



Using Online Teaching Tools for Basic Medical Biochemistry Class during COVID-19 Outbreak

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Introduction

The COVID-19 pandemic has changed education worldwide. Classrooms cannot be operated as normal as social distancing rules are implemented to reduce the risk of disease transmission. Online classrooms require a redesign plan to motivate and engage students. The Basic Medical Biochemistry class employs online application tools for formative assessment. These tools-Classdojo, Zeetings, Kahoot and Poll Everywhere-effectively support the instructors in monitoring and evaluating student learning process.

Objective

To develop student's knowledge on medical biochemistry by using online teaching tools

Activities

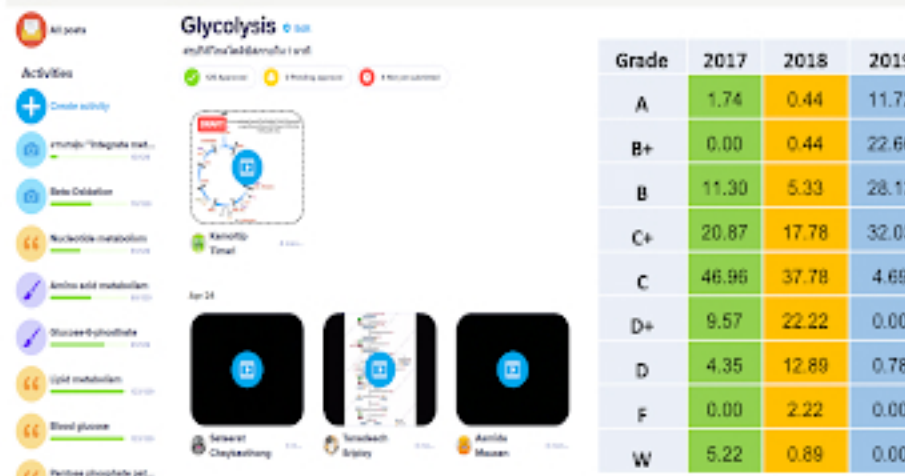
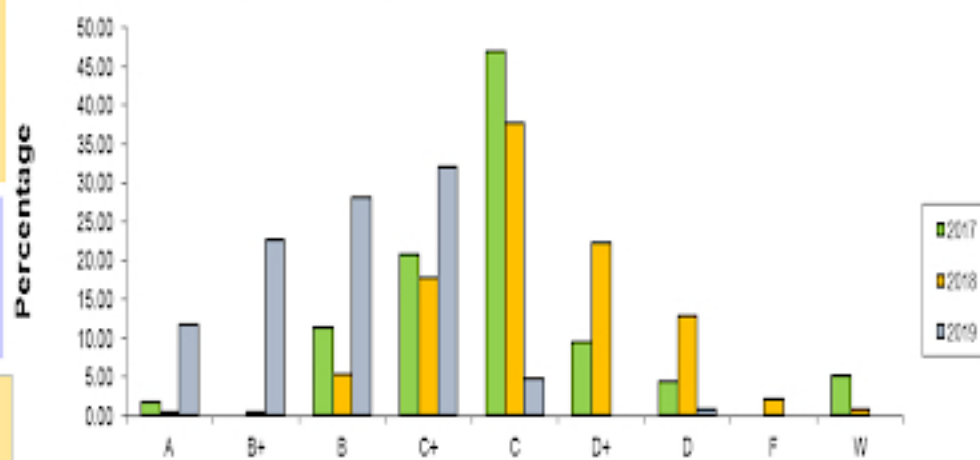
- Online teaching was operated on Zoom and MS team.
- The students could download teaching documents on WU eLearning and Facebook (closed group).
- During the class, Zeetings, Kahoot and Poll Everywhere were used to monitor the student learning outcome and engagement.
- Tasks and open questions were launched on Classdojo (Self-directed individual and collaborative activities) to check their understanding and provide feedback to the students.
- Midterm test and final examination were carried out on Socrative to assess the student learning.

Assessments	2017	2018	2019
1. Final Examination	40.0%	40.0%	20.0%
2. Midterm Examination	50.0%	45.0%	20.0%
3. Assignment	10.0%	5.0%	30.0%
4. Kahoot + Quiz	0.0%	10.0%	30.0%



Outcomes

- The students felt happy and excited to learn via new tools. They also conducted team work assignment well and tried to complete every task on time.
- As high as 11.72% of the students obtained excellent academic grade (A), which is higher than that in previous years.



Summary

Formative assessment is very important for instructors to monitor student learning and encouraging student to achieve the desired learning outcomes according to Bloom's taxonomy. For the Basic Medical Biochemistry class, several online teaching tools were used to improve student performance and proved to have strong impact on academic results.

Reference

Wei Bao. COVID-19 and online teaching in higher education: A case study of Peking University. Hum Behav & Emerg Tech. 2020; 2:113-115.