


**Research Title :** The Difference Of Student's Physics Learning Outcomes Using Cooperative Learning Model Type Numbered Head Together With Direct Instruction In Grade X SMA Negeri 1 Berastagi

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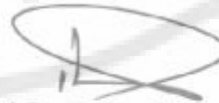
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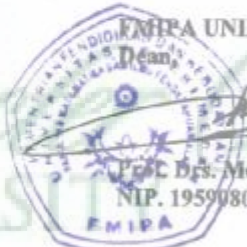


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## BIOGRAPHY

Tionar Melissa Malau was born in Medan on March, 25<sup>th</sup> 1991. Father's name is Sudung Malau (Alm) and Mother's name is Maria Magdalena, S.Pd. Author is the first daughter from two siblings. On 1997 author entered SD Katolik Budi Murni Deli Tua and graduate on 2003. Then, author entered SMP N 1 Deli Tua and graduate on 2006. Continue study at SMA N 13 Medan, author graduate on 2009. On the middle of 2009, author has been received as student in State University of Medan with study program is Physics bilingual education, major Physics, Faculty of Mathematics and Nature Science.

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