

ANALISIS KEMAMPUAN *TECHNOLOGICAL PEDAGOGICAL CONTENT KNOWLEDGE* (TPACK) PADA GURU BIOLOGI SMA DALAM MATERI SISTEM SARAF

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ABSTRAK

Penelitian ini bertujuan untuk menganalisis kemampuan *Technological Pedagogical Content Knowledge* (TPACK) guru biologi SMA dalam materi sistem saraf. Metode penelitian yang digunakan adalah penelitian deskriptif. Teknik sampling yang digunakan adalah *convenience sampling* sebanyak 6 orang guru biologi kelas XI dari 6 SMAN di Kota Tangerang. Pengumpulan data dilakukan melalui pengisian instrumen TPACK, rubrik pengukuran biodata partisipan, perekam proses kegiatan belajar mengajar, format wawancara dan format observasi. Analisis data dengan cara pengkodean berdasarkan tujuh kategori dalam *framework TPACK*. Berdasarkan hasil temuan di lapangan, peneliti menemukan, 1) Pada umumnya, kemampuan guru dalam merencanakan pembelajaran sistem saraf dikaji berdasarkan TPACK, termasuk dalam kategori tingkat persepsi. Hal ini ditunjukkan dengan penggunaan metode presentasi dan diskusi kelas (aspek pedagogik/PK) yang ditunjang dengan aspek teknologi (TK) yang sesuai berupa laptop dan infokus, sedangkan dalam aspek konten (CK) para partisipan sudah dapat mengidentifikasi kesulitan konten. 2) Berdasarkan analisis RPP dan observasi kelas, sebagian besar langkah-langkah pembelajaran yang direncanakan dalam RPP (aspek pedagogik) kurang sesuai dengan implementasinya di kelas, sedangkan untuk aspek konten dan teknologi sudah sesuai dengan implementasinya di kelas. Dengan demikian kemampuan TPACK 6 guru SMAN di Kota Tangerang masuk dalam kategori tingkat persepsi (Pn).

Kata kunci: Guru Biologi, Sistem Saraf, TPACK

ANALYSIS ABILITY OF TECHNOLOGICAL PEDAGOGICAL CONTENT KNOWLEDGE (TPACK) IN HIGH SCHOOL BIOLOGY TEACHER IN THE TOPIC OF THE NERVOUS SYSTEM

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ABSTRAK

The aim of this study is analyse the ability of TPACK that high school biology teachers do in the topic of the nervous system. The method uses descriptive research. Sampling technique that uses by the researcher is convenience sampling. Kind of this sampling is used by 6 from 6 senior high school in Tangerang that each represented by a biology teacher at XI grade. Collecting the data is done throughout by filling the TPACK instrument, participant biodata measurement rubric, KBM activities recorder, and observation and interview form. The data analysis itself is encoded by seven categories in the TPACK framework. Based on the result of data analysis, the researcher finds, 1). In general, the ability of the teacher arranges the nervous system lessons is examined based on TPACK, include in perception level category. It can be showed by using a presentation method and class discussion (pedagogic aspect/PK) that is supported by technological aspect (TK) appropriates with a set of computer and projector, in while content aspect (CK) the participant can identify the content difficulty, 2). Based on the RPP analysis and class observation, a part of lessons steps that is planned in RPP (pedagogic aspect/PK) was not relevant with the implementation in the class, in contrast the content aspect and technology have appropriated with the implementation in the class. The result of this research also shows the ability of 6 senior high school teachers in Tangerang include perception level category (Pn).

Keywords : Biology Teacher, Nervous System, *TPACK*