

SP - (16203) - HISTORICAL SCIENCE STORIES BY PRE-SERVICE TEACHERS: HOW THEY REFLECT THEIR VIEWS OF NATURE OF SCIENCE?

Oya Ağlarcı Özdemir (Turkey)¹

1 - Marmara University

Short Abstract

Historical science stories are effective to teach about the nature of science in science education. The aim of the study is to examine historical science stories written by pre-service chemistry teachers and to determine how the aspects of the nature of science are reflected. In this study, case study method was utilized. The stories from HOS were the cases examined in detail. The participants of the study are 15 pre-service chemistry teachers who are studying at a public university in Turkey. As part of a course on History of Science, one of their tasks was to write a science story. They wrote stories about scientists or inventors that they have chosen; they were not guided for the topic or the length of the story. However, the checklist for writing science stories was fully explained. They worked individually during the writing process. Their stories were analyzed by content analysis. How the aspects of the nature of science were reflected was determined for each story. The findings of the study showed that the participants mostly wrote stories about male and deceased scientists/inventors. The social and cultural embeddedness of scientific knowledge and the empirical nature of science education were emphasized in most of the stories. However, pre-service teachers did not made any reference to the roles of scientific theories and laws in their stories. Some implications are drawn for historical science stories in science education.