

## ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious and the Most Merciful

Alhamdulillah, all praises be to Allah –The God who teaches us with pen and teaches human being of what they do not know- for the strengths and His blessing in completing this thesis. This thesis appears in its current due to the assistance and guidance of several people. I would therefore like to offer my sincere thanks to all of them.

Special appreciation goes to my supervisor, Drs. Eddyanto, Ph.D for his supervision and constant support. His valuable help of constructive comments and suggestion in the complete this thesis. Not forgotten, my appreciation to my examiners, Dr. Iis Siti Jahro, M.Si, Dr. Simson Tarigan, M.Pd, and Drs. Rahmat, M.Si for their advice, guidance, and suggestions in completing this thesis.

I would like to express my appreciation to the Dean of Faculty of Mathematics and Natural Science, Prof. Drs. Motlan, M.Sc, Ph.D, to the Head of Chemistry Department, Drs. Jamalum Purba, M.Si, to Head of Chemistry Education Department, Dra. Ani Sutiani, M.Si, to Secretary of Bilingual Program, Dr. Iis Siti Jahro, M.Si, to Office Staff of Bilingual Program, Mr. Sam for their support and help towards my undergraduate affairs.

My sincere appreciation to Headmaster of MAN 1 Medan, H. Ali Masran Daulay, S.Pd, M.A, and to Chemistry teacher, Mardiani Pane, S.Pd who help a lot during research in completing this thesis.

My deepest gratitude goes to my beloved parents; Mr. H. Abdar Lubis and Mrs. Hj. Megawaty (Almh0 and also to mybrother: Mr. Muhammad Arvo, ST, and my sisters: Mrs. Ella Andhany, M.Pd and her husband Mr. Muhammad Joko Kurniawan, S.Kom, Ms. Febrina Nadrah, S.PdI and Ms. Siti Masitha for their endless love, prayers, encouragement, patience, and I am thankful for the blessing of such a wonderful and truly amazing family.

Sincere thanks to my best friends in CESP 2010, especially to Debby Suci Martalina, Yasir Arafat Hutapea, Wika Prayogi, Cici Purnama Sari, Melisa Sipayung, Lina Marwiya, Rabiah Afifah Daulay, Rudi Purwanto, and others for their kindness and moral support during my study. Thanks for the friendship and memories.

The last but not the least, thanks to Mrs. Suharni, SH as my lovely “bunda” and all my friends for a nice friendship and life learning during PPLT 2013 in SMAN 1 Tebing Tinggi.

Without the help of those who participated in this thesis, this study would have not been possible to carry out. I thank all the participants for their assistance. My deepest appreciation and gratitude to each and every person, who in some way or the other assisted me in making this thesis a reality.

Finally, I hope this thesis would be useful for those who would like to explore more about Project Based Learning Model, especially for the students of Chemistry Education Department. I realize that this thesis is still far from being perfect therefore; constructive comments and suggestions are needed for the further improvement of this thesis.

Medan, July 16th, 2014

Writer

Rayhan Jamilah

