

WHY PROCESS ORIENTED GUIDED INQUIRY LEARNING SHOULD BE IMPLEMENTED IN MALAYSIAN SCIENCE CLASSROOM

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INTRODUCTION

Structured inquiry learning which strongly teacher directed has been practiced as one of the approach in Malaysian science education. However, the current trends show that there is a need to shift to learning approach that offer students to take some responsibility in the direction of learning as it is proven to be successful in increasing students thinking skills and scientific skills. The Process Oriented Guided Inquiry Learning (POGIL) is one of student-centered learning that facilitates collaborative and cooperatives learning whereby students are transformed from being passive into active learners aiding to increase their process skills and higher order thinking skills.

MAIN RESULT

Besides that, in line with current development , integrating technology such as using forum and discussion in Virtual Learning Environment (VLE) providing more information sources and better tools for discussion and collaboration in POGIL. Therefore, from a review of published articles, this paper attempts to establish an overview of POGIL, the relevance of POGIL to be implemented in traditional Malaysian science classroom and the use of technology integrated with POGIL.

REFERENCES

1. Baseya, J. M. and C. D. Francis. Design Of Inquiry-Oriented Science Labs: Impacts On Students' Attitudes. *Research in Science & Technological Education* 29(2011), 241-255.
2. Bauer, C. F. and R. Cole. Validation of an Assessment Rubric via Controlled Modification of a Classroom Activity. *Journal of Chemical Education*. 89 (2012), 1104-1108.
3. Brown, P. J. Process-Oriented Guided-Inquiry Learning In An Introductory Anatomy And Physiology Course With A Diverse Student Population. *Adv Physiol Educ* 34(2010), 150-155.
4. Brown, S. D. A Process-Oriented Guided Inquiry Approach To Teaching Medicinal Chemistry. *Am J Pharm Educ*, 74 (2010), 121-126.

5. Eberlein, T., *et al.* Pedagogies Of Engagement In Science: A Comparison Of PBL, POGIL, And PLTL. *Biochem Mol Biol Educ* 36(2008), 262-273.
6. Woods, D. R. Problem-Oriented Learning, Problem-Based Learning, Problem-Based Synthesis, Process Oriented Guided Inquiry Learning, Peer-Led Team Learning, Model-Eliciting Activities, and Project-Based Learning: What Is Best for You? *Industrial & Engineering Chemistry Research* 53(2014), 5337-5354.