

# A Survey into the Teacher's Perception of Self-Regulated Learning

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**Abstract**—Self-regulated learning (SRL) is a term that describes an individual's ability to learn how to learn. New pedagogical theories encourage teachers to motivate and support their students into achieving a high level of self-regulation in their learning. This paper reports on the preliminary findings of a survey that was conducted with educators in the UK and abroad, regarding their perception of SRL. The results of this survey provide an insight into the challenges involved in teaching students with different SRL levels, as well as the instruments used by teachers to encourage SRL among their students.

**Keywords**—self-regulated learning, independent learning, personal learning environment

## I. INTRODUCTION

Personal Learning Environments (PLEs) are gradually gaining ground over traditional Learning Management Systems (LMS) by facilitating the lone or collaborative study of user-chosen blends of content and courses from heterogeneous sources [1]. Self-regulated learning (SRL) comprises an essential aspect of the PLE, as it enables learners to become “metacognitively, motivationally, and behaviourally active participants in their own learning process” [2]. Although the psycho-pedagogical theories around SRL predate very much the advent of the PLE, SRL is a core characteristic of the latter. SRL is enabled within the PLE through the assembly of independent resources in a way that fulfils a specific learning goal. By following this paradigm, the PLE allows learners to regulate their own learning, thus enhancing their learning outcomes [3].

The European project ROLE (Responsive Open Learning Environments - [www.role-project.eu](http://www.role-project.eu)) is aiming at empowering learners for lifelong and personalised learning within a responsive open learning environment. In the context of this initiative, SRL is being investigated within a variety of learning settings and scenarios provided by the project's test-beds. In particular, the ROLE test-beds are exploring the challenges involved in motivating and supporting SRL both in formal, as well as in informal learning [4].

The remainder of this paper is organised as follows: Section 2 introduces SRL and the related work within the ROLE project. Section 3 presents the results of a survey with educators in the UK and abroad. Finally, the paper is concluded in section 4 and the next steps of this work are briefly outlined.

## II. SELF-REGULATED LEARNING

SRL is about developing the necessary skills that enable an individual to learn in a number of different ways. In some university settings the term SRL is more commonly described as “independent learning” or “auto-didactic learning”. The following examples illustrate a number of ways for assessing SRL:

- Having the ability to set learning goals and plan appropriate study strategies.
- Being able to find suitable learning materials.
- Seeking help from peers and collaborating to gain feedback or assurance.
- Being able to reflect on their learning progress and adjust their study strategies accordingly.

SRL research within the ROLE project has produced a psycho-pedagogical integration model (PPIM) [5]. The ROLE PPIM divides the learning process in 4 learner-centred phases: (i) the learner profile information is defined or revised, (ii) the learner finds and selects learning resources, (iii) the learner works on selected learning resources, and (iv) the learner reflects and reacts on strategies, achievements and usefulness. It is assumed that the learner will implicitly or explicitly perform these phases during learning, with support from ROLE tools and services.

## III. SURVEY RESULTS

In order to acquire a better understanding of the teacher's perception of SRL in higher education, we conducted a survey among 17 educators. The survey was circulated online (see <http://bit.ly/wqozuC>). The participants were first provided with a short introduction to SRL, which included the SRL assessment examples described in the previous section. They were then asked to answer a number of questions about the SRL levels of their students and report their teaching experiences with them.

The majority of the respondents to our survey were teachers at the Open University and other UK higher education institutions. Additionally, 5 respondents teach in universities in various countries outside the UK. The subject areas taught by the respondents cover a very wide range, including life sciences, marketing, educational technology, chemistry, geography, mathematics, computing, and more. The majority of the respondents (64%) teach face-to-face classes, while 35% of the respondents stated that their classes are distance-based. Regarding the numbers of students being taught by the respondents over an academic year, these are mostly in the range of 100-300.

The educators participating in this survey were asked to estimate the percentage of their students that have a high, medium, as well as low level of SRL. With only a few exceptions, the respondents estimated that a relatively low percentage of their students (around 10-20%) has a high level of SRL. The respondents also indicated that a larger percentage of their students has a medium SRL level (around 20-40%). Finally, it was estimated by the respondents that the majority of their students (approximately 50-60%) has a low level of SRL and is thus not prepared to learn in an independent way.

When asked to describe their experiences on teaching students with different SRL levels, most educators agreed that students with a high level of SRL are generally more independent and efficient in their learning, as opposed to students with a low SRL level. The latter group therefore requires more support and guidance from the teacher:

*"The first group are more 'mature' and more interested on learning than the second group which is more childish and less prepared to assume a responsibility and put on some effort on their education."*

*"High: self-motivated, keep up-to-date themselves and ask challenging, forward-looking/advanced questions in labs & lectures."*

*"Low: unmotivated, poor attendance, ask simple questions about material they're falling-behind with."*

*"High SRL students, usually those with innate ability, will use every facility offered to them (electronic learning objects/study skills tutorials/staff time) to enhance their learning experience. Others do not engage at all, but repeat modules due to authentic or falsified mitigation."*

*"Mixed SRL groups have different challenges. The low SRL levels require encouragement, guidance, instruction to become more independent. The hi SRL groups engage with more complex materials and have challenging higher order questions."*

In response to the question *"Which type of students do you prefer to teach?"*, 94% of the respondents said that they prefer students with high SRL. They justified this preference with statements like *"it is more intellectually stimulating and less routine"*, *"it is more enjoyable teaching"*, and *"[the students] are more involved on learning, they ask me more serious questions and thus it is also a challenge for me"*.

In line with their previous responses, the majority of participants registered an agreement with the statements that students with high SRL can perform better and reach their learning goals more efficiently (i.e. in a shorter period of time), more effectively (i.e. with fewer problems/mistakes) and more satisfactorily (i.e. with less frustration/discomfort, higher pleasure) than those with a low SRL.

Finally, 94% of the respondents stated that they encourage SRL among their students, while 88% indicated that they should encourage more SRL in their courses. The participants were also asked about the learning resources or other instruments that they use to encourage SRL. According to their responses, most educators point students to relevant learning materials and institutional services, while some others adapt their teaching methods:

*"We have plenty of material on our website that students can use to enhance their SRL. Problem is they don't always use it - sometimes because they are so out of their depth that they have no time to do anything else but study the course material."*

*"[I] direct them to our academic skills centre which runs personal sessions and workshops on study skills."*

*"I usually give a question or context for projects and then organize with them an agenda and goals. [...] From this point they are free to find the best direction and we work together all time revising the project goals and agenda."*

*"In the context of what I teach, I would encourage them to try and design their own problems and then apply their learning to them, or take a new approach to an already solved problem. The aim being to reinforce the idea that solutions are not discovered but are created."*

#### IV. CONCLUSIONS AND FURTHER WORK

Preliminary survey results indicate that SRL is not a foreign concept among higher education teachers. Our respondents acknowledge its usefulness and are trying to motivate and support their students towards achieving a high level of independence in their learning. Our next steps will be to broaden the target audience, in order to reach larger numbers of educators within the UK and abroad. We also plan to include students in our study and provide them with the tools for assessing their personal SRL skills. The outcomes of this work will allow us to inform the relevant stakeholders in higher education, as well as revise and adapt the ROLE approach for supporting SRL.

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