

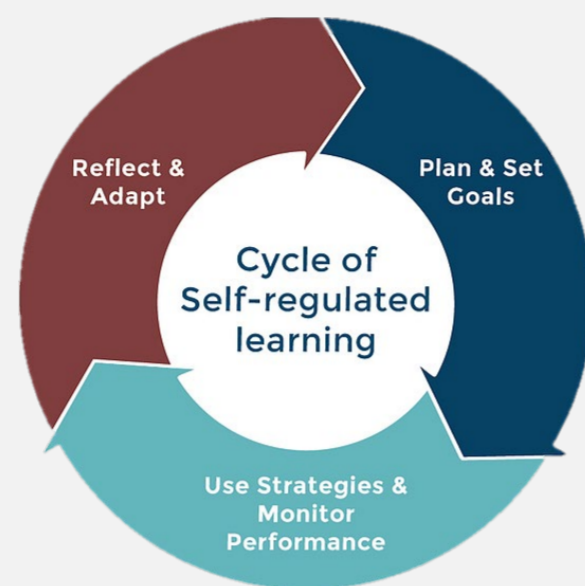
# Self-regulated learning in first year Psychobiology students: an exploration

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## Introduction

Entering University, students have to take more responsibility over their own learning. This self-regulated learning (SRL) requires cognitive abilities and strategies, metacognition & motivation. Here, self-regulated learning is defined as Ronald Zimmerman illustrated: metacognitive self-regulation (i.e. planning, monitoring and evaluating).

SRL is important as it is related to lifelong learning, critical thinking, independency and higher academic achievement. At the BSc Psychobiology we believe there is an optimal climate for SRL. Is that so?



**The goal of this study is therefore to obtain insight in self-regulated learning behavior in first year Psychobiology students**

## Material & Methods

### Participants

First year Psychobiology students (N=175), mean age 18.7. Majority female (79%).

### Procedure

Students were informed about the study through presentation and information letter in December 2022. Participants gave written informed consent. Data collection consisted of self-report data: Demographics, personality characteristics, *Motivated Strategies for Learning Questionnaire* (MSLQ), *Basic Psychological Need Satisfaction and Frustration Scale* (BPNSFS), open-end questions.

Part 2 of the study is yet to be carried out and will consist of semi-structured interviews with students to answer RQ3.

### Analysis

Correlations between characteristics and metacognitive self-regulation score as a measure of SRL (MSLQ) were carried out. Next, groups of <25%, >75% metacognitive self-regulation were made and ANOVA was done to explore differences between groups. In addition, open-end question answers were categorized to explore used learning strategies

**RQ1** To what degree is SRL present in this cohort?

**RQ2** What are (personality) characteristics of self-regulated learners?

**RQ3** What drives students to self-regulate their behavior?

## Results

### RQ1: exploring SRL in PB students

Mean score metacognitive self-regulation: **4.15** (.69)  
Scale 1-7

### RQ2: correlations with characteristics

Correlations with metacognitive self-regulation:

- All MSLQ scales except *Control of learning belief & Anxiety*
- Feeling of autonomy:  $r(173) = .181, p = .016$
- **Self discipline:  $r(173) = .247, p < .001$**
- VWO grade:  $r(173) = .160, p = .034$
- **Hours a week of study:  $r(173) = .200, p = .008$**
- See the benefit of planning:  $r(173) = .163, p = .031$

### RQ2: Comparison of <25% & >75% SRL groups

Mean SRL <25%: **3.27**; >75% **4.96**  
Similar results to SRL correlations.

E.g. hours of studytime per week:  
 $\chi^2(1, N=93) = 12.22, p = .016$

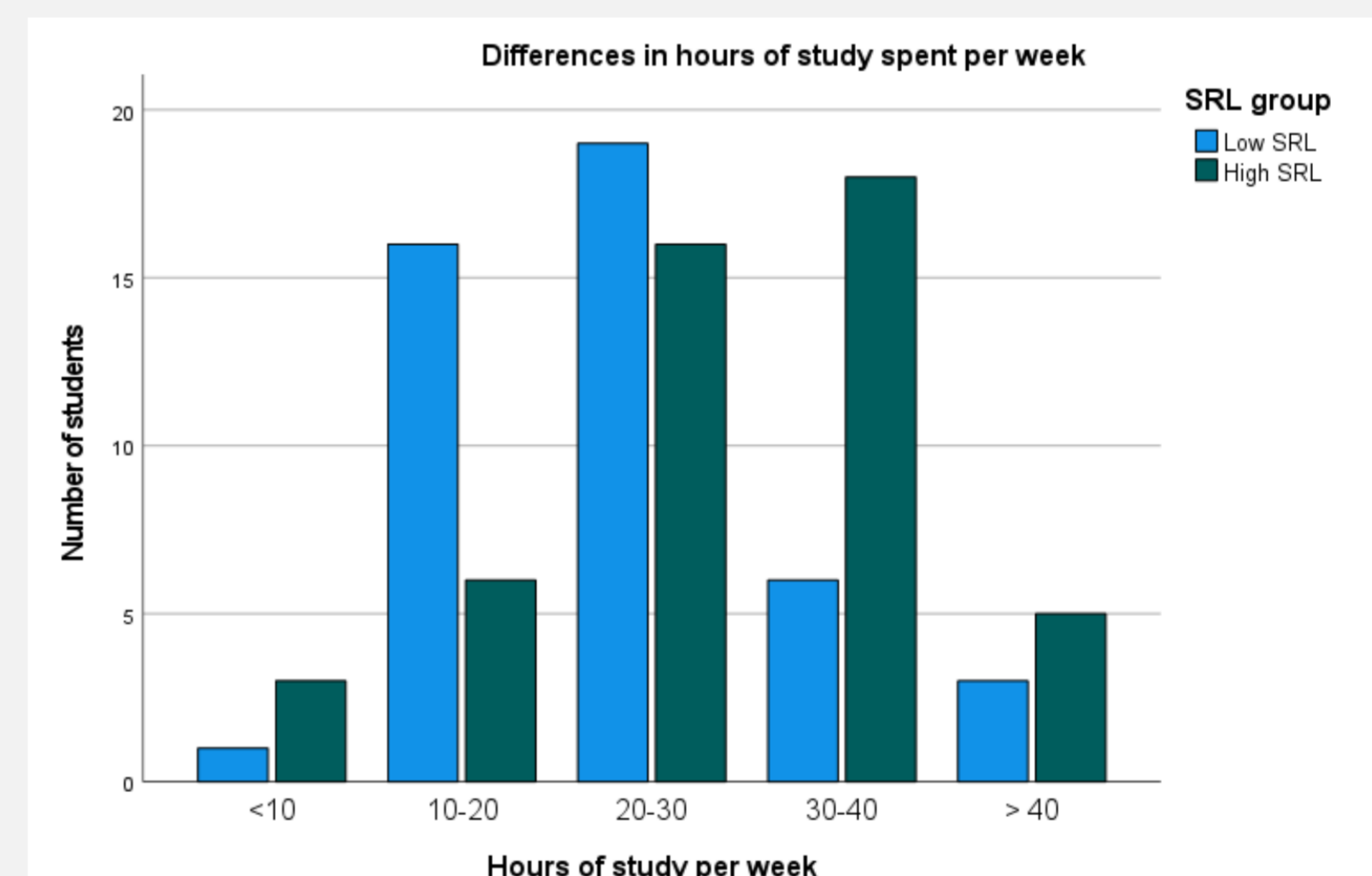


Fig 1. Hours of study spent per week differs between low SRL and high SRL groups, with the high SRL group more frequently reporting 30+ hours

### RQ2: Open end questions

*What learning strategy works best for you?* Answers given by students were categorized in:

- Cognitive strategies (1-4 levels: superficial to deep learning)
- Metacognitive strategies
- Resource management

No differences between <25% >75% SRL groups

## Conclusion

Variables that contribute to self-regulated learning are motivation, use of learning strategies, having self discipline, a good starting grade, studying more hours a week and understanding the importance of planning. These variables can partly be taught, whereas personality characteristics showed to be non-significant.

**Of course, more research is needed to deeper understand SRL**

## What's next?

Follow-up conversations with students: what drives them? What works for them?