

**Students' Perspectives on the Effectiveness of Problem-Based Learning with
Inverted Classroom Assistance in Improving**

ABSTRACT

This study aims to evaluate the impact of implementing a hybrid teaching strategy combining an Inverted Classroom (IC) with Problem Based Learning (PBL) called Inverted Problem-based Learning (IPBLC). In this study, PBL cases are delivered to large groups of up to 150 students facilitated by a single course instructor within pre-university science courses. Lecture time is reduced using inverted classrooms (IC) with minimal effect on content. It is a multi-subject research made up of 4 smaller research involving the application of IPBLC in the teaching of Physics, Chemistry, Biology and Mathematics. The researchers were responsible in researching and developing an IPBLC module for teaching 150 students each, wherein the impact of hybridizing PBL and IC on students' achievements, learning attitude and conceptual learning of the subjects involved are investigated. Focus group interviews were used as a qualitative approach to gain an in-depth understanding of the issue at hand. This research aims to gain an understanding of the needs, motivations and experiences of Foundation students, focusing on their experience with IPBLC and providing lecturers with a better insight into the effectiveness and issues faced by students in the implementation of this teaching method. The results of this study facilitated the identification of issues that were not apparent from the purely quantitative data, thus providing a deeper understanding of the curriculum and teaching effectiveness that was constructive and detailed.