

ABSTRAK

ROTUANITA BUTARBUTAR. Analisis Kemampuan *Technological, Pedagogical, Content Knowledge* (TPACK) Dan Sikap Guru Biologi SMA Negeri Se-Kota Medan Tentang Isu Sosiosaintifik *Genetically Modified Organisms* (GMO). Tesis. Medan: Program Pascasarjana Universitas Negeri Medan (Unimed). Medan.2022.

Penelitian ini merupakan penelitian deskriptif kuantitatif yang bertujuan untuk untuk mengetahui: (1) hasil analisis kemampuan *Technological Pedagogical Content Knowledge* (TPACK) guru Biologi SMA Negeri se-Kota Medan tentang tentang isu sosiosaintifik *Genetically Modified Organism* (GMO); (2) hasil analisis sikap guru biologi SMA Negeri se-Kota Medan tentang tentang isu sosiosaintifik *Genetically Modified Organism* (GMO) (3) Hasil korelasi antara pengetahuan TPACK dan sikap guru biologi SMA Negeri se-Kota Medan tentang tentang isu sosiosaintifik *Genetically Modified Organism* (GMO). Sampel penelitian terdiri dari 43 orang guru biologi yang mengajar di 21 SMA Negeri se-Kota Medan. Instrumen penelitian berupa instrumen tes kemampuan TPACK dan instrumen penilaian afektif (sikap). Hasil penelitian diperoleh (1) Kemampuan *Technological Pedagogical Content Knowledge* (TPACK) guru biologi SMA Negeri se-Kota Medan Tahun Pembelajaran 2021/2022 tentang isu sosiosaintifik GMO memiliki rata-rata $50,6 \pm 14,65$ kategori cukup baik. (2) Sikap guru biologi se-Kota Medan Tahun Pembelajaran 2021/2022 tentang isu sosiosaintifik GMO memiliki rata-rata $74,65 \pm 5,52$ kategori baik. (3) Ada hubungan/ korelasi antara pengetahuan TPACK guru dengan sikap guru biologi SMA Negeri se-Kota Medan Tahun Pembelajaran 2021/2022 terkait isu sosiosaintifik GMO.

Kata Kunci : TPACK, Sikap, Isu Sosiosaintifik GMO.



ABSTRACT

ROTUANITA BUTABUTAR. **Analysis of Technological, Pedagogical, Content Knowledge (TPACK) Capabilities and Attitudes of Biology Teachers in State Senior High Schools throughout Medan City Towards Socioscientific Genetically Modified Organisms (GMO) Issues.** Thesis. Medan: Postgraduate Program, State University of Medan (Unimed). Medan. 2022.

This research is a quantitative descriptive study that aims to find out: (1) the results of the analysis of Technological Pedagogical Content Knowledge (TPACK) abilities of Biology teachers at state high schools throughout Medan City on socioscientific issues of Genetically Modified Organisms (GMOs); (2) the results of the analysis of the attitudes of biology teachers in public high schools in Medan City on socioscientific issues of Genetically Modified Organisms (GMO). The research sample consisted of 43 biology teachers who teach at SMA Negeri 21 Medan City. The research instrument was a TPACK ability test instrument and an affective (attitude) assessment instrument. The results of the study were obtained (1) Technological Pedagogical Content Knowledge (TPACK) abilities of biology teachers in public high schools in Medan City for 2021/2022 learning on socioscientific GMO issues had an average of 50.6 ± 14.65 in a fairly good category. (2) The attitude of biology teachers in Medan City for the 2021/2022 Academic Year regarding GMO socioscientific issues has an average of 74.65 ± 5.52 in the good category. (3) There is a relationship/correlation between the knowledge of TPACK teachers and the attitudes of biology teachers in State High Schools throughout the City of Medan Learning Year 2021/2022 regarding the socioscientific issue of GMOs.

Keywords: TPACK, Attitudes, GMO Socioscientific Issues

