The effectiveness of using Incubation Model of Creative Teaching and Learning (TIM) in physical concepts achievement, Scientific Processes Skills and Scientific Creativity for the first year secondary students

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Abstract

This study examined the effectiveness of using Incubation Model of Creative Teaching and Learning (TIM) in physical concepts achievement, Scientific Processes Skills and Scientific Creativity for the first year secondary students.

The sample of the research consisted of (58) students in the first grade of secondary stage. This sample was divided into two groups, i.e. experimental group (30) students, control group (28) students. The experimental group has studied through using Incubation Model of Creative Teaching and Learning (TIM) and the control group has studied through the traditional method. The researcher has used the following instruments: scientific concepts achievement test in Electricity units, Scientific Processes Skills Test and Scientific Creativity test.

The study had reached the following results: (1) There are statistically significant differences between the mean scores of the experimental group and the control group in the scientific concepts achievement test in favour of the experimental group. (2) There are statistically significant differences between the mean scores of the experimental group and the control group in Scientific Processes Skills Test in favour of the experimental group. (3) There are statistically significant differences between the mean scores of the experimental group and the control group in Scientific Creativity test in favour of the experimental group. (4) There is a positive relation between physical concepts achievement, Scientific Processes Skills and Scientific Creativity, this relation is statistically significant with experimental group studied by using Incubation Model of Creative Teaching and Learning (TIM). Several recommendations were suggested in the light of the results.

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