PREFACE

Praise and gratitude the author prays to the presence of Allah SWT, because of His grace the writer can complete the thesis entitled " The Effect Of Cooperative Learning Model Numbered Head Together (NHT) Type On Student Higher Order Thinking (HOT) Learning Outcomes In Optical Devices Topic At SMA Negeri 1 Secanggang". This thesis is written to fulfill one of the requirements needed to achieve a Bachelor of Education degree in the Physics Education Study Program, Faculty of Mathematics and Natural Sciences (FMIPA), Universitas Negeri Medan (Unimed).

During the research and writing of this thesis there were many obstacles that the writer experienced, but thanks to the help, encouragement and guidance from various parties, finally this thesis could be completed properly. Through this opportunity, the author would like to express his gratitude to all those who have helped in the preparation of the thesis.

I dedicate all my struggles to date to the two most precious people in my life, namely my beloved father Marwansyah Lubis (Alm.) and my beloved mother Yusra, S.Pd. whom I love very much. Thank you for being the perfect parents. Thank you for struggling with researcher, sacrificing a lot of time, energy, and effort to support researcher to achieve his dream. For Papah, may Allah place Papah in the best place beside Him. For Mom, may Allah always bless you with health, happiness, blessings, and a long life. May all the prayers that you have prayed for researchers be a bridge to success in this world and the hereafter.

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The author thinks that this thesis is the best work that the author can present. However, the author realizes that it is possible that there are shortcomings in it. Therefore, constructive criticism and suggestions are very much expected. Finally, I hope this thesis can be useful for the author in particular and for the readers.

Medan, 12th of August 2023 Authors,

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