

PREFACE

The authors say the praise and gratitude to god almighty, for all the graces and blessings that provide health and wisdom to the author that this study can be completed properly in accordance with the planned time. Thesis entitled “The Effect of Cooperative Learning Model Type Student Teams Achievement Divisions (STAD) On Students Learning Outcomes in Topic Harmonic Vibration in Class X SMA N 1 Tanjung Morawa”.

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The author has endeavored as much as possible in completing this thesis, but the author is aware there are many mistakes either in terms of content or grammar, then the author welcome for any suggestions and constructive criticism from readers for this thesis perfectly. The author hopes the contents of this paper would be useful in enriching the repertoire of knowledge.

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Author,

Henny Sihombing

ID 4143322012

The logo of Universitas Negeri Semarang (UNIMED) is a circular emblem. It features a central sun with rays, a red flower, and green leaves. The text "UNIVERSITAS NEGERI SEMARANG" is written along the top inner edge, and "UNIMED" is written along the bottom inner edge. Two small square symbols are positioned on the left and right sides of the emblem.

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