

Investigating Pre-service Elementary School Teachers' Metacognitive Science Learning Orientations

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ABSTRACT This study describes the adaptation and validation of the Self-Efficacy and Metacognition Learning Inventory—Science (SEMLI-S) to examine pre-service elementary school teachers' metacognitive science learning orientations. In addition, pre-service teachers' metacognitive science learning orientations were examined in terms of gender. 193 pre-service elementary school teachers participated in the study. Exploratory and confirmatory factor analyses were performed. Exploratory factor analysis (EFA) showed that there were 4 factors explaining the 54% of the total variance of the scores. In addition to the EFA, confirmatory factor analysis (CFA) was performed to confirm the factor structure of the adapted SEMLI-S. Results of the CFA showed that the four-factor model of the adapted SEMLI-S fit well to the data. It could be concluded that the Turkish version of the SEMLI-S instrument is a valid and reliable instrument serving as a useful tool to understand learners' metacognitive science learning orientations.