

Advantages and Disadvantages of Socioscientific Issue Based Instruction in Science Classrooms: Pre-Service Science Teachers' Views

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Abstract : The social roles and responsibilities expected from citizens are increasing due to changing global living conditions. Science education is expected to prepare conscious and sensitive students. Because today's students are the adults of future. Precondition of this task is Teacher Education. In the past decade, one of the most important research field is socioscientific issues. This study deals with advantages and disadvantages of socioscientific issue based instruction in science classroom according to pre-service science teachers' views. A case study approach that is one of the qualitative research design was used to explore their views. Fourteen pre-service science teachers participated to instruction process. Dolphinariums, Kyoto Protocol, genetically modified organisms, recyclable black bags' benefits and damages, genetic tests, alternative energy sources and organ donation are examples of socioscientific issues, which were taught through activities in a special teaching course. Diaries and focus group interview were used as data collection tools. As a result of the study, the advantages of socioscientific issue based instruction in science classroom comprise of six sub-categories which are multi-skilling, social awareness development of thinking, meaningful learning, character and professional development, contribution of scientific literacy whereas disadvantages of this instruction process are challenges teachers and students, limitations of teaching and learning process in pre-service science teachers' perspectives. Finally, this study contributes to science teachers and researchers to overcome disadvantages and benefit from the advantage of socioscientific issue based instruction in science classroom.

Keywords : science education, socioscientific issues, socioscientific issue based instruction, pre-service science teacher

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