

ABSTRACT

Feby Anisa Kusuma. 2022. The Effectiveness of Flipped Learning on Hormone System Materials to Improve Problem Solving Ability. Guided by Prof.Dr.H.Toto Sutarto Gani Utari.M.Pd., dan Cita Tresnawati. S.Pd.,M.Pd.

Problem solving ability is a very important ability for students to have, but learning biology in schools has not led to problem solving ability. This causes students to lack mastery of problem solving skills because teachers have not implemented problem-solving-based learning. This study aims to assess the problem solving ability of students before and after learning by flipped learning on hormonal system material. The method used is "Pre-Experimental" with a "one group pretest-posttest" design. Involving 30 students of XI MIPA E SMA Lanud Husein Sastranegara Bandung. The instrument used is a problem solving ability test. The results showed pretest values of 61.83, posttest 76.33, and N-gain 0.49 with moderate categories. Overall, the percentage of problem solving ability indicators is 76.9 good categories. The results showed that flipped learning contributes very well to honing students in understanding the problems given to the hormone system material to then find solutions. Learning with significant flipped learning at the level of signification α 0.05 is able to increase the average problem solving ability with good criteria on indicators of understanding problems, planning solutions/plans, and implementing plans. The criteria are excellent on the indicators of reassessing the results obtained. Overall flipped learning is effective in improving the problem solving ability of the hormonal system material. Students also gave a positive response to flipped learning.

Keywords: *Flipped learning, problem solving capabilities, and hormone systems*