

ABSTRACT

Yani Purma. 2023. **THE EFFECT OF PhET ASSISTED SEARCH, SOLVE, CREATE, AND SHARE (SSCS) MODEL ON PROBLEM-SOLVING SKILLS IN ELASTICITY**

Based on the preliminary study conducted at SMA Negeri 1 Cihaurbeuti, it was found that students' problem-solving skills on the topic of low elasticity had an average percentage of 36.54% out of 40 students. To address this issue, the researcher implemented the Search, Solve, Create, and Share (SSCS) learning model with the assistance of PhET simulations. The objective of this research was to determine the influence of the SSCS model assisted by PhET on students' problem-solving skills in the topic of elasticity in the 11th-grade science class at SMA Negeri 1 Cihaurbeuti for the academic year 2023/2024. The research method used was quasi-experimental with a post-test-only control design. The research population consisted of all seven science classes of the 11th grade at SMA Negeri 1 Cihaurbeuti, and cluster random sampling was used to select the samples. Class XI MIPA 5 was selected as the experimental group, while Class XI MIPA 2 was chosen as the control group. To measure students' problem-solving skills, a post-test in the form of essay questions on the topic of elasticity was administered. Each question covered four problem-solving skill indicators. The data analysis techniques included prerequisite tests (normality and homogeneity tests) and hypothesis testing (t-test). The results of the hypothesis testing using the t-test showed that after the implementation of the Search, Solve, Create, and Share (SSCS) model assisted by PhET, the calculated t-value (t_{hitung}) was greater than the tabulated t-value (t_{tabel}), specifically $6.29 > 2.00$. The calculation using SPSS also yielded a significance value of <0.05 ($0.000 < 0.05$), indicating that H_a was accepted, and H_0 was rejected. This implies that there is an influence of the Search, Solve, Create, And Share (SSCS) model assisted by PhET on students' problem-solving skills in the topic of elasticity in class XI MIPA at SMA Negeri 1 Cihaurbeuti for the academic year 2023/2024.

Keywords: Elasticity, Problem-solving skills, Search, Solve, Create, and Share (SSCS) model, PhET.