DEVELOPMENT OF FREE INQUIRY-BASED BLENDED LEARNING MODEL ON ENVIRONMENTAL SCIENCE TO ENHANCE THE QUALITY OF LEARNING OF BIOLOGY EDUCATION MAGISTER STUDY PROGRAM IN INDONESIA AND MALAYSIA

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ABSTRACT

This research is to produce a free inquiry-based blended learning model, which is believed to be very suitable for enhancing quality of learning process for graduate school student in Yogyakarta State University (YSU) Indonesia and UPSI, Malaysia with indicators of student's activeness, participation, independence, initiative, and responsible in learning. Through the learning process, this learning model is believed to be potentially effective in improving environmental literacy, creative thinking, and learning independence for biology education magister students, graduate school both in YSU and in UPSI. The model that will be developed is learning model using the highest level of inquiry inquiry (free inquiry) syntax. The type of innovation in the model that will be developed is in the form of learning activities carried out offline and online that are synergistic in an effort to build environmental literacy, creativity, and learning independence for students, both in YSU and in UPSI. The synergy of activities (online-offline) and the synergy of the involvement of lecturers from two countries (YSU and UPSI) are other novelty forms of this research. Learning activities are arranged in the Semester Learning Plan and Student Activity Sheet (student worksheet) and set in a Learning Management System (LMS).

The research will be conducted in the form of R&D, using the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation). Analysis phase is in the form of needs analysis, especially regarding the types of activities, kinds of lecture material, challenges/expectations encountered so far. The design stages include the preparation of hypothetical models and device prototypes. The development phase is used to compile and validate learning models and tools. The Implementation Phase is in the form of implementing models and teaching sets in real teaching in the Environmental Education Course. While the evaluation phase is used to conduct evaluations and reflections on the effectiveness and efficiency of the developing and applying learning model, in order to improve environmental literacy, creativity, and student learning independence. Data validity of the model and the quality of the teaching set were analyzed descriptively. The practicality data of applying the model in a real learning is also analyzed descriptively. While data on the effectiveness of the applying the learning models in improving these abilities on the students was analyzed inferentially using the manova test after the requirements for the test were fulfilled. The effectiveness of applying the model in two countries will be analyzed using univariate different tests.

The results of the development of teaching kits produced 5 components of teaching kits, namely syllabus, lesson plan, student's worksheet, LMS-BeSmart, and Instrument of Assessment. The validation process, which has involved several validators (reviewers) and proofreaders, has produced teaching kits that are feasible to apply in the class.

Kata Kunci: *Free inquiry-based blended learning; environmental literacy, creativity, and learning independence; YSU, UPSI*