#3R3 (2447)
Self-regulatory processes and performance of 2nd year physiotherapy students in a clinical procedure: an exploratory study

Raquel Medina-Ramírez, University of Las Palmas, Las Palmas, Spain
John Sandars, Edge Hill University, Liverpool, UK
David Álamo-Arce,University of Las Palmas, Las Palmas, Spain
Felipe Rodriguez-De castro,University of Las Palmas, Las Palmas, Spain
Manuel João Costa, Life and Health Sciences Research Institute, University of Minho, Braga, Portugal

Background: Students use Self-Regulated Learning (SRL) to generate feedback about their own learning. Previous findings with SRL Microanalysis (SRL MAT) suggest that students who underperform in specific tasks have poor SRL skills. This exploratory study investigated the usefulness of SRL-MAT to evaluate the regulatory profiles of physiotherapy students in clinical procedures.
Summary of work: A SRL microanalytic protocol was administered to 26 Year 2 physiotherapy students (57% females) performing goniometry on peer students. The SRL-microanalysis protocol assessed goal setting, metacognitive monitoring, self-evaluative standards, and satisfaction. A purposive sample represented high and low performers in the task. Sessions were audio-recorded, transcribed and analyzed qualitatively.
Summary of results: There are 15 successful students: 14 are able to set procedures related goals, and monitored their performance. There are 11 unsuccessful students: 5 do not set specific goals beforehand and 6 show no concern with self-monitoring during performance. Pre-task self-efficacy beliefs and satisfaction with performance are higher in successful students.
Discussion: This study suggests that physiotherapy student SRL regulatory profiles might condition performance in clinical tasks. Our findings are in accordance with previous studies with medical students. With our SRL microanalytic protocol, we are able to detect differences in self-regulatory processes throughout the three phases of the SRL cycle.
Conclusion: Our findings suggest that providing feedback on self-regulatory processes to low performing physiotherapy students could benefit their performance in the goniometric task. SRL-MAT is a potentially useful protocol to generate information about task associates SRL skills. Further research is required to ensure generalizability to further tasks and institutions.
Take-home message: The use of a self-regulated microanalytic protocol can provide information to the benefit of performance and learning of clinical tasks in physiotherapy students.

#3R4 (411)
Is there a correlation between different measures of self-regulated learning in medical education?

Roghayeh Gandomkar, Tehran University of Medical Sciences, Tehran, Iran
Azim Mirzazadeh, Tehran University of Medical Sciences, Tehran, Iran
Mohammad Jalili, Tehran University of Medical Sciences, Tehran, Iran
Ladan Fata, Iran University of Medical Sciences, Tehran, Iran
Ramin Mehrdad, Tehran University of Medical Sciences, Tehran, Iran
John Sandars, Edge Hill University, Ormskirk, UK

Background: There is increasing interest in understanding self-regulated learning (SRL), but SRL processes are commonly identified by using two different measures (real-time microanalysis and retrospective questionnaires). This pilot study was the first to examine the correlation between microanalysis and the Motivated Strategies for Learning Questionnaire (MSLQ) in medical education.
Summary of work: A standard SRL microanalysis assessment protocol was developed and administered to 76 Year 1 medical students whilst performing a biomedical science learning task. The verbal responses were recorded and coded by two independent assessors. All participants completed an MSLQ two weeks after performing the same learning task.
Summary of results: The SRL microanalysis self-efficacy measure had medium correlation with the MSLQ self-efficacy subscale composite score ($r= 0.39$, $p= 0.001$). There were no significant correlations between other SRL microanalysis measures (goal setting and strategic planning, metacognitive monitoring and adaptive inferences) and the related MSLQ subscale composite scores ($p> 0.05$).
Discussion: The lack of significant correlation between SRL microanalysis and questionnaire measures is consistent with the only previous research from another educational context. The two measures appear to identify different aspects of SRL, with microanalysis related to a student's approach to a specific task and questionnaires related to a general approach.
Conclusion: This pilot study was the first to compare SRL microanalysis and a commonly used questionnaire measure of SRL in medical education. The results suggest that each measure identifies different aspects of SRL used by students. We recommend further studies with larger samples and different contexts to confirm our findings.
Take-home message: Fully understanding how students engage in SRL in medical education, especially to provide targeted feedback and remediation of struggling students, requires the use of both microanalysis and questionnaire measures since each measure identifies different aspects of SRL that are used by students.