and rereading the text prior to an exam or another task). The results showed that, even when the advantages of self-regulation are pointed out explicitly, students were often slow to implement such strategies in their own study habits.

As Garavalia and Grelder's research makes evident, simply highlighting the advantages of self-regulation and implicit strategy instruction is not enough. Studies that have shown positive results (see Birjandi and Rahimi, 2012; Lan et al., 1993; Mizumoto and Takeuchi, 2009; Morisono et al., 2010; Sim, 2007; Zhang, 2012) combine instruction with activities in which students not only learn about, but actively engage in goal setting, language strategy usage, and self-monitoring. SRL strategies should first be introduced and modeled by the teacher. Subsequently, students should be given the opportunity to practice and apply each strategy in a variety of contexts, so they can see the potential benefits for themselves. It is not enough that students outwardly use SRL in obedience to teachers' instruction, they need to internalize SLR usage and, as a result, their theories about learning should develop and be modified in the process (Paris and Newman, 1990).

I also believe that SRL strategy instruction is most effective when given in the context of self-set goals and followed up by giving students the means to actively monitor their own progress (as in the study by Morisano et al., 2010). It is most

productive to give students classroom activities, exercises and prompts in which they are asked to set goals, to encourage students to consider strategies that enhance learning in light of these goals, and then to have students monitor their effort and progress. This combination will have a much greater impact on academic achievement than explicit instruction alone. These activities can be implemented on a regular basis throughout the course.

Conclusion

SRL strategies greatly enhance students' learning potential. Setting realistic but challenging goals and monitoring progress result in a greater sense of self-efficacy and a higher level of motivation in learning. Motivation is a key factor in ensuring academic success. As educators, we should make every attempt to help students develop these strategies.

Students need to be made aware of the importance of SRL strategies. The very act of questioning and discussing goals and learning strategies with peers and monitoring progress towards reaching their goals may result in a change in and development of greater self-regulation and, as a result, greater academic achievement. We can help students develop a sense of self-confidence by encouraging self-monitoring and goal setting, as well as providing the support necessary to help them reach their goals. As students gain a sense of responsibility and control in their own learning, they will become more effective learners and more successful in their studies.

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Appendix

The appendix for this article, *Student Self-Evaluation Worksheet*, is available from our website <jalt-publications.org/tlt>
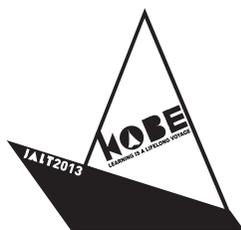
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Appendix

Student Self-Evaluation Worksheet
Students are instructed to rate themselves for each category on a scale of 1 (seriously needs improvement) to 10 (fantastic). Students put a mark directly on the line.

10							
9							
8							
7							
6							
5							
4							
3							
2							
1							

▼ Effort ▼ Fluency ▼ Grammar ▼ Listening ▼ Pronunciation ▼ Speaking ▼ Vocabluary

Student Self-Evaluation
Please write down how you felt you performed in class during the last two months. Please think about the above areas of concern: (Effort, Fluency, Grammar, etc.)

Goals
I will work on improving my _____ during the next 2 months.

I will improve my _____ by: