

## ABSTRAK

**PENGEMBANGAN MEDIA PEMBELAJARAN BERBASIS  
AUGMENTED REALITY PADA TOPIK  
ASAM BASA DI SMA**

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Penggunaan media pembelajaran yang terbatas pada materi asam basa membuat peserta didik di SMAN 7 Yogyakarta merasa kurang tertarik dan mengalami kesulitan belajar. Sebanyak 96,8% peserta didik juga belum pernah menggunakan *Augmented Reality* dalam pembelajaran kimia. Oleh karena itu, perlu dikembangkan media pembelajaran berbasis *Augmented Reality*. Penelitian ini bertujuan untuk: (1) menghasilkan produk berupa media pembelajaran berbasis *Augmented Reality* pada topik asam basa di SMA yang sesuai dengan model pengembangan ADDIE dan (2) mengetahui validitas, kepraktisan, dan efektivitas produk pada topik asam basa di SMA. Penelitian ini merupakan *Research and Development* dengan model pengembangan ADDIE. Instrumen penelitian berupa butir soal *posttest* dan angket respon yang divalidasi oleh Ahli Media, Ahli Materi dan Guru Kimia. Pemilihan responden dilakukan dengan metode *purposive sampling* dan melibatkan 10 orang peserta didik kelas XI MIPA sebagai sampel penelitian. Analisis data dilakukan menggunakan statistik Aiken's V dan deskriptif. Hasil penelitian menunjukkan bahwa: (1) produk cocok dikembangkan dengan model ADDIE karena memiliki tahapan yang sistematis dan sederhana dan (2) produk telah memenuhi kriteria valid dengan perolehan rata-rata persentase yaitu 79,45%; kriteria praktis yang diperoleh melalui respon peserta didik dengan rata-rata persentase sebesar 74,33%; dan rata-rata persentase nilai *posttest* sebesar 85% yang mengindikasikan produk termasuk dalam kriteria sangat efektif. Produk dapat digunakan sebagai alternatif media pembelajaran yang dapat membantu pemahaman peserta didik pada subtopik teori asam basa dan indikator asam basa.

**Kata kunci:** Media Pembelajaran, *Augmented Reality*, Asam Basa

**ABSTRACT****DEVELOPMENT OF AUGMENTED REALITY-BASED LEARNING  
MEDIA ON THE TOPIC OF ACID-BASE  
AT SENIOR HIGH SCHOOL**

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*The use of learning media that is limited on acid-base makes students at SMAN 7 Yogyakarta feel less interested and have learning difficulties. As many as 96.8% of students have also never used Augmented Reality in chemistry learning. Therefore, it is necessary to develop Augmented Reality-based learning media. This research aims to: (1) create product in the form of Augmented Reality-based learning media on the topic of acid-base at senior high school that are in accordance with the ADDIE development model and (2) know the validity, practicality, and effectiveness of product on the topic of acid-base at senior high school. This study is Research and Development which refers to ADDIE development model. Research instruments were posttest questions and response questionnaire are validated by Media Expert, Material Expert, and Chemistry Teacher. The selection of respondents was carried out using purposive sampling method and involved 10 students of XI MIPA class as sample. Data analysis were performed using Aiken's V statistic and descriptive. The results showed that: (1) product is suitable to be developed with ADDIE model because it has systematic and simple stages, and (2) product has fulfilled valid criteria with average percentage gain of 79.45%; practical criteria obtained through the response of students with average percentage of 74.33%; and average percentage of posttest result was 85% that indicating product is included in the criteria of very effective. Product can be used as alternative learning media that can help students understand the subtopics of acid-base theories and acid-base indicators.*

**Keywords :** Learning Media, Augmented Reality, Acid-Base