

**Frans Dikky Agung Josua Manalu, NIM 4173141026 (2017). Pengembangan Video Pembelajaran 4D Dalam Mendukung Pembelajaran Daring Materi Sistem Pertahanan Tubuh Kelas XI MIA Di SMA Negeri 1 Tanjungmorawa Tahun Pembelajaran 2020/2021**

Penelitian ini bertujuan untuk melihat kelayakan dan keefektifan berdasarkan penilaian para ahli, diantaranya: ahli media, ahli materi, dan ahli Pembelajaran serta respon Guru matapelajaran biologi dan siswa Kelas XI MIA SMA Negeri 1 Tanjungmorawa terhadap video yang telah dikembangkan, Sampel penelitian ini siswa XI MIA dengan penilaian perorangan 3 orang, kelompok kecil 9 orang, kelompok terbatas 34 orang untuk melihat keefektifan video, Penelitian video Pembelajaran biologi pada materi sistem Pertahanan Tubuh termasuk jenis penelitian Pengembangan Research and Development (R&D), Pengembangan video Pembelajaran ini mengacu pada model pengembangan Thiagarajan atau model Pengembangan 4-D. Dimana model 4-D terdiri atas empat tahap, yakni define(pendefinisian), design (perancangan), development (pengembangan), dan disseminate (penyebaran). Hasil Penelitian menunjukkan bahwa penilaian pada ahli materi dikategorikan layak, penilaian terhadap ahli media pada video layak, penilaian terhadap ahli media pada video sangat layak, penilaian guru matapelajaran biologi dengan Kategori Sangat layak, respon siswa pada video pembelajaran dengan kategori sangat layak, keefektifan video Pembelajaran dikatakan cukup efektif jika dilihat dari hasil perhitungan N-gain dengan kategori sedang, Keseluruhan Video Pembelajaran Biologi yang dikembangkan sudah sangat layak dan cukup efektif untuk dijadikan sebagai sumber belajar siswa.

Kata Kunci : Research and Develop (R&D), 4-D, Media Pembelajaran, Video Pembelajaran.



## ABSTRACT

**Frans Dikky Agung Josua Manalu, NIM 4173141026 (2017). Development of 4D Learning Videos in Supporting Learning Online Materials for class XI sains Imune System at state high school 1 Tanjungmorawa Year Academic 2020/2021**

This study aims to see the feasibility and effectiveness based on the assessment of experts, including: media experts, material experts, and learning experts as well as the responses of biology learning teachers and students class XI sains of state high school 1 Tanjungmorawa to the video that has been developed. The sample of this research is students of XI MIA with an individual assessment 3 people, a small group 9 people, a limited group 34 people to see the effectiveness of the video. Research on Learning video of biology learning on Body Defense System materials, including the type of research Development Research and Development (R&D), Development of this Learning video refers to the Thiagarajan development model or 4-D Development model. Where the 4-D model consists of four stages, namely define (definition), design (design), development (development), and disseminate (dissemination). The results showed that the assessment of the material expert was categorized as feasible, the assessment of the media expert on the video was feasible, the assessment of the media expert on the video was very feasible, the assessment of the biology subject teacher was in the very appropriate category, the student's response to the learning video was in the very appropriate category, the effectiveness of the learning video. said to be quite effective when viewed from the results of the calculation of N-gain with a medium category, the entire Biology Learning Video developed was very feasible and effective enough to be used as a source of student learning.

Keywords: Research and Develop (R&D), 4-D Learning Media, Learning Video.

