PENGEMBANGAN PROGRAM PEMBINAAN KREATIVITAS GURU IPA MELALUI KOMUNITAS BELAJAR ADAPTIF BERBASIS *EDUCATION FOR SUSTAINABLE DEVELOPMENT*

DISERTASI

Diajukan sebagai persyaratan untuk memperoleh gelar Doktor Di Bidang Pendidikan Ilmu Pengetahuan Alam

Oleh

SELVIES LEA BABUTTA

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FAKULTAS PENDIDIKAN MATEMATIKA DAN ILMU

PENGETAHUAN ALAM UNIVERSITAS PENDIDIKAN INDONESIA

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PENGEMBANGAN PROGRAM PEMBINAAN KREATIVITAS GURU IPA MELALUI KOMUNITAS BELAJAR ADAPTIF BERBASIS *EDUCATION FOR SUSTAINABLE DEVELOPMENT*

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Dengan ini saya menyatakan bahwa disertasi dengan judul **"Pengembangan program pembinaan kreativitas guru IPA melalui komunitas belajar adaptif berbasis *education for sustainable development*"** ini beserta seluruh isinya adalah benar-benar karya saya sendiri, dan saya tidak melakukan penjiplakan atau pengutipan dengan cara-cara yang tidak sesuai dengan etika keilmuan yang berlaku dalam masyarakat keilmuan. Atas pernyataan ini, saya siap menanggung resiko/sanksi yang dijatuhkan kepada saya apabila kemudian ditemukan adanya pelanggaran terhadap etika keilmuan dalam karya saya ini, atau ada klaim dari pihak lain terhadap keaslian karya saya ini.

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Penelitian ini dilandasi akan adanya kebutuhan pengembangan kreativitas, kolaborasi dan kesadaran terhadap lingkungan berkelanjutan. Kreativitas guru IPA memiliki peran yang sangat penting dalam menghadapi tantangan pembelajaran di era modern, khususnya dalam mengintegrasikan kesadaran berkelanjutan dalam proses pendidikan. Kolaborasi dalam komunitas belajar adaptif, guru dapat saling bertukar ide dan pengalaman.

Konteks pendidikan saat ini, pembelajaran yang kolaboratif dan adaptif sangat diperlukan untuk mempersiapkan peserta didik menghadapi berbagai perubahan dan tantangan global, terutama yang berkaitan dengan keberlanjutan. Guru yang kreatif dan inovatif adalah kunci utama dalam membentuk generasi yang sadar akan pentingnya keberlanjutan dan mampu berkontribusi positif bagi lingkungan sekitarnya.

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Selvies Lea Babutta

DEVELOPMENT OF A PROGRAM FOR BUILDING CREATIVITY OF SCIENCE TEACHERS THROUGH AN ADAPTIVE LEARNING COMMUNITY BASED ON EDUCATION FOR SUSTAINABLE DEVELOPMENT

Selvies Lea Babutta
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ABSTRACT

This research aims to develop a creativity development program for science teachers through an adaptive learning community based on Education for Sustainable Development (ESD), based on six aspects. 1) creative competence; 2) knowledge, skills, and behavior; 3) teaching, assessment, and tools/materials 4) teaching mode; 5) learning environment; and 6) classroom management. This study adapts a cyclic ADDIE development model to meet specific program development needs. The research results show that each stage of the program can run well. After passing a limited trial phase, this program was implemented in 4 junior high schools, involving 7 science teachers, 35 learning community teachers, and 142 students. The program developed has characteristics consisting of four activity streams: collaborative learning, creative teaching strategy, self-awareness with collegiality, and integrated problem-solving for the professional community. integrated issues for professional communities). Augmented reality (AR) technology is used in the guidebook as one of the program supports to help understand learning activities and develop teacher creativity. Data to see the creativity of teachers and students was collected using creativity observation instruments and response questionnaires and tested using statistical tests and qualitative analysis. The research results show that teacher creativity is in the very good category, namely in the aspects of teaching mode, learning environment, and classroom management. Students' creativity also shows positive results in terms of their ability to generate creative ideas and solve problems creatively. These results indicate that this coaching program is effective in increasing science teachers' creativity and has a positive impact on students' creativity.

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Keywords: Science teacher development program, creativity, learning community, ESD

PENGEMBANGAN PROGRAM PEMBINAAN KREATIVITAS GURU IPA MELALUI KOMUNITAS BELAJAR ADAPTIF BERBASIS *EDUCATION FOR SUSTAINABLE DEVELOPMENT* (ESD)

Selvies Lea Babutta
Program Studi Pendidikan IPA

ABSTRAK

Penelitian ini bertujuan untuk mengembangkan program pembinaan kreativitas guru IPA melalui komunitas belajar adaptif berbasis *Education for Sustainable Development* (ESD), berdasarkan enam aspek 1) kompetensi kreatif, 2) pengetahuan, keterampilan, dan perilaku, 3) pengajaran, penilaian dan alat/bahan 4) mode mengajar, 5) lingkungan pembelajaran serta 6) pengelolaan kelas. Penelitian ini menggunakan model pengembangan ADDIE siklik yang disesuaikan dengan kebutuhan spesifik dalam konteks pengembangan program. Hasil penelitian menunjukkan bahwa setiap tahapan program dapat berjalan dengan baik. Setelah, tahap uji coba terbatas kemudian diimplementasikan pada 4 sekolah menengah pertama yang melibatkan 7 orang guru IPA dan 35 orang guru dalam komunitas belajar serta 142 peserta didik. Program yang dikembangkan memiliki karakteristik yang terdiri dari empat alur aktivitas: *collaborative learning* (pembelajaran kolaboratif), *creative teaching strategy* (strategi pengajaran kreatif), *self-awareness with collegiality* (kesadaran diri dengan rekan kerja), dan *integrated problem solving for professional community* (pemecahan masalah terintegrasi untuk komunitas profesional). Teknologi *augmented reality* (AR) digunakan dalam buku panduan sebagai salah satu pendukung program untuk membantu pemahaman kegiatan pembelajaran dan pengembangan kreativitas guru. Data untuk melihat kreativitas guru dan peserta didik dikumpulkan menggunakan instrumen observasi kreativitas dan angket respon serta di uji menggunakan uji statistik dan analisis kualitatif. Hasil penelitian menunjukkan bahwa kreativitas guru yang berada dalam kategori sangat baik, yaitu pada aspek mode mengajar, lingkungan pembelajaran dan manajemen kelas. Kreativitas peserta didik juga menunjukkan hasil positif, terutama kemampuan menghasilkan ide kreatif dan menyelesaikan masalah secara kreatif. Hasil ini mengindikasikan bahwa program pembinaan ini efektif dalam meningkatkan kreativitas guru IPA serta berdampak positif pada kreativitas peserta didik.

Kata kunci: Program pembinaan guru IPA, kreativitas, komunitas belajar, ESD

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