

PENGEMBANGAN VIDEO PEMBUKTIAN HIPOTESIS DALAM MODEL PEMBELAJARAN BERBASIS MASALAH PADA TOPIK LAJU REAKSI

Oleh:

Muhammad Yusran, NIM 1613031036

Program Studi Pendidikan Kimia

Jurusan Kimia

ABSTRAK

Tujuan penelitian ini untuk mengembangkan dan mendeskripsikan spesifikasi dari produk video pembuktian hipotesis yang melengkapi unit-unit tautan presentasi video eksperimen dalam LKPD PBL topik laju reaksi yang mengakomodasi pendekatan saintifik, sebagai hasil penelitian dan pengembangan (R&D) dengan mengaplikasikan model pengembangan Luther. Instrumen yang digunakan dalam penelitian ini, di antaranya daftar cek studi dokumen, pedoman wawancara, dan lembar penilaian produk. Spesifikasi produk yang dikembangkan yakni produk 1) mengikuti urutan sintak *Problem Based Learning* dengan mengakomodasi aspek-aspek kegiatan saintifik 5M (mengamati, menanya, mengumpulkan data, mengasosiasi, dan mengomunikasikan), 2) mengikuti pola penalaran induktif, 3) dilengkapi potongan video eksperimen pembuktian hipotesis topik laju reaksi yang memfasilitasi unit LKPD PBL, dan dilengkapi *hyperlink*, gambar, animasi serta video fenomena. Validasi oleh para ahli menghasilkan persentase rata-rata penilaian sebesar 95,00 ; 92,85; dan 89,58 % masing-masing dari ahli isi, ahli media, ahli bahasa, serta 89,42 dan 90,38% masing-masing dari praktisi 1 dan 2. Berdasarkan persentase rata-rata penilaian tersebut, produk video pembuktian hipotesis dalam unit tautan presentasi video eksperimen dalam LKPD PBL hasil pengembangan memperoleh validitas sangat baik. Hasil uji keterbacaan produk oleh siswa menunjukkan respon positif dengan hasil pengisian LKPD menunjukkan siswa telah mampu mengisi tagihan yang diberikan serta komentar mengenai arahan, tulisan dan isi LKPD dalam unit pembelajaran serta video dapat dibaca dengan jelas oleh siswa.

Kata kunci : video eksperimen pembuktian hipotesis, lembar kerja peserta didik, model *Problem Based Learning*, 5M saintifik-induktif, laju reaksi.

DEVELOPMENT OF HYPOTHESIS TESTING VIDEO IN PROBLEM-BASED LEARNING MODELS ON THE TOPIC RATE OF REACTION

By:

Muhammad Yusran. NIM 1613031036

Chemistry Education Study Program

Chemistry Department

ABSTRACT

The purpose of this study was to develop and describe the specifications of the video product of hypothesis testing to complement the link units for the video presentation experiments in the PBL LKPD on the topic of reaction rates by accommodating a scientific approach, as a result of research and development (R&D) by applying the Luther learning media development model. The instruments used in this study included document study checklists, interview guidelines, and product assessment sheets. The specifications of the product developed are the products 1) follow the syntax sequence of Problem Based Learning by accommodating aspects of 5M scientific activity (observing, questioning, collecting data, associating, and communicating), 2) follow patterns of inductive reasoning, 3) are equipped with experimental video snippets testing the hypothesis of the topic of reaction rate which facilitates the PBL LKPD unit, and are equipped with hyperlinks, pictures, phenomena videos and submicroscopic animation videos. Validation by experts produces an average percentage of 95.00; 92.85; and 89.58%, respectively from content experts, media experts, linguists, and 89.42 and 90.38%, respectively from practitioners 1 and 2. Based on the average percentage of these assessments, video product testing the hypothesis in units of the experimental video presentation link in the development results of the PBL LKPD obtained very good validity. The results of the product readability test by students showed a positive response with the results of filling in the LKPD indicating that students had been able to fill in the forms given and comments regarding the directions, writing, and contents of the LKPD in learning units and videos could be seen clearly by students.

Keywords: *experimental video testing the hypothesis, student worksheets, Problem Based Learning model, 5M scientific-inductive, reaction rate.*