ABSTRAK

SRI WIDAYATI. Peranan Laboratorium Biologi terhadap Peningkatan Psikomotorik Siswa rnenggunakan alat-alat Praktikum Biologi kelas XI (IPA) di MAN Yogyakarta 1. **Thesis Yogyakarta. Program Pascasarjana Universitas Negeri Yogyakarta. 2014.**

Penelitian ini bertujuan mengetahui: (1) peranan laboratorium biologi didalam meningkatkan keterampilan psikomotorik siswa; (2). kemampuan psikomotorik siswa didalam menggunakan peralatan laboratorium; dan (3) pengaruh keterampilan psikomotorik siswa didalam observasi fase-fase reproduksi pada mencit / tikus melalui apusan ulas vagina.

Penelitian ini merupakan penelitian deskriptif kuantitatif, untuk mengukur kemampuan siswa didalam penggunaan alat-alat praktikum Biologi. Penelitian ini dilakukan di MAN Yogyakarta I. Subyek penelitian meliputi para siswa kelas XI IPA di MAN Yogyakarta I sebanyak 33 orang. Pengumpulan data dilakukan dengan menggunakan tes yaitu pre test dan post test serta angket-angket ketrampilan psikomotorik siswa di dalam menggunakan alat-alat laboratorium IPA. Data kuantitatif diolah secara deskriptif menggunakan bantuan SPSS 12,00 for Windows.

Hasil penelitian menunjukkan nilai rata-rata pre test 5,62 lebih rendah dari nilai rata-rata post test 8,04 dan nilai minimal pada pre test 4,00 sedangkan nilai maksirnal pada pre test 6,50, tetapi setelah melakukan kegiatan praktikmn pada nilai terendah (minimum) post test 7,50 dan nilai tertinggi post test 9,00, artinya kesiapan siswa dalarn kegiatan praktikurn sebelum praktikum masih kurang (lemah) tetapi setelah kegiatan melakukan praktikum (sudah mendapat pengalaman pengetahuan) kesiapan siswa meningkat/tinggi. Nilai ketrampilan psikomotorik siswa dalam pemakaian alat nilai minimum 80,67 (baik) dan nilai maximum 88,33 (sangat baik), nilai rata-rata 85,43 (sangat baik) dengan standart deviasi 1,98. Nilai ketrampilan psikomotorik siswa didalam pengambilan obyek penelitian nilai minimum 60,00 dan nilai maximum 88,67 dengan nilai rata-rata 84,56, standart deviasi 5,27. Ketrampilan psikomotorik siswa didalam pemakaian bahan kimia nilai minimum 78,50 (baik) dan nilai maximum 90,00 (sangat baik) dan standart deviasi 3,37. Ketrampilan psikomotorik siswa didalam memunculkan gejala nilai minimum 81,67 (baik), nilai maximum 87,50 (sangat baik) nilai rata-rata 85,61 (sangat baik), standart deviasi 1,49. Ketrampilan psikomotorik siswa didalam memelihara alat nilai minimum 86,50 (sangat baik), nilai maximum 92,50 (sangat baik), nilai rata-rata 89,47. Hasil observasi obyek penelitian nilai minimum 76,00 (baik) dan nilai maximum 92,00 (sangat baik), nilai rata-rata 86,82 (sangat baik) dengan standart deviasi 4,54. Nilai hasil observasi/pengamatan obyek nilai minimal terendah 76,00, nilai maximal tertinggi 82,00 dan rata-rata 86,82 sedangkan simpangan baku 4,54.

Kata Kunci: *peranan laboratorium biologi, keterampilan psikomotorik siswa, , fase reproduksi pada tikus/mencit melalui apusan ulas vagina*

ABSTRACT

SRI WIDAYATI: *The Roles of the Biology Laboratory in the Improvement of Psychomotor Skills in Using Biology Practicum Apparatus among Grade XI Students of Natural Sciences in MAN Yogyakarta 1*. **Thesis. Yogyakarta: Graduate School, Yogyakarta State University, 2013.**

This study aims to investigate: (1) the roles of the biology laboratory in the improvement of students' psychomotor skills, (2) their psychomotor skills in using laboratory apparatus, and (3) the effect of their psychomotor skills in observing the reproduction phases in a mouse/rat through the vagina segments.

This was a quantitative descriptive study to investigate students' capability to use biology practicum apparatus. The study was conducted in MAN Yogyakarta 1. The research subjects were Grade XI students of Natural Sciences in MAN Yogyakarta 1 with a total of 33 students. The data were collected through tests, namely a pretest and a posttest, and questionnaires for the students' psychomotor skills in using apparatus in the laboratory of Natural Sciences. The quantitative data were descriptively analyzed using the program of SPSS 12.00 for Windows.

The results of the study showed that the pretest mean score was 5.62, lower than the posttest mean score, which was 8.04, and the minimum pretest score was 4.00 while the maximum pretest score was 6.50. However, after the practicum activities, the minimum posttest score was 7.50 and the maximum posttest score was 9.00, indicating that the students' readiness for the practicum activities was still low, but after the practicum activities (through experience and knowledge), their readiness improved or was high. The students' psychomotor skills in using apparatus attained a minimum score of 80.67 (good) and a maximum score of 88.33 (very good), with a mean score of 85.43 (very good) and a standard deviation of 1.98. Their psychomotor skills in selecting research objects attained a minimum score of 60.00 and a maximum score of 88.67, with a mean score of 84.56 and a standard deviation of 5.27. Their psychomotor skills in using chemical substances attained a minimum score of 78.50 (good) and a maximum score of 90.00 (very good) with a standard deviation of 3.37. Their psychomotor skills in generating phenomena attained a minimum score of 81.67 (good) and a maximum score of 87.50 (very good), with a mean score of 85.61 (very good) and a standard deviation of 1.49. Their psychomotor skills in maintaining apparatus attained a minimum score of 86.50 (very good) and a maximum score of 92.50 (very good), with a mean score of 89.47. The results of the observations on the research object attained a minimum score of 76.00 (good) and a maximum score of 92.00 (very good), with a mean score of 86.82 (very

good) and a standard deviation of 4.54. The results of the observations on the object attained a minimum score of 76.00, a maximum score of 82.00, and an average score of 86.82, while the standard deviation was 4.54.