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# Multiple Intelligence -based Education in The Accounting Classroom, Improving Students' Performance, Motivation and Skills; New Experience<sup>1</sup>

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Research Paper

#### **INTRODUCTION**

Several accounting authorities, such as the International Federation of Accountants, the Australian Institute of Chartered Accountants, and the American Association of Accountants, have long sought to develop a wide range of skills in accounting graduates and guidelines for its use in higher education Presented professions.

The theory of multiple intelligences provides new ways for different people to gain opportunities to learn through an approach that suits them (Coxal and Yale, 2007). Using the theory of multiple intelligences, teachers can design their teaching methods and activities for students in a way that utilizes all the capabilities in the learning process (Hooper and Harry, 2000).

Therefore, in this study, the combined teaching method is designed and proposed for the management accounting course by considering the criterion of multiple intelligence.

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### MATERIALS AND METHODS

Due to the nature of the data, this study is quantitative and purposeful research. The statistical population of the present study includes management accounting students of Islamic Azad University, Saveh Branch in the academic year 2020-2020. . Both groups are taught by one researcher. The test method used is a pre-test and post-test and the statistical analysis method is an analysis of covariance (ANCOVA). In this study, at the beginning of the course, a test of the basic concepts of management accounting as a pre-test was performed to eliminate any possible unwanted effect on the dependent variable. Dependent variables are also academic performance and motivation and skills required by students. Students' academic performance is measured by a researchermade test that is approved by supervisors and advisors. To measure academic motivation, the student obtained the score in the academic motivation questionnaire is used. The questionnaire was designed in Australia by McInerney and Sinclair (1992) 1992 and re-edited in 2004 to verify its validity. Students' views on the skills they needed were developed through a questionnaire. The reliability of this questionnaire has been confirmed by Cronbach's test (coefficient of coefficient's value  $\cdot, 9 \cdot$ ) and

its validity has been confirmed by professors.

The independent variable is subject to training based on multiple intelligence, which is animalistic (0 and 1). The number zero represents management accounting training based on multiple intelligences and the number one represents management accounting training under the traditional method of speech and problem-solving. Control variables have been selected based on educational research in Maxi and Ion accounting (2020), Oyar and Gongormesh (2011), Cheng (2006), Haji Moradkhani (1396) which include: marriage, age, employment, the field of study, gender And the type of intelligence, grade point average, prior knowledge (pre-test) and academic motivation. Instructor type, academic environment, and study resources are also variables that are the same in both control and experimental groups. The educational program based on multiple intelligences was designed and implemented in the management accounting classroom with the guidance of professors and research Louis (2012) and Rabieinejad (2015).

#### **RESULTS AND DISCUSSION**

Before performing the statistical test of analysis of covariance, the test assumptions should be investigated as follows:

\* Assumption of normal distribution of scores: The results show that the significance level of the test in both experimental and control groups by the Shapiro-Wilk test is more than 5%, so the data are normal.

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- \* Assumption of the reliability of the pretest variable: The results of statistical analysis showed that the reliability index of the pre-test by Kuder Richardson index is 82%, which is a suitable and acceptable index.
- \* Assumption of the covariate (pre-test): In this study, a pre-test was performed in both experimental and control groups.
- \* Assumption of homogeneity of variances: According to the calculated significance level by Levene's statistic test of 0.357 for the post-test and 0.335 for the results of motivation for academic achievement, the variance of the groups is homogeneous.
- \* Assumption of homogeneity of regression coefficients: the difference in regression slope is not significant and is more than 5% in both independent variables and is acceptable. The pre-test variable has the same effect on the dependent variable (post-test) at the research levels.

After ensuring that all the assumptions are observed, which indicates that it is possible to use analysis of covariance in the present study and the results are statistically reliable, the analysis of covariance was performed on the data. there is a significant difference between the post-test scores of the two control and experimental groups in the first hypothesis after removing the pre-test effect from the post-test. (F = 10.31 and significance = 0.003). The average post-test score of the experimental group (14.38) is higher than the average score of the control group (11.89). In other words, the use of new educational methods in management accounting education has a positive effect on students' learning and the first research hypothesis is confirmed. To test the other hypothesis, a questionnaire survey by students, Cronbach's alpha coefficient is 90% in this questionnaire and has acceptable reliability. The majority of the experimental group (more than 70%) agreed with the statements and the results of the survey, and similar to the results of the ANCOVA test, it indicates the strengthening of students' motivation after the implementation of this combined and new approach in accounting education. Observations also show that student's interest in the classroom and their activities increased significantly after the implementation of this approach

## CONCLUSION

Accounting professional associations have long called for a change in educational approaches in the field of accounting due to the dissatisfaction of employers with the achievements of the university. On the other hand, current educational programs in the field of accounting according to the needs of students with diverse abilities are not the main stakeholders of educational organizations. With the spread of the coronavirus, the gap between the expectations of the stakeholders of educational organizations and their performance has increased. In this situation, the lack of research related to new approaches and educational programs to achieve appropriate conditions in universities is felt.

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The theory of multiple intelligences focuses on the diversity of abilities of individuals and the educational program is based on multiple intelligences while meeting the needs of students with different types of intelligence and talents, strengthening their skills and talents in various aspects. In this regard, the present study investigates the effect of education based on multiple intelligences on academic performance, motivation, and skills required by students in the management accounting classroom.

Comparing the performance and motivation of students 'academic achievement in the two groups of control (traditional education) and experiment (education based on multiple intelligence) showed that the educational approach based on multiple intelligence has a positive effect on students' learning and motivation. The results of the survey also showed that in the opinion of students, these educational methods affect group work and speech skills, communication, leadership power, as well as their activity and motivation. In addition, the results of this study, based on the effectiveness of teaching methods based on multiple intelligences on academic performance and motivation and skills of learners are consistent with the research of Bilgin (2006), Sanchez (2017) and winarti (2019).

The present study provides valuable research scope for future research. This study only measured the effect of an educational approach based on multiple intelligences on students' performance and motivation. Future research could test other training approaches such as simulations, games, and new training technologies on the types of skills needed by future accountants. This can be achieved through interdisciplinary research and other related sciences such as psychology and education and technology. The findings of this research have good achievements for accounting instructors and higher education curriculum planning offices in designing and implementing accounting curricula based on new and diverse educational methods. Consequently, the authors of accounting textbooks can also use the non-traditional teaching tools and methods mentioned in this article in compiling exercises for each topic.

**Keyword:** Multiple Intelligence Theory; Academic Performance; Motivation; Skills; Accounting Education.

JEL Classification: A22, M41.



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