

## ABSTRAK

**Tini Rosalia Gultom**, Pengembangan Penuntun Praktikum Ekologi Tumbuhan Berbasis Literasi Sains. Tesis. Program Pascasarjana Universitas Negeri Medan 2016.

Penelitian ini bertujuan untuk mengetahui tingkat kelayakan; (1) Penuntun praktikum Ekologi Tumbuhan Berbasis Literasi Sains sebagai batang tubuh pengetahuan (*a body of knowledge*); (2) Penuntun praktikum Ekologi Tumbuhan Sains sebagai cara untuk menyelidiki (*way of investigating*); (3) Penuntun praktikum Ekologi Tumbuhan Sains sebagai cara berfikir (*way of thinking*); (4) Penuntun praktikum Ekologi Tumbuhan Interaksi sains, teknologi dengan masyarakat (*interaction of science, tecnology and society*) menurut tim ahli materi, ahli desain dan mahasiswa biologi Universitas Negeri Medan. Jenis penelitian ini adalah penelitian pengembangan produk model Borg and Gall, yang dimodifikasi sesuai kebutuhan. Model ini meliputi enam tahapan, yaitu (1) Melakukan penelitian pendahuluan; (2) Perencanaan produk; (3) Pengumpulan bahan; (4) Pengembangan produk awal; (5) Validasi produk, (6) Revisi dan Uji Coba. Subjek uji coba terdiri dari tim ahli materi, tim ahli desain, 3 (tiga) mahasiswa Prodi Pendidikan biologi uji coba perorangan, 9 (sembilan) mahasiswa Prodi Pendidikan biologi uji coba kelompok kecil, 20 mahasiswa Prodi Pendidikan biologi uji coba kelompok terbatas. Data yang dikumpulkan berupa angket. Data dianalisis dengan tehnik deskriptif kualitatif dan kuantitatif. Hasil penelitian pengembangan penuntun praktikum berbasis literasi sains menurut tim ahli materi (dua) menunjukkan bahwa tingkat kelayakan Penuntun praktikum Ekologi Tumbuhan Berbasis Literasi Sains (1) Sebagai batang tubuh pengetahuan (*a body of knowledge*) “sangat baik” (91,07%); (2) Sebagai cara untuk menyelidiki (*way of investigating*) “sangat baik” (100%); (3) Sebagai cara berfikir (*way of thinking*) “sangat baik” (92,18%); (4) Interaksi sains, teknologi dengan masyarakat (*interaction of science, tecnology and society*) dan refleksi diri “sangat baik” (96,87%); (5) menurut tim ahli desain “sangat baik” 92,10%; (6) Uji coba perorangan berada pada kriteria “sangat baik” (82,70%); Uji coba kelompok kecil berada pada kriteria “sangat baik” (91,02%); Uji coba kelompok terbatas berada pada kriteria “sangat baik” (94,97%). Berdasarkan data tersebut produk penuntun praktikum Ekologi Tumbuhan Berbasis Literasi Sains yang sudah dikembangkan layak digunakan untuk mahasiswa sebagai penuntun praktikum pada mata kuliah Ekologi Tumbuhan. Mengingat penelitian ini hanya dilakukan sampai uji kelompok lapangan terbatas maka untuk mengetahui keefektifitasnya penuntun praktikum Ekologi Tumbuhan perlu dilakukan penelitian lebih lanjut.

Kata Kunci : Pengembangan Penuntun praktikum, Ekologi Tumbuhan, Literasi sains

## ABSTRACT

**Tini Rosalia Gultom**, Developing Practical Guidance Based Plant Ecology Science Literacy. Thesis. Medan State University Graduate Program in 2016.

This study aims to determine the feasibility level; (1) Guidance practicum Plant Ecology-Based Literacy Science as a body of knowledge (*a body of knowladg*); (2) Guidance practicum Plant Ecology Science as a way to investigate the (*way of Investigating*); (3) Guidance practicum Plant Ecology Science as a way of thinking (*way of thinking*); (4) Guidance practicum Plant Ecology interaction of science, technology with society (*interaction of science, tecnology and society*) by a team of subject matter experts, expert design and biology student, State University of Medan, type of research is the development of product models Borg and Gall, modified as needed. this model includes six stages, namely (1) Conduct a preliminary study; (2) Planning of product; (3) the collection of materials; (4) Development of the initial product; (5) Validation of products, (6) revision and test. subject test consists of a team of subject matter experts, a team of experts design, three students Prodi Education biology individual testing, nine students Prodi Education biology small group trial, twenty students Prodi Education biology test limited group. Data collected in the form of a questionnaire. Data were analyzed with descriptive qualitative and quantitative techniques. Results of research development lab-based science literacy guide by a team of subject matter experts (two) shows that the level of practical feasibility Guidance Based Plant Ecology Science Literacy (1) As a body of knowledge (*a body of knowladge*) "excellent" (91.07%); (2) As a way to investigate the (*way of Investigating*) "excellent" (100%); (3) As a way of thinking (*way of thinking*) "excellent" (92.18%); (4) The interaction of science, technology with society (*interaction of science, tecnology and society*) and self-reflection "very good" (96.87%); (5) by a team of experts to design "very good" 92.10%; (6) The trial of individuals currently on the criteria of "very good" (82.70%); Small group trial was on the criteria of "very good" (91.02%); Limited group trial was on the criteria of "very good" (94.97%). Based on these data the guiding product practicum Plant Ecology Science-Based Literacy already developed a decent used as a guide for student practicum course on Plant Ecology. Given this research is only done to a limited group test field then to determine their effectiveness Plant Ecology practical guidance necessary to study further.

Keywords : *Development Guidance lab, Plant Ecology, Science Literacy*