Abstract

The impact of a proposed unit in the light of the twenty – first century skills to develop probabilistic thinking among secondary school students.

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The current study aims to study the impact of a proposed unit in the light of the the twenty–first century skills for the development of probablitic thinking among secondary school students. To achieve the study's objectives and answer its questions and test its hypotheses, the researcher used the quasi–experimental approach.. The study was conducted during the first semeter of the academic year 2022–2023 AD , and the study sample consisted of (53) female students of the third year of secondary school in Al– Fateh International Schools, who were divided randomly into two experimental and controled group. The experimental group studied the proposed unit and the control group studied the prescribed unit in the textbook. To achieve the objectives of the study , the researcher built a unit in the light of twenty –first century skills and a test to measure the levels of probabilistic thinking. To analyze the data statistically ,arithmetic means , stanard deviations , and

 $(T-test\)$ for two independent samles were used to find the differences between the mean of the experimental and control group students and $(T-test\)$ for two related samples and the Eta square .

The study concluded that there are statistically significant differences at significant level

(0.05) between the mean scores of the experimental and the control groups in the probabilistic thinking scale in favor of the experimental group, with a large effect size (0,578828). Students of experimental group in the pre and post application of the probablistic thinking scale in favor of dimensional thinking.

In the light of these results, the study recommends the following:

- 1-Developing the probability department in mathematics curricula in the light of twenty –first century skills, and training teachers to use mathematical activities and solve problems that develop probabilistic thinking skills according to twenty–first century skills .
- 2- Paying attention to the development of probabilistic thinking among primary and secondary students and even in university studies.