SIMPLE EXPLICIT ANIMATION (SEA) FOR TEACHING ORGANIC REACTION MECHANISMS

TECHNOLOGY DESCRIPTION

This technology focuses on demonstration of organic reaction mechanism through the 'electron-moving technique'. It is created to help students to extract information in order to understand the complex, abstract and dynamic nature of organic reaction mechanism concepts.

TECHNOLOGY FEATURES

This technology has 2D animations in 3D orientation which brings static reaction mechanisms to life to convey the abstract dynamic concepts to students. Students will be able to analyze the reaction mechanism by controlling the pace and flow of the animation with an animation control bar. The exact movement of the electron and associated atom during bonding or broken reactions were clearly depicted in the animation to improve the students' understanding. The movement of the electrons is shown explicitly to increase students' understanding without the burden of note memorization.

ADVANTAGES

- Practical and customized learning
- Flexible
- Engages learners

INDUSTRY OVERVIEW

Prospect: Education Industry

Possible users for this product would mainly be all science-based students and educators in Malaysia. The year 2013 reported a total of 442,588 candidates for the SPM examination. In addition, in 2012, there were 180,558 number of students enrollment to the public higher learning institutions, 157,899 to the private higher learning institutions, 38,172 to the polytechnics, and 24,236 to the community colleges. At the same time, there were 29,769 number of educators in the public higher learning institutions, 7,306 in the polytechnics, and 2,751 in the community colleges. SEA is available to be downloaded at www.seanimation.com.my with a retail price of RM29.90 per user. Among the benefits include practicality (learn-by-viewing), customized learning, interactivity (self-controlled), flexibility (anytime, anywhere concept), and learners engagement.

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