

## ABSTRAK

**Dita Trisna, NIM 4161121005 (2016). Pengaruh Model Project Based Learning Terhadap Keterampilan Critical Thinking, Creative Thinking, Collaboration & Communication Siswa di SMA**

Penelitian ini bertujuan untuk mengetahui pengaruh model *project based learning* terhadap keterampilan *critical thinking, creative thinking, collaboration & communication* (4c) siswa di SMA dengan pokok bahasan Alat Optik. Metode penelitian ini adalah *quasi eksperimen*. Populasi penelitian ini adalah semua kelas XI SMA Negeri 1 Kisaran T.P 2019/2020. Teknik pemilihan sampel diambil dengan teknik *cluster random sampling* yang terdiri dari dua kelas, yaitu kelas eksperimen diterapkan model *project based learning* yang terdiri dari 25 siswa dan kelas kontrol dengan pembelajaran konvensional yang terdiri dari 25 siswa. Instrumen yang digunakan untuk keterampilan berfikir kritis dan kreatif yaitu tes berbentuk essay sebanyak 10 soal. Instrumen yang digunakan untuk keterampilan kolaborasi dan komunikasi yaitu berbentuk lembar observasi. Sebelum pembelajaran dilakukan diberikan pretes yang tujuannya melihat kesamaan kemampuan awal hasil belajar siswa. Pada hasil pretest dilakukan uji hipotesis dua pihak dengan uji manova dengan syarat normal dan homogen. Berdasarkan hasil uji manova kemampuan awal keterampilan 4C pada kedua kelas adalah sama. Setelah pretest maka dilakukan perlakuan pada kedua kelas. Setelah diberikan perlakuan pada kedua kelas, peneliti memberikan posttest. Hasil *posttest* dilakukan uji manova terdapat perbedaan yang signifikan, yang berarti ada pengaruh dari model *project based learning* terhadap keterampilan *critical thinking, creative thinking, collaboration & communication* (4C) siswa di SMA N 1 Kisaran.

**Kata Kunci :** Model *Project Based Learning, Critical Thinking, Creative Thinking, Collaboration, Communication*

## ABSTRACT

### **Dita Trisna, NIM 4161121005 (2016).The Effect Of The Project Based Learning Model On Critical Thinking, Creative Thinking, Collaboration & Communication (4c) Skills In High School**

This study aims to determine the effect of the project based learning model on critical thinking, creative thinking, collaboration & communication (4c) skills in high school students with the subject of Optical Devices. This research method is a quasi experiment. The population of this study were all class XI SMA Negeri 1 Kisaran T.P 2019/2020. The sample selection technique was taken by using the cluster random sampling technique which consisted of two classes, namely the experimental class applied a project based learning model consisting of 25 students and a control class with conventional learning consisting of 25 students. The instrument used for critical and creative thinking skills is a 10-question essay test. The instrument used for collaboration and communication skills is in the form of an observation sheet. Before learning is carried out, a pretest is given which aims to see the similarity in the initial ability of student learning outcomes. In the pretest results, a two-party hypothesis test was carried out with the Manova test with normal and homogeneous conditions. Based on the results of the Manova test, the initial ability of 4C skills in both classes is the same. After the pretest, the two classes were treated. After being given treatment to both classes, the researcher gave a posttest. The results of the posttest carried out by the Manova test, there is a significant difference, which means that there is an effect of the project based learning model on critical thinking, creative thinking, collaboration & communication (4C) skills of students at SMA N

**Keyword:** *Project Based Learning, Critical Thinking, Creative Thinking, Collaboration, Communication*