**Title:**  Development and validation of an index for self-directed learning skills and measurement of its effect on entrepreneurial intentions of agricultural and natural resources students at University of Zabol

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**Introduction**

In agriculture and natural resources and related disciplines, the ability to guide students' learning and experiences is essential to success. Therefore, improving self-directed learning skills should be one of the main tasks of any responsible agricultural and natural resources educator. Studies in this field show that Iranian students are not in a good position in terms of self-directed learning skills. In addition, not much research has been done in this area. In this regard, the development and validation of the self-directed learning skills index and its impact on the entrepreneurial intentions of agricultural and natural resources students of University of Zabol was determined as the main objective of this study.

**Methods**

This is an applied research that was done using survey technique. The research was conducted in two qualitative and quantitative phases. The statistical population in the qualitative phase was a number of key informants who were selected using the snowball sampling method. The research tool at this stage was an open-ended questionnaire. The statistical population of the study in the quantitative phase included all students of the faculties of agriculture, water and soil, and natural resources at University of Zabol in academic years of 2016-17 and 2017 -18. From whom, 210 students were selected as the samples. The sampling method of this phase was stratified random sampling approach. The measurement tool was a questionnaire whose face and content validities were confirmed using a panel of academic experts. The reliability of the questionnaire was calculated using Cronbach's alpha coefficients, corrected item-total correlation coefficients and composite reliability coefficients. These reliability indices demonstrated that the questionnaire is of acceptable reliability.

**Results**

The results revealed that self-directed learning indicators can be categorized into four factors including "communication skills", "learning strategies", "evaluation skills", and "learning activities". Finally, this factor structure for the self-directed learning index was tested and validated using second-order confirmatory factor analysis. This analysis demonstrated that the index is of suitable fitness and all fitness indices are greater that than the acceptable cut-off values. The results of investigating the effects of self-directed learning skills on entrepreneurial intention showed that four variables communication skills, learning strategies, evaluation skills, and learning activities had significant positive effects on the entrepreneurial intention of students. Also, independent variables were able to predict 42.1% of variance changes in entrepreneurial intention. At the end of the research project, practical suggestions for future research were presented.