

## ABSTRAK

Dodi Jonris Simamora: *Pengaruh Multimedia Interaktif Terhadap Hasil Belajar Konstruksi Jalan Dan Jembatan Siswa Kelas XIDPIB SMKN 2 Medan*. Skripsi. Fakultas Teknik Universitas Negeri Medan

Penelitian ini dilatarbelakangi oleh rendahnya capaian hasil belajar pada elemen Konstruksi Jalan dan Jembatan di SMK Negeri 2 Medan, yang antara lain dipicu penggunaan media pembelajaran yang masih dominan berupa PowerPoint sehingga kurang interaktif. Penelitian ini bertujuan menganalisis pengaruh multimedia interaktif berbasis Lectora Inspire terhadap hasil belajar siswa. Metode yang digunakan ialah *quasi experiment* dengan desain *pretest-posttest control group*. Subjek penelitian adalah 60 siswa kelas XI DPIB tahun ajaran 2025/2026, yang dibagi menjadi kelas eksperimen (XI DPIB-1) menggunakan *Lectora Inspire* dan kelas kontrol (XI DPIB-2) menggunakan PowerPoint; pengukuran dilakukan melalui tes kognitif (*pre-test* dan *post-test*). Uji prasyarat analisis menunjukkan bahwa data kedua kelompok berdistribusi normal dan homogen, sehingga memenuhi asumsi untuk analisis parametrik. Hasil *One Way ANOVA* pada skor post-test memperlihatkan perbedaan rata-rata yang signifikan antar kelompok ( $F = 39,032$ ;  $p = 0,000$ ). Lebih lanjut, uji-t independen menunjukkan thitung = 3,364 lebih besar daripada ttabel = 2,001 pada  $\alpha = 0,05$  ( $p = 0,000$ ), dengan rata-rata post-test kelas eksperimen 70,50 dan kelas kontrol 58,83 (selisih 11,67 poin). Temuan ini menegaskan bahwa penggunaan multimedia interaktif berbasis Lectora Inspire berpengaruh positif dan signifikan terhadap peningkatan hasil belajar siswa pada materi Konstruksi Jalan dan Jembatan.

**Kata Kunci:** Multimedia Interaktif, Lectora Inspire, Powerpoint, Hasil Belajar



## ABSTRACT

*Dodi Jonris Simamora: The Influence of Interactive Multimedia on the Learning Outcomes of Grade XIDPIB Students in Road and Bridge Construction at SMKN 2 Medan. Thesis. Faculty of Engineering, State University of Medan*

*This study was motivated by the low learning outcomes in the subject of Road and Bridge Construction at SMK Negeri 2 Medan, which was partly caused by the use of conventional teaching media, mainly PowerPoint, resulting in less interactive learning. The purpose of this research was to analyze the effect of interactive multimedia based on Lectora Inspire on students' learning outcomes. The method used was a quasi-experimental design with a pretest–posttest control group. The research subjects were 60 eleventh-grade students of the DPIB program in the 2025/2026 academic year, divided into an experimental class (XI DPIB-1) using Lectora Inspire and a control class (XI DPIB-2) using PowerPoint. Data were collected through cognitive tests (pre-test and post-test). The prerequisite tests indicated that both groups' data were normally distributed and homogeneous, thus fulfilling the assumptions for parametric analysis. The One Way ANOVA on post-test scores showed a significant difference between the groups ( $F = 39.032$ ;  $p = 0.000$ ). Furthermore, the independent samples t-test revealed that  $t_{count} = 3.364$  was greater than  $t_{table} = 2.001$  at  $\alpha = 0.05$  ( $p = 0.000$ ). The average post-test score of the experimental class was 70.50, compared to 58.83 in the control class, yielding a difference of 11.67 points. These findings confirm that the use of interactive multimedia based on Lectora Inspire has a positive and significant effect on improving students' learning outcomes in Road and Bridge Construction.*

**Keywords:** *Interactive Multimedia, Lectora Inspire, PowerPoint, Learning Outcomes*

