

عنوان مقاله:

A Study and Comparison of Effect of Instruction Using Simple and Argumentative Concept Maps oPromoting the Level of Reasoning and Critical Thinking Skills in Guidance School Students

محل انتشار:

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خلاصه مقاله:

Concept maps are a useful cognitive tool to promote the level of learning and critical thinking in students through encouraging them to deeply process information to understand. However, there is still a limited understanding of the effects of different ways of its implementation, and especially the comparison of argumentative concept maps and simple concept maps. The present study aimed to compare the effect of simple and argumentative concept maps on promoting the level of reasoning and critical thinking skills in guidance school students. This study was conducted on 52 second grade students of guidance school in Kurdistan in the academic year 2013-2014. These subjects were selected using a two-stage clustering approach and replaced based on the principle of random assignment in experimental groups (26 subjects of simple maps group, 26 subjects of argumentative concept maps group). The level of critical thinking is measured using simplified and modified version of Watson-Glaser test (Form A) arranged in five 16-question sections and measuring logical thinking skills in 5 areas of inference, identifying assumptions, deduction, ability to interpret and logical reasoning assessment. Calculating Cronbach's alpha, reliability was acceptably calculated equal to 0/75, 0/72, 0/74, 0/78, 0/70 and 0/73 for the entire questionnaire, inference, identifying assumptions, deduction, ability to interpret and logical reasoning assessment skills, respectively. Analyzing data of this study using the statistical analysis of covariance (ANCOVA) showed that the method of using concept maps significantly affects the level of critical thinking in general () and two sub-skills of identifying assumptions and deduction; and its effect was determined through calculating Eta square. Precise average post-tests after modifying the pre-test effect indicate more effective instruction using argumentative concept maps compared to the method of simple concept maps to promote the level of critical thinking and two sub-skills of identifying assumptions and deduction and lack of difference in three sub-skills of inference, interpretation, and is a logical reasoning assessment.

کلمات کلیدی:

Simple concept maps, Argumentative concept maps, reasoning skills, critical thinking

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