ACKNOWLEDGEMENT

Praise and thanksgiving, the writer recommends the presence of the Lord Jesus Christ because of his grace, the writer can complete the thesis entitled "The Influence of Problem Solving Models with Demonstration on Student Learning Outcomes and Activities in Buffer Solution in Class XI SMAS METHODIST - AN PANCURBATU. The preparation of this thesis is one of the requirements to obtain a Bachelor of Education degree in the Department of Chemistry, Faculty of Mathematics and Natural Sciences, Medan State University.

In the preparation of this thesis, it certainly cannot be separated from the help and support of various parties. Therefore, on this occasion the author would like to express his deepest gratitude to my beloved supervisor, Dr. Asep Wahyu Nugraha, M.Si who has provided guidance, direction, and motivation and time to the author from the beginning of research planning to the completion of this thesis. Thank you also to Ms. Dr. Iis Siti Jahro, M.Si, Mr. Dr. Simson Tarigan, M.Pd., and Ms. Nora Susanti, S.Si., M.Sc., Apt as examiners who have provided input and suggestions for the improvement of this thesis. Thank you to Mr. Drs. Jasmidi, M.Si, as Academic Advisor and all lecturers / staff lecturers in chemistry majors who have provided knowledge and assisted writers during lectures. Thank you also to the Ir. K. Robert Silalahi as head master of SMAS Methodist – An Pancurbatu and Christina br Sitepu, S.Pd, M.Pd as the chemistry teacher, as well as Arrhenius XI science students and Einstein's XI Science who had helped the author during the research.

Especially the writer give thanks the most valuable in the life of the writer who always gives love and affection to the author, who sincerely educates and loves and prays for the writer until now, namely the beloved mother A br Karo and father B. Tarigan also the author would like to say thank you to her brother and her sister namely, Bang Eka, Bang Elis, Bang Eral, and kak Miska and Sister in law Kak Nuhelni, Kak Julianti, and Kak Ika and my brother in law Bang Perli

who always supported the author during her education and to her beloved niece (Nia, Dwi, Priskila, Ardo, Glen, Eni, Eline, and Daffin) who always give encouragement to the author.

The author expresses her gratitude to the best friend of the writer since senior high school, namely Ginting Novita Handayani who always supports the author, motivates and is willing to accompany her during the research so that the research is completed quickly. Thank you infinitely for the writer's best friends during the "Baby Girl" lectures (Deminar, Dwi, and Eli) who are always motivating, loving, helping in everything, and suffering friends for 4 years. Thanks also the author said to classmate "Bilchem 15" (Citra, Debby, Deminar, Dwi, Eli, Elisabet, Ellya, Enny, Habib, Japarto, Jecky, Indri, Lusi, Santun, Rusyda, Riska, Yosi) who always motivate and help writers during lectures until writing this thesis. Author would like to say thank you to "Genk Guridik" (Roy, Neni, and Agnes) who always existed when the author needed and always entertained when sad and always willing to accompany the author anywhere. Thank you writer sincerely to Dwi Wulandari Simanihuruk who always supports the writer, helps the writer and compatriots in the writer's work while working on the thesis and the friend of the writer shares the distress. Thanks also the author said to Agus Martinus Waruwu who always encouraged the author while working on the thesis and always accompanied the author anywhere.

Thank you also to the PPLT PARKISARAN (Jecky, Arif, Daulat, Ghufran, Bg Dani, Rizky, Deminar, Demensri, Ellya, Hardyanti, Robiatul, Rifqa, Senja, Sis Elisa, Mega, Debby) because they always coloring a author life and the author appreciate the meaning of togetherness more.

UNIVERSITY

The author tries with as much as possible to finish this thesis, but the author realizes there are still many weaknesses both in terms of content, structure and grammar. For this reason, the author expects criticism and constructive suggestions from readers for the perfection of this thesis. Hopefully the contents of this thesis are useful in enriching the knowledge of education.

Medan, July 2019 Writer Esi Ngelayasisa Tarigan 4153332010