PREFACE

The author say the praise and gratitude to God Almighty, for all the graces and blessings that provide healthy and wisdom to the author that this study can properly completed in accordance with effective and efficient timing.

Thesis title "The Effect of Problem Based Learning (PBL) Model toward Student Learning Outcome in Dynamic Electricity Topic at Class X in SMA Negeri 1 Perbaungan Academic Year 2014/2015", prepared to obtain a bachelor's degree in physical education, faculty of mathematics and natural science in state university of medan.

On this occasion the author is very thankful to Mr Alkhafi Maas Siregar, M.Si as Thesis Advisor who has provided guidance and suggestions to the author since the beginning of the study until the completion of this thesis writing. Thanks also to Prof. Dr. Nurdin Bukit, M.Si., Dr. Mariati Simanjuntak, and Drs. Pintor Simamora, M.Si who have provided input and suggestions from the research plan to complete the preparation of this thesis. Thanks also presented to Prof. Dr. Sahyar, M. Si, M.M, as the Academic Supervisor and also the entire Lecturer and Staff in Physics Department FMIPA UNIMED who have helped the author. Appreciation also present to Headmaster and all teacher in SMA Negeri 1 Perbaungan who have helped during this research. Author would like to thank especially to my beloved father St. Drs. Carles Manurung, MM and my beloved mother Elvi Jelita Simatupang, S.Pd and also my sister Jessica Natalina Manurung, S.Pt and my brother Chris Albert Manurung who have prayed and gave me encouragement and funding to complete the study in Unimed. And also my team in this thesis preparation Yohana Glorya Tobing and Vini Vidi Vici Batu Bara. Especially thanks to my brother Marko Ayaki Tobing, S.Pd. The author also thanks for the physics teamwork in Ganesha Operation Lubuk Pakam who give me support to complete this thesis. And the last thankyou for all my beloved friends in Bilingual Physics Class 2011.
The author is aware there are many mistakes in writing thesis, the terms of the contents and the words grammatical. The author also welcome suggestion and constructive criticism from readers to complete this thesis become better. The author hope the contents in this paper will be useful in enriching knowledge.

Medan, July 2015

Yessi Mahurung
ID:4113121076