

Digital Literacy and TPACK's Impact on Preservice Elementary Teachers' Ability to Develop Science Learning Tools

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Submitted: 2022-02-11

DOI: 10.23917/ppd.v9i1.17493

Accepted: 2022-05-05

Published: 2022-07-31

Keywords:	Abstract
<p><i>digital literacy;</i></p> <p><i>TPACK;</i></p> <p><i>elementary education;</i></p> <p><i>science;</i></p> <p><i>learning tools</i></p>	<p><i>The transition of education from the 4.0 era of the Industrial Revolution to the 5.0 era of the Social Revolution necessitates educators' skill development. Particularly, technology-based learning devices must be designed with digital literacy and Technological Pedagogical Kontent Knowledge (TPACK) skills in mind so that learning tools for teachers are more creative and innovative. The purpose of this study was to determine the impact of digital literacy and Technological Pedagogical Content Knowledge (TPACK) on the ability of prospective Madrasah Ibtidaiyah science teachers to create learning tools. This study employed a survey approach. Madrasah Ibtidaiyah (Islamic Primary School) IAIN Lhokseumawe sixth-semester preservice teacher students were the subjects of this study. The data collection method employed a questionnaire and a straightforward regression analysis. The results demonstrate a strong correlation between digital literacy and the ability to compose science learning tools. A t-table value of 9.880 indicated a positive and significant relationship between digital literacy and the capacity to organize science learning tools. With a t-table value of -0.562, TPACK has no significant effect on the ability to compose learning tools. Therefore, it can be concluded that digital literacy has a positive effect on the ability of preservice Islamic primary teachers to create science learning tools for their students.</i></p>

INTRODUCTION

Background

Developing an education system from the age of Industry Revolution 4.0 to Society 5.0 requires educators to improve their skills, especially in designing technology-based learning

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