PREFACE

Give thankfulness to God that gives the God's mercy and spirit so that writer can finish this thesis. The title of this thesis is "The Difference of Students' Achievement in Mathematics by Using Guided-Discovery Learning Model and Cooperative Learning Model JIGSAW Type at SMA N 3 P.Siantar". This thesis was arranged to satisfy the requirement to obtain the Degree of Sarjana Pendidikan from Faculty of Mathematics and Natural Science in State University of Medan.

In the completion of this thesis, the writer received support from various parts, therefore she was thanks fully to Dr. W. Rajagukguk, M.Pd as thesis supervisor who has been guidance, direction, and advice to the perfection of this thesis. Thanks fully are also due to Dr. Edy Surya, M.Si, Prof. Dr. Bornok Sinaga, M.Pd, Dr. Izwita Dewi, M.Pd, as examiners who have provided input and suggestion from the planning to the completion of this thesis, to Prof. Dr. Asmin, M.Pd as academic supervisor and then thank you so much for all my lecturers in FMIPA.

Thanks are extended to Prof. Dr. Syawal Gultom, M. Si. as rector of State University of Medan and staff university, to Prof. Drs. Motlan, M.Sc., Ph.D as Dean Faculty of Mathematics and Natural Sciences, to Coordinator of Bilingual Prof. Dr. rer.nat. Binari Manurung, M.Si., Dr. Edy Surya, M. Si. as Chief of Mathematics Department, Zul Amry, M. Si. as Chief of Mathematics Education Study Program, Drs. Yasifati Hia, M. Si as Secretary of Mathematics Education, and all of staff who have helped the author.

Thanks to Mr. Hinsa Simatupang as principle of SMA N 3 P.Siantar who had given permission to writer doing research, Mr. Oloan Sinaga as mathematics teacher and all teacher, staffs and also the students in class X-1 and X-6 SMA N 3 P.Siantar who had helped writer conducting the research.

Especially the writer would like to express gratitude to dear father, Jasman Sitinjak (+) and dear mother, Rumia Manik that always be her hero and motivate and be prayers forthe success of the writer in completing this thesis. Special big thanks to her beloved sister Octa, Octi, Putri and brother Nahum that always give support and all of her family for all pray, motivation, and support until the end of writer's study.

Writer wants to say thanks to her special friends Boby Simbolon, Vera, Hotmauli Lestari, Johan Pasaribu, Summery, Dheina, Topas, Ayu, Yani, to her best friends in Bilingual Mathematics Class 2011 for the valuable support and motivation, and to her seniors of Bilingual Mathematics Class especially for Khairunnisa Lubis, Abdul Tambunan, Siska Tambunan, Meiva, Nelly for their suggestion. Thanks also for Kost Pondok Asri, especially Eva, Riva, Yuli, Hanna, Susi, Lina.

The writer had given a big effort to prepare this thesis, and the writer know that this thesis have so many weakness. So that, the writer needs some suggestions to make it be better. And big wishes, it can be improve our knowledge.

Medan, July 2015 Author,

Anna Angela Sitinjak ID. 4113111004