



THE EFFECT OF A PROPOSED PROGRAM IN FRACTAL GEOMETRY ON ACHIEVEMENT AND OPTICAL THINKING OF STUDENTS OF MATHEMATICS DEPARTMENT, COLLEGE OF SCIENCE & ARTS AT NAJRAN UNIVERSITY

Zainab Taher Tawfiq Abu Al – Hamad*

ABSTRACT_ *The present study aimed at examining the effect of a proposed program in fractal geometry on optical thinking and achievement of female students of mathematics department, college of science and arts at Najran University, in the academic year 1437-1438 H. This research used the quasi experimental method. To achieve this purpose, the following tools were prepared: 1) A proposed program in fractal geometry, 2) An achievement test in fractal geometry, and 3) Optical thinking test. The sample of the study consists of (21) female Students of level 7 mathematics department, college of science & arts at Najran University. The results showed a statistically significant difference at (0.01) between the scores of the students of the research group in pre-test and post-test of the Achievement test and the visual thinking test in favor of the post test.*

KEYWORDS: *Fractal geometry, Achievement, Optical Thinking, Najran University.*

* Assistant Professor, Department of Curriculum and Teaching Methods, Faculty of Education, Najran University