

PRESENTATION BREIF nr. 2

AUGUST 2023

**BIOETHICS AND SUSTAINABLE ENVIRONMENTAL
MANAGEMENT IN SCHOOLS**

2022-1-SI01-KA220- SCH-000086423



OVERVIEW

The **BIOSEM project** is an initiative under the Erasmus+ KA220-SCH action, which focuses on fostering cooperation partnerships in school education. The project is scheduled to run from September 2022 to August 2024 and involves multiple European educational and research institutions.

The second brief has a strong focus on **elective course compilation**.

PARTICIPATING ORGANIZATIONS



University of Ljubljana, Faculty of Theology

Coordinating institution, contributing extensive experience in international education projects.



International Balkan University

Focuses on ethical education and has strong links with local educational policies.



Osmangazi İlçe Milli Eğitim Müdürlüğü

Brings expertise in implementing local educational reforms and sustainability projects.



Daugavpils Zinātņu vidusskola

Offers experience in key competencies development and environmental education.



Istituto di Istruzione Superiore Leonardo

Known for its engagement in European educational projects with an emphasis on science and sustainability.



Şükrü Şankaya Anadolu Lisesi

Known for its diverse curriculum supporting student involvement in culture, science, arts, and sports, thereby nurturing well-qualified individuals prepared for global challenges.



BURSA
OSMANGAZI İLÇE MİLLİ EĞİTİM MÜDÜRLÜĞÜ



Asociación Cultural y Medioambiental Permacultura

Provides expertise in sustainable rural development and educational activities.



Urban Research and Education UG

Specializes in urban sustainability and educational projects.



COURSE COMPILATION

At the prephase of writing Project BIOSEM, it was found that there were no ERASMUS projects related to the awareness level desired to be created in high school students and teachers on sustainable environment and bioethics. Since bioethics is mostly used in the medical and medical fields, it was found that no high school learning outcomes or pedagogical structure was set up so far. A needs analysis was conducted to measure the awareness of high school students on Bioethics.

The aim was to reach as many students as possible in the shortest time to determine the topics to be dealt with during the project. To increase students' awareness, it was decided to consider the following topics in the project: **Global justice, Climate change, Human development, Ecosystem health and water resources, Science and technology, Animal living and Minimalist living.**

Bioethics teaching is not integrated into the curriculum of high schools and equivalent schools. In the literature review, no scenario-based educational content was found to be used in in-class or extra-curricular activities in high schools and equivalent schools on sustainable environmental education. In this regard, **scenarios were created with the scenario-based teaching method to increase awareness** of the concepts of sustainable environment and bioethics among high school students.

For each of the project topic areas, we have indicated which knowledge, skills and attitudes students should acquire during these lessons. The competency framework is the basis for the development of further materials in our project.

The developed scenario samples are intended to serve as an example for educators in bioethics education, sustainable environment, and climate change education and for those working in this field at high schools and equivalent schools.

In the creation of the scenario, a template was created by Project partner OMEM. The scenarios were first made in the form of lesson plans. At the BIOSEM Latvian transnational meeting, we noticed that students did not want to have the scenarios in the form of lesson plans. We realized that the scenarios should be shorter and include dilemmas, questions, answers, and discussions.

Then another template was created by examining the Socio-scientific Issue Scenarios and the literature by OMEM (Osmangazi District Directorate of National Education) and it includes the following titles: Subject- Title -Aim-Association with the Purpose- Brief Objective Information on the Subject- Situation/Event- Dilemma- Suggested activities and Questions.

When incorporating scenarios in the instruction of bioethics, students were presented with the chance to comprehend the situations and deliberate on their findings with their peers. **The scenarios encompass challenging situations that involve ethical matters.** The scenarios utilized within the lesson plans were developed by the BIOSEM project partners following a thorough examination of the pertinent field. **Care has been taken to ensure that the scenarios align with the curriculum and educational level appropriate for high school students.**

The topics covered in the scenario-based lesson plans include the following:

Introductory lesson to the Bioethics Course

1. Global justice

1.1 Globalization & Fair Trade

1.2. Medical Tourism

2. Climate Change

2.1 Climate Change

2.2. Costs of Fast Fashion

3. Human Development

3.1 Cyber and Bullying and Bioethics

3.2. Mental Disabilities and Bioethics

4. Ecosystem Health and Water Resources

4.1. Ecosystem health

4.2. The Role of Phosphates in Eutrophication

5. Science and Technology

5.1 Genetic Engineering

5.2. Biotechnology

6. Animal Living

6.1. Factory Farming

6.2. Animal Testing/Experimentation

7. Minimalist living

7.1. A Rich Life With Less Stuff

7.2. Shopping ... How powerful is it?

We define bioethics as an interdisciplinary approach to assess human intervention in life across various domains: in human life, animal life, and the life of the entire natural environment.

Considering the breadth of bioethics, we have selected specific topics to be addressed in alignment with the objectives of the project BIOSEM “Bioethics and Sustainable Environmental Management in Schools,” tailored for high school students. In our topic selection process, we adhered to two criteria:

- » Ensuring that the topics are pertinent within the scope of bioethics,
- » Making sure that the topics are suitable for the target age group of the project.

For each of these thematic areas, we have outlined the knowledge, skills, and attitudes that students should gain during these lessons. The competency framework serves as the foundation for developing additional materials within our project BIOSEM.

The application of each selected scenario for students occurred in 2 lessons (80 min.) all scenarios occurred over a span of 30 lessons in total.

CONCLUSION

In conclusion, the BIOSEM project aims to fill a significant gap in upper secondary school education by integrating bioethics and sustainable environmental management into the curriculum. Through a detailed needs analysis and literature review, it was identified that current upper secondary school curricula lack adequate content on bioethics and sustainable environment. To address this, scenario-based lesson plans were developed, covering a wide range of topics such as global justice, climate change, human development, ecosystem health, science and technology, animal living, and minimalist living. These scenarios are designed to be engaging and thought-provoking, encouraging students to deliberate on ethical dilemmas and discuss their findings with peers. The competency framework ensures that the scenarios are age-appropriate and aligned with educational standards. This innovative approach aims to enhance students' knowledge, skills, and attitudes towards bioethics and sustainable living, ultimately fostering a more ethically conscious and environmentally aware generation.

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