PREFACE

The writer say the praise and gratitude to God almighty, for all the grace and blessing that provide health and wisdom to the writer that this study can be completed properly in accordance with the planned time. This thesis entitled "The Effect Of Cooperative Learning Model Of Group Investigation (GI) Type Using Macromedia Flash toward Physics Outcomes Of Students SMAN 1 Sidikalang" is arranged to acquire the scholar degree of Physics Education, Faculty of Mathematics and Natural Sciences, State University of Medan.

In this occasion, the researcher would like to Mr. Dr. Eidi Sihombing, M.S. as thesis supervisor who has guide and give suggestion to researcher from beginning until complete this research. Thanks a lot for Mr. Prof. Dr. Nurdin Bukit, M.Si, Mrs Dr. Mariati P. Simanjuntak, M.Si and Mr. Dr. Makmur Sirait, M.Si who give critics and suggestion to the researcher from the planning of research until the finish of thesis writing. Thanks a lot also for Mr. Dr. Rahmatsyah M.Si as academic supervisor and thanks to Mr. Muhammad Kadri, M.Sc and Mr. Drs. Junhut Hutahaean, M.Si as the content validator in this research. Appreciation was also presented to the Headmaster of SMAN 1 Sidikalang Mr. Drs. Alben Sianturi, thanks to Mrs Melfa Mariyati, S.Pd as the physics teacher also to the entire staff in SMAN 1 Sidikalang who also helped the researcher during did the research.

The researcher would like to say thanks especially to my beloved parents Tambah Karo-Karo and Miah, S.Pd for all pray, love, support sincerely for the researcher. Thanks to all the researcher friends in physics bilingual 2012.

Medan, June 2016

Author

Reni Setian Br Karo