



REPRESENTATION OF CONTENT AND LEARNING OUTCOMES RELATED TO THE CONCEPT OF FORCES IN NATURE IN SYLLABI OF SCIENCE AND SCIENCE METHODOLOGY COURSES

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“Primary school as a whole-day school - a balanced, fair, efficient and sustainable education system“ is an experimental programme in primary schools in the Republic of Croatia since 2023, which introduced a new subject Science in classroom teaching. The Science curriculum contains educational outcomes that previously did not appear in the subject Nature and Society, raising the question of their representation in the education of students in teacher education programmes. Therefore, this research analyses the representation of content and learning outcomes related to the concept of forces in nature in syllabi of science and science methodology courses at seven teacher education institutions.

Through a qualitative analysis of the syllabi, the learning outcomes and content related to the aforementioned concepts are identified and analysed, with special attention given to their alignment with the educational outcomes of the Science Curriculum for grades 1–4 of

primary school. The research provides insight into the representation of fundamental science concepts related to forces in initial teacher education programmes and the degree of their alignment with the curriculum expectations of primary school science education.

This paper serves as a starting point for considering the need to align the content of science courses in teacher education study programmes and has been carried out within the framework of the institutional research project "Synergy of Technology and Science: STEM Education and Intelligent Methods – SINTEZA" (code 581-UNIOS-50) under the National Recovery and Resilience Plan of the Republic of Croatia, funded by the European Union – Next Generation EU.

Keywords: whole-day school, science curriculum, forces in nature, learning outcomes, SINTEZA

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