



Science Communication Form

Research title	The Conceptions of Pre-service Kindergarten and Elementary school Teachers on Teaching Science and the Nature of Science
Year of Publication	2017
Researcher Name	Eman Gaith & Nahil M. Aljaberi
Faculty	Arts and Sciences

Summary and Conclusions:

The study sought to reveal the conceptions of pre-service kindergarten and elementary school teachers on teaching science to children and understanding the nature of Science. More specifically, the study aimed to investigate the conception of pre-service teachers on the roles of teachers, which teaching methods they are willing to use in the future when practicing teaching, which difficulties they may face when becoming teachers, and the methods they are willing to put into use when children face difficulties in understanding some of the scientific concepts, in addition to investigating their understanding of the nature of science. In hopes of fulfilling these aims, the researchers have developed a questionnaire consisting of both closed- and open-ended questions. Pre-service teachers' perceptions on the roles of teachers were split into three categories: (1) traditional, (2) constructive, and (3) neutral; their conceptions on understanding the nature of science were split into two categories: (1) traditional and (2) constructive. The study sample consisted of 93 prospective teachers at the University of Petra, majoring in Class Teacher and Kindergarten Teacher. Results have indicated that the study sample had a mixture of constructive and traditional conceptions on teaching science, understanding the nature of science, and the role of teachers. There were no significant differences in pre-service teachers' conceptions on

The variables of major and academic year. Furthermore, more than half of the pre-service teachers believed that they were adequately qualified to teach science to children, and that experimentation, cooperative learning, and play were the most appropriate teaching methods when teaching science to children.

Keywords: Nature of Science, Conception about Teaching Science, Constructive Conceptions, Traditional Conceptions.

The benefit of research: To identify the scientific concepts of kindergarten teachers in the teaching of science and the nature of science in order to develop and modify the curricula
