

## ACKNOWLEDGMENT

All praise to the Almighty God, Allah SWT who has been giving us mercies and blessing so that i can finish this thesis well. Sholawat and salam may praise to our beloved prophet as the last messenger of Allah SWT, Muhammad SAW who has guided us from the darkness to the lightness.

The title of this thesis is “The Development of Innovative Practical Guide on Redox Reaction to Increase Student’s Achievement and Process Skills”. This thesis is one of the requirement for degree of Sarjana Pendidikan in Educational Department of Chemistry, Faculty of Mathematics and Natural Science, State University of Medan.

In this opportunity, i would like to express my greatest thanks to :

- My beloved parents (My father Ahmad Endang Buadi and my mother Betty Desember) for their love, prayer, support, sacrifice and always ask for the progress of my thesis so they inspire me to finish my thesis well ( i love you mom i love you dad). They are so special and the best parents ever, you are the best, role model and inspiration for me mom dad. My love is also dedicated to my beloved siblings (Brother Harry Pratama, Young brother Fahmi Riano) who always giving love, support, and love. I hope we can be a better person in future guys so we can make our parents proud. I love you guys so much.
- Dr. Iis Siti Jahro, M. Si as thesis supervisor who has spent his valuable time to giving guidance comments and advices during my thesis completion. Thank you so much ma’am.
- Dr. Zainuddin Muehtar.M.Si., Dra. Ani Sutiani,M.Si and Ir. Dr. Nurfajriani M.si as thesis examiner and reviewer counselor for their advices, suggestion, guidance and constructive comments in the process of thesis completion.
- Prof.Dr. Albinus Silalahi,M.S as my Academic Supervisor who always guided me during lecture process. Thank you so much sir
- Prof. Dr. Retno Dwi Suyanti.M.Si and Dra. Ani Sutiani,M.Si as the expert lecturer for validation of my media and material. Thank you ma’am for the nice suggestion.

- I would like to express gratitude to Dr. Martina Restuati, M,Si as the Dean of FMIPA Unimed, Dr. Iis Siti Jahro,M.Si and Nora Susanti,S.Si.,M.Sc.,Apt as the Coordinator and Secretary of Bilingual Program in FMIPA Unimed, Dr. Ayi Darmana,M.Si as Head of Chemistry Department and along with Mr, Mrs Staff and Lecturers in Educational Chemistry Department especially in Bilingual Study Program of FMIPA Unimed who have helped me.
- The author also said thanks to Sofyan,S.Pd as Headmaster of SMAN 14 Medan for giving permission to do research in SMAN 14 Medan. The author's gratitude also to all of students who have rendered their time as a sample of research.
- Indri M. Simaremare as my partner in doing thesis and who always remind me to finish my thesis. Thank you for your fighting spirit and kindness .
- Thank to you my beloved bestfriend Amintul (Siti Aminah Siregar) who always accompany and stand by me. I hope that you can get everything you always wished for. Lets be bestfriend forever mintul. I love youu
- Greatest thank you for all of my classmate CESP 15 ( Somebody has been named above, Debby aka Lili, Deminar aka Dede, Dwi aka wiwik, Elisabet, Eli, Esi, Indri aka Riri, Tian oppa, Riska and Santun aka Sasa) the most cooperative, crazy and comfortable class ever. Thank you for all the time we've spent together.Lets continue this friendship forever guys. See you on top
- Thanks to my PPL partners in Berastagi (Enny, Rusyda and Yosi) for having a great time with me during our PPL moments. My gratitude also for berastagi team ( Indah, Lolita, Hanum, Lavenia, Edith, Vina, Miranda, Yesika (my other half), Mika, Nadya, Firda, Sarah and There ) , we were just a strangers then we become bestfriend. I wish we could stay in touch even after all this hectic day end. See you on top girls

Medan, May 2019

Citra Auli Tamara

Reg Number.4153332001