



УНИВЕРЗИТЕТ У НОВОМ САДУ  
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## ПЕДАГОШКИ ФАКУЛТЕТ

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This research aimed to determine the effectiveness of applying instructive simulation experiments (SE) to the development of deeper conceptual understanding, retention of static electricity contents, and engagement of 4th-grade students. The correlation between student achievements and engagement was examined. 76 4th graders (10–11 years) were assigned to one of the groups: direct – DI + SE (DSE) and indirect instruction – II + SE (ISE) group. The results indicate that the ISE group showed significantly better achievements on the highest cognitive level compared to the DSE group. The application of SE had a significantly greater impact on the perceived behavioral, cognitive, and agentic engagement of the ISE group compared to the DSE group. A positive correlation was observed between student engagement and achievements.

