Online Module of Intro to Environmental Engineering: Wastewater Treatment Plant

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Course context
Wastewater treatment process is a relatively difficult material in Introduction to Environmental Engineering class, not just because of the inherent complexities of multiple physical and chemical treatments, but also due to the often “tedious” and “busy” layout of a wastewater treatment plant design. Conventional class room lectures made the review techniques limited to reviewing notes, doing problem exercises, etc.

This online module utilized Prezi, an advanced multi-media online interactive learning and presentation platform, to guide students through the wastewater treatment process and associated technical details, so that students will experience animation, videos, and more visualized materials to overcome the learning difficulties.

Problem to be solved / Question to be answered
Introduce a new way of learning to complex engineering processes and examine whether the new way could enhance the better result (evaluated by exam and quiz).

Assessment
We use surveys to ask about their learning and user experience. We use quiz to assess the quality of learning and compare the scores of the students who used them and who did not.

Results

- The average usefulness for the Online Module is 7 (1-10) with a standard deviation of 2.
- The most liked feature from the review is the good selection of video in addition to the text content.
- The most common critic is the length of the online module. Students think the module is too long.