

# **SOCIO-SCIENTIFIC ISSUE DAN KEMAMPUAN BERPIKIR REFLEKTIF PESERTA DIDIK KELAS XI SMA**

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## **ABSTRACT**

Reflective thinking is one of the skills that needs to be developed in 21st century biology learning. The purpose of this study was to determine the effect of socio-scientific issue-based learning on students' reflective thinking skills on excretion system material in the context of sugar-sweetened beverages tax. This type of research is quasi-experimental with non-equivalent control group design. The research sample was students of class XI at a state high school in the Yogyakarta City, who were divided into experimental and control groups by cluster random sampling. The data collection instrument was a modified questionnaire from the Reflective Thinking Questionnaire (RTQ) developed by Kember. The results showed that there was no significant difference in the ability to reflective thinking between the experimental group and the control group with Asymp scores. Sig. (2-tailed) > 0.05. However, the experimental group had a great influence on all levels of reflective thinking with an effect size value of 0.311; 0.456 and 0.320 except at the understanding level with an effect size value of 0.074. Whereas in the control group it has little effect on all levels of reflective thinking with an effect size value of 0.012; 0.086 and 0.089 except for critical reflective which has a moderate effect with an effect size value of 0.218. Through this research it can be concluded that SSI-based learning has a better effect than discovery learning on changes or increased reflective thinking skills at all levels except the level of understanding.

Kata Kunci: *biology learning, reflective thinking, socio-scientific issue, sugar-sweetened beverages tax.*