Introduction

Knowing what specifically leads to the formation and development of self-regulated learning, and how this information can be used to support this process in school education, is not only interesting but also beneficial to both theory and practice. Self-regulation is represented by a student who directs his/her learning without being directed from outside. What characterizes self-regulating students is their active participation in learning from the cognitive, metacognitive, and motivational point of view (Zimmerman, 1990, 2002).

Aims of the study

The aim of this study is to provide theoretical and methodological insights into the process of self-regulated learning, and to describe the adaptation of The Motivated Strategies for Learning Questionnaire (MSLQ), developed by Pintrich et al. (1993, 1999) The research objectives were formulated as follows: (1) verify if the selected scales had satisfactory construct validity using factor analysis, Catell’s scree test, Monte Carlo analysis and content validity on a consensus of the judges, (2) examine internal consistency of the questionnaire and the partial factors, and (3) determine the key factors underlying students’ motivation in process of self-regulated learning.

Methods

This study explores the factors underlying students’ motivation in process of self-regulated learning. Within the context of the presented adaptation study, first of all, translation was made, the preliminary application of the scale has been tested and validity and reliability analyses has been applied to the gained data in SPSS Statistic Base 19.

238 university students participated in the survey (226 women and 12 men). Out of that number, 179 students were full time students and 59 students were part-time students (average age was 24, running from 19 to 48, standard deviation 6.2 years).

Principal Component (PCA) for the different factors solution was performed, yielding an interpretable structure with items clustered into three underlying factors.

Data analysis

The original number (31 items) was increased up to a total of 70 items. A test version of the questionnaire was subsequently presented in pilot testing to the first respondents and evaluated.

Assessing construct validity factor analysis was performed. To be able to determine how many components (factors) to extract we were interested only in factors that have an eigenvalue of 1 or more (Kaiser’s criterion).

According to inspection of the Scree plot and Monte Carlo analysis the three-factor solution was employed and one more tactical move was accepted, i.e. exclude all items with low factor loadings (less than 0.55). Three extracted factors explain 35% variance (see table 1) and the number of items was reduced from 70 to 32 (38 items were excluded due to low factor loadings).

The selected items of individual factors were further analysed for their content validity on a consensus of the judges who evaluated the degree to which items by their content expressed truly a given factor. Based on this analysis, 3 items were excluded with an average core lower than 2.5 points.

Construct validity and content validity results, however, failed occurrence of identical formulations of the items in the questionnaire, where the reduction of one or the other items is suitable. In this evaluation two items (one item from the first factor and one item from the second factor) were excluded. The coefficient Cronbach’s alpha for all 27 items reached 0.83, demonstrating good internal consistency.

Results

The new version of MSLQ questionnaire is represented by 27 items. Factor 1 (F1) academic self-efficacy included 10 items, factor 2 (F2) task value included 9 items, factor 3 (F3) test anxiety included 8 items. In our context, the MSLQ questionnaire has been translated and adapted by Jakšelová, Ľudová and Hrbáčková, distributed under the name of MoSU (Zotěník: motiváční strategie učení – Czech lang. version).


Preparation of this study was facilitated by the Faculty of Education Scholarship Fund, Masaryk University in Brno.