

# PRESENTATION BREIF nr. 4

MAY 2024

BIOETHICS AND SUSTAINABLE ENVIRONMENTAL  
MANAGEMENT IN SCHOOLS

2022-1-SI01-KA220- SCH-000086423



## OVERVIEW

This is the final brief of the **project BIOSEM**. The BIOSEM project, an initiative under the Erasmus+ KA220-SCH action, aims to foster cooperative partnerships in school education. Running from September 2022 to August 2024, the project involves various European educational and research institutions. As explained in the project description, the **fourth brief has a strong focus on feedback from pilot course implementation and how it helped us to form the final version of elective course.**

# 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.



# INTRODUCTION

The BIOSEM Erasmus+ project aims to enhance education in bioethics and sustainable environmental management through the development and implementation of specialized lesson plans. The third project activity involved a 16-week practical implementation of lesson plans based on 14 scenarios across seven topics: global justice, climate change, human development, ecosystem health and water resources, science and technology, animal living, and minimalist living. Each topic was addressed with two lesson plans, making a total of 14 scenarios. **This implementation took place in three high schools located in Türkiye, Latvia, and Italy, started in September 2023, and ended in January 2024.** The objective was to identify successful elements and areas for improvement to optimize these educational resources.

# METHODOLOGY

**Before the actual start of the Bioethics course, it was important to test the plans.** Therefore, in June 2023, a group of students and teachers from school partners met in Latvia to test the plans in a real classroom environment. It was like a kick off for the start of the active implementation. The goal was to approbate the developed scenarios and lesson plans, evaluate their efficiency, finalize them in order to be ready for introduction in schools.

There were two separate surveys prepared, one for the teachers who implemented the lesson plans in various subjects (English, geography, science, religious education) across three countries (Italy, Latvia, Türkiye) and another one for students who took part in this piloting process. Participants provided valuable feedback on the lesson plans' efficiency. The surveys included both qualitative and quantitative questions to capture comprehensive insights.

# FINDINGS

In general, both teachers and students from the participating schools/countries appreciated the engaging and interactive nature of the lesson plans. Key components praised included warm-up activities, background building, discussions, debates, roleplays, real-life scenarios, and dilemmas. These elements were noted for their ability to enhance student engagement, critical thinking, empathy, and practical application of theoretical concepts.

Students showed a strong preference for engaging scenarios and discussions. They enjoyed scenarios that promoted engagement; group discussions that fostered collaboration; and presentations that allowed them to showcase their understanding. In addition, they appreciated approaches that empowered them in their learning process, engaging warm-up activities, clear assessment methods, reflection questions, and debates that encouraged critical thinking and expression of opinions. Although they found it challenging to consider multiple perspectives, this aspect was rewarding and helped develop their empathy and critical thinking skills during the process. At the end of the course, students demonstrated the following significant learning outcomes:

- a. Knowledge Acquisition:** *Understanding bioethics principles, terminology, and the human-ecosystem connection.*
- b. Skill Development:** *Enhanced critical thinking, empathy, and ability to consider different perspectives.*
- c. Awareness and Attitudes:** *Recognition of the impact of human actions on the environment, awareness of minimalism, and adoption of new approaches to managing time, spaces, and money.*
- d. Skill Development:** *Transformation of prejudices and broader understanding of ethical issues, particularly related to ageism and other dilemmas discussed in the lesson plans.*

Most teachers found the allocated 80 minutes sufficient; however, some noted challenges in keeping within this timeframe due to increased student engagement and in-depth discussions, which was in fact the main aim of the study. Flexibility and adaptability in teaching were highlighted as important for allowing students to express their ideas fully.

## CONCLUSION

*The survey results indicate overall satisfaction with the lesson plans among all teachers and students. The lesson plans effectively engaged students and fostered critical thinking, empathy, and practical application of bioethical concepts. The areas identified as to be improved were revised. Additionally, incorporating more engaging and clear multimedia resources and allowing flexibility in lesson timing to accommodate in-depth discussions and student engagement are recommended.*

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