

8 - Scientific Literacy and Socio-scientific Issues | Empirical

SP - (16293) - “THIS IS A WAY TO MOVE FORWARD”: CONSTRUCTS OF SOCIOTECHNICAL IMAGINARIES IN A SCIENCE COURSE

Majd Zouda (Canada)¹; Dimitris Tsoubaris (Greece)²; Sarah El Halwany (Canada)¹; Minja Milanovic (Canada)¹; Mohammad Nurul-Hassan (Canada)¹; Sadia Sahibzada Rahman (Canada)¹; Larry Bencze (Canada)¹

1 - University of Toronto; 2 - National and Kapodistrian University of Athens

Short Abstract

Developments in science and technology are continuously forging new (un)expected/(un)intentional possibilities, with beneficial and serious problematic consequences. Controlling all possible consequences of emerging technoscience is not usually possible; however, it could be argued that prevalence of certain “sociotechnical imaginaries” (Jasanoff & Kim, 2015) might favour particular outcomes over others. When considering for-profit influences from powerful groups on science and technology, a critical participatory role of citizens, with critical science literacy, seemed required to reshape and/or bring balances in imaginaries and outcomes. Hence, we advocate youth socio-political activism through science education, while emphasizing examinations of ‘hidden’ problems and power-relations to better inform decisions. This paper reports on experiences of a high-school science teacher in Greece implementing an activist science education framework in his courses. It examines constructs of students’ ‘micro-sociotechnical imaginaries’ in relation to different commodities and socioscientific issues they are examining. We argue that in constructing their imaginaries, students and their teacher negotiated their prioritized values, and possible values of other stakeholders through evolving learning processes. Our research indicates significance of values negotiations in bringing forward desired futures. It also points out to the possible merits of sociotechnical imaginaries, on the micro-levels of classrooms, in enabling students and teachers to construct visions for how they will lead their lives and teaching practices, respectively.