ACKNOWLEDGEMENT

The greatest praise and thankfulness to the Almighty God because for the abundant blessings and love that gives, the author can complete this thesis well and accordance to the planning time.

This thesis entitled "The Development of Electronic Module Based On Scientific Literacy On Colloidal Topic" has been arranged to obtain the degree of Sarjana Pendidikan at Chemistry Department, Faculty of Mathematics and Natural Sciences in State University of Medan (Universitas Negeri Medan).

In this opportunity, the author would like to express the great appreciation to Prof. Dr. Ramlan Silaban, M. S., as the thesis supervisor who has provided guidance, advice and motivation for the author during the completed the thesis, Moondra Zubir, Ph. D, Dr. Murniaty Simorangkir, M.S, and Dr. Muhammad Yusuf, M. Si as the examiner who has provided support, advice, motivation and time to the author too in completing this thesis. The author would like to thank Dra. Ani Sutiani, M. Si., as the author's academic supervisor and as the validator of research material, Prof. Dr. Fauziyah Harahap, M. Si., as dean of the faculty of Mathematics and Natural Sciences, Dr. Ely Djulia, M. Pd., as the Bilingual program coordinator and Dr. techn Marini Damanik, M. Si., as the Bilingual program secretary. My thankful also to Siti Rahmah, S.Pd., M.Sc. and Susilawati Amdayani, S.Si., M.Pd as the validator of media.

Then, I would like to thank the principal of SMA Negeri 7 Medan namely Drs. H. Masri Lubis, M. Si, to Alwin Parulian Lubis, S. Pd, M. Si as the chemistry teacher who guided me during the research conducting and also as my validator research, and to Lismiyati, S. Pd. as the chemistry teacher and also my validator research.

My special gratitude to my beloved parents, Eva Maria Habeahan and Samsul Rejeki Manullang, to my beloved brothers, Ekky Michael Pratama Manullang and Stevan Trie Natanael Manullang for their pray, motivation, and love that given to all my life. Thanks to my Sibling Best, Godya Simarmata, Grace Damanik, Nathalya Silalahi, Putri Pardosi, Friscilla Sihombing for being my bestfriend and partner in crime. To my sister, Febby for always gives the encouragement. To my Bagi-Bagi Club members, Ester, Julianse, Maydline, Titin, Felix and Ade that always remind and teach me while done on my thesis. And the last thanks to my beloved class, Bilingual Chemistry 2018 which had become a place to share joys and sorrows together.

I have already done this thesis with my best, but still needed the suggestion from the reader in order to make it better. I hope this thesis can be useful and giving contribution to the reader and especially in education.

Medan, April 2022

Writer

Elssya Dwi Imanuella Manullang