# ABSTRAK

**Risanti Atma Dewi Br Simanjuntak, NIM 4183141070 (2022). Analisis Kemampuan Guru Biologi dalam Menerapkan *Technological Pedagogical Content Knowledge* (TPACK) di SMA/MA pada Kecamatan Percut Sei Tuan Tahun Ajaran 2022/2023.**

Penelitian ini bertujuan untuk mengetahui dan memperoleh gambaran kemampuan *Technological Pedagogical Content Knowledge* (TPACK) guru Biologi SMA di Kecamatan Percut Sei Tuan Tahun Pelajaran 2022/2023. Populasi dalam penelitian ini adalah guru biologi SMA di Kecamatan Percut Sei Tuan. Sampel dalam penelitian berjumlah 10 guru biologi dari 4 SMA Negeri dan Swasta. Instrumen penelitian ini terdiri dari Tes Kemampuan TPACK guru, observasi pelaksanaan pembelajaran, angket penilaian pembelajaran, dan wawancara. Teknik analisis data yang digunakan dalam penelitian ini adalah deskriptif kuantitatif yang bertujuan menggali informasi dari guru biologi tentang kemampuan TPACK guru SMA di Kecamatan Percut Sei Tuan. Dalam penelitian ini akan mencari gambaran dan mengeksplorasi kemampuan TPACK guru biologi dalam mengintegrasikan teknologi dalam proses pembelajaran dan dalam penelitian ini juga akan memaparkan secara deskriptif kemampuan pedagogic, professional, kepribadian dan sosial guru yang terintegrasi dengan teknologi pada aspek *Technological Knowledge* (TK), *Pedagogical Knowledge* (PK), *Content Knowledge* (CK), *Tecnological Content Knowledge* (TCK), *Pedagogical Content Knowledge* (PCK), *Technological Pedagogical Knowledge* (TPK), *Technological Pedagogical Content Knowledge* (TPACK) . Hasil penelitian kemampuan TPACK diperoleh pada aspek *Technological Knowledge* (TK) memiliki kategori cukup baik, pada *Pedagogical Knowledge* (PK) memiliki kategori baik, pada aspek *Content Knowledge* (CK) memiliki kategori baik, pada aspek *Technological Content Knowledge* (TCK) memiliki kategori cukup baik, pada aspek *Technological Pedagogical Knowledge* (TPK) memiliki kategori cukup baik, pada aspek *Pedagogical Content Knowledge* (PCK) memiliki kategori baik, dan pada aspek *Technological Pedagogical Content Knowledge* (TPACK) memiliki kategori cukup baik.

**Kata Kunci** : *Analisis, Kemampuan Technological Pedagogical Content Knowledge (TPACK)*

# ABSTRACT

**Risanti Atma Dewi Br Simanjuntak, NIM 4183141070, Analysis of the Ability of Biology Teachers in Applying Technological Pedagogical Content Knowledge (TPACK) in SMA/MA in Percut Sei Tuan District for the 2022/2023.**

This study aims to identify and obtain an overview of the *Technological Pedagogical Content Knowledge* (TPACK) abilities of high school Biology teachers in Percut Sei Tuan District for the 2022/2023 Academic Year. The population in this study were high school biology teachers in Percut Sei Tuan District. The sample in the study was 10 biology teachers from 4 public and private high schools. The research instruments consisted of the teacher's TPACK Ability Test, observation of the implementation of learning, learning assessment questionnaires, and interviews. The data analysis technique used in this research is descriptive qualitative which aims to gather information from biology teachers about the TPACK abilities of high school teachers in Percut Sei Tuan District. In this study, we will look for an overview and explore the ability of TPACK biology teachers to integrate technology in the learning process and this research will also describe descriptively the pedagogic, professional, personality and social abilities of teachers who are integrated with technology in aspects of *Technological Knowledge* (TK), *Pedagogical Knowledge* (PK), *Content Knowledge* (CK), Technological Content Knowledge (TCK), Pedagogical Content Knowledge (PCK), *Technological Pedagogical Knowledge* (TPK), *Technological Pedagogical Content Knowledge* (TPACK). The results of the TPACK ability research obtained on the *Technological Knowledge* (TK) aspect which has a fairly good category, on *Pedagogical Knowledge* (PK) it has a good category, on the *Content Knowledge* (CK) aspect it has a good category, on the Technological Content Knowledge (TCK) aspect it has a good enough category , on the *Technological Pedagogical Knowledge* (TPK) aspect it has a pretty good category, on the *Pedagogical Content Knowledge* (PCK) aspect it has a good category, and on the *Technological Pedagogical Content Knowledge* (TPACK) aspect it has a pretty good category.

**Keywords**: *Analysis, Technological Pedagogical Content Knowledge (TPACK)*