THE IDENTIFICATION OF VOCATIONAL HIGH SCHOOL TEACHERS’ ADVANCED DIGITAL COMPETENCE: OVERVIEW AND ANALYSIS

THESIS

A thesis submitted to fulfill one of the requirements for obtaining a Master of Education (M.Pd.) in the Technical and vocational education Study Program

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The Identification of Vocational High School Teachers’ Advanced Digital Competence: Overview and Analysis

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ABSTRACT

This study analyzed the Vocational High School (VHS) teachers’ digital competence through a literature review and quantitative approach method. The purpose of this study is to find out the level of teachers’ digital competence especially for engineering teachers in vocational high school and also to get the general overview of the teachers’ digital competence development. This study involved VHS engineering teachers in Indonesia as respondents. Content analysis techniques are used to determine a set of attributes that are used digital competence framework developed by the European Commission. The results showed that engaging in the utilization of various online communication tools such as (e-mail, chat, instant messaging, blogs, group chats) is the most essential competence of digital. Finally, the author described the visualization using Overlay Visualization to know the sophisticated research on digital competence in vocational high school. From the visualization, it showed that the lots of recent study are more focusing on engineering education linked with e-learning, digital competence, and digital media. The results of this study are expected to be used as information material for related parties such as the government as policy makers and school curriculum in improving the quality of teachers’ digital competence.

Keywords: Digital Competence, Vocational High School (VHS), Teachers
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Recommendation for Academic Conferences. IEEE Access, 6, 17153–17164. https://doi.org/10.1109/ACCESS.2018.2817497


Muñoz, F. J. R., & Ruiz-Domínguez, M. D. M. (2021). The digital competence of


