DEVELOPMENT OF TEACHING MATERIALS WITH INTEGRATED TPACK LOCAL POTENTIAL TO IMPROVE THE ACHIEVEMENT OF STUDENTS' SCIENCE DOMAIN

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ABSTRACT

The implementation of natural science learning does not pay attention to cognitive aspects and does not pay much attention to psychomotor aspects and affective aspects, as well as not utilizing local potential. The main obstacle that arises is because teachers do not understand how to properly integrate science learning with environmental potential, especially the local potential that is around it. Integrating local potential in learning can be done by utilizing teaching materials, especially teaching materials with TPACK (Technological Pedagogical And Content Knowledge). Teaching material that will be developed is learning material that connects material that is integrated with local potential in learning and is taught using models or approaches through the use of technology as a delivery platform to achieve learning objectives. This study aims to: (1) produce instructional materials with TPACK integrated with decent local potential, (2) determine the effectiveness of TPACK-charged teaching materials with integrated local potential to improve the mastery of science domains of junior high school students.
Research conducted is a research and development (Research & Development). Data collection methods used were validation sheets, observation sheets, questionnaire sheets, and problem descriptions. The study was conducted for 2 years. The target achieved in the first year of research is to produce TPACK teaching materials with integrated local potential to improve the science domain. The results of this research in the second year are product trials at schools that have the same local potential characteristics to find out the effectiveness of TPACK-charged teaching materials integrated with local potential on the achievement of the domain of science.
The results showed that 1) the integrated Science Web-LKS of the peatland environment is feasible and can be used for learning on the interaction of living things with the environment, and 2) the integrated IPA Web-LKS of the peatland environment developed effectively to improve the mastery of conceptual knowledge and environmental literacy of students with a significance value <0.05.

Kata Kunci: *teaching materials, TPACK, local potential, science domain*