

## ABSTRAK

### PENGEMBANGAN FLIPPED CLASSROOM BERBASIS PROBLEM BASED LEARNING PADA MATERI POLA HEREDITAS KELAS XII

Novita Indah Permatasari

181434030

Analisis kebutuhan yang dilakukan di lima Sekolah Menengah Atas (SMA) menunjukkan adanya kendala selama menjalani Pembelajaran Jarak Jauh (PJJ) yaitu, model pembelajaran yang kurang efektif, sinyal, sulitnya mengajarkan materi pola hereditas kelas XII dan pembelajaran yang kurang interaktif. Oleh karena itu, peneliti mengembangkan pembelajaran *flipped classroom* berbasis *problem based learning* pada materi pola hereditas kelas XII. Penelitian ini bertujuan untuk mengembangkan sintak dan mengetahui kelayakan pembelajaran *flipped classroom* berbasis *problem based learning* pada materi pola hereditas kelas XII.

Jenis penelitian yang digunakan yaitu *Research and Development* (R&D) menurut Sugiyono. Penelitian ini dilaksanakan sampai pada revisi produk sehingga dapat diketahui kelayakannya. Pengembangan *flipped classroom* berbasis *problem based learning* diterapkan pada Kompetensi Dasar 3.6 dan 4.6 materi pola hereditas kelas XII. Produk yang dikembangkan berupa silabus dan RPP yang sudah divalidasi oleh ahli model pembelajaran, ahli materi dan dua guru mata pelajaran Biologi kelas XII. Hasil data validasi selanjutnya dianalisis secara kuantitatif dan kualitatif. Sintak yang dihasilkan berdasarkan karakteristik *flipped classroom* berbasis *problem based learning*. Hasil validasi produk oleh empat validator menghasilkan rata-rata skor 3,61 pada produk silabus, skor 3,71 pada produk RPP dan skor 3,77 pada materi sehingga produk perangkat pembelajaran silabus dan RPP layak digunakan atau diuji coba dengan revisi.

**Kata Kunci:** *flipped classroom* berbasis *problem based learning*, pola hereditas, *Research and Development*.

## ABSTRACT

### **DEVELOPMENT OF FLIPPED CLASSROOM BASED ON PROBLEM BASED LEARNING IN HEREDITY PATTERN OF 12<sup>TH</sup> GRADE STUDENTS**

Novita Indah Permatasari

181434030

*A needs analysis conducted in five senior high schools (SMA) showed that there were obstacles during Pembelajaran Jarak Jauh (PJJ), namely, less effective learning models, signals, difficulties in teaching heredity pattern material for 12th-grade, and less interactive learning. Therefore, the researchers developed a flipped classroom based on problem-based learning on the material of 12th-grade heredity patterns. This study aims to build syntax and determine the feasibility of flipped classroom learning based on problem-based learning in heredity pattern material of 12th-grade students.*

*The type of research used is Research and Development (R&D), according to Sugiyono. This research was carried out until the product revision so that its feasibility knew. The development of the flipped classroom based on problem-based learning is applied to Basic Competencies 3.6 and 4.6 heredity material of 12th-grade students. The product developed is in the form of a syllabus and RPP that have been validated by a learning model expert, material expert, and two Biology subject teachers for 12th-grade students. The results of the validation data were then analyzed quantitatively and qualitatively. The syntax generated is based on the characteristics of the flipped classroom based on problem-based learning. The results of product validation by four validators resulted in an average score of 3.61 on a syllabus product, a score of 3.71 on RPP product and a score of 3.77 on the material so that the syllabus and RPP products were feasible to be used or tested with revisions.*

**Keywords:** *flipped classroom based on problem based learning, heredity pattern, Research and Development.*