

# DEVELOPMENT OF SOCIOSCIENTIFIC ISSUES BASED COOPERATIVE LEARNING MODEL WORKSHEET TO IMPROVE STUDENTS' SOCIAL ATTITUDE THROUGH PHYSICS DISTANCE LEARNING

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## ABSTRACT

The social aspect or attitude of students is one of the most important aspects to be built in physics learning. Unfortunately, when education is required to be carried out in online or remote modes, in fact, physics learning only focuses on improving cognitive aspects. Therefore, this study aims to develop a cooperative learning model based on socioscientific issues in distance learning mode to improve students' social attitudes in physics subjects. The research method used to develop the model is the 4D Models method which consists of four stages, namely define, design, development and dissemination. The final product resulting from this research is a socio-scientific issues based cooperative learning model of the type TGT (Team Game Tournament), TSTS (Two Stay Two Stray), GI (Group Investigation) that are suitable for use in distance physical learning and can be used to improve social attitudes of students. More specifically, social attitudes in this study include mutual cooperation, integrity, and communication. The results of this study indicate that the scientific social issues based cooperative learning model (teams games tournament, Two stay two stray, and Group Investigation) is declared feasible to foster mutual cooperation, responsibility and student communication in distance learning physics. This is based on the results of internal assessments and assessments by experts and practice as well as limited trials by students. The results show an average score in the range of 72.22%-100% for the assessment results and the Aiken Validation index of 0.75-1 which is in the moderate to very valid category. The results are in the range of 74.21%-91.23% for the limited trial by students.

Kata Kunci: *scientific social issues, physics distance learning, cooperative learning model, worksheet*