Title of Thesis

The Effect of Guided Discovery Learning Model on Student's

Learning Outcomes of Temperature and Heat in Class X SMA

Negeri 4 Medan Academic Year 2014/2015

Guruh Ryan Aulia

Reg. Number

4113322003

Study Program

Bilingual Physics Education

Approved By: Thesis Supervisor

Dr. Ridwan Abdullah Sani, M.Si NIP. 19640610 198803 1 017

Acknowledge By:

Physics Department Header,

Coordinator of Bilingual Class

Alkhari Maas Siregar, M.Si NIP. 19690127 199412 1 001

Prof. Dr.rer.nat, Binari Manurung, MSi NIP. 19640404 198903 1 006

EMIPA UNIMED

19590805 198601 1001

Date of Exam : June, 23th 2015

## **BIOGRAPHY**

Guruh Ryan Aulia was born in Medan on September, 16<sup>th</sup> 1993. His father is Ir. Aulia Agus and his mother is Sri Lestari, S.Pd. he is the first of two children. In 1998 until 2005 he joined Yayasan Perguruan Swasta Wiyata Dharma to study in Tk, SD and SMP After graduated in 2008, he continued his study to SMA Negeri 4 Medan and graduated in 2011. In the middle of 2011, the author accepted in Physics Bilingual Education, Physics Department, Faculty of Mathematic and Natural Sciences, State University of Medan and graduated on J

