

8 - Scientific Literacy and Socio-scientific Issues | Theoretical

SP - (16467) - A FRAMEWORK FOR ANALYSING STUDENTS' FUTURE PERCEPTIONS RELATED TO AGENCY, SCIENCE AND TECHNOLOGY

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Short Abstract

A lack of stable future horizons, caused by global crises and accelerating societal and technological development, obscure young people's relationship with the future. At the same time, future-oriented transformative actions are needed more than ever. Science education has a significant potential to provide students with tools for connecting with, and finding agency within, their personal as well as collective futures. To that end we propose a framework for analysing young people's futures thinking. Building on earlier initiatives to develop future-oriented science education, the framework interconnects literature on science education, futures studies, youth studies, science and technology studies and educational studies on agency. Its goal is to collect information to represent students' conceptions in and between the domains of personal futures, collective futures, agency, and science & technology. The research outlined employs a phenomenographic approach to analyse secondary school students' writings on the future. Methods involve qualitative content analyses and epistemic network analysis of students' essays. We discuss the prospective use of the framework to model students' thinking on science and technology as ingredients of the future. In the EU project FEDORA, the framework is used to inform the development of future-oriented science teaching modules and also as a tool to measure if and how those modules are able to impact students' perceptions.