

ONLINE TEACHING SEQUENCES AND INQUIRY LEVELS DURING THE COVID-19 PANDEMIC: A CASE STUDY OF THAI PRE-SERVICE PHYSICS TEACHERS

Kreetha Kaewkhong

Presenting Author: Kreetha Kaewkhong (kreetha.ka@cmu.ac.th)
Faculty of Education, Chiang Mai University, 50200, Thailand

KEYWORDS: Online teaching sequences, Inquiry levels, Pre-service physics teachers, COVID-19

INTRODUCTION

Teaching sequence refer to a sequence of teaching strategies. If teaching sequence is well organized and balanced, then it can help improve student understanding as well as problem solving in physics. Teaching strategies are methods and techniques that an instructor uses to support students through learning process. The instructor chooses the teaching strategy most suitable to the topic being learned and the level of students and their learning progress. Teaching strategies can be categorized according to learning outcomes such as eliciting prior knowledge, constructing conceptual understanding, conducting an experiment, providing an explanation, discussing demonstrations' results etc. The COVID-19 pandemic presented several challenges in teaching and learning physics. The sudden shift to an online learning environment required teachers to rethink and be more creative in using different teaching strategies to support online learning. This study aims to analyze teaching sequences of pre-service physics teachers in their online classes.

METHOD

Participants were fifteen Thai pre-service teachers teaching high schools around Chiang Mai province. Physics lesson plans from academic years of 2020 and 2021 were analyzed based on four-levels of inquiry – confirmation, structured, guided, and open inquiry levels (NRC, 2000).

RESULTS

Most pre-service teachers used teaching strategies to elicit students' prior concepts at the beginning of the class. However, most teachers did not use empirical data from learning activities to explain physics principles. Most online lesson plans were categorized into structured inquiry level, a few lessons in guided inquiry but none were in opened inquiry level.

REFERENCE

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Proceedings of the IUPAP International Conference on Physics Education, ICPE 2022 5-9 December 2022, page 107, ISBN: 978-1-74210-532-1.