

Penerapan Pembelajaran *Interactive Lecture Demonstrations* (ILD) Berbantuan *Science Magic* untuk Meningkatkan Pemahaman Materi Tekanan dan *Attitude Towards Physics* Siswa MTs

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Abstrak

Penelitian ini bertujuan untuk mengetahui peningkatan pemahaman materi Tekanan dan *attitude towards physics*, antara siswa yang mendapatkan pembelajaran fisika dengan model ILD berbantuan *science magic* dengan siswa yang mendapatkan pembelajaran model ILD tanpa berbantuan *science magic*. Metode yang digunakan dalam penelitian adalah eksperimen semu dengan *pretest-posttest control group design*. Subyek penelitian adalah seluruh siswa kelas VIII semester genap tahun 2016/2017 pada salah satu MTs di Kota Pekalongan, Jawa Tengah dengan sampel sebanyak dua kelas yaitu kelas kontrol (N=40) dan kelas eksperimen (N=40) yang dipilih secara acak kelas. Untuk pengumpulan data pemahaman materi Tekanan dan data *attitude towards physics* digunakan instrumen tes pemahaman berbentuk pilihan ganda dan instrumen skala sikap. Untuk menentukan peningkatan pemahaman materi Tekanan dilakukan perhitungan rata-rata N-gain, sedangkan untuk menggambarkan profil *attitude towards physics* dilakukan dengan cara menghitung kuantitas siswa yang memberikan tanggapan pada setiap pernyataan yang tercakup dalam skala sikap. Hasil penelitian menunjukkan bahwa pembelajaran model ILD berbantuan *science magic* secara signifikan lebih meningkatkan pemahaman materi Tekanan dibandingkan dengan pembelajaran model ILD tanpa berbantuan *science magic*. *Attitude towards physics* siswa yang mendapatkan pembelajaran dengan ILD berbantuan *science magic* lebih meningkat dibandingkan dengan siswa yang mendapatkan pembelajaran dengan ILD tanpa berbantuan *science magic*. Disimpulkan bahwa peningkatan pemahaman materi tekanan antara siswa yang mendapatkan pembelajaran model ILD berbantuan *science magic* lebih tinggi dibanding dengan peningkatan pemahaman siswa yang mendapatkan pembelajaran model ILD tanpa berbantuan *science magic* dan peningkatan kuantitas siswa yang menyatakan ketertarikan terhadap fisika, pentingnya fisika dalam kehidupan, minat studi lanjut dalam bidang fisika, dan minat dalam karir fisika lebih tinggi di kelas yang diterapkan model pembelajaran ILD berbantuan *science magic* dibanding dengan peningkatan kuantitas siswa di kelas yang diterapkan model pembelajaran ILD tanpa berbantuan *science magic*.

Kata Kunci: *science magic*, *Interactive Lecture Demonstrations*, pemahaman, *attitude towards physics*, siswa MTs.

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The Application of Interactive Lecture Demonstration (ILD) Using Science Magic to Improve MTs (Islamic Junior High School) Students' Understanding of Lesson on Pressure and Attitude towards Physics

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Abstract

This study aims at investigating the improvement of the understanding of lesson on Pressure and attitude towards physics between students who have received physics lesson through the application of ILD model using science magic and students who have received the lesson through the application of ILD without using science magic. Method used in this study was quasy experiment with pretest-posttest control group design. The subject of this study was all students of grade VIII at even semester year 2016/2017 in one of MTs (Islamic Junior High School) in the city of Pekalongan, Central Java. The samples were two classes consisting of control class (N=40) and experiment class (N=40) which were selected randomly. Test of understanding instrument in the form of multiple choices and scale of attitude instrument were used in order to collect the data of the understanding of lesson on pressure and attitude towards physics. The calculation of N-gain average was used to determine the improvement of lessson on pressure understanding . Meanwhile, in order to describe the profile of attitude towards physics, the number of students who have responded any question covered in attitude scale was calculated. The research result shows that learning through ILD model using science magic more significantly improves students' understanding of lesson on pressure than the ILD learning without using science magic. Attitude towarda physics of students who received the lesson through ILD using science magic improves better than that of students who received the lesson through ILD without using science magic. In conclusion, the improvement of the understanding of lesson on pressure between students receiving lesson through ILD using science magic is higher than that of students receiving lesson through ILD without using science magic. Moreover, the increase of number of students expressing their interest in physics, stating the importance of physics in life, expressing their interest in continuing further study in physics field and interest in having a career in physics field is higher in the class applying ILD learning using science magic than that of students in class applying ILD learning without usinh science magic.

Keywords: *science magic, Interactive Lecture Demonstrations, understanding, attitude towards physics, students of MTs (Islamic junior high school)*

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