

# **The effectiveness of Using 7E's Learning Cycle Strategy on Sixth Grader's Achievement in Science and the Development of Their Critical Thinking.**

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## **Abstract:**

The purpose of the current study is to investigate the impact of using 7 E's learning Cycle Model on the sixth grade students' achievement and improvement of critical thinking in Public Schools in the Directorate of Education - Southern Hebron. To achieve the goal, the study was conducted during 2018-2019- Fall semester on a population which had a number of 3893 students ( boys and girls) of all the sixth graders in the Directorate of Education- Southern Hebron . The population was purposefully sampled of ( 124 boys and girls ) from Ibn –Sina school and Dar –Asalam school. Two classes were assigned as experimental group ( 62 ) and control group ( 62 ). Students in the experimental group were instructed with the 7E's learning cycle method and the traditional method was carried out in the control group. Moreover, the participants were given two tests, an achievement test and a critical thinking test. The reliability and validity of the tests were checked. The SSD ( Statistical Standard Deviation ) and the analysis of covariance ( ANCOVA) were used to find out the statistical means.

The results showed that there were statistically significant differences in the participant's achievement test based on the method of study for the experimental group while there were no statistical differences based on gender and the connection between the gender and the way of instruction.

Also, the results indicated that there were statistically significant differences among the sixth graders 's critical thinking test for the sake of the experimental group instructed with the 7E's .Moreover, the results revealed that there were no differences at the same test in terms of the gender variable and in terms of the interaction between the gender and the method.

Based on the results, the researcher recommended to implement the present study in teaching science and to provide supervisors and teachers more training to apply the (7E's) strategy in teaching science . Furthermore , the researcher recommended to conduct further similar studies to investigate the 7E's' effectiveness on other variables .