

The Impact of a Program Based on the PCK Approach of Science Teachers in the Lower Elementary Stage in their Awareness of Misconceptions and the Development of their Conscious Reflective Practices

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Abstract

The study aims at recognizing the impact of a program based on pedagogical content knowledge approach of science teachers at elementary stage in their awareness of misconceptions and developing their conscious reflective practices. The population of the study consisted of science teachers at the schools in directorate of education- North Hebron in the academic year (2018-2019).

The sample of the study contained (40) teachers who were intentionally chosen. The intended sample was chosen for two groups. The controlled group consisted of (20) teachers and they trained in the traditional methods. The experimental group consisted of (20) teachers trained in the method that based on (PCK).

The instruments of the study consisted of the awareness misconception test, reflective practices questionnaire and the teachers' post interviews.

The results revealed that there were statistically significant differences in pedagogical content knowledge orientation of science teachers at elementary stage in their awareness of misconceptions due to the training method in favor of experimental group. Also, there were statistically significant differences in developing conscious reflective practices for science teacher in the elementary stage due to training method in favor of experimental group. The interviews' results showed that science teachers have high degree misconceptions referred to leaving the study for a long time. The results also showed that the level of reflective practicing and teachers' orientation for the importance of training sessions and meetings for science team is growing up after training program.

Based on the results of the study, the researcher recommended that this method should be used in the preparation of students, academic staff in universities and teachers in the Ministry of Education to bridge the gap between theories and practices in education. It also conducted to do further studies and researches on this method. And its impact on new variables that raise the performance and abilities of teachers.