World Academy of Science, Engineering and Technology International Journal of Educational and Pedagogical Sciences Vol:17, No:07, 2023

Nature of Science in Physics Textbooks - Example of Quebec Province

Authors: Brahim El Fadil

Abstract : The nature of science as a solution (NOS) to life problems is well established in school activities the world over. However, this study reveals the lack of representation of the NOS in science textbooks used in Quebec Province. A content analysis method was adopted to analyze the NOS in relation to optics knowledge and teaching-learning activities in Grade 9 science and technology textbooks and Grade 11 physics textbooks. The selected textbooks were approved and authorized by the Provincial Ministry of Education. Our analysis points out that most of these editions provided a poor representation of NOS. None of them indicates that scientific knowledge is subject to change, even though the history of optics reveals evolutionary and revolutionary changes. Moreover, the analysis shows that textbooks place little emphasis on the discussion of scientific laws and theories. Few of them argue that scientific inquiries are required to gain a deep understanding of scientific concepts. Moreover, they rarely present empirical evidence to support their arguments.

Keywords: nature of science, history of optics, geometrical theory of optics, wave theory of optics **Conference Title:** ICELS 2023: International Conference on Education and Learning Sciences

Conference Location : Paris, France **Conference Dates :** July 10-11, 2023