

Students' Notions About Bioethical Issues - A Comparative Study in Indian Subcontinent

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Abstract : The present study is based in Indian subcontinent and aims at exploring students' conceptions about ethical issues related to Biotechnology at both high school and undergraduate level. The data collection methods involved taking classroom notes, recording students' observations and arguments, and focussed group discussions with students. The data was analysed using classroom discourse analysis and interpretive approaches. The findings depicted different aspects of students' thinking, meaning making and ethical understanding with respect to complex bioethical issues such as genetically modified crops, in-vitro fertilization (IVF), human genomic project, cloning, etc., at high school as well as undergraduate level. The paper offers a comparative account of students' arguments with respect to ethical issues in biotechnology at the high school & undergraduate level, where it shows a clear gradation in their ethical understanding from high school to undergraduate level, which can be attributed to their enhanced subject-matter knowledge. The nature of students' arguments reveal that there is more reliance on the utilitarian aspect of these biotechnologies as against a holistic understanding about a particular bioethical issue. This study has implications for science teachers to delve into students' thinking and notions about ethical issues in biotechnology and accordingly design appropriate pedagogical approaches.

Keywords : ethical issues, biotechnology, ethical understanding, argument, ethical reasoning, pedagogy

Conference Title : ICPSSSE 2023 : International Conference on Pedagogical Sciences and Science Education

Conference Location : Vienna, Austria

Conference Dates : June 19-20, 2023