

Using goals to facilitate self-regulated learning

Paul Collett

Shimonoseki City University

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This paper reports on an ongoing project aimed at helping language learners incorporate goal setting skills into their study repertoires. After outlining some of the theoretical background behind the project, results of research into how students are setting and using goals will be presented, along with implications for future classroom application.

本論文では、言語学習者が目標設定スキルを自分の学習方法の中に組み入れることを援助することを目的として、現在実施中のプロジェクトについて報告する。プロジェクトの背後にある理論的背景について説明した後、学生がどのように目標設定を行い、その目標を利用するのかについて我々が行った研究結果を、将来の授業の中での応用を含めて紹介する。

THE IMPORTANCE of goals for learning has been widely outlined in the fields of psychology (Bandura, 1997; Locke & Latham, 2002), education (Schunk & Zimmerman, 2008), and second language acquisition (Dörnyei, 2005). Goals are reciprocally linked to such dimensions of the learner as self-efficacy beliefs, theories of intelligence, adaptive help strategies, and more; effective goal setting is both a predictor of positive learning outcomes and contributes towards the development of autonomous learning skills.

While goals can contribute to success, they can also be maladaptive. Poorly conceived goals can inhibit learning, and may serve to justify poor outcomes, consequently reinforcing negative beliefs about ability. Similarly, failing to set goals can lead to lowered motivation and disengagement from the learning process (Bandura, 1997; Zimmerman, 2008).

However, effective goal setting strategy can be learnt. Providing guidance on effective goal setting strategies can be useful for students who fail to use goals to guide learning, or who set negative or maladaptive goals. More generally, it can help raise awareness of what students need to do to be successful in their studies.

Motivational aspects of goals

The ways in which goals create and sustain motivation have been outlined by a number of researchers; this section focuses on the outlines put forward by Locke & Latham (1991), and Zimmerman (2008). Under these conceptualizations, goals work to:



- Direct attention towards goal-relevant tasks and away from irrelevant tasks.
- Increase the effort one puts into attaining them. Setting high or difficult goals ensures people exert more effort to attain them.
- Influence task persistence: They encourage people to work faster and/or longer.
- Create positive affective reactions to the goal outcomes. As people achieve goals, they feel more satisfied about themselves and their efforts, developing an increased sense of self-efficacy (Bandura, 1997; Zimmerman, 2008).

However, as noted above, not all goals are necessarily motivating. The next section will highlight the features that are seen as defining ideal goals.

Ideal qualities of goals

For goals to be maximally effective in creating and sustaining motivation, they should ideally have certain qualities. Again, the following short outline is based on the work of Latham & Locke (1991; see also Locke & Latham, 2002) as well as Bandura (1997) and Zimmerman (2008). First, specific goals are recognized as better than vague goals. Related to this is goal difficulty. Consistent findings from a large body of research show the harder the goal, the higher the performance—provided of course the goal is not beyond one’s capabilities. *Do your best* type goals are not effective as they are too vague and do not demand any particular degree of effort; any outcome can be perceived as being best: “... the ambiguity inherent in doing one’s best allows people to give themselves the benefit of the doubt in evaluating their performance...[however]...a specific, hard goal clarifies...what constitutes effective performance” (Latham & Locke, 1991, p. 215).

Next, proximal goals (i.e., short-term goals such as “*I will achieve x by the end of the day*”) are seen as being better than

distal goals (i.e., more far-reaching or long-term goals) as reaching proximal goals makes those who attain them feel greater satisfaction with their progress, which increases self-efficacy (Zimmerman, 2008). Having proximal goals has been shown to help people stay on-task longer than if they are pursuing distant goals (Latham & Locke, 1991). Also important are *subgoals*—Bandura (1997) outlines how the best approach to maintaining motivation is to have a long-range goal combined with a series of attainable subgoals that guide and sustain effort.

A further key aspect is goal commitment, including how important one regards the goal, and the amount of perseverance directed towards completing it. A high level of commitment to a goal will ensure better performance, but this is moderated by goal difficulty. While one may assume that self-set goals will have a higher degree of commitment than assigned ones, Latham & Locke (1991) report that as long as the rationale and explanation behind assigned goals is made clear, commitment to assigned goals is as high as that of self-set goals. This said, while both types of goals can lead to equal levels of performance, self-set goals contribute to higher levels of self-satisfaction (Bandura, 1997).

Helping learners improve their goal-setting behavior to incorporate the aforementioned qualities is seen as an important step in helping students become more self-directed, or *self-regulated* learners (Bandura, 1997; Zimmerman, 2008). This will be addressed in the following sections.

Self-regulated learning

Theories of self-regulated learning (SRL) see the ideal, self-regulated learner as having control over their learning, “steering and directing cognitive and motivation processes to achieve... learning goal[s]” (Boekaerts & Cascallar, 2006, p. 200). These learners are more successful in their learning outcomes than those who are not self-regulated. There are a number of differ-



ing theoretical conceptions of the mechanisms behind SRL, but there is a generally shared belief that learners, when engaging in a learning task, proceed through a goal-driven recursive cycle of planning, monitoring and evaluating, with outcomes in one learning task or activity affecting future endeavors (Zimmerman & Schunk, 2001). Self-regulated learners are regarded as *proactive learners*: they are better able to set high-quality goals to help guide themselves through a task due to better planning and forethought at the beginning of a task. As they proceed through learning activities, they monitor their progress, and are able to modify their goals or strategies where required based on their initial planning. They also show the ability to use the final outcomes of goals to help judge the successfulness of their initial decisions and goals, along with the learning strategies they brought to bear on the learning task, increasing the likelihood of successful outcomes in future tasks (Zimmerman, 2008). *Reactive learners* on the other hand, are those who fail to use self-regulatory strategies. This type of learner fails to set effective goals in the planning stage, meaning they lack a standard by which to judge their performance and outcomes. As a consequence, they cannot evaluate their performance; or they counter-productively form evaluations based on social comparisons with other learners (*ibid*). However, Zimmerman (2008) presents evidence that training reactive learners to set goals in the planning phase and providing self-regulatory strategies throughout each of the phases can help them improve their learning outcomes.

Self-theories of Intelligence

Related to the constructs of proactive and reactive learners is the role played by learners' self-theories of intelligence, and how these influence goal setting (Dweck & Master, 2008; Robins & Pals, 2002). Learners are seen as holding either *entity* or *incremental* theories. Entity theories hold that intelligence is fixed—you are born with a certain level of intelligence, and it

stays essentially stable throughout your life. For entity theorists, looking and feeling smart or intelligent is more important than learning. In academic settings, students who hold this theory will not necessarily maximally engage in learning or studying, but instead will develop strategies to appear smart at the expense of learning so as to avoid possible perceptions of being "stupid" or "dumb". If they set goals, these are likely to be maladaptive or ineffective ones, so that if they succeed they can credit this to their innate ability, but if they fail they can blame it on their (lack of) goals. At worst, entity theorists "are vulnerable...[to a]...helpless response pattern. When confronting failure, helpless individuals make maladaptive self-attributions, experience negative affect, and disengage from the task to avoid revealing their lack of ability" (Robins & Pals, 2002, p. 314).

Incremental theory holds that intelligence is not fixed, but changeable. Learning is seen as a valuable pursuit. Failure is attributable to insufficient effort or poor study strategies and is not a cause for self-blame, rather it represents a learning experience. Incremental theory is a precursor to successful SRL (see Table 1).

Table 1. Relationship between constructs defining learning type

Non Self-regulated learners have problems using goals to guide learning as they:	Self-regulated learners use goals to successfully guide learning as they:
<ul style="list-style-type: none"> • Tend to be <i>reactive</i> learners • Have <i>entity</i> theories of intelligence • Hold <i>performance goal</i> orientations 	<ul style="list-style-type: none"> • Tend to be <i>proactive</i> learners • Hold incremental theories of intelligence • Hold <i>mastery goal</i> orientations

(Note that the relationship between constructs is not hierarchal or top-down but is postulated as being reciprocal.)



Goal orientations

Goal orientations are another key self-regulatory learning construct. A distinction can be drawn between *performance* and *mastery* goals (Pintrich, Conley & Kempler, 2003; Zimmerman, 2008; Dweck & Master, 2008). Learners who have a performance goal orientation tend to be more concerned with how the outcome of an activity affects their feelings of personal competence, and focus on normative standards. Those with mastery goal orientations are more concerned with learning or increasing skills and knowledge. Students with performance goal orientation tend to also hold entity theories of intelligence and fit the profile of reactive learners, while those who display mastery goal orientations tend to hold incremental theories and are more likely to be proactive learners (Robins & Pals, 2002; Dweck & Master, 2008; Zimmerman, 2008).

The study

Background to the project

As part of an overall curriculum development project in the English language program at Shimonoseki City University, Yamaguchi, Japan, we introduced a Study Progress Sheet (SPS) based on principles of SRL. One key purpose of the SPS was to help students improve their goal-setting behavior based on its important role in developing self-regulatory learning skills and in building and sustaining motivation for academic tasks.

The SPS included a section for students to outline an initial overall course goal. In addition, a series of sections based on each unit of the textbook asked students to rate their perceived level of competence or confidence in their ability to perform the various language functions covered in class and in the course text. Students were also asked to set regular unit-based subgoals (English Improvement Goals and Objectives: *EI-GOs*) which ideally would help them work through the course content, and

contribute to the successful completion of their initial course goal. The SPS finished with an overall class reflection section to be completed at the end of the course that asked students to reflect back and assess their performance (see Collett & Sullivan, 2010 for details). Completion of all sections of the sheets contributed to 10% of the students' final grades.

Preparation of the study progress sheets, and their introduction to the first and second year language courses has involved considerable time, and is an ongoing process. One of our main concerns in the early stages of their development has been to what degree the students have been using the SPS, and how we could better help them to develop effective study strategies. To this end, we carried out continual assessment of their use, including interviews, collecting samples of the SPS, and surveying students on attitudes and beliefs towards their language study, as well as the use of the SPS. As of the time of writing, we are still in the process of analyzing the interview data, so here the focus will be on the samples of the SPS and questionnaire results.

Attitudes and beliefs questionnaire

One aim of this questionnaire was to see to what degree, if any, student attitudes towards their English study changed over the course of the semester in which they used the SPS. The items presented in this questionnaire (see Table 2) can be conceptualized as covering a number of different areas: general interest in English, self-efficacy beliefs, metacognitive strategies, and metacognitive beliefs. The questionnaire incorporated items used by Cotterall and Murray (2009), as well as items from an earlier survey we had trialed in 2009. The questionnaire items were originally created in English and translated into Japanese, then checked for correspondence with the original English versions. The survey was piloted on a number of students at four universities, to check for problems with the design or understanding of



the questions, and to ensure no questions gave widely divergent results. Responses to the items were along a 4-point Likert scale between “strongly agree” (1) and “strongly disagree” (4).

Table 2. Attitudes and beliefs survey questions

1	Becoming good at English is important for me.
2	I review and revise class work in order to get good grades.
3	No matter how hard I try I'll never be good at English.
4	When studying English, it is important to plan how and what one will study.
5	I have several methods for measuring improvement in my English ability.
6	I can identify my strong and weak points in regards to my English ability.
7	I know several effective ways of studying English by myself outside of class time.
8	When my English study does not go well, I typically give up.
9	I enjoy studying English.
10	I don't study English seriously because no matter what I do I won't become good at English.
11	It is important for me to receive advice from my teacher regarding ways of conducting self-study of English.
12	In order to improve one's English ability, it is important to actually use English.
13	I think about ways to study English in order to improve my weak points.
14	I believe that one's English will improve if one studies outside of class time

15	Reviewing and revising class content is important for becoming better at English.
16	When my English study does not go well, I think of ways to overcome the situation.
17	There are people who have a natural ability to acquire foreign languages.
18	I typically notice when my English ability is improving.
19	I often think about how I will conduct my English study.
20	The best way for me to study English is to be taught by a teacher.

The questionnaires were administered to non-English majors in the International Commerce or Economics departments at Shimonoseki City University. All students were enrolled in either first or second year English practicum classes. To assess changes in student attitudes over the course of the semester, the questionnaires were administered twice; once in the first week of the school year in April 2010, before the students had received their study progress sheets, and once again in August 2010 at the end of the course of study, during the end-of-semester test period. In both instances surveys were administered by the class teachers, and students were instructed that the purpose of the surveys was to improve the language courses at the university and that responses would have no influence on student assessment. We asked respondents to provide their student ID numbers to allow for comparison of before and after results. After adjusting for cases where students only completed one of the questionnaires, or where questionnaires had not been completed correctly, we had usable results from 320 students in the first-year classes, and 166 from the second year.

It should be stressed that as we used the study progress sheets with all students, we did not have a control group to compare our survey results to. This affects how we can interpret the re-



sults from the survey, and at this stage we can only put forward tentative observations based on our results.

Results and discussion

Survey results

Figures 1 and 2 display the 95% confidence intervals (CIs) for the difference in means of the survey results for the first-year (Figure 1) and second-year (Figure 2) questionnaire results. CIs are used as they provide as much information as a standard point estimate test, such as a t-test, whilst avoiding the main limitations of the statistical significance test (Cohen, 1994; Cumming & Fidler, 2009). Figures 3 and 4 show the different proportions for each response for the April & August surveys (full-size copies of Figures 1 and 2 can be found at the end of this PDF).

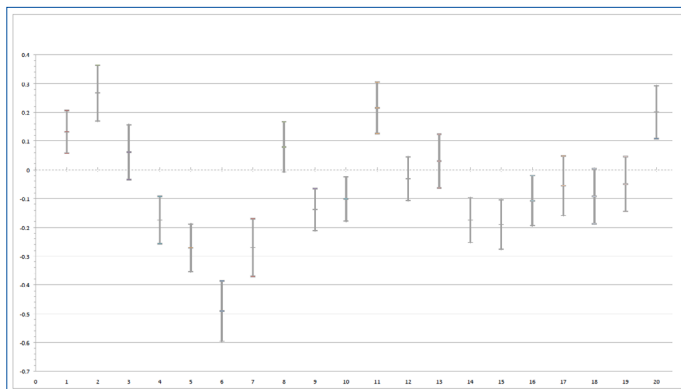


Figure 1. 95% confidence intervals of mean differences for first-year pre- and post-surveys.

Note: These show there is a 95% chance that the values in the CI include the true population difference of the mean for each of the questions. Larger values of the CI represent a larger difference in means. Those that cross 0 can be interpreted as having the same meaning as a non-statistically significant result.

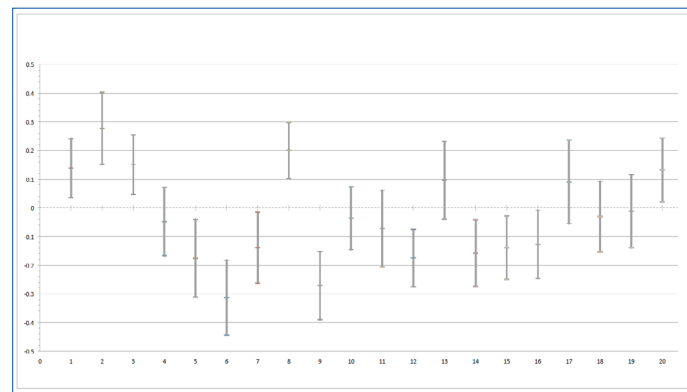
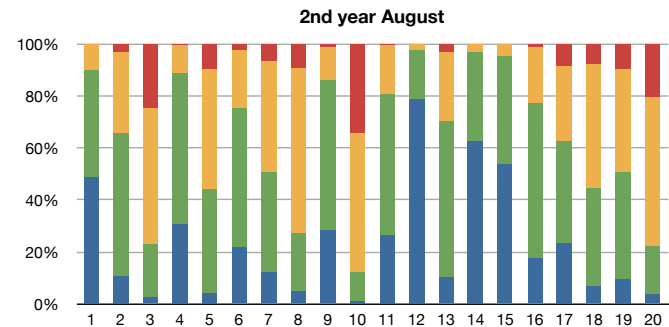
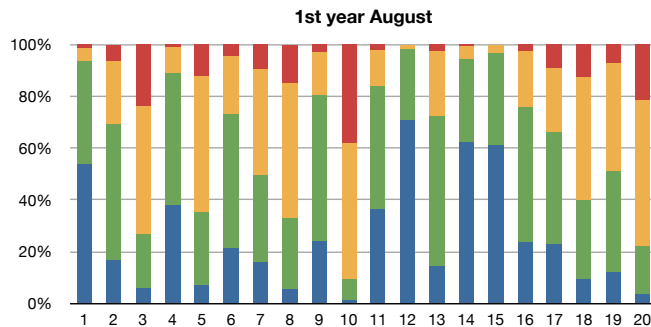
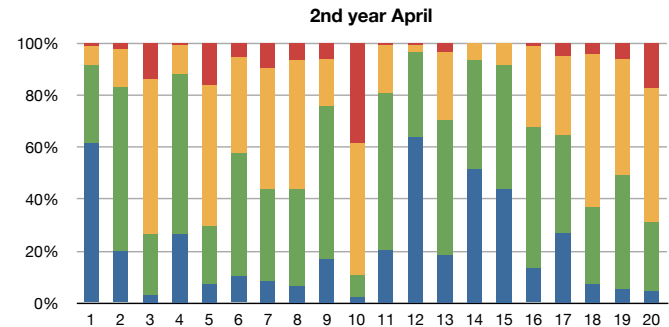
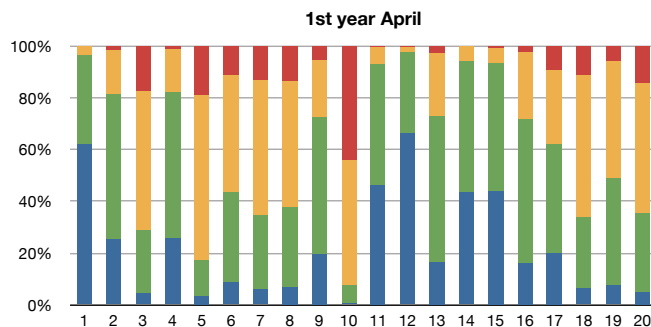


Figure 2: 95% confidence intervals of mean differences for second-year pre- and post-surveys



SA A
D SD

SA A
D SD

Figure 3: Percentage responses to attitudes survey: first-year students (n=320)
SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree

Figure 4: Percentage responses to attitudes survey: second-year students (n=166)
SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree

A number of conceptualizations regarding student orientation towards strategies and attitudes representative of adaptive goal-setting orientations are possible based on these results.

Overall, initial survey results suggest that both groups of students have relatively high levels of self-efficacy and generally positive attitudes towards their English studies. Results for question 9 (*"I enjoy studying English"*) show an increased percentage of students who claim they enjoy studying English, which suggests motivation and interest amongst students is being maintained. However, we also found a decline in the rates of agreement for question 1 (*"becoming good at English is important for me"*). One possible interpretation of this result is purely instrumental. For our students, English study only contributes to a small part of total course work and final grades, so for many students it is not a major area of concern.

Question 7 (*"I know several effective ways of studying English by myself outside of class time"*) shows a positive increase in the number of students who agree with the statement. SRL theory predicts that if learners are successful with their study methods, this will serve to motivate them to continue studying as long as they are able to identify their study methods as contributing to successful outcomes. The results to questions 4 (*"When studying English, it is important to plan how and what one will study"*) and 14 (*"I believe that one's English will improve if one studies outside of class time"*) are of interest here, too, with either high initial positive agreement, or relatively large positive changes over the semester. Hopefully, we are justified in assuming that students are actually planning their study, and the SPS is playing a part in this.

Question 8 (*"When my English study does not go well, I typically give up"*) should give some indication of the extent to which learners can be classified as proactive or reactive. Here we see a large change in attitudes amongst the second year students showing more are in disagreement at the end of the first semes-

ter than at the beginning, suggesting a shift towards a more proactive orientation. These students have already had experience with one year of using the SPS, so this may account for the larger change here, although for this same reason, one would probably expect a higher corresponding initial disagreement level amongst these students.

Student responses for question 10 (*"I don't study English seriously because no matter what I do I won't become good at English"*) also show high rates of disagreement. We would predict that a high level of disagreement with this statement suggests incremental-type theories of intelligence, something we would hope to see in our learners. Overall, the results do show a high level of disagreement and are consistent across the two surveys, with a slight decrease in the number of first-year students who strongly disagreed, and a very slight increase in the number of students who agreed with this in the second-year sample.

Question 16 (*"When my English study does not go well, I think of ways to overcome the situation"*) has high positive responses at the beginning of the semester, the kind of response we would expect from learners with a mastery goal orientation towards their studies. Over the course of the semester, we saw a slight positive increase for second-year students, and a larger increase in positive responses for first-year students. However, the 95% CIs for both groups suggests a relatively trivial but positive change.

Question 17 (*"There are people who have a natural ability to acquire foreign languages"*) sees a larger proportion of both first and second-year students in agreement, with no particularly strong change in the means over the course of the semester. While this result points to an entity theory of intelligence, it is instructive to compare the results here to those for question 3, as students answering this in the affirmative would be assumed to adhere to an entity theory of intelligence, and by association, not have positive goal setting skills or strategies. For both groups, we see a nearly 75% rate of *disagree* responses across both the surveys.



Ratios for *agree* and *disagree* responses stayed almost stable across the semester, but more students strongly disagreed with this (17% against 24% for the first-year, 14% against 25% for second-year students).

One rather problematic trend is that it seems students are having difficulty monitoring their improvement (or lack of) in their studies (see the results for questions 5 & 18). Without an ability to monitor progress throughout learning tasks, the effectiveness of goals and other strategies cannot be assessed, impacting negatively on motivation and future outcomes.

In general, the survey results are relatively promising as regards the degree to which we can judge our students as utilizing positive learning strategies and holding constructive attitudes towards their learning. However, when we look at the ways in which they are using the SPS to set their study goals, a rather different picture emerges.

Study progress sheets

While we have yet to complete analyzing the SPS responses from the first semester, we can comment on some clear patterns in their use. Many of the self-set goals relate to vague outcomes like *improving listening* or *becoming a better speaker of English* which while admirable, are not helpful in directing learning effectively as they do not allow for a clear assessment of performance; comparable to vague “do my best” type goals mentioned earlier.

Another problem is to what extent the goals students are setting at the beginning of the semester are related to the weekly *EI-GO* goals, and the final reflection they are making. While we had hoped this would link back to their overall goal, and the regular subgoals they were setting in terms of the *EI-GOs*, this is not happening. This may well account for the pattern of responses for questions 5 and 18 in our survey, as well as

the negative pattern of results for question 2. Furthermore, although our survey results are more optimistic, based on the SPS, it seems our students are in general displaying the types of goal strategies favored by reactive learners holding incremental theories of intelligence and performance goal orientations. This may account for the pattern of results we are seeing for question 1. It may also be behind the results for questions 11 and 20—while one way of interpreting these results is that they show an increasing autonomous orientation in our students, it should also be noted that reactive learners with entity theories and performance goal orientations tend to avoid help from teachers or peers (Newman, 2008).

One other point we need to consider relates to feedback and goals. To help our students with their goal setting, we had asked class instructors to monitor the SPS, and where possible to give students advice or comments on their use. However, it may be that this in itself is not particularly efficient. Latham and Locke (1991) point out that feedback on its own is not motivating—its motivating function instead derives from the fact that feedback provides a self-monitoring mechanism. However, if learners are not able to use the feedback in this way, it is of little applied functionality, and can in fact hinder learning. Furthermore, feedback, where given, should be directed at effort, not normative outcomes as focusing too much on the latter can promote a performance goal orientation in the classroom which can have negative effects on long-term learning outcomes (Elliot & Moller, 2003). We do not want to limit teacher autonomy by insisting they only give a certain type of feedback. However, if we want to help students develop effective study skills, and ensure that teachers themselves are not wasting time and effort in giving inappropriate feedback, it is important to at least be sure class teachers are aware of the foregoing points.

The issue then is one of monitoring goals to ensure they are going to be helpful to students, and that the goals will not re-



strict learning by serving as demotivators. It is also important to help students realize how they can work towards overall course goals by encouraging them to set related subgoals. In these cases, it may even be beneficial for the teacher to assign goals. As long as the rationale behind them is clearly stated, student commitment to teacher-set goals should be as high as if the goals are self-set (Latham & Locke, 1991).

Finally, it seems students, although they are aware of what they need to do to improve their learning, are having difficulties doing this. Clearly, we need greater instruction and modeling from both teachers and peers; without this our students will continue to adopt ineffective strategies.

Closing comments

While it is difficult to determine to what extent, if any, the SPS are having on the changes in student attitudes, one point to consider relates to the actual act of filling out the SPS. Self-observation of progress through learning tasks is seen as an important strategy in Self-regulated learning (Zimmerman, 1989). In this respect having students keep a regular record of their study progress and having them think about what they can and cannot do, regardless of whether the goals they are setting are the type of goals we regard as effective, may account for some degree of changes in attitudes. We have carried out other research in relation to student perceptions of the usefulness of the SPS but are still in the data analytic stage. It is hoped these results, combined with the foregoing, will help us better understand how students are using goals, and what steps we can take to ensure students are directing their energies towards successful goal-setting strategies.

Bio data

Paul Collett currently teaches at Shimonoseki City University. He is interested in the epistemology and methodology of SLA research, as well as the psychology of the language learner.

References

- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman.
- Boekaerts, M., & Cascallar, E. (2006). How far have we moved toward the integration of theory and practice in self-regulation? *Educational Psychology Review* 18, 199-210.
- Cohen, J. (1994). The earth is round ($p < .05$). *American Psychologist* 49(12), 997-1003.
- Collett, P., & Sullivan, K. (2010). Considering the use of can do statements to develop learners' self-regulative and metacognitive strategies. In M. Schmidt, N. Naganuma, F. O'Dwyer, A. Imig, & K. Sakai (Eds), *Can do statements in language education in Japan and beyond*. (pp 167-183). Tokyo: Asahi Press.
- Cotterall, S., & Murray, G. (2009). Enhancing metacognitive knowledge: structure, affordances and self. *System*, 37(1), 34-45.
- Cumming, G., & Fidler, F. (2009). Confidence intervals: Better answers to better questions. *Zeitschrift für Psychologie* 217(1), 15-26.
- Dörnyei, Z. (2005). *The psychology of the language learner*. Mahwah: Lawrence Erlbaum Associates.
- Dweck, C. S., & Master, A. (2008). Self-theories motivate self-regulated learners. In D. H. Schunk & B. J. Zimmerman (Eds.), *Motivation and Self-regulated Learning: Theory, Research and Applications* (pp. 31-51). New York: Routledge.
- Elliot, A. J., & Moller, A. C. (2003). Performance-approach goals: good or bad forms of regulation? *International Journal of Educational Research*, 39, 339-356.
- Latham, G. P., & Locke, E. A. (1991). Self-regulation through goal setting. *Organizational Behavior and Human Decision Processes* 50, 212-247.



- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of Goal setting and task motivation: A 35-year odyssey. *American Psychologist* 57 (9), 705-717.
- Newman, R. S. (2008). The motivational role of adaptive help seeking in self-regulated learning. In D. H. Schunk & B. J. Zimmerman (Eds.), *Motivation and Self-regulated Learning: Theory, Research and Applications* (pp. 315-337). New York: Routledge.
- Pintrich, P. R., Conley, A. M., & Kempler, T. M. (2003). Current issues in achievement goal theory and research. *International Journal of Educational Research* 39, 319-337.
- Robins, R. W., & Pals, J. L. (2002). Implicit theories in the academic domain: Implications for goal orientation, attributions, affect, and self-esteem change. *Self and Identity*, 1(4), 313-336.
- Schunk, D. H., & Zimmerman, B. J. (2008). *Motivation and self-regulated learning: Theory, research and applications*. New York: Routledge.
- Zimmerman, B. J. (1989). A social cognitive view of self-regulated learning. *Journal of Educational Psychology* 81(3), 329-339.
- Zimmerman, B. J. (2008). Goal setting: A key proactive source of academic self-regulation. In D. H. Schunk & B. J. Zimmerman (Eds.), *Motivation and self-regulated learning: Theory, Research and Applications* (pp. 267-295). New York: Routledge.
- Zimmerman, B. J., & Schunk, D. H. (2001). *Self-regulated learning and academic achievement: Theoretical perspectives*. (2nd ed.) Mahwah: Lawrence Erlbaum Associates.

