

# **Development inquiry based NOS-argumentation (IB-NOSA) learning model to Improve Science Literacy and Argumentation Skills of Junior High School Students**

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## **ABSTRACT**

The inquiry learning model has been widely tested to improve various abilities and skills of junior high school students. However, the inquiry learning model still has drawbacks in its application. Therefore, new innovations are needed to overcome the weaknesses of the inquiry learning model by explicitly integrating NOS aspects and Toulmin's argumentation components in the form of argument mapping. This integration produces a new learning model, namely the NOS-argumentation-based inquiry learning model (IB-NOSA) which is used to improve scientific literacy skills and scientific argumentation skills of junior high school students. This study aims to test the feasibility of the IB-NOSA learning model. This type of research is Research and Development (R&D) using Borg & Gall steps. This research was conducted for two years. Where the first year research is still limited to the fifth stage of Borg & Gall, namely due diligence by experts and limited trials. The feasibility test of the IB-NOSA learning model was carried out through the Focus Group Discussion (FGD) method and book assessment as well as the IB-NOSA learning model kit which involved five experts. Based on expert judgment, the IB-NOSA learning model is feasible with revision. Based on a limited trial the IB-NOSA learning model can improve scientific literacy skills and scientific argumentation skills of junior high school students.

*Kata Kunci: inquiry learning model, NOS, argument mapping, scientific literacy skills, scientific argumentation skills*