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## **Abstract**

The study aimed at exploring the effects of using the reflective inquiry strategy on the sixth graders' understanding of the concepts and development of scientific attitudes.

A sample included (150) sixth graders (80 males and 70 females) from among the students of four classes in two of the governmental schools in north Hebron District. Two of the classes (the control) learned in the traditional method whereas the other two (the experimental group) learned with reflective inquiry strategy.

A physics-concept understanding test and a questionnaire of scientific attitudes were developed by the researcher for the purpose. Reliability and validity were achieved. A pre-test and post-test were performed using the physics-concept understanding test and a questionnaire of scientific attitudes before and after the treatment had completed. To measure the effects of reflective inquiry strategy, the means and standard deviations, (ANCOVA) test, were used in this study. The results show that :

There are significant differences in understanding the physics concepts due to the method of teaching- in favor of the reflective inquiry.

There are no significant differences in understanding the physics concepts due to gender, or the interaction between the group and gender.

There are significant differences in the development of scientific attitudes due to the method of teaching- in favor of the reflective inquiry.

There are no significant differences in development of scientific attitudes due to gender, or the interaction between the group and gender.

In the light of the results of study, the study recommended the need to employ this method in teaching science. Service programs should train their student/ teachers in using reflective inquiry strategy. More studies should be conducted to investigate the effect of reflective inquiry strategy.



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