

ABSTRAK
MEDIA PEMBELAJARAN SISTEM PERNAPASAN MAKHLUK HIDUP
BERBASIS *GAME* EDUKASI KELAS V
DI SDN 85 PALEMBANG

(Meisyah Safira Putri 2026: 131 Halaman)

Penelitian ini dilatarbelakangi oleh proses pembelajaran materi sistem pernapasan makhluk hidup di SD Negeri 85 Palembang yang masih didominasi metode ceramah dengan memanfaatkan papan tulis dan buku teks sebagai media pembelajaran. Kondisi tersebut menyebabkan pembelajaran kurang menarik, sehingga siswa cenderung mudah bosan dan kurang aktif dalam mengikuti pembelajaran. Penelitian ini bertujuan untuk merancang dan mengembangkan media pembelajaran berbasis *game* edukasi pada materi sistem pernapasan makhluk hidup bagi siswa kelas V SD Negeri 85 Palembang serta mengetahui tingkat kelayakan dan kemudahan penggunaan media yang dikembangkan. Metode pengembangan yang digunakan adalah *Game Development Life Cycle* (GDLC) yang terdiri atas tahap inisiasi, pra-produksi, produksi, pengujian, dan rilis. *Game* edukasi yang dikembangkan bernama Oxygen: Petualangan Oksigen berbasis Android dengan tiga fitur utama, yaitu menu materi, permainan, dan kuis. Pengujian dilakukan menggunakan *Black Box Testing*, validasi ahli media, serta evaluasi melalui *pre-test* dan *post-test*. Hasil penelitian menunjukkan bahwa media memperoleh validasi ahli media sebesar 90% dengan kategori “Sangat Valid”. Hasil *Black Box Testing* menunjukkan seluruh fitur dan fungsi aplikasi berjalan sesuai rancangan. Berdasarkan hasil evaluasi *pre-test* dan *post-test*, diperoleh skor rata-rata *System Usability Scale* (SUS) sebesar 76,5 dengan kategori “Baik”. Dengan demikian, *game* edukasi yang dikembangkan layak digunakan dan dapat meningkatkan pemahaman siswa terhadap materi sistem pernapasan makhluk hidup.

Kata kunci: Android, *Game* Edukasi, GDLC, IPAS, Media Pembelajaran, SUS

ABSTRACT

**LEARNING MEDIA ON THE RESPIRATORY SYSTEM OF LIVING
THINGS BASED ON EDUCATIONAL GAMES FOR GRADE V
AT SDN 85 PALEMBANG**

(Meisyah Safira Putri 2026: 131 Page)

This research is motivated by the learning process on the respiratory system of living things at SD Negeri 85 Palembang, which is still dominated by lecture methods, utilizing blackboards and textbooks as learning media. This condition makes learning less engaging, so students tend to get bored easily and are less active in participating. This study aims to design and develop educational game-based learning media on the respiratory system of living things for fifth-grade students at SD Negeri 85 Palembang and to determine the feasibility and ease of use of the developed media. The development method used is the Game Development Life Cycle (GDLC), which consists of initiation, pre-production, production, testing, and release stages. The developed educational game, called Oxygen: Petualangan Oxygen (Oxygen Adventure), is Android-based and has three main features: a material menu, games, and quizzes. Testing was conducted using Black Box Testing, media expert validation, and evaluation through pre- and post-tests. The results showed that the media received 90% media expert validation, categorized as "Very Valid." The Black Box Testing results indicated that all features and functions of the application functioned as designed. Based on the pre-test and post-test evaluation results, the average System Usability Scale (SUS) score was 76.5, categorized as "Good." Therefore, the developed educational game is suitable for use and can improve students' understanding of the respiratory system of living organisms.

Kata kunci: *Android, Educational Games, GDLC, Science, Learning Media, SUS*