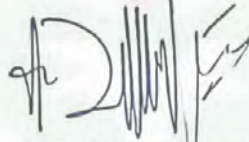


Thesis:

**The Effect of Problem Based Learning Model on Learning Outcomes of
Class X Students on Global Warming Material
at SMA Negeri 8 Medan**

Name : Leonardo Sihalohe
IDN : 4202421023
Study Program : Bilingual Physics Education
Department : Physics

Approval:
Thesis Supervisor,

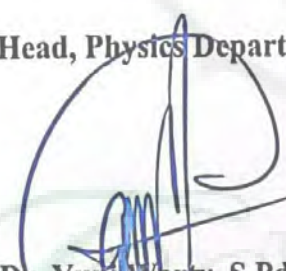


Deo Demonta Panggabean, S.Pd., M.Pd.
IDN. 19880524 201404 1 001

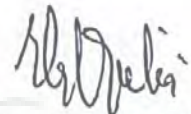
Acknowledge:

Head, Physics Department

**Bilingual Program
Coordinator,**



Dr. Yuni Warty, S.Pd., M.Si.
IDN. 19840623 200812 2 002



Dr. Ely Djulia, M.Pd
IDN.196607241991032012



Dr. Ani Sutiani, M.Si
IDN. 19680730 199203 2 001

Graduated: July 3rd, 2024

STATEMENT OF ORIGINALITY

I declare truly that this thesis manuscript is my own work, and all sources quoted or referred to in this thesis manuscript have been correctly stated in the citation source and bibliography.

If in the future it is known and can be proven that there are elements of plagiarism in this thesis, then I am willing to have this thesis canceled and processed in accordance with the applicable laws and regulations (Law No. 20 of 2003, article 25 paragraph 2 and article 70).

Medan, July 26th 2024

Which states,



Leonardo Sihalohe

IDN. 4202421023

THE
Character Building
UNIVERSITY

**APPROVAL PAGE FOR PUBLICATION OF FINAL PROJECT FOR
ACADEMIC PURPOSES**

As an academic community of Universitas Negeri Medan, I am the undersigned:

Name : Leonardo Sihalohe
IDN : 4202421023
Study Program : Bilingual Physics Education
Faculty : Faculty of Mathematic and Natural Sciences
Type of Work : Thesis

For the scientific development purpose, agree to grant Universitas Negeri Medan the Non-exclusive Royalty-Free Right for my scientific work entitled:

“The Effect of Problem Based Learning Model on Learning Outcomes of Class X Students on Global Warming Material at SMA Negeri 8 Medan”

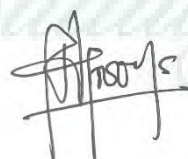
Along with any existing evidence (if needed). With this Non-exclusive Royalty-Free Right, Universitas Negeri Medan has the right to store, transfer/format, manage in the form of a database, maintain and publish my final project as long as I keep my name as the author / creator and as the owner of Copyright.

The statement I made should be used properly.

Made in : Medan

Date : July 26th 2024

Which states,



Leonardo Sihalohe

IDN. 4202421023

BIOGRAPHY



Leonardo Sihalohe was born in Huta Bolon in 2001. The author took education starting from SD Negeri 11 Huta Bolon (graduated in 2014), continued to SMP Negeri 3 Pangururan (graduated in 2017) and continued to SMA Negeri 2 Pangururan (graduated in 2020). Until finally the author was actively studying at FMIPA Unimed, Department of Physics with the Bilingual Physics Education Study Program.

The author aspires to be one of the employees at the ministry of finance but it turns out that life brings the author to be a teacher. With the author's motivation and perseverance to continue learning, the author has completed a thesis at Medan State University. Hopefully this thesis is useful for the readers, especially can provide positive things for the world of education. Finally, the author would like to thank you.