

THE IMPLEMENTATION OF DISCOVERY LEARNING BY USING
SCREENCAS-T-O-MATIC APPLICATION ON STUDENTS' CRITICAL
THINKING AND COMMUNICATION SKILLS IN LEARNING CLIMATE
CHANGE

RESEARCH PAPER

Submitted as Requirement to Obtain Degree of *Sarjana Pendidikan* in
International Program on Science Education (IPSE) Study Program



Arranged by:

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INTERNATIONAL PROGRAM ON SCIENCE EDUCATION
FACULTY OF MATHEMATICS AND SCIENCE EDUCATION
UNIVERSITAS PENDIDIKAN INDONESIA

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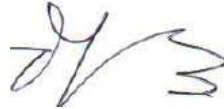
APPROVAL SHEET

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**THE IMPLEMENTATION OF DISCOVERY LEARNING BY USING
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ABSTRACT

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Digital competence is a new ability for educators and students in 21st century learning. Digital competence involves the confident critical use of information and communication ability. The purpose of this research was to investigate students' critical thinking and communication skills by implementing discovery learning by using screencast-o-matic application in learning climate change. This research is pre-experimental method with one group pre-test post-test design. Pre-test and post-test was used as data collection tools. The participant of this study were seventh grade students which consists of 26 students from one of junior high school in Bandung. The data of students' critical thinking ability concluded there is improvement on students' critical thinking skills after treatment. N-gain score of critical thinking skills obtained 0.46, which is interpreted as medium improvement. The highest improvement is in Practicing Thinker category and the lowest improvement is in Advance Thinker category. Whereas, the data of students' communication skills resulted there is enhancement between pre-test and post-test. N-gain score of communication skills obtained 0.21, which is interpreted as low improvement. The most improvement is in Proficient category and the lowest improvement is in Basic category. The correlation between students' critical thinking and communication skills obtained strong correlation category with the coefficient correlation of 0.716. Therefore, discovery learning by using screencast-o-matic can be used to gain students' critical thinking and communication skills.

Keywords: Discovery Learning, Screencast-O-Matic Application, Critical Thinking Skills, Communication Skills, Climate Change

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**IMPLEMENTASI PEMBELAJARAN DISCOVERY LEARNING DENGAN
MENGUNAKAN APLIKASI SCREENCAST-O-MATIC TERHADAP
KEMAMPUAN BERPIKIR KRITIS DAN KOMUNIKASI SISWA DALAM
PEMBELAJARAN PERUBAHAN IKLIM**

ABSTRAK

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Kompetensi digital merupakan kemampuan baru bagi pendidik dan peserta didik dalam pembelajaran di abad 21. Kompetensi digital melibatkan kepercayaan diri dalam penggunaan informasi dan kemampuan berkomunikasi. Tujuan penelitian ini adalah untuk menyelidiki kemampuan berpikir kritis dan komunikasi siswa dengan menerapkan pembelajaran discovery learning menggunakan aplikasi screencast-o-matic dalam pembelajaran perubahan iklim. Metode penelitian ini adalah metode pra eksperimen dengan rancangan one group pre-test post-test design. Pre-test dan post-test digunakan sebagai alat pengumpulan data. Partisipan pada penelitian ini adalah siswa kelas tujuh yang terdiri dari 26 siswa dari salah satu SMP di Bandung. Hasil data kemampuan berpikir kritis siswa dapat disimpulkan terdapat peningkatan kemampuan berpikir kritis siswa setelah diberikan perlakuan. Skor N-gain keterampilan berpikir kritis diperoleh 0,46 yang diartikan sebagai peningkatan sedang. Peningkatan tertinggi pada kategori Practicing Thinker dan peningkatan terendah pada kategori Advanced Thinker. Sedangkan data keterampilan komunikasi siswa menunjukkan adanya peningkatan antara pre-test dan post-test. Skor N-gain keterampilan komunikasi diperoleh 0,21 yang diartikan sebagai peningkatan yang rendah. Peningkatan terbesar terjadi pada kategori Proficient dan peningkatan terendah pada kategori Basic. Hubungan korelasi kemampuan berpikir kritis dan komunikasi siswa memperoleh hubungan korelasi kuat dengan hasil sebesar 0,716. Oleh karena itu, pembelajaran dengan discovery learning menggunakan aplikasi screencast-o-matic dapat digunakan untuk meningkatkan kemampuan berpikir kritis dan komunikasi siswa.

Kata Kunci: Discovery Learning, Aplikasi Screencast-O-Matic, Keterampilan Berpikir Kritis, Keterampilan Komunikasi, Perubahan Iklim

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THE IMPLEMENTATION OF DISCOVERY LEARNING BY USING SCREENCAST-O-MATIC APPLICATION ON STUDENTS' CRITICAL THINKING AND COMMUNICATION SKILLS IN LEARNING CLIMATE CHANGE

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