Strategi Pembelajaran Intertekstual Berbasis *Predict Observe Explain* (POE) pada Proses Eksoterm dan Endoterm untuk Meningkatkan Penguasaan Konsep dan Keterampilan Proses Sains Mahasiswa Calon Guru Kimia

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ABSTRAK

Penelitian ini bertujuan untuk memperoleh strategi pembelajaran intertekstual berbasis *Predict Observe Explain* (POE) pada proses eksoterm dan endoterm untuk meningkatkan penguasaan konsep dan keterampilan proses sains mahasiswa calon guru kimia. Penelitian ini dilakukan berdasarkan studi pendahuluan, dimana proses eksoterm dan endoterm masih dianggap sulit dan terdapat miskonsepsi di dalamnya. Penelitian ini melibatkan 34 orang mahasiswa calon guru kimia di salah satu institusi pendidikan di Kota Bandung dengan menggunakan metode *Research and Development* (R & D). Berbagai instrumen digunakan dalam penelitian ini, seperti lembar validasi yang digunakan untuk mengevaluasi strategi yang dikembangkan, lembar observasi untuk mencatat proses yang terjadi selama implementasi, 4 soal tes uraian terbuka untuk mengukur penguasaan konsep dan soal keterampilan proses sains. Strategi yang dikembangkan dibuat dalam empat fenomena, masing-masing dua untuk proses eksoterm dan endoterm. Strategi ini diuji coba untuk mengeksplorasi hubungan intertekstual antara representasi makroskopik, submikroskopik, dan simbolik dalam sintak POE. Hasil uji coba keterlaksanaan menunjukkan strategi intertekstual berbasis POE pada proses eksoterm dan endoterm yang dikembangkan dapat meningkatkan penguasaan konsep dan keterampilan proses mahasiswa calon guru kimia.

Kata kunci: Strategi Pembelajaran Intertekstual, *Predict Observe Explain*, Penguasaan Konsep dan Keterampilan Proses Sains.

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VARIASI KATA SAPAAN BERDASARKAN PERSPEKTIF GENDER DAN KEAKRABAN PADA ORGANISASI EKSTRA KAMPUS UNIVERSITAS PENDIDIKAN INDONESIA

Predict Observe Explain (POE)-Based Intertextual Learning Strategy on Exothermic and Endothermic Processes to Promote the Chemistry Preservice Teachers' Conceptual Understanding and Science Process Skills.

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ABSTRACT

This study is intended to develop a POE-based intertextual learning strategy which has potential not only to improve the pre-service teachers' conceptual understanding on exothermic and endothermic processes but also to enhance their science process skills. This research was based on students' misconceptions and difficulties in exothermic and endothermic processes which were revealed from the preliminary study. This research was conducted using the R&D method and involved 34 chemistry pre-service teachers in one of Teacher Education Institutions in Bandung. Various instruments were used during this study such as validation form to evaluate the strategy that had been developed, the observation form to record the implementation process, a 4-item of open ended test to measure pre-service teachers' conceptual understanding and the Science Process Skill Test. The strategy exposed four phenomena, two of each represents the endothermic and endothermic process. This strategy was attempted to explore the intertextual relationship between macroscopic, submicroscopic, and symbolic representation in the POE syntax. The pilot implementation of the strategy showed that after learning with this strategy, the pre-service teachers' conceptual understanding about exothermic and endothermic processes as well as their science process skills are improved.

Keywords: Intertextual Learning Strategies, Predict Observe Explain, Conceptual Understanding and Science Process Skills.

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