

TEACHING INTRODUCTION TO PROGRAMMING USING INNOVATIONS

By Sasithorn Rattanaungrot (Group 4)

Department of Multimedia Technology
and Animation, School of Informatics,
Walailak University

rsasithorn@gmail.com

Overview

Introduction to Game and Animation Programming subject requires the understanding of problem solving, algorithm design, flowchart drawing, and coding. Some learning approaches found in teaching this subject is students can't perform algorithmic thinking and writing when they have to propose a solution that contains conditions and loops. As the result, their designed algorithms, flowcharts and coding didn't work correctly and the problem wouldn't be solved. This subject was taught using lecture-based technique where students listened to the teacher's talk and followed the lesson. This technique didn't work for some students because learning problem solving and algorithmic process specifically needs personal thinking skills, and practice.

Objectives

In order to improve the learning and thinking approaches for this subject, I have implemented the interactive learning environment by changing teaching materials to videos, Padlet and Socrative. These tools and techniques allow students to do more group activities using problem-based learning and interactive class using the proposed innovation in order to encourage them to start thinking, practicing and interacting with the teacher.

Activities

In the lab session, students were allowed to watch a video teaching the concept of loop in algorithm design and programming. After that, the teacher asked students to access Padlet and answer some questions in order to basically test their understanding of the first study through the video. The students then worked in groups in order to do the test on Socrative.

Outcome

Using videos as a teaching tool has become a new teaching technique that can encourage students to pay attention to the lesson because of the sound, moving images and subtitles. From the lab session, the answers on Padlet showed that most of the students could recognize and explain the main idea received from the video. Moreover, they could take the concept to do the test on Socrative which allow them to see the final score. Both Padlet and Socrative obviously present the learning outcome that the teacher can evaluate the accomplishment.

