PENGEMBANGAN KIT PRAKTIKUM KIMIA SMA PADA MATERI LARUTAN ELEKTROLIT DAN NON ELEKTROLIT

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ABSTRAK

Praktikum memiliki peranan penting dalam pembelajaran kimia, melalui praktikum siswa dapat membuktikan teori atau konsep kimia serta dapat melatih sikap dan keterampilan sains. Kendala dalam kegiatan praktikum diantaranya adalah kurangnya alat dan bahan praktikum serta keterbatasan waktu. Penelitian ini bertujuan mengembangkan kit praktikum kimia SMA pada materi larutan elektrolit dan non elektrolit yang teruji valid dan praktis. Kit praktikum dikembangkan melalui model pengembangan *four*-D, yang hanya dibatasi pada tahap *Define* untuk menentukan permasalahan, solusi, serta syarat-syarat pengembangan kit praktikum; tahap *Design* untuk merancang kit praktikum serta komponen pendukung; dan tahap *Develop* untuk menghasilkan kit praktikum. Uji validitas kit praktikum ditinjau dari segi isi dan konstruksi dilakukan berdasarkan penilaian dari satu orang ahli dan dua orang praktisi. Uji kepraktisan kit praktikum ditinjau dari respon siswa dan keterlaksanaan praktikum yang dilaksanakan oleh enam orang siswa pada uji coba terbatas. Produk pengembangan berupa kit praktikum kimia SMA pada materi larutan elektrolit dan non elektrolit yang berisi petunjuk penggunaan kit, petunjuk praktikum, keterangan alat dan bahan, serta alat uji daya hantar listrik larutan yang dimodifikasi. Hasil validasi kit praktikum ditinjau dari segi isi dan konstruksi sebesar 3,734 sesuai kriteria sangat valid. Hasil respon siswa terhadap kit praktikum dan penggunaannya sebesar 3,77 sesuai kriteria sangat praktis. Hasil keterlaksanaan praktikum sebesar 89,72% sesuai kriteria terlaksana sangat baik. Berdasarkan hasil tersebut, kit praktikum kimia SMA pada materi larutan elektrolit dan non elektrolit sangat valid dan sangat praktis digunakan untuk menunjang praktikum kimia di sekolah. Uji coba secara luas perlu dilakukan untuk mengetahui keefektifan produk dalam proses pembelajaran.

Kata Kunci**:** kit praktikum kimia, larutan elektrolit dan non elektrolit, praktis, valid.

DEVELOPMENT OF HIGH SCHOOL CHEMISTRY PRACTICE KIT ON ELECTROLYTE AND NON ELECTROLYTE SOLUTIONS MATERIAL

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ABSTRACT

Practice has important role in chemistry learning, through practice students can prove chemistry theory or concept and can train science attitudes and skills. Constraints in practice activities include the lack of tools and materials for practice and limited time. This study aims to develop high school chemistry practice kit for electrolyte and non electrolyte solutions material that tested valid and practical. Practice kit was developed through four-D development model, which was only limited on Define stage to determine problems, solutions, and terms for practice kit development; Design stage for designing practice kit and supporting components; and Develop stage to produce practice kit. The validity test of the practice kit in terms of content and construction was carried out based on the assessments of one expert and two practitioners. The practicality test of the practice kit in terms of student responses and practice implementation was carried out by six students in limited trial. The development product is high school chemistry practice kit on electrolyte and non electrolyte solutions material which contains instructions for using the kit, practical instructions, description of tools and materials, and modified solution electrical conductivity test equipment. The result of the validation practice kit in terms of content and construction was 3.734 according to very valid criteria. The result of student responses to the practice kit and its use was 3.77 according to very practical criteria. The result of practice implementation was 89.72% according to implemented very well criteria. Based on these results, high school chemistry practice kit on electrolyte and non electrolyte solutions material is very valid and very practical to support chemistry practice in schools. Extensively trials needs to be done to determine the effectiveness of the product in the learning process.

Keywords**:** chemistry practice kit, electrolyte and non electrolyte solutions, practical, valid.