

Teacher Candidates' Scientific habits of Mind: A Comparative Study between Indonesia and Turkey

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ABSTRACT

This study aims to examine the scientific habits of mind (SHOM) of prospective teachers among different countries (Turkey & Indonesia) and Indonesian prospective teachers toward local and global SSIs, also based on their grade and study programs. This study employed a cross-sectional study in a quantitative approach. The sample in this research consists of 1298 Indonesian prospective teachers and 1600 Turkish prospective teachers. They are taken from a study program of chemistry, biology, science, mathematics, and elementary teacher education from two public universities in Yogyakarta, Indonesia and Trabzon, Turkey. The students are enrolled in the 1st, 2nd, 3rd, and 4th year of their undergraduate program. Data will be collected by administering the L-SHOM scale adapted from Wiyarsi & Çalik (2019) that have re-validated with reliability amount of 0.921 and G-SHOM scale adapted from Çalik & Coll (2012) and have re-validated with reliability amount of 0.882. The MANOVA test is used for data analysis.

The result showed that there was significant difference in SHOM toward global SSI between Indonesian and Turkish prospective teachers. The differences of SHOM factors carry out for mistrust of arguments from the authority (MTA), open-mindedness (OM), objectivity (OB), and curiosity (CU). There was significant difference in Indonesian prospective teachers' SHOM toward local and global SSI. The difference of SHOM factors carry out for MTA, rationality (RA), suspension of belief (SOB), OB, and CU. There was significant difference in Indonesian prospective teachers' SHOM based on grade. The differences of SHOM factors carry out for OM, scepticism (SC), RA, SOB, OB, and CU. There was significant difference in Indonesian prospective teachers' SHOM based on study programmes. The differences of SHOM factors carry out for MTA, OM, RA, SOB, and CU.

Kata Kunci: scientific habits of mind, socio-scientific issue, teacher candidates