The impact of metacognitive strategies based learning modules on ninth grade student's science achievement in Sultanate of Oman

Abstract: The purpose of the current study was to investigate the impact of the metacognition strategies (MS) based on learning modules on ninth grade students' science achievement in Oman for the academic year 2016/2017. A quasi-experimental design was used with two experimental groups and one control group. The first experimental group (n= 30) was taught via learning modules in paper form, while the second experimental (n=34) was taught in computerized form. The control group (n=33) was taught using a traditional method. An achievement test comprising (40) items was used. Validity and reliability of it were established. The results showed that there were statistically significant differences between the means of the students in the three groups on the post- students' science achievement, in favor of the first experimental group. In addition, it was found that there was a statistically significant difference in the means of the post students' science achievement due to the method of teaching the modules (paper/ computerized) and science achievement levels (higher/ lower) in the favor of computerized modules and the higher achievement level. A number of recommendations were made in the light of these findings.

Keywords: metacognitive strategies (MS), science achievement (SA), learning modules (LM).