## PREFACE

Praise and gratitude to God Almighty, who has given His grace so that the author can complete this thesis well. This thesis was prepared to fulfill some of the requirements needed to achieve the Sarjana Pendidikan degree at the Bilingual Mathematics Education Study Program, Faculty of Mathematics and Natural Sciences, State University of Medan.

The preparation of this thesis has gone through a long and tiring road in accordance with standard procedures that apply at FMIPA Unimed, starting from the determination of research topics, preparation and seminar proposals, research implementation, thesis preparation, and thesis defense examination. The selection of research topics is based on current problems related to the implementation of the revised 2013 Curriculum. Implementation of this curriculum in the classroom still requires improvement in order to produce vocational graduates who have cognitive, psychomotor, and attitude abilities that are balanced and ready to face the revolution industry 4.0. This research is intended to provide solutions to various situations in learning.

The author realizes that the preparation of this thesis could not be completed without support from various parties, either directly or indirectly. Through opportunity In this case, the author would like to express her gratitude to all those who have helped in the preparation of the script. On this occasion, the author would like to express her gratitude to:

1. Mr. Dr. Syamsul Gultom, S.KM., M.Kes as a rector of Universitas Negeri

## Medan

- Mrs. Prof. Dr. Fauziyah Harahap, M.Si as a dean of faculty mathematics and natural science Universitas Negeri Medan
- 3. Mr. Dr. Pardomuan Sitompul, M.Si as a head of mathematics department of faculty mathematics and natural science Universitas Negeri Medan
- Mrs. Nurhasanah Siregar, S.Pd., M.Pd as a head of mathematics education study program, faculty mathematics and natural science Universitas Negeri Medan

- 5. Mrs. Dr. Ely Djulia, M.Pd as a coordinator of bilingual program, faculty mathematics and natural science Universitas Negeri Medan.
- Ms. Dr. Izwita Dewi, M.Pd as my thesis supervisor who has guided me with love, provided motivation, direction so this thesis could be completed.
- 7. Mrs. Tiur Malasari Siregar, S.Pd., M.Si as an academic supervisor as long as in Universitas Negeri Medan.
- Mr. Dr. Waminton Rajagukguk, M.Pd, Mr. Mangaratua M. Simanjorang, M.Pd., Ph.D, Mrs. Dr. Hamidah Nasution, M.Si. as the thesis examiner who has given many criticisms and suggestions for the success of this final project.
- Mr. Suprianto, S.S as a headmaster of SMK Negeri 14 Medan, Ms. Linda Sari, S.Pd and Mrs. Afrida Utami, S.Pd.I as the teachers in SMK Negeri 14 Medan who helped me to fulfill and finish my research.
- 10. Especially to my beloved parents, Mr. Muhusi Nazara (father) and Mrs. Adaria Gulo (mother) who has continued to love, care for, support and guide me throughout my life, and also to my loving brothers and sisters, Yasa'aro Nazara, S.E., Christina Yulniasta Zalukhu, S.H., Oktonius Lase, A. Md., Kep., Rosnawati Nazara, S.Pd.K., Ratonius Lase., Resnahati Nazara, A.Ma., and Aguskrisna Nazara who have loved and supported my education. Because of the prayers and prayers of the extended family, the author was able to complete this final stage.
- Special for my beloved friends in MESP 2018 class who are friendly and kind and all parties who have helped the completion of this thesis.
  The author realizes that this thesis still has shortcomings and limitations. However, while expecting constructive criticism and suggestions.

the author hopes that this thesis can be useful for related parties.

Medan, December , 2022 Sincerenly,

Erlina Nazara