

ABSTRAK

PENGEMBANGAN METABOLIVERSE *WEBSITE* PEMBELAJARAN MULTIMEDIA INTERAKTIF MATERI METABOLISME KELAS XII

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Proses pembelajaran biologi di sekolah mengalami perubahan akibat pandemi COVID-19. Hal ini menuntut guru untuk mengubah proses pembelajaran menjadi Pembelajaran Jarak Jauh (PJJ) atau daring. Peralihan proses pembelajaran menjadi PJJ menimbulkan beragam masalah, seperti yang ditemui pada enam SMA responden dalam penelitian ini. Masalah yang ditemui di sekolah responden antara lain keterbatasan waktu dalam penyampaian materi; kendala penyampaian materi yang dianggap sulit untuk diajarkan contohnya materi metabolisme; perlunya pengembangan media pembelajaran menarik yang tidak memerlukan jaringan stabil dan intensif layaknya pertemuan sinkron. Tujuan penelitian ini yaitu mengembangkan dan mengetahui kelayakan *metaboliverse website* pembelajaran multimedia interaktif materi metabolisme kelas XII sebagai solusi dalam mengatasi permasalahan tersebut.

Penelitian ini merupakan jenis penelitian *Research and Development (RnD)*. Tahapan metode dalam penelitian menggunakan prosedur dari Sugiyono yang dibatasi sampai lima tahapan meliputi potensi dan masalah, pengumpulan data, desain produk, validasi desain, dan revisi desain. Teknik pengumpulan data dalam penelitian ini menggunakan wawancara dan kuesioner.

Produk hasil pengembangan berupa sebuah *website* multimedia interaktif berbasis *Google Sites*. Produk ini bernama *Metaboliverse* dan digunakan untuk pembelajaran materi metabolisme kelas XII. Validasi *Metaboliverse* dilakukan oleh satu ahli media, satu ahli materi, dan dua praktisi pembelajaran. *Metaboliverse* mendapatkan skor validasi sebesar 94,38% dengan kriteria “Sangat Layak”. Sehingga dapat disimpulkan bahwa *Metaboliverse* sangat layak untuk diujicobakan secara terbatas kepada peserta didik dan berpotensi mengatasi permasalahan yang telah dijabarkan.

Kata kunci : *RnD*, *Google Sites*, Multimedia Interaktif, Metabolisme, *Metaboliverse*.

ABSTRACT

**DEVELOPMENT OF METABOLIVERSE WEBSITE INTERACTIVE
MULTIMEDIA LEARNING ON METABOLISM MATERIALS
FOR CLASS XII**

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The process of studying biology in schools has changed due to the COVID-19 pandemic. This requires the teachers to change the learning process into Distance Learning (PJJ) or online method. This transition from the learning process to PJJ cause various problems, as it's said by six senior high school respondents in this research. The problems that appear from the respondents are the time limitation of delivering the lessons; the constraint in delivering lessons that is considered difficult to teach, for example, material on metabolism; the learning media need to be improved and does not require a stable and intensive network like synchronous meetings. The purpose of this study is to develop and determine the appropriateness of the metaboliverse website for interactive multimedia learning in metabolism lessons for class XII as a solution to solve these problems.

This research is a type of Research and Development (RnD). The method in this research used procedures from Sugiyono which are limited to 5 stages including potential and problems, data collection, product design, design validation, and design revision. Data collection techniques in this research used interviews and questionnaires.

The developed product is in the form of an interactive multimedia website based on Google Sites. This product is called Metaboliverse and is used for the learning of metabolic material for class XII. Metaboliverse validation is carried out by one media expert, one material expert, and two learning practitioners. Metaboliverse received a validation score of 94.38% with the criterion of "Very Feasible". So, it can be concluded that the Metaboliverse is very feasible to be tested on a limited basis to students and has the potential to overcome the problems that have been described.

Keywords : RnD, Google Sites, Interactive Multimedia, Metabolism, Metaboliverse