DEVELOPMENT OF TWO LEVELS INQUIRY-BASED BLENDED LEARNING MODEL ON ECOLOGY TO IMPROVE THE STUDENT'S CRITICAL THINKING, CREATIVES THINKING SKILLS, AND LEARNING INDEPENDENCE IN UNY AND UPSI MALAYSIA

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ABSTRACT

This partnership research is planned to produce a Two levels Inquiry-Based Blended Learning model, which is believed to be appropriate for biology learning at higher education in order to improve critical thinking, creative thinking skills, and learning independence on the undergraduate students, both in Indonesia (UNY) and Malaysia (UPSI), especially on the biology education study program. The model to be developed is in the form of learning using two levelsinquiry-based learning, which are guided inquiry and free inquiry that are implemented gradually (Two Level inquiry). Innovation in the model that will be developed is in the form of a variety of learning activities carried out using two progressive learning packages, guided inquiry-based learning and fee inquiry-based learning that are set in online and offline activities. The online learning activities are arranged in the Learning Management System of YSU (BeSmart).

The research will be conducted in the form of R&D, using the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation). Analysis phase, 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 the teaching and learning sets. The implementation phase is in the form of implementing models and learning tools in real teaching in the Ecology course. While the evaluation phase is used to conduct evaluations and reflections on the effectiveness and efficiency of the development and application of learning models and tools, in order to foster some of the abilities of these students.

Data validity of the model and the quality of teaching and learning sets will be analyzed using descriptive statistical analysis. Practicality data of applying the model in learning is also analyzed using descriptive statistics. While data on the effectiveness of the application of learning models in growing these abilities on undergraduate biologyeducation students will be 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.

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Kata Kunci: *Two levels inquiry based learning, thinking skills, learning independence*