INQUIRY - BASED SCIENCE EDUCATION

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Doing scientific investigation made easy by applying inquiry-based approach among learners. Learning is more meaningful to the students once they engaged in actual experimentation. On the study conducted by Van Uum et al. (2016), “Inquiry-based science education is an inspiring way of learning science by engaging pupils in designing and conducting their own scientific investigation.” This study is supported by seven (7) inquiry phases enumerated as follows:

1. Introduction – understanding the context of scientific research and being enthusiastic about the process of open inquiry;

2. Exploration – differentiating between their acquired knowledge and the knowledge they wanted to acquire in order to formulate a research question in the next phase of inquiry;

3. Designing the investigation - performing the procedure of formulating and adjusting a research question;

4. Conducting the investigation – making correct measurements and taking organized notes;

5. Conclusion – referring back to the research question when drawing a conclusion;

6. Presentation/Communication – explaining the research to an audience via paying attention to the different components of the process of inquiry; and

7. Deepening/Broadening – reflecting on acquired knowledge and further deepening/broadening of knowledge.
The above cited study shows that inquiry-based science education contributes much to the learning process of learners in a science class. The fact that it enhanced the ability of learners to discover learning from their own experimental design, meaning by following their own method of acquiring knowledge. It increases the undependability of learners toward learning process.

Since experience is one of the effective ways of learning, following the series of inquiry phases, may resulted to a worthwhile experiences coupled with mastery that can be used in doing a scientific research as well.

Reference: