ABSTRAK

NUR'AINI, Pengembangan Multimedia *Lectora Inspire* Terintegrasi *Problem Based Learning* pada Topik Karbohidrat untuk Mahasiswa Program Studi Agroteknologi, Tesis, Medan: Program Studi Pendidikan Kimia, Pascasarjana Universitas Negeri Medan, 2019.

Penelitian ini bertujuan untuk mengetahui tingkat kelayakan media pembelajaran yang digunakan di Program Studi Agroteknologi pada topik karbohidrat berdasarkan standar SNPT terintegrasi media komputer interaktif dan *Problem Based Learning* (PBL), untuk mengetahui tingkat kelayakan multimedia yang telah dikembangkan menggunakan *Lectora Inspire* Terintegrasi PBL pada topik karbohidrat berdasarkan standard kelayakan yang sama, untuk mengetahui perbedaan peningkatan hasil belajar dan motivasi mahasiswa yang dibelajarkan menggunakan multimedia pada topik karbohidrat yang telah dikembangkan dibandingkan dengan peningkatan hasil belajar dan motivasi mahasiswa yang dibelajarkan menggunakan media pembelajaran yang digunakan di Program studi Agroteknologi, dan untuk mengetahui hubungan positif antara motivasi dengan peningkatan hasil belajar mahasiswa. Jenis penelitian ini menggunakan metode Research and Development dengan model *ADDIE (Analysis, Design, Development, Implementation and Evaluation)*. Populasi dalam penelitian ini adalah seluruh mahasiswa semester II yang mengambil mata kuliah biokimia di Program Studi Agroteknologi UMA. Sampel mahasiswa dalam penelitian ini diambil secara *total sampling* yaitu sebanyak 2 kelas yang berjumlah 60 orang. Pengembangan multimedia lectora inspire terintegrasi PBL diterapkan di kelas eksperimen II dan media pembelajaran yang beredar Program Studi Agroteknologi terintegrasi PBL diterapkan di kelas eksperimen II. Hasil penelitian menunjukkan bahwa: (1) media pembelajaran yang digunakan di prodi Agroteknologi pada topik karbohidrat layak digunakan tapi perlu dikembangkan; (2) multimedia pembelajaran yang telah dikembangkan menggunakan *Lectora Inspire* terintegrasi PBL pada topik karbohidrat sangat layak digunakan berdasarkan standar SNPT terintegrasi media komputer interaktif dan PBL (3,75; 3,48; dan 3,38); (3) peningkatan hasil belajar di kelas eksperimen I berbeda dengan kelas eksperimen II (0,74 > 0,64); (4) motivasi belajar mahasiswa di kelas eksperimen I berbeda dengan kelas eksperimen II (83,53 > 66,50); (5) terdapat hubungan positif antara motivasi belajar terhadap peningkatan hasil belajar mahasiswa pada topik karbohidrat, dimana hubungan di kelas eksperimen I (r = 0,481) lebih baik daripada di kelas eksperimen II (r = 0.420).

Kata Kunci: agroteknologi, karbohidrat, lectora inspire, multimedia, problem based learning.

ABSTRACT

NUR'AINI, Development of Multimedia Lectora Inspire Integrated Problem Based Learning On Carbohydrate Topic for Program Study Agrotechnology Students, Thesis, Medan: Master of Chemistry Education. Postgraduate at Universitas Negeri Medan, 2019.

This research was aimed to know the level of feasibility of learning media by used at Program Study Agrotechnology on carbohydrate topic based on the standard SNPT integrated feasibility of media computer interactive and Problem Based Learning (PBL), to know the feasibility level of multimedia that developed by using Lectora Inspire integrated PBL on carbohydrate topic based on the same standard, to know the difference of students achievements and student's motivations that were taught by mutimedia on carbohydrate topic compared to the results of students achievements and student's motivations that were taught by learning media that used in Program Study Agrotechnology, and to know positive correlation between the learning motivation with gain. This research type was Research and Development method that used ADDIE (Analysis, Design, Development, Implementation and Evaluation). Population in this research was all students of semester II who taken biochemistry courses in Program Study Agrotechnology UMA. The samples were totally selected and divided into 2 classes as many as 60 students. Development of multimedia lectora inspire integrated PBL was used in the experimental class I while the learning media that used in Program Study Agrotechnology integrated PBL was used in the experimental class II. Data were analyzed using descriptive method and statistical analysis with independent sample t-test. The results showed that: (1) learning media by used at Program Study Agrotechnology on carbohydrate topic is feasible to used but needs to be developed; (2) multimedia that have been developed by using Lecora Inspire integrated PBL on carbohydrate topic is very feasible to used and appropriate to the standard SNPT integrated feasibility of media computer interactive and PBL (3,75; 3,48; and 3,38); (3) students achievements in experimental class I was found higher than that in experimental class II (0,74 > 0,64), where both are significantly different; (4) student's motivations in experimental class I was higher than that in experimental class II (83,53 > 66,50); (5) there is positive correlation between student's motivations with students achievements on carbohydrate topic, where the correlation in experimental class I ($r = 0,481$) is better than in experimental class II ($r = 0.420$).

Keywords : *agrotechnology, carbohydrate, lectora inspire, multimedia, problem based learning.*