

FOREWORD

Praise and gratitude the author offers to Allah SWT for His guidance and grace so that the author can complete this thesis well. There were many challenges that the author faced while working on this thesis, but when the author always prayed and surrendered to Him, then Allah SWT intervened and helped the author in completing this thesis.

This thesis is entitled "Development of Tissue Culture Textbooks Based on Project Based Learning to Improve Science Process Skills of Biology Department Students, State University of Medan". This thesis is needed to obtain a Bachelor of Education degree in the Bilingual Biology Education Study Program, Faculty of Mathematics and Natural Sciences (FMIPA), State University of Medan (Unimed).

The author realizes that the preparation of this thesis will not be completed without the support of various parties, both directly and indirectly. Through this opportunity, the author would like to express his gratitude to all parties who have helped in the preparation of this thesis, namely:

1. Prof. Dr. Fauziyah Harahap, M.Si, as the Thesis Supervisor for the guidance, direction, motivation, and extraordinary support during the thesis preparation process from beginning to end.
2. Prof. Dr. Drs. Tri Harsono, M.Si, Dr. Syahmi Edi, M.Si, Eko Prasetya, S.Pd., M.Sc. as the examiners and Drs. Hudson Sidabutar, M.Si. as the Academic Supervisor who has provided a lot of criticism and suggestions as well as improvements starting from the proposal seminar to the examination stage to maintain this thesis so that my thesis can be completed properly.
3. Dr. Nurul Huda Panggabean, S.Pd., M.Si, Ahmad Shafwan S. Pulungan, S. Pd., M. Si, and Dra. Cicik Suriani, M.Si. for their invaluable assistance as research instrument validators.
4. My beloved extended family, Mr. Muhammad Saleh Harahap, Mrs. Masliany Siregar, Ahmadi Nezaad Harahap, and Borkat Rahmat Harahap who always provide support, motivation, and prayers to the author so that

the author can complete this thesis well. May Allah SWT always bestow health and happiness on our family.

5. My beloved friends, SIP IN (Asnawi Saragaih, Juwita Pardede, Nindya Zayani Ekaputri, and Trisnawaty Br Lingga) who have been my fellow fighters from the beginning of college until now. May happiness always be present among us.
6. My friends in the same organization (Siti Maysarah, Alya Sekar Ayu, Kenny Clarissa, Hafizna Irasa, and Angeleva Sinaga) and the entire Persma Kreatif crew who have become a place for me to continue to develop and have character until now. May Allah SWT always give us spirit and goodness.
7. My beloved classmates, BESP 2020 who have become fellow fighters in college, hopefully what we hope for can be achieved.
8. Communication Students of Universitas Muhammadiyah Sumatera Utara (UMSU) with IDN 2103110110 who always accompany and support the author during the process of working on this thesis. May Allah SWT always give encouragement and answer all your prayers.
9. The author, Salamah Harahap who has been able to fight so far. Thank you for being able to work together to face all pressures and challenges, and always being able to survive in all conditions so that you can be responsible for what has been started from beginning to end.

Medan, 15 January 2025

