CONFIRMATORY FACTOR ANALYSIS OF THE SUBJECT SPECIFIC MASTERY MOTIVATION QUESTIONNAIRES

Krisztián Józsa *, Noémi Kis **
* Institute of Education, University of Szeged
** Doctoral School of Education, University of Szeged

Keywords: subject specific mastery motivation; questionnaire; confirmatory factor analyze

Mastery motivation is a multifaceted, intrinsic psychological force that stimulates an individual to attempt to master a skill or task that is at least moderately challenging for him or her. The Dimensions of Mastery Questionnaires have been used extensively to assess mastery motivation from ratings by parents, teachers, and school-age children themselves. There are four scales for the instrumental (persistence) aspects of mastery motivation (cognitive, gross motor, social with adults, social with peers), and a scale for mastery pleasure. Mastery motivation has an important role in school achievement (Jozsa & Barrett, in press; Jozsa & D. Molnar, 2013). However, there are no scales to assess school subject specific dimensions of mastery motivation. Our aim was to develop a new questionnaire for this purpose. We developed five-point Likert items and created six theoretical dimensions. Mastery motivation in (1) reading, (2) math, (3) science, (4) English language, (5) art, and (6) music. There are two versions of these new questionnaires: (1) parent and teacher ratings and (2) student self-ratings. The aim of this paper is to verify the factor structure of the new questionnaires. We used confirmatory factor analysys (CFA). The data were collected online, via the eDia system. The sample consisted of 2nd, 4th, 6th, 8th and 10th graders, and their teachers and parents also participated. 2,405 students gave self-reports about their motivation; we have 1,787 teacher ratings about them, and 1,098 parent ratings. Thus, we processed 5,290 questionnaires altogether, using the AMOS 22 software. We identified those structural models which fit the best on our data. We compared the three raters' CFA results. We took into consideration the following fit indexes: RMSEA, CFI and TLI. We regarded model fits as appropriate in the case of the following conditions: RMSEA≤.06, CFI≥.95 and TLI≥.95. To identify the most appropriate model, we took into account the loadings of the statements, the value of the SRC and the reliability index (Cronbach's α). Our results show that questionnaires for all three respondent groups have good model fits, even though CFIs and TLIs are a bit under the expected values (CFI≥.821, TLI≥.812). The value of RMSEA showed different pictures in the three instruments. This index refers to a very good fit only for the student questionnaire (.057). According to our results, the questionnaires are based on a good, and the same, theoretical model. It is not possible to improve the model fits by omitting items from the models. The reliabilities of the scales were high (Cronbach's α=.78 −.98). Our results verified the construct validity of the instruments. We proved that we can hypothesize the same theoretical model behind the three raters' (parent, teacher and student) responses. The reliabilities of the questionnaires are high, but the improvement of the fit indexes of the parent and teacher instruments is the task of the future.

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