Journal of Educational Sciences
Fall & Winter, 2019, 26 (2), 177-14
DOI: 10.22055/edus.2019.24708.2445

Rcceived: 13 Jan 2018
Accepted: 02 Dec 2019

Validating students' lifelong learning competencies scale in digital age

Mohsen Ayati*
Sorayya Rodi Aliabadi**
Mohammad Ali Rostaminejad***

Introduction

Knowledge is changing and so are science and technology, so citizens ought to be updated and upgrade their knowledge and skills. Today lifelong learning is based on competences that have attracted the attention of the learning community. Students' lifelong learning competency is important. There are some scales such as attitudes to lifelong learning, lifelong learner characteristics, education for lifelong learning and effective lifelong learning for this purpose. But in this context there is not any scale for measureing students lifelong competencies with rergard to digital competencies in Iran. The aim of this study was to examine the factor structure and reliability of Uzunboylu and Hursen lifelong learning competence scale.

Method

With regard to data collection in this quantitative study a descriptive-correlational research design were used. The research population consisted of all students in University of Birjand (12,000 total). The sample size based on a valid general rule for factor analysis was calcuculated to be 300 subjects. Accordingly, a sample of 300 students from University of Birjand were selected by multi-stage cluster sampling. The participants were selected, from colleges of science, literature, agriculture, engineering, education-psychology and art were selected. After administrating the questionnaire, data were analyzed using SPSS and AMOS software.

Results

Exploratory factor analysis results identified six components for lifelong learning competencies that explained 49.46% variance of lifelong learning

* Associate Professor, Department of Education, University of Birjand, Birjand, Iran. *Corresponding Author*: mayati@birjand.ac.ir

** Phd Student Curriculum study, Faculty of Education, University of Birjand, Birjand, Iran.

*** Assistant professor of instructioanl technology, University of Birjand, Birjand, Iran.

competency constructs. Confirmatory factor analysis results separated clearly 42 items lifelong learning in the six Factor using the Appropriate fitness indicators. The findings of the model indicated that the fitness indices were desirable. the Chi-square ratio to degrees of freedom was 1.72 which was small enough indicating the fit of the model with the data, the comparative fit indicate (CFI), the Good Fitness indicate (GFI), the Adapted Fitness indicate (AFI) were 0.85, 0.96 and 0.92, respectively, expressing the good fit of the model with data. The root mean square error (RMSEA) was 0.051 which is also the appropriate fit condition for the model. In general, these fitness indices indicate a good fit of the model with research data. Cronbach's alpha coefficient of all items was 0.91 and for subscales self-management, learning how to learn, initiative and entrepreneurship, digital competence, acquiring information and decision-making lay between 0.66 to 0.85. For correlation between total score and subscales Pearson correlation coefficient was calculated. The results showed the correlation between the subscales of the Persian version and the scale of the whole scale to be in the range of 0.86 to 0.88. Thus, each of the six sub-scales had a high correlation with the total scale scores.

Discussion

The scale can be used to assess the competency of lifelong learning and ultimately to improve the quality of education in the digital society. Efforts to improve the quality of education are essential in higher education, as students are expected to become independent and lifelong learners. As a result, it can be seen from these scales that the teaching method at universities should develop these competencies.

Keywords: lifelong learning competency, digital competence, Students, Factor analysis

Author Contributions: Dr Mohsen Ayati initiated the project and suggested the experiments; Sorayya Rodi Aliabadi planned the scheme, conducted the experiments and analyzed the empirical results; Mohammad Ali Rostaminejad developed the modeling and examined the theory validation. The manuscript was written through the contribution of all authors. All authors discussed the results, reviewed and approved the final version of the manuscript.

Acknowledgments: We would like to thank all the officials and students of the faculties of Educational Sciences, Psycholog Agriculture and the Arts that helped us in this research.

Conflict of Interest: This article is based on the thesis of master's student Sorayya Rodi Aliabadi. Dr Mohsen Ayati was a supervisor and Dr Mohammad Ali Rostaminejad was a dissertation advisor.

Funding: The authors received no financial support for the research, authorship and publication of this article.