

A Study of the Future Classroom Setting in Higher Education System

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Abstract: In today's modern society, students and educators are interested in teaching approaches that enable them to learn at their own pace by leveraging their comfort with technology in a setting that is fun, collaborative, applicable to real world problems and often team-based. It is imperative for educators to develop corresponding new teaching methods that are much more efficient, and effective. Many institutes have developed online programs that havemade education more available with the advance of technology. This paper investigated two different teaching systems: campus based learning and online learning. Both campus-based and online learning share common learning objectives and can achieve the same learning outcomes with different approaches to communicate with students and motivate them in the learning process.

Introduction:

Advancements in technology have created a new generation that learns more actively—and intuitively—than passively, as was the norm in prior generations. Technologies provide opportunities for both educators and learners to seek teaching and learning approaches that enable them to learn at their own pace by leveraging their comfort with technology in a setting that is fun, collaborative, and often team-based. Many universities have developed and offered hybrid or fully online courses as a viable alternative to a traditional classroom. The online education has become very popular, especially for working professionals who are looking for career advancement, career changes, or the chance to earn a degree at their own pace. In online classes, students are able to plan their own time for class activities and participations following instructions. Not only students have to adapt their learning, but also educators must change the way they have been teaching traditionally in classroom to accommodate the flexibility and accessibility to achieve the effective and efficient learning outcomes. How different are these two methods of teaching, and do either prove better for the student? With these questions, we

compared two different systems in curriculum development, class activities, student support and assessment.

Curriculum Development:

In both traditional college campuses and online campuses, curriculum developments are always ongoing processes to maintain the degree program current, and reflect changes in the subject areas. In the curriculum development of both in-seat and online courses, the goal is to achieve the same objective and the learning outcomes. It is important to ensure the quality of education no matter what class setting the students find suitable according to their situation and decide to pursue their education goal.

On campuses, the curriculum is continuously discussed by faculty and courses will be modified or new courses will be developed in demand of current changes of the subject area. The document often includes:

- The course description
- Detailed the learning objectives
- Teaching topics along with a selected textbook by each week or each session
- define grading policy

The course outlines, or syllabi and other course documents will be shared with all instructors who teach the course. Instructors have the flexibility of conducting class activities as long as the learning outcomes are met while different teaching pedagogy may have been applied. Different assignments, projects and different test questions may be given to assess the learning outcomes and further evaluate students' final grade. It allows instructors to adjust emphasis of topics during lectures according to feedback from students and observation from interaction with students. However, it is challenging to maintain consistency when multiple sections of the course are taught by different instructors.

On the other hand, development of an online course aims to achieve the same course objective as the campus curriculum. It often involves more details in addition to describing the course description and learning objectives, such as:

- provide weekly lecture, reading materials with a selected textbook
- Create assignments, research papers, and term projects
- design online quizzes and exams
- define grading policy

The fact that all course materials are pre-developed and pre-loaded online enforces consistency of teaching no matter which instructor teaches the course. The schedule is set so that instructors and

students have to follow the curriculum design. However, most of online class setting are asynchronous naturally that students access course contents at different time within defined duration. The responsibility of instructors have become more as facilitator who provides course related materials, initiates and monitors discussions,

Class Activities and Participations

Traditionally, instructors have flexibility of conducting class activities as long as the learning outcomes are met while different teaching pedagogy may have been applied. Different assignments, projects and different test questions may be given to assess the learning outcomes and further evaluate students' final grade. It allows instructors to adjust emphasis of topics during lectures according to feedback from students and observation from interaction with students. However, it is challenging to maintain consistency when multiple sections of the course are taught by different instructors. For many years, pedagogy study has been focused on how to conduct classroom activities effectively, and engage students in the classroom learning.

In online classes, the role of the instructor is different than the one in classroom but the goal and responsibility of instructors have been the same. Instead of giving lecture of materials, instructors facilitate online resources with students' learning. Students are able to plan their study time and to participate in class activities despite their geographical location. They can access the class materials whenever they have time to study or they need to review the materials repeatedly. It is the student's choice whether or not studying at nighttime or in the morning is best for them. Especially for those who are employed, having to work and attend classes at the same time can be very stressful. Online classes reduce the stress by allowing students to learn when it is convenient for them. Communications with instructors and classmates can be carried out through emails and online discussion board and etc. Instructors organize course materials, including lectures and assignments, etc. create a discussion forum to engage students in the learning process. Instructors may post on Discussion Board additional effective assignments and information resources. Through online utility, instructors communicate with students throughout Discussion Boards, News Forum, Open discussion Forum and one to one communications such as answering students' questions via chat room, WEB conference live meetings, emails, and phone conversation as requested or needed. However, having this flexibility, students must be able to control and manage the time effectively. They ought to be more self-disciplined and self-motivated. All students will be fairly evaluated in the same criteria with online record setting for late penalty policies and grading.

Online classroom setting also provides a communication channel for students who take the same classes. Normally, a discussion board is available in different formats of different software with

the very same purpose: a virtual forum for students to share experience, exchange ideas, raise questions and discuss possible solutions.

Students support:

Interestingly, students taking online classes find instructors more approachable via the internet than they would be in a classroom setting. On campus, instructors offer certain number of office hours when they are available for students who may have questions or need additional help outside of classroom. Through online system, students can send questions and comments to instructors anytime and instructors respond and provide feedbacks and comments within a promised duration, some institutes require instructors to respond students' inquiry within 24 hours. In addition, online students can participate in their department community group, and request to setup live one-on-one tutoring session as needed.

Very often in the classroom setting, the discussion turns out to be dominated by a few students who are more confident and out-spoken while the virtual discussion boards provide an equal opportunity for all students to participate within their own comfort zone when they are all required to, for example, have an initial quality post in discussion forum, read other posts, and reply to others for grading.

However, students must have discipline, time management, and self-motivation to succeed in obtaining online degrees. What they would not experience is campus life and what the campus life would offer to all students. On normal campuses, learning center with tutoring service is established where students can seek one-on-one help in person. Various intellectual events and social activities on campus enrich cultures and motivate learning.

Campus-based learning promotes civic engagement. Many colleges and universities are beginning to emphasize that educating society about civic responsibilities is a crucial element. Using the campus as a study site gives students an opportunity to be part of the campus community in a practical, hands-on way.

Assessment:

Assessment is the process of observing and measuring learning which provides faculty with a better understanding of what students are learning. Faculty will be able to further engage students more deeply in the process of learning. Traditionally, assignments and projects were given and collected; quizzes and tests are conducted in classroom at the set date and time. Online students are able to choose when they would like to take them during the time frame. Very often the tests given in classroom are close-book tests. Students have to demonstrate their comprehension of topics without accessing any materials. The close-book tests reinforce students to understand and memorize related concepts during their preparation for tests. Unlike

traditional students who have set class times, online students are able to review materials until they feel they are ready to complete assignments or take tests and quizzes. Online tests may not have a robust mechanism to conduct test in the close-book manner. Instead, students have access to all information available, such as books, their notes, and computer with internet search.

The advantages of in class testing

- If students have questions, the instructor is present to answer them.
- While cheating is certainly possible, the professor is there to catch cheaters.
- Everyone has the same chances within the same time duration to pass the test.
- More students are used to this testing method. They have been tested in the classroom for years.

The disadvantages of In Class Testing

- Many people have testing anxiety. Being in a room full of people taking a test can make these people forget everything they knew on the subject being tested.
- Students must be on time to take the test.

Advantages of Online Testing

- Students can often take the test at their own preferred time. Many instructors offer a window of time for students to choose to take the test. While the test is still likely timed once students begin.
- If a student has testing anxiety, it should be lessened when the student takes the test at home on a computer answering questions, rather than in a room full of people.
- If you get a leg cramp, feel free to jump up and run around the room.

Disadvantages of Online Testing

- It is not monitored by instructor. It is very challenging to avoid plagiarism.
- The computer or internet connection problems may occur.
- If students have questions about the test, instructor might not be online to answer the questions
- Some students might not be used to online testing and may not be used to navigating the test. Unskilled navigation can result in pressing the wrong button and getting locked out of the test.

Faculty and Students Effort

Traditionally in classroom teaching, instructors prepare the lecture, deliver the lecture in the classroom, and answer any questions student may have. The classroom is the platform of all

class activities. Instructors interact with students during the lecture. Students may ask questions during the lecture. Based on the observation during class from students' expression, behaviors and questions and feedbacks, instructors may adjust activities to address emphasis as necessary. For example, instructors may stop lecture and raise a question in order to have the class's attention; instructors may open discussion during lecture. Instructors' efforts are used to prepare lecture, conduct the class, prepare tests, and grade them.

Online classes changed the way instructors conduct teaching. All lecture materials are accessible anytime, including course description, lecture presentations, assignments and etc. Tests are preloaded and instructors will make them available to students at the scheduled time. Instructors no longer conduct class lecture. Instead, students will go through materials at their time of preference. What else is there for instructor to do besides grading that is automated most of the time? When students have questions, instructors need to explain via writing or phone conversation. It is much more difficult than in the classroom especially in the topics that visual graphs can be used. Moreover, the instructor would have to repeat explanation to each student who has the same questions when phone conversation necessary. If the discussion board is used for class discussion or exchange of questions and answers, there will always be time delay unless instructors are on the internet 24/7.

As a student, learning in the classroom setting is different than learning online. In classrooms, students need to be on time, focus, participate in class activities and follow instruction about assignment. In online class, students need to be self-disciplined and self-motivated to allocate time to read lecture and be able to comprehend. Instructors are there to help only if students raise questions.

Summary

Classrooms provide a platform for instructors to communicate with students, observe students and further enhance their teaching. In classroom, emotion, passion and the personality of instructors can have great impact on students. The campus life can nurture, motivate students and help students with various problems.

Although the online teaching will not replace the classroom teaching, the population seeking online education has been growing. Many universities have increased the offering of online curriculum. Online classes provide flexibilities that on-campus classrooms do not have. It has made possible for working professionals who are looking for career advancement, career changes, or the chance to earn a degree at their own pace. It also provides opportunities for many people who are self-disciplined and self-motivated to seek quality education in at a distance.

BIOGRAPHY

HONG LI, Ph.D. of Mathematics, is Associate Professor and Chair of Computer Systems Technology Department. Combining many years of industrial and academic experiences, she focuses on research in mathematical modeling in several fields of applications and published a number of papers related to research in the fields of civil engineering and biomedical engineering. She also has interest of research in teaching pedagogy, innovation of teaching the digital generation.

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