Nature of science and scientific inquiry as contexts for the learning of science and achievement of scientific literacy
Abstract

Although the reasons for concern about quality differ from nation to nation, the primary rallying point for science education reform is the perceived level of scientific literacy among a nation’s populace. The essential nature of scientific literacy is that which influences students’ decisions about personal and societal problems. Beyond this, however, educators work to influence students’ ability to view science through a more holistic lens. Examining the philosophy, history, and sociology of science itself has the potential to engender perceptions of science, in the broader context, that can impact the lens through which students view the world. The integration of explicit, reflective instruction about nature of science (NOS) and scientific inquiry (SI) in traditional science content is addressed as a means through which the development of scientific literacy is fostered.

Keywords

Nature of Science (NOS), Scientific Inquiry (SI), Scientific Literacy, Worldviews

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Teachers’ understanding of the nature of science and classroom practice: Factors that facilitate or impede the relationship. Journal of Research in Science Teaching, 36(8), 916-929 Losh, S.C., Wilke, R. & Pop, M. (2008). Some methodological issues with “Draw a Scientist Tests” among young children. International Journal of Science Education, 30(6), 773-792. Nature of Science and Scientific Inquiry as Contexts for the Learning of Science and Achievement of Scientific Literacy. Opinions of Primary School Science and Technology Teachers about Developing Students’ Affective Competence. Scientific method and ethics in sports: for students’ perspective. Open Access Journals in Library and Information Science: The Story so Far. Science as explanation has been neglected by many teachers, who have instead focused on the sharing of science facts in the belief that students cannot produce their own explanations for what they observe, and link these to ideas from their science. Bereiter and Scardamalia (2008) confirm that even year 1 children can produce a whole range of “theories” in response to an observation or problem. As human beings we have always tried to explain the world we live in, and we will continue to do so. In The New Zealand Curriculum most of these elements are found within the achievement objectives for the nature of science strand: “understanding about science”, “investigating in science”, and “communicating in science”. Achievement aims for the nature of science strand. TOP. Observing Quantitative Observation Qualitative Observation Inferring Predicting Classifying Making Models Science Skepticism Scientific Literacy. Science Skills. Observing Inferring Predicting Classifying Making Models.... Inquiry Project: The Nature of Science Learning in On-line and Face-to-Face Interactions - bridget burke cep 806 professor wong 2007. setting introduction. the purpose of the inquiry: three different challenges three different settings. 1 of 5. Today's Free.