

Studying interaction between the educational scaffolding strategy and the levels of critical thinking and its impact on the Academic achievement and Mathematical Self-Efficacy with early grades section students of Education Faculty

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Abstract:

The research aimed to Study the interaction between the educational scaffolding strategy and the levels of critical thinking (high–low) and its impact on the academic achievement and mathematical self–efficacy with early grades section students of Education Faculty, To achieve this objective, the researcher prepared a manual for teaching some lessons of algebra basics course based on the educational scaffolding strategy, and also he prepared an achievement test and a mathematical self–Efficacy scale, the manual and the two tools were Showed to a group of jury members with the aim of judging. Then the validity and reliability of two tools were checked.

The research used the experimental method using the pre–post design on two groups: the experimental and the control group. The research sample consisted of 58 students from College of Education in Dammam, the experimental (28 students), the control (30 students). Before the application of the educational scaffolding strategy on the experimental group, the students were classified according to their critical thinking levels (high – low) by applying Watson–Glaser critical thinking test (short form), Also the equality of the two groups in, critical thinking skills, the academic achievement, Mathematical Self–Efficacy was verified.

The results of the research indicated the effectiveness of using educational scaffolding strategy in the development of academic achievement and improving mathematical self–Efficacy, the critical thinking levels (high–low) of students have a significant impact on academic achievement, Mathematical Self–Efficacy for the high level, and there is an interaction between the educational scaffolding strategy and the levels of critical thinking (high–low) and this interaction has a significant impact on the academic achievement, mathematical self–Efficacy.

Based on the results the researcher recommended that: using the educational scaffolding strategy in teaching mathematics to college students, the importance of improving mathematical self–Efficacy of college students and make more researches to investigate the ways to improve mathematical self–efficacy of students.

Keywords: Educational Scaffolding Strategy, Critical Thinking, Mathematical Self-Efficacy, Faculty of Education Students.