

Creative Thinking as a Developmental Skill in Physics Education

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Abstrakt. Fostering creativity among students represents one of the essential goals of modern education, particularly within the context of natural sciences, where the resolution of complex problems is a central requirement. According to available information, systematic research on promoting creativity in physics education has not been conducted in Serbia. However, the topic of creative thinking was included in the 2022 PISA assessment, which also encompassed students from Serbia. The results highlight creative thinking as a developmental skill of increasing importance. This paper presents theoretical frameworks on creative thinking and examines the perspectives of a group of physics teachers in Serbia, gathered through a survey designed to explore their role in encouraging creativity among students. The survey questions focus on various aspects of teaching, including the application of interdisciplinary approaches, fostering inquiry through questioning, evaluating creativity, and using mistakes as learning opportunities. The findings reveal that most teachers occasionally implement methods that promote exploration and collaboration. However, some are constrained by the rigidity of curriculum requirements. While teachers generally evaluate their competencies for working with creative students positively, the subjective nature of self-assessment points to the need for external evaluation and systematic support.

Kreativno mišljenje kao razvojna veština u nastavi fizike

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Apstrakt. Razvoj kreativnosti kod učenika predstavlja jedan od važnih ciljeva savremenog obrazovanja, posebno u predmetima prirodnih nauka, u okviru kojih se zahteva rešavanje kompleksnih problema. Prema dostupnim informacijama u Srbiji nisu vršena sistematska istraživanja o podsticanju kreativnosti u nastavi fizike. Međutim, tema kreativnog mišljenja bila je deo PISA testiranja 2022. godine, koje je obuhvatilo i učenike iz Srbije. Rezultati ukazuju na kreativno razmišljanje kao razvojnu vještinu. U ovom radu su predstavljene teorije kreativnog mišljenja i stavovi jednog broja nastavnika fizike u Srbiji dobijeni kroz anketu osmišljenu sa ciljem da ispita njihovu ulogu u podsticanju kreativnog mišljenja kod učenika. Pitanja su fokusirana na različite aspekte nastave, uključujući primenu interdisciplinarnih pristupa, ohrabrivanje postavljanja pitanja, ocenjivanje kreativnosti i korišćenje grešaka kao prilika za učenje. Rezultati pokazuju da većina nastavnika povremeno koristi metode koje podstiču istraživanje i saradnju, ali i da je rad nekih nastavnika ograničen rigidnošću nastavnih planova. Iako nastavnici generalno pozitivno ocenjuju svoje kompetencije za rad sa kreativnim učenicima, subjektivnost samoprocene ukazuje na potrebu za spoljashnjim vrednovanjem i sistematskom podrškom.