DEVELOPING PHYSICS LEARNING MEDIA "READ PRO" ON BLACK BODY RADIATION FOR BILINGUAL EDUCATION IN SENIOR HIGH SCHOOL

A THESIS

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Surabaya, July27th, 2012

The writer

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ABSTRACT

THERESIA ANATA: "Developing Physics Learning Media "READ PRO" on Black Body Radiation for Bilingual Education in Senior High School." Advisors: **Drs. I Nyoman Arcana, M.Si** and **J.V. DjokoWirjawan, Ph.D.**

Nowadays, we enter globalization era that impacts our life in some aspects, such as: Technology, Knowledge, Education, Language, etc. English as a communication language, a lot of books are written in English, and bilingual education curriculums are some of the effects of globalization era that we have to face. There are a lot of bilingual books in the bookstore but there is rarely bilingual media in it. A need of bilingual media is the reason to do this research. READ PRO bilingual education is the answer to solve those problems. READ PRO stands for REading, Animation, Dictionary, PROnunciation. Reading contains the material or the theory, animation shows the process that we have to learn to be more understand, dictionary will help users when the users do not know the meaning of some difficult words, and pronunciation guides the users to pronounce the words well.

The research method is Research Instruction Improvement (RII). There were 120 students involved in the try out. Based on the response of the students to the questionnaire given after they completed the try out, we found that 92.42 % of the students agreed that READ PRO bilingual

Physics learning media is useful. Therefore, we may conclude that the READ PRO has been developed successfully.

Keywords : blackbody radiation, READ PRO bilingual education, media

ABSTRAK

THERESIA ANATA: "Pengembangan Media PembelajaranFisika "READ PRO" PadaPokokBahasanRadiasi Benda HitamUntukPembelajaran Bilingual di SekolahMenemgahAtas ". Dibimbingoleh:**Drs. I Nyoman Arcana, M.Si**dan**J.V. DjokoWirjawan, Ph.D.**

Dengan bertambahnya jumlah sekolah nasional plus, dirasakan perlunya media pembelajaran fisika bilingual. Media pembelajaran fisika pada topik radiasi benda hitam sangat terbatas dan umumnya tersedia dalam bahasa Inggris. Masih belum tersedia media pembelajaran fisika yang sepenuhnya merupakan media pembelajaran bilingual pada topik tersebut. Penelitian ini dilakukan untuk merespons kebutuhan tersebut. Media pembelajaran yang dikembangkan, READ PRO, mengakomodasi REading, Animation, Dictionary, dan PROnunciation dalam satu paket media pembelajaran. Komponen reading menampilkan teks bacaan tentang teori radiasi benda hitam, animation menampilkan proses fisika untuk membantu pemahaman teori, dictionary untuk menampilkan arti kata-kata sukar dalam bacaan, dan pronunciation untuk memperdengarkan bagaimana pengucapan kata-kata yang muncul dalam bacaan secara tepat.

Metode penelitian yang digunakan adalah penelitian pengembangan. Hasil penelitian ini berupa media pembelajaran interaktif berbasis computer yang berisi penjelasan tentang radiasi benda hitam, animasi, kamus, dan pengucapannya. Uji lapangan dilakukan di SMA St. Louis 1 Surabaya, SMAN 6 Surabaya, dan SMAK Santo Carolus Surabaya. Berdasarkan hasil angket diperoleh 92, 42% siswa menyatakan bahwa media ini baik dan bermanfaat.

Kata kunci : radiasi benda hitam, READ PRO, media pembelajaran fisika bilingual