

# **Implementation of Kopački rit in the Curriculum of Secondary Vocational Schools: Linking Natural and Cultural Heritage through Experiential Learning**

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# Education in an Authentic Environment

Vocational education is oriented towards developing competencies that students can apply in real situations.

## **Contemporary requirements of vocational education:**

- . linking theoretical knowledge and practical experience
- . development of students' functional competencies
- . interdisciplinary approach to learning
- . learning in a real-life environment

## **Experiential learning as a pedagogical approach:**

- the student actively explores and draws conclusions
- knowledge is linked with direct experience
- critical thinking and responsibility are developed

**Kopački rit, as a protected area, is a space in which education, heritage and sustainable development can be linked.**

# Kopački rit as an Educational Resource



Kopački rit is not only a protected area but also an **open classroom that enables students to come into direct contact with teaching content.**



# **Kopački rit – a Space of Multiple Values:**

- one of the most important wetland areas in Europe
- an area of preserved biodiversity
- a space of interaction between nature and people
- valuable natural and cultural heritage

## **Educational potential:**

- field teaching
- research into natural processes
- understanding sustainable management of space

# Why Kopački rit?

## **Kopački rit as an Educational Resource**

- An authentic environment for linking theoretical and practical knowledge.
- An example of interdisciplinary learning (ecology, tourism, agriculture, gastronomy, nature protection).
- Development of competencies through real problem situations.
- Raising awareness of natural heritage conservation and sustainable development.

# Integration into Vocational Curricula

| Area        | Kopački rit Content                            | Competence Development                      |
|-------------|------------------------------------------------|---------------------------------------------|
| Tourism     | Heritage interpretation<br>Sustainable tourism | Communication,<br>Guiding<br>Interpretation |
| Ecology     | Ecosystems,<br>Nature protection               | Environmental research<br>and analysis      |
| Agriculture | Sustainable use of space                       | Responsible resource<br>management          |
| Geography   | Space<br>Landscape<br>Population               | Spatial thinking                            |

# Experiential Learning in Kopački rit

The key value of experiential learning is not only going into the field, but the process before, during and after the activity

## Before field teaching:

- researching the area
- preparing research questions
- linking with curriculum content

### **During field teaching:**

- observing and recording natural phenomena
- sampling and data analysis
- getting to know cultural heritage

### **After field teaching:**

- presentation of results
- project tasks
- reflection and evaluation

## **Aim of the Paper**

**The aim of this paper is to analyse the possibilities of integrating Kopački rit-related content into vocational education curricula and to point to the contribution of experiential learning to the development of students' functional knowledge and competencies.**

# Methodological Approach

The paper is based on a theoretical analysis and reflection on the possibilities of using the Kopački rit area as a teaching resource.

- To analyse the possibilities of integrating Kopački rit-related content into vocational education curricula.
- To examine how the natural and cultural heritage of Kopački rit can become a resource for achieving educational outcomes.
- To point to the contribution of experiential learning to the development of students' functional knowledge, professional competencies and sustainability-oriented thinking.

# **Research Methodology**

The paper is based on:

## **Analysis of scientific literature**

- experiential learning
- field teaching
- education for sustainable development

## **Analysis of curriculum documents**

- learning outcomes
- competence development
- possibilities of interdisciplinary linking

## **Analysis of the possibilities of applying field teaching**

- Kopački rit as an authentic educational environment

# Research Questions

- How can Kopački rit become an educational resource in secondary vocational schools?
- Which educational outcomes can be achieved through natural and cultural heritage content?
- How does experiential learning through field teaching contribute to the development of students' professional competencies?

# Interdisciplinary Application of Content

| Area              | Learning Opportunities                               |
|-------------------|------------------------------------------------------|
| Ecology           | biodiversity, environmental protection, ecosystems   |
| Agriculture       | sustainable management of natural resources          |
| Geography         | space, landscape, natural processes                  |
| Tourism           | ecotourism and heritage interpretation               |
| Food and Economy  | local products and sustainable development           |
| Cultural Heritage | tradition, life along the river and the wetland area |

**The special value of Kopački rit is that it enables linking different vocational fields through one common theme – the relationship between people and space**

# Literature Review

- Experiential learning encourages students' active participation.
- Field teaching enables linking teaching content with real space.
- Education for sustainable development fosters knowledge, values and responsible action.

## Chronological order:

- Dewey (1938)
- Kolb (1984)
- Orion and Hofstein (1994)
- Rickinson et al. (2004)
- Borić, E. (2008). Istraživačka nastava prirode i društva. Osijek
- UNESCO (2017)
- Borsos, É.; Banos-González, I.; Borić, E.; Lyngved Staberg, R.; Fekete, A. Bencéné. (2022).
- Rak, T.; Borić, E.; Bedeković, D. (2025).

| Source                                                                                                             | Aim                                                                                  | Methodology                                                                             | Key findings                                                                                                                                | Contribution to the study                                                                                     |
|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Dewey (1938). Experience and Education                                                                             | To explain the role of experience in the educational process.                        | Pedagogical-philosophical analysis of the relationship between experience and learning. | Learning is not merely the transfer of information but an active process in which the learner shapes understanding through experience.      | Provides a foundation for using Kopački rit as an authentic learning space.                                   |
| Kolb (1984). Experiential Learning: Experience as the Source of Learning and Development                           | To develop a theoretical model of experiential learning.                             | Synthesis of insights from psychology, pedagogy and learning theories.                  | Learning takes place through a cycle: concrete experience → reflection → conceptualisation → application.                                   | Enables the design of a field teaching model in Kopački rit according to the phases of experiential learning. |
| UNESCO (2017). Education for Sustainable Development Goals: Learning Objectives                                    | To define the competencies required for sustainable development.                     | International curriculum document.                                                      | Education should develop knowledge, values, attitudes and the ability to act.                                                               | Kopački rit can be a space for achieving sustainable development outcomes.                                    |
| Borsos et al. (2022)                                                                                               | To examine trainee teachers' perceptions of outdoor learning.                        | Quantitative study; <b>551 students</b> from 5 European countries.                      | Outdoor learning is recognised as important and effective, but students do not feel sufficiently prepared to carry it out.                  | Highlights the need for better preparation of future teachers for <b>outdoor education</b> .                  |
| Rak, Borić and Bedeković (2025)                                                                                    | To highlight the role of experiential learning in the formation of science concepts. | Theoretical-conceptual approach                                                         | Experiential learning encourages the active construction of knowledge and can help overcome misconceptions.                                 | Emphasises the importance of <b>experiential learning in science education</b> .                              |
| Orion and Hofstein (1994). Factors that influence learning during a scientific field trip in a natural environment | To investigate the factors that influence the success of field teaching.             | Empirical study of students during fieldwork.                                           | The effectiveness of field teaching depends on student preparation, the structure of activities and the connection with curriculum content. | Confirms that Kopački rit should be included in a planned way, not just as a trip.                            |
| Rickinson et al. (2004). A Review of Research on Outdoor Learning                                                  | To analyse the results of research on learning outside the classroom.                | Literature review.                                                                      | Learning in nature contributes to motivation, understanding of the environment and social learning.                                         | Provides scientific justification for using protected areas in teaching.                                      |

# The analysed sources indicate that:

- experiential learning is an effective approach to developing functional knowledge, because it enables students to link theoretical content with real situations,
- it provides the fundamental theoretical starting points for understanding learning through experience,
- learning in authentic natural environments has a confirmed educational value,
- the concept of education for sustainable development further emphasises the need to develop competencies that include responsibility towards the environment and the ability to make sustainable decisions.

**Kopački rit Nature Park** is a valuable educational resource that enables the achievement of educational outcomes of vocational education through interdisciplinary, experiential and sustainable learning.

# **Analysis of Curriculum Documents**

## **National Curriculum Framework (MZO, 2017)**

- focus on competencies
- linking knowledge and application

## **National Curriculum for Vocational Education (MZO, 2018)**

- development of professional competencies
- linking school and the world of work

## **Curriculum of the Cross-Curricular Topic Sustainable Development (MZO, 2019)**

- responsible attitude towards the environment
- understanding sustainability

# **Development of Students' Competencies**

**By applying this approach, students develop:**

## **Professional competencies**

- understanding of natural processes
- linking theory and practice

## **Generic competencies**

- cooperation and communication
- research skills
- problem solving

## **Values and attitudes**

- environmental responsibility
- heritage preservation
- a sustainable way of thinking

**Students do not only acquire knowledge about Kopački rit, but develop a relationship to the space and a responsibility for its preservation.**

## **Kopački rit as an educational space enables:**

- ✓ linking natural and cultural heritage
- ✓ achieving curriculum outcomes
- ✓ developing students' competencies
- ✓ linking theory and practice
- ✓ promoting sustainable development

# Conclusion

The analysed literature shows that experiential learning, field teaching and education for sustainable development are interrelated approaches that enable students to develop functional knowledge and competencies applicable in real situations.

- ❑ Kopački rit is a valuable educational resource for secondary vocational schools.
- ❑ Its natural and cultural heritage enables interdisciplinary linking of teaching content.
- ❑ Experiential learning through field teaching contributes to the development of students' functional knowledge and professional competencies.
- ❑ Implementing Kopački rit content can improve the quality of vocational education and encourage young people's sustainable thinking.

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**Protected areas are not only spaces for nature conservation – they can become valuable places of learning, research and competence development for students as well as for future professionals.**

Thank you for your attention