

ABSTRAK

Anggi Desviana Siregar : **Pengembangan Modul Terintegrasi *Project Based Learning* Berbantuan Media Komputasi *Hyperchem* Pada Materi Bentuk Molekul sesuai Kurikulum Kerangka Kualifikasi Nasional Indonesia (KKNI)**. Tesis. Medan: Program Studi Pendidikan Kimia, Pascasarjana Universitas Negeri Medan. 2018.

Penelitian ini bertujuan untuk mengetahui kelayakan bahan ajar materi bentuk molekul yang digunakan di universitas sesuai kriteria yang ditetapkan oleh BSNP, memperoleh modul terintegrasi *project based learning* berbantuan media komputasi *hyperchem* pada materi bentuk molekul sesuai kurikulum kerangka kualifikasi nasional indonesia (KKNI), mengetahui peningkatan hasil belajar mahasiswa dan respon mahasiswa terhadap modul yang dikembangkan. Penelitian ini termasuk penelitian pengembangan (*research and development*) dengan model pengembangan model *Analysis-Design-Development-Implementation-Evaluation* (ADDIE). Sampel dipilih menggunakan teknik *purposive sampling*. Sampel dalam penelitian ini adalah dua bahan ajar kimia yang biasa digunakan pada mata kuliah konsep dasar kimia FMIPA UNIMED dan dua kelas di jurusan FMIPA UNIMED sebanyak 60 mahasiswa. Instrumen yang digunakan pada penelitian adalah lembar uji kelayakan modul berdasarkan BSNP, tes hasil belajar mahasiswa yang akan dianalisis menggunakan uji *Independent Sample T-test* pada program SPSS 21.0 *for windows* dan lembar observasi respon mahasiswa. Hasil penelitian menunjukkan bahwa (1) Tingkat kelayakan bahan ajar kimia A dan B pada materi bentuk molekul layak digunakan, namun masih terdapat kekurangan-kekurangan pada setiap buku sehingga perlu dilakukan pengembangan, (2) Hasil penilaian validator terhadap modul terintegrasi *project based learning* berbantuan media komputasi *hyperchem* pada materi bentuk molekul sesuai KKNI diperoleh nilai rata-rata keseluruhan sebesar 3,64 yang dinyatakan sangat layak untuk digunakan mahasiswa dan tidak perlu dilakukan revisi, (3) Terdapat perbedaan hasil belajar mahasiswa yang menggunakan modul terintegrasi *project based learning* berbantuan media komputasi *hyperchem* pada materi bentuk molekul sesuai KKNI dengan menggunakan bahan ajar pegangan mahasiswa, (4) Respon mahasiswa terhadap penggunaan modul yang dikembangkan dalam pembelajaran tergolong sangat baik dengan rata-rata sebesar 87 %.

Kata Kunci: modul bentuk molekul, model pjbl, *hyperchem*, hasil belajar

ABSTRACT

Anggi Desviana Siregar. Nim 8166141002. Development of Module Integrated Project Based Learning assisted Hyperchem Computing Media on molecular shape topic based Indonesian National Qualifications Framework Curriculum. Thesis. Medan: Chemistry Education Departement, Postgraduate of Universitas Negeri Medan, 2018.

The aims of the research to know the feasibility of learning materials on molecular shape topic that are used in the university according to the criteria set by BSNP, to obtain module integrated project based learning assisted hyperchem computing media on molecular shape topic according indonesian national qualifications framework curriculum, to know improvement of student learning outcomes for the use of developed modules and to know the students's responses for developed modules. This research includes research and development of model ADDIE design. Sample selection using purposive sampling technique. The sample in this research are two chemical teaching materials commonly used in the basic chemistry concept of FMIPA UNIMED and two classes in FMIPA UNIMED department as many as 60 students of semester 1. The instrument used in this research is the feasibility test of the module based on BSNP, the test of student learning result which will be analyzed by using Independent Sample T-test test on SPSS 21.0 for windows program and student response questionnaire. The results showed that (1) The level of the feasibility of chemistry A and B materials on molecular form material is valid, but there are still deficiencies in each book so it needs to be developed, (2) The result of the validator's evaluation of the module integrated project based learning assisted hyperchem computing media on molecular shape topic according indonesian national qualifications framework curriculum obtained the overall average value of 3.64 which is declared very feasible for student use and no need to revised, (3) There is difference of result of student learning using developed module with student learning outcomes using student teaching materials, (4) Student's response to the use of developed module were very good category (87%).

Kata Kunci: molecular form modules, pjbl model, hyperchem, learning outcomes