

## ACKNOWLEDGEMENT

First of all, I praise and gratitude to the Almighty God, Jesus Christ, for all the graces and blessings that provide health and wisdom to me for finishing this thesis well.

The title of this thesis is “Implementing Problem Based Learning Integrated with Cooperative Learning Teams Games Tournament in Improving Students’ Achievement in Teaching Colloidal System“. This research was done in SMA N 15 Medan in academic year 2014/2015. Therefore, the thesis is one of the prerequisite to get degree of Sarjana Pendidikan in Educational Department of Chemistry, Faculty of Mathematics and Natural Sciences, State University of Medan.

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

1. Dr. Wesly Hutabarat, M.Sc as my thesis supervisor, thanks for his valuable time to spent in giving guidance comments and advices during the process of completing this thesis.
2. Prof. Albinus Silalahi, M.S, Dr. Zainuddin Muchtar, M.Si, and Dr. Marham Sitorus, M.Si as my reviewer counselor for their advices, suggestions, guidance and constructive comments in the process of completing this thesis.
3. Thanks also conveyed to Dra. Ani Sutiani, M.Si, as my Academic Supervisor who always guided me during the lecture and along with Mr. and Mrs. Staff and Lecturers in Educational Chemistry Department especially in Bilingual Study Program of FMIPA UNIMED who have helped me.
4. My gratitude also presented to Mr. Drs. Darwin Siregar, M.Pd, as school principal of SMA N 15 Medan and K. Lumbanbatu, S.Pd, M.Pd as vice of school principal who gave permission for conducting the research in the school and also for all teacher and students in SMA N 15 Medan, especially for Bu Swinda Ningsih, S.Pd as a chemistry teacher who has given much support and guidance for me as long as the research is conducted.
5. Special gratitude to the best ever parents in my life, my beloved father Alm.Poltak Pardosi and my beloved mother Linda B.U Sihombing who

always caring, raising and educating me with love and affection. Thanks for the praying, motivation and sacrifices for me, so I can complete my first degree in Sarjana Pendidikan (S.Pd/S-1) in this State University of Medan.

6. My thanks also for my beloved sister and brothers, Leliana Pardosi, Evan Josua Pardosi and Polindo Asimon Pardosi, and my beloved friends, Henri Sianturi, who always giving love, support, motivation, and laugh until the completion of this thesis, I love u all.
7. For my friends in Teaching Experience Program (PPL) who always be my part, Rhone, Jori, Lanita, Debi, Yohannes, Evan, Vera, Ratih, Saras, Rani, Apriani, Teresa, and Vini. Thanks for our friendship and everything that we passed together.
8. Special thanks to my best friend, Angela and Yolanda, thanks for unlimited time in our togetherness, laugh, and experience that make me more confidence and brave in my life. Thanks for that friendship.
9. The CESP'11 class the most crazy and enjoyable class ever, full of ambition but full of fun, Ricky, Bayu, Haposan, Jori, Angeline, Angela, Yolanda, Rhone, Lanita, Cholida, Debby, Desi, Evina, Fatma, Hesti, Intan, Juliani, Juwita, Liesa, Mariani, Nova, Poppy, Riris, Rusdi, Ruth, Sintia, Siti, and Yuni. Thanks for this 4 years guys and let's go to the next ambition.

I hope this thesis would be useful for the researcher who wants to make the further study about the learning model which is suitable for learning colloidal system, especially for students in Chemistry Department. I have been doing the maximal effort in the completion of this thesis, but I realize there are many weaknesses in terms of both content and grammar, there for suggestion, and comments are needed for further improvement of this thesis.

Medan, July 2015

Author

Anggun Chrisanty Pardosi  
IDN. 4113131005