

STAD cooperative learning model: its effect on the achievement of zoology among pre-service biology teachers in Indonesia

ABSTRACT

The STAD or "Student Teams-Achievement Divisions" cooperative learning model was investigated on its effectiveness in augmenting the Zoology achievement in pre-service Biology Education Program in Indonesia. More specifically, the comparative effect of STAD versus the conventional method on Zoology achievement through the learning of Agnatha and Placodermi in Vertebrate Zoology was investigated. Employing a quasi-experimental design over a one-week intervention, 30 pre-service Biology teachers in the Experimental Group were taught using the STAD model while 34 of their peers in the Control Group was taught using the teacher-centered conventional method. The effect of STAD was measured using a researcher-developed zoology achievement test with sufficient validity and reliability. Analyzed using the ANCOVA, the findings indicated that the Experimental Group performed significantly better than the Control Group. Further, an effect size of 0.6 shows that the average person in the experimental group scored better than 73 percent of all the participants in the control group. The findings are discussed in terms of in-service science teacher education.