**Pseudo-scientific beliefs and knowledge on the nature of the science of pre-service teachers**

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**Abstract**

This study aims to determine the levels of pre-service teachers' nature of science (NOS) knowledge, pseudo-scientific beliefs, and the relationship between components of the NOS knowledge and pseudo-scientific beliefs. Also, it aims to determine whether NOS knowledge and pseudo-scientific beliefs depend on field and gender variables. A survey method was conducted in this study. Data was collected from 215 pre-service teachers who are educated in different fields in a state university. Two different Likert scales were applied. Scale 1, which is the three-factor scale, measures pseudo-scientific beliefs, and Scale 2, which is a seven-factor scale, measures NOS knowledge. As a result, pre-service teachers' NOS knowledge is inadequate and their pseudo-scientific beliefs are excessive. All factors of Scale 1 are positively correlated with each other, and they are correlated with some components of NOS. Significant differences were found between field groups as results of the analysis in factors of Scale 2; however, any significant differences were not found between gender groups.

**Keywords**: Nature of science; Pre-service teachers; Pseudo-science; Pseudo-scientific beliefs, Teacher training