## ACKNOWLEDGEMENTS

First of all the writer would like to express gratitude to Allah SWT, the most gracious and merciful for the opportunity and possibility in completing this thesis. The writer very pleasure to thank the following people.

She owes her deepest gratitude to her thesis supervisor, Dra. Martina A Napitupulu, M.Sc. who has given support, suggestion, motivation and contribution in writing this thesis, whitout her guidance, this thesis would not have been possible. And the writer also want to thanks to the academic supervisor, Prof. Dr. Herbert Sipahutar, MS, M.Sc who has give the support for at least 4 years to the writer from the beginner until the examination.

This thesis would not be completed without supports, guidances, and suggestion from many parties. First and foremost, my appreciation goes to the Dean of Mathematics and Science Faculty, Dr. Asrin Lubis, M.Pd, Vice of Dean of Mathematics and Science Faculty, Prof. Dr. Herbert Sipahutar, MS, M.Sc, Coordinator of Bilingual Biology Program, Dr. Iis Siti Jahro, M.Si, the Head of Biology Department, Dr. Hasruddin, M.Pd. And also my examiners, Syarifuddin, M.Sc., Ph.D, Dr. Martina Restuati, M.Si, and Endang Sulistyarini Gultom, S.Si.,M.Si.Apt helps are also importantly acknowledgement for the comments and suggestions.

The writer also want to thank the Headmaster of SMA Negeri 3 Medan, Drs. Syahlan Daulay, M.Pd and big thanks to biology teacher, Dessy Sianturi, S.Pd, M.Si and also to thank the Headmaster of SMA Negeri 4 Medan, Drs. Ramly, M.Pd and also to biology teacher, Nurbaina, S.Pd, M.Si who gave their time for administrating treatment and provide feedback on the work in progress. And also thankful to all students in X MIA 10 in SMA N 3 Medan and X MIA 7 in SMA N 4 Medan who participated in this research.

Special greatest thanks also go to my beloved parents, Salamuddin and Kartika Sari for their unending love and care from I started my research until finished. Writer's beloved little sister Chairunnissa for the extraordinary amout of time and efforts they put into to complete this thesis. Writer could not have

complete this thesis without them. The writers also want to thanks to all of my family especially to Sukisman, S.Pd, M. Si and Delpi Diapari Siregar S.E that help the researches so the writer can finish the thesis on time.

The writer also appreciate the contribution of Findi Septiani, Reny Magdalena, Naimatussyifa, Durriyah, Siti Fatimah Harahap, Ramadhana Z Putri, Widya Karlina Lubis, Dwi Ayu Wendyana, Dini Ismika Putri, Mega Hardiyanti, and all friends in Bilingual Biology Education 2012, all of member in Bilingual Biology 2011 and Bilingual Biology 2013 who have given help, support and motivation.

Writer tried the best to finish this thesis, but writer realize that still many lackness and weakness in content. Critics and advice are welcome from reader in order to perfect this thesis.

Medan, Juni 2016
The Writer

Febrina Suci Ramadhoni 4123342007

