## Validation of the Persian version of the short self-regulated learning questionnaire for medical students: A descriptive study

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## Abstract

Background & Objective: Self-regulated learning (SRL) is an active and self-centered process in which learners systematically guide and evaluate their cognitive, environmental, motivational, and behavioral factors to achieve learning goals using special strategies. The present study aimed to validate the Persian version of the short SRL questionnaire as an effective tool.

Materials & Methods: The present cross-sectional study was conducted among students of Shiraz University of Medical Sciences in 2020-2021. A total of 322 students participated by stratified random sampling. The research tool was a short SRL developed by Carey & Neal (2004). The convergent and divergent validities were evaluated using the average variance extracted (AVE). The validity of the structure was assessed using exploratory and confirmatory factor analyses, as well as the Fornelli-Larcker criterion. The reliability of the questionnaire was assessed by calculating the total Cronbach's alpha coefficient. Data were analyzed statistically using SPSS software (version 22) and Smart PLS 2.

Results: The results identified six main components of goal achievement, self-assessment, consistency, self-efficacy, decision-making, and mindfulness, with a total variance of 60.96%. A Cronbach's alpha of 0.90 was calculated for the whole questionnaire, and it was approved with 27 items. The AVE and the Fornell-Larcker criterion confirmed the high level of convergence and divergence of the questionnaire. Moreover, this questionnaire has a high correlation coefficient with the matched questionnaire.

Conclusion: The internal coherence, validity, and reliability of the short SRL questionnaire were confirmed in this study, and a short and standard tool was provided for the measurement of SRL in students. This questionnaire with an extracted scope can be used in future research.

Keywords: Active learning, Medical students, Self-regulated learning, Validation, Iran