

## **Socio-scientific issues: a challenge for biology teachers**

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In many contemporary documents is addressed need for different kind of education, where outcome of such approach is a citizen who not only possess solid knowledge foundation but also is able to use achieved knowledge to solve real-world practical or intellectual problems even after finished formal education. In documents underpinning education emphasis is given to development of skills like critical thinking, creativity, ability to solve problems and soft skills like ability to learn, to activate tacit knowledge or to work in groups. Real and yet unsolved challenge is how to organize instructions to achieve at least a part of listed goals balancing between well-tested practices what worked in the past and enthusiasm of untested novelties. Because we cannot treat instructions and school activities as from the society-isolated and value-free systems, Biology teachers cannot avoid teaching and follow up classroom discussions of sensitive themes. Beside already »traditional« themes like environmental education is nowadays in the middle of public interest biotechnology with themes like genetic engineering, genetically modified organisms (GMOs), food from GMOs, therapeutic and reproductive cloning, substitute maternity, cloning of human, impact of GMOs on human health, health of animals, and environment, etc. To cover the social and scientific aspects of such the term "socio-scientific issue" was coined. From the socio-scientific view, such issues are frequently controversial and, especially in cases when they become the subject of public interest debates, are often backed up with limited knowledge and strong attitudes. In educational practice, such public debates are reflected in the classroom, where teachers are challenged by complex issues, where proficiency in one discipline is in most cases insufficient to answer students' curiosity. When such a theme is assigned to a Biology teacher, probably the most important obstacle is that teachers often lack appropriate knowledge about the social side of the issue.