

Abstrak

Fatma Harian Dini: **Pengembangan *E-Learning* Berbasis *Google Classroom* Menggunakan Model *Project Based Learning* Pada Materi Redoks Untuk Meningkatkan Kemampuan Berpikir Kreatif Peserta Didik**. Tesis. Medan: Program Studi Pendidikan Kimia, Pascasarjana Universitas Negeri Medan, 2024.

Proses pembelajaran yang baik dapat terwujud apabila didukung oleh sumber belajar dan media pembelajaran yang berkualitas. Penelitian ini bertujuan (1) untuk mengetahui analisis kebutuhan *E-Learning* berbasis *Google Classroom* pada pembelajaran kimia di sekolah. (2) kelayakan pengembangan dan kelayakan *E-Learning* berbasis *Google Classroom* dengan model PjBL dalam meningkatkan kemampuan berpikir kreatif peserta didik pada materi redoks. yang dikembangkan (3) perbedaan yang signifikan antara peningkatan kemampuan berpikir peserta didik dengan nilai kriteria standar gain ternormalisasi (4) respon peserta didik. Penelitian ini menggunakan pendekatan *Research and Development* (R&D) dengan menggunakan model pengembangan ADDIE (*Analysis, Design, Development, Implementation, and Evaluation*) yang dilaksanakan dari Mei hingga Oktober 2022 bertempat di SMA Swasta Ahmad Yani Binjai. Penelitian ini dilakukan dengan menggunakan prosedur penelitian pengembangan. Kelayakan media pembelajaran *E-Learning* berbasis *Google Classroom* dengan model PjBL. Data dianalisis secara deskriptif dan statistik inferensial *uji one sample t-test*. Hasil penelitian diperoleh bahwa (1) Hasil analisis kebutuhan dibutuhkan e-learning berbasis google classroom menggunakan model *project based learning* untuk meningkatkan kemampuan berfikir kreatif peserta didik dapat digunakan melalui android/HP dan juga laptop/PC yang penggunaannya dengan tidak dibatasi ruang dan waktu (2) Hasil pengembangan e-learning telah layak digunakan berdasarkan Badan Standar Nasional Pendidikan (BSNP) dengan perolehan rata-rata kelayakan materi 3,86 dan kelayakan media elektronik 3,83. (3) Terdapat perbedaan yang signifikan antara peningkatan hasil kemampuan berpikir kreatif berupa kemampuan berfikir kreatif peserta didik yang dibelajarkan dengan e-learning berbasis *google classroom* dengan menggunakan model *project based learning* dengan menggunakan aplikasi *google classroom* lebih tinggi dari nilai gain ternormalisasi (N-Gain) 70. (4) Respon peserta didik terhadap penerapan e-learning berbasis *google classroom* dengan menggunakan model *project based learning* untuk meningkatkan kemampuan berfikir kreatif peserta didik sangat baik dengan perolehan nilai rata-rata respon peserta didik adalah sebesar 86,48%.

Kata kunci : Berpikir Kreatif, *E-Learning*, *Google Classroom*, *Project Based Learning* (PjBL)

Abstract

Fatma Harian Dini: Development of Google Classroom Based E-Learning Using the Project Based Learning Model on Redox Material to Improve Students' Creative Thinking Abilities. Thesis. Medan: Chemistry Education Study Program, Postgraduate Program, State University of Medan, 2024.

A good learning process can be realized if it is supported by quality learning resources and learning media. This research aims to find out (1) To find out the analysis of the needs for Google Classroom-based E-Learning in chemistry learning in schools. (2) the feasibility of developing and appropriateness of Google Classroom-based E-Learning with the PjBL model in improving students' creative thinking abilities on redox material. developed (3) a significant difference between the increase in students' thinking abilities and the normalized gain standard criteria value (4) students' responses. This research uses a Research and Development (R&D) approach using the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) development model which was carried out from May to October 2022 at Ahmad Yani Binjai Private High School. This research was conducted using development research procedures. Feasibility of Android-based learning media, namely Google Classroom-based E-Learning media with the PjBL model. Data were analyzed descriptively and inferential statistics using one sample t-test. The research results showed that (1) The results of the needs analysis required Google Classroom-based e-learning using a project based learning model to improve students' creative thinking abilities. It could be used via Android/cellphone and also laptop/PC whose use was not limited by space and time (2) The results of e-learning development are suitable for use based on the National Education Standards Agency (BSNP) with an average material suitability of 3.86 and electronic media suitability of 3.83. (3) There is a significant difference between the increase in learning outcomes in the form of students' creative thinking abilities taught using Google Classroom-based e-learning using the project based learning model using the Google Classroom application which is higher than the normalized gain value (N-Gain) of 70. (4) Student responses to the implementation of Google Classroom-based e-learning using the project based learning model to improve students' creative thinking abilities were very good with the average student response score being 86.48%.

Keywords : Creative Thinking, E-Learning, Google Classroom, Project Based Learning (PjBL)