



STUDENTS' EXPERIENCES AND ARGUMENTS ON iCONDUCT OF NEWTONIAN PHYSICS EXPERIMENTS USING SMARTPHONES

ANDY NESTOR RYAN PAZON

pazonanr@gmail.com

Philippine Normal University

De La Salle – College of Saint Benilde, Taft Avenue, Manila Philippines

ABSTRACT

The rise in the use of smartphones for educational purposes allows for innovation in teaching pedagogies. This research shows how the smartphone technology can be used to create learning opportunities in a normal in-person or remote laboratory experiments in physics. The research also shows how the students performed innovative designs in the use of mobile technology in physics experiments, describe and analyze the students' experiences and learning engagement, and their arguments and views about the use of smartphones in physics experiments. The positive engagement of students through collaboration is associated with the students' completion of the performance task as well as correct conceptual understanding. The students were able to design several physics experiments through the use of sensors in smartphones, downloaded applications and online virtual realities. There are lessons that can be drawn from students' experiences and arguments on the use of mobile technology in learning. Mainly students argued that the teachers' remote facilitation through the experiment worksheets for repurposing do-it at home experiments is still vital.

Keywords: physics experiments, smartphone, educational technology, instructional design, mobile technology, at - home experiments