ABSTRAK

Nadia Rustyningsih. 2022. Keterampilan 4C Siswa Kelas XI Teknik Mesin SMK Leonardo Klaten Tahun Ajaran 2022/2023 dalam Pembelajaran Matematika Menggunakan Model *Problem Based Learning*. Program Studi Pendidikan Matematika. Jurusan pendidikan Matematika dan Ilmu Pengetahuan Alam. Fakultas Keguruan dan Ilmu Pendidikan. Universitas Sanata Dharma Yogyakarta.

Keterampilan 4C harus dimiliki oleh siswa pada masa kurikulum merdeka sehingga perlu dilatih melalui pembelajaran salah satunya dengan menggunakan model *Problem Based Learning*. Penelitian ini bertujuan mendeskripsikan: 1) implementasi model *Problem Based Learning* dalam pembelajaran matematika dan 2) keterampilan 4C siswa kelas XI Teknik Mesin SMK Leonardo Klaten.

Jenis penelitian ini adalah penelitian deskriptif dengan subjek 30 siswa kelas XI Teknik Mesin B TA 2022/2023 SMK Leonardo Klaten, dilaksanakan pada bulan Februari 2023 – Maret 2023. Metode pengumpulan data dalam penelitian ini adalah observasi, tes, dan wawancara. Hasil observasi dan tes dianalisis dengan statistik deskriptif berbantuan *Microsoft Excel* untuk menentukan rata-rata skor dan kategori keterampilan 4C. Hasil wawancara setiap indikator keterampilan berpikir kritis dan keterampilan berpikir kreatif dianalisis secara reduksi data, paparan data, dan penarikan kesimpulan.

Hasil penelitian ini adalah: 1) implementasi model *Problem Based Learning* dalam pembelajaran matematika terlaksana 100% dengan kategori baik dan sangat baik. 2) Keterampilan 4C siswa kelas XI Teknik Mesin B menggunakan model *Problem Based Learning* adalah: a) Keterampilan komunikasi siswa pada kategori baik yaitu siswa dapat terlibat percakapan diskusi, berkomunikasi dalam lingkungan beragam, dan presentasi lisan dengan baik , b) Keterampilan kolaborasi siswa pada kategori sangat baik yaitu siswa dapat memenuhi indikator kerjasama, tanggung jawab, dan responsif dengan sangat baik, c) Keterampilan berpikir kritis siswa pada kategori cukup kritis karena terdapat indikator yang kurang dicapai oleh siswa yaitu indikator *focus* (fokus) dan *inference* (kesimpulan), d) Keterampilan berpikir kreatif siswa pada kategori yang cukup kreatif, rata-rata peserta didik masih belum memenuhi indikator fleksibilitas dan kebaruan.

Kata Kunci: 4C, Berpikir Kreatif, Berpikir Kritis, Keterampilan, Kolaborasi, Komunikasi, *Problem Based Learning*.

ABSTRACT

Nadia Rustyningsih, 2022. The 4C Skills of Class XI Students of Mechanical Engineering SMK Leonardo Klaten State Academic 2022/2023 in Mathematics Learning Using A Problem Based Learning Model, Mathematics Education Study Program, Mathematics Major and Sains Faculty of Teacher Training and Education Sanata Dharma University, Yogyakarta

4C skills must be mastered by students during the current independent curriculum so that they need to be trained through learning, one of which is using the Problem Based Learning model. This study aims to describe: 1) the implementation of the Problem Based Learning model in mathematics learning, 2) the 4C skills of grade XI students of Mechanical Engineering SMK Leonardo Klaten.

Type of research is a descriptive research with the subject of 30 class XI students of Mechanical Engineering B AY 2022/2023 SMK Leonardo Klaten, carried out in February 2023 – March 2023. The data collection methods in this study were observation, tests, and interviews. The results of observations and tests were analyzed with Microsoft Excel-assisted descriptive statistics to determine the average score and skill category 4C. The interview results of each indicator of critical thinking and creative thinking skills were analyzed by data reduction, data exposure, and conclusions.

The results of this study are: 1) The implementation of the Problem Based Learning model in mathematics learning is carried out 100% with good and very good categories. 2) The 4C skills of class XI students of Mechanical Engineering B using the Problem Based Learning model are: a) communication skills in the good category, students can engage in discussion conversations, communicate in diverse environments, and presentations well, b) collaboration skills in the excellent category, based on the students can meet the indicators of cooperation, responsibility, and responsiveness very well, c) critical thinking skills in the quite category because there are indicators that are less achieved by students, namely focus and inference, d) Creative thinking skills of students in the quite category, most students did not meet the indicators of flexibility and novelty.

Keywords: 4C, Collaboration, Communication, Creative Thinking, Critical Thinking, Problem Based Learning, Skills.