

Kopački rit as an Open-Air Classroom

An Example of Modular Teaching in Vocational Agricultural Education



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Why Modular Teaching?

Modular teaching is based on:

- a competence-based approach,
- integration of learning outcomes,
- linking theoretical and practical content through authentic learning situations.

Why Modular Teaching?

- **Modular teaching** is a contemporary approach that integrates several subject areas and enables the development of applicable competencies.
- **In vocational education** it is particularly important because students acquire knowledge in real working and natural environments.
- Here we present an example of **modular teaching** implemented in Kopački rit as an **authentic learning space**.
- The focus is to show how **field-based and project-based teaching** contribute to the development of professional, ecological and digital competencies of agricultural school students.

Key Starting Points

- Competence-based approach focused on learning outcomes
- Linking theory and practice in an authentic environment
- Interdisciplinary learning through a joint module
- Active role of students in research and problem-solving



Aim and Methodological Framework

Aim: to present an example of modular and project-based teaching in Kopački rit.

Approach: good-practice example (case study).

Participants: vocational agricultural education students.

Focus: ecological literacy, research and digital competencies.

This is not an experimental study but a **good-practice example**. It observes how this form of teaching affects student motivation and the development of competencies important for sustainable agriculture.

Kopački rit as an Educational Space

- One of the largest wetland areas in Europe.
- Exceptional biodiversity and a dynamic floodplain ecosystem.
- An authentic setting for experiential learning.
- An example of sustainable management of natural resources.



- An ideal ecosystem in which students can directly observe the relationships between natural processes and human activities.
- **Such experiential learning is difficult to achieve in the classroom alone.**

Structure of the Interdisciplinary Module

Module: Kopački rit – Natural Heritage and Sustainable Spatial Management.

Connected subjects:

- Ecology and Environmental Protection,
- Crop Production,
- Geography,
- Informatics.

The module connects four subject areas.

Interdisciplinarity enables students to simultaneously develop natural science knowledge, understand spatial processes and use digital tools for data processing and presentation.

Module Implementation

1. Preparation and planning of fieldwork.
2. Field research in Kopački rit.
3. Digital data processing and analysis.
4. Presentation of results and reflection.



Students:

- work in groups,
- photograph species,
- keep field notes,
- process the collected data.



Students' Research Activities

Research activities

- Identification of plant and animal species.
- Analysis of habitat conditions.
- Photo documentation and field notes.
- Linking natural resources and agricultural activities.



Students collect data, compare observations and discuss the human impact on the ecosystem.

Digital Tools and Final Products

Digital educational guide 'Kopački rit through the Eyes of Young Farmers'.

- Interactive biodiversity map.
- Digital presentations and posters.
- Development of communication and digital competencies.



The digital component is particularly important because students do not end the activity with a field visit.

They turn the results into concrete digital products that develop communication and IT competencies.

Observed Outcomes of the Module

- Increased student motivation.
- More active participation in lessons.
- Better understanding of the link between ecosystems and agriculture.
- Growing awareness of biodiversity conservation.

During the module, students show greater motivation, more active participation and a better understanding of the connection between natural processes and sustainable agriculture.

At the same time, they develop awareness of biodiversity conservation.

Conclusion and Contribution

- Kopački rit confirms the value of the natural environment as a setting for modular teaching.
- It successfully links theoretical and practical content.
- The model is applicable in vocational agricultural education.
- Contribution: an example of integrating field research, digital tools and interdisciplinary learning outcomes.

Key Message



Kopački rit confirms the value of the natural environment as a space in which **modular teaching effectively links theory, practice and competence development for a sustainable future of agriculture.**