

## ABSTRACT

**Enni, NIM 4153342006 (2015). Development of Environmental Based Biodiversity Booklet as a Learning Resource for Grade X SMAN 1 Berastagi.**

This research aimed to produce a Booklet based on environmental Biodiversity topic that valid and effective to be used learning. This research was designed using 4-D development model consisting define, design, development and disseminate. The Booklet was validated by Material Expert, Media Expert, then the response from teacher and students were obtained. The result of feasibility of Booklet from Material Expert was 84 % with very good category, Media Expert was 81,33 % with good category, Biology Teacher was 94,66 % with very good category and percentage of students responses were 90,27 % with good category. Then the result of effectiveness from the paired t-test obtained  $t_{count} > t_{table} = 40,093 > 2,042$ , significantly the Post test score higher than Pre test score. While t-test obtained  $0,621 > 0,05$  there was differences in Mean value that significant. Then result of t-test was proceed with N-Gain score and then the result N-Gain score obtained at interval  $> 0,3$  with effective category.

**Keywords : Booklet, 4-D Research and Development model, Biodiversity**

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