Recent Trends in Education: A Comparative Study of MOOCs and Classroom Teaching

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Abstract

Massive Open Online Course (MOOC) has gained a lot of momentum in the field of education since the emergence of novel technologies in the internet. It caters to the needs of the teachers as well as the learners belonging to any field of education. There are plenty of online learning MOOC platforms such as SWAYAM, Coursera, EdX, Udacity etc. offered by the prestigious Indian and foreign universities these days. Further a learner has the option to go for a credit course or a non- credit course. The increasing trend of learning through MOOCs can be seen among the learners and it seems to be beneficial to some extent. Besides much enthusiasm can be seen among them as they have the opportunities to learn the concepts from the renowned experts in a particular field.

Yet, there are certain disadvantages which cannot be overlooked such as lack of interaction or less interaction due to high teacher to learner ratio, technical faults, problem in internet connection etc. This paper aims to analyse the factors which are conducive to online teaching through MOOC. Further it will examine the learners' responses pertaining to blended mode of teaching/learning i.e. to supplement traditional classroom teaching with MOOC and will also emphasize the challenges faced by the learners and their possible solutions to facilitate the blended learning.

Keywords: MOOC, Blended Learning, Effective teaching, Opportunities, Challenges.

Introduction

Online education can be very helpful and therefore essential in the present times where people have busy schedules. It serves as an additional knowledge tool which is used when one is working and has no time to go physically and attend a class. One can opt for an online course to add to his knowledge bank. The online courses have also become a trend to add to an individuals' resume. The discussion still stands whether classroom teaching or online learning is better.One of the most famous and well known online learning platformsis the Massive Open Online Courses (MOOCs). MOOCs are an extension of edX and are a leader in online learning. Further the courses available on MOOCs are very diverse and have a lot of variety pertaining to all the fields which give the user one single platform where he can do a course in any field and can get quality education.

Study Duration

2008-2015

Objectives of the Study

The objectives of the paper are:

1. To analyse the effectiveness of the factors through which massive open online courses can be administered.
2. To determine if MOOC course is pertinent to the students of Higher Education Institutes (HEI) like engineering especially for a course in Communication Skills, which require a very learner centred approach and one to one interaction in order for an individual to improve himself.
3. To examine if the syllabus of Communication Skills can be taught through MOOC only, classroom teaching only or in a blended mode.
4. To understand the advantages and disadvantages of a MOOC platform for learning.

Review of Literature

The term MOOC was first coined by Dave Cormier in 2008 to refer to an online course offered by University of Manitoba, Canada. The course entitled 'The Connectivism and Connective Knowledge' was the first course expedited by George Siemens and Stephen Downes. McAuley et al. (2010) define a MOOC as:

an online course with the option of free and open registration, a publicly shared curriculum, and open-ended outcomes. MOOC integrates social networking, accessible online resources and are facilitated by leading practitioners in the field of study. Most significantly, MOOCs build on the engagement of learners who self organise their participation according to learning goals, prior knowledge and skills, and common interests. (p. 10)

Though MOOC started evolving in 2008, yet it took four years to become a developedand much grown area in the field of education. Thus 2012 saw the flood of courses offered through MOOCs such as EdX and Coursera. However it is still in its infancy and if implemented more effectively and resourcefully can enhance the learning experience of the coming generation.

Methodology

For the present paper, a questionnaire was distributed and data was collected to study the several research questions pertaining to MOOCs. To undertake the study, 50 undergraduate engineering students of first year from different disciplines were selected who are currently studying Communication Skills. The aim of this study is to find out if teaching through MOOC coursesin a blended mode along with the conventional classroom teaching would be beneficial for them or not.A course named Soft Skills and Workplace Communication was offered to them in blended mode through MOOC i.e. 25% of the syllabus was covered through MOOC while 75% was done by the instructor in the classroom. It was a 6-week course, where the learners were required to devote four to five hours per week to the do the course content and three hours for a live face-to-face interaction. The researchers also interviewed the learners so that they could comprehend the actual status quo of MOOC and traditional classroom teaching.

Good communication skills are considered as the most essential element in one's personality for his successful career.According to Zola Sikiti "Communication is a purposeful process of expressing, receiving and understanding messages containing factual information, feelings, ideas and needs by two or more individuals through common symbols". (1)Knowledge knows no bounds and thus the education has now no boundaries. It has become ceaseless as it is gradually being shifted to the virtual classroom from conventional classroom. Thanks to the emergence of information technology and its devices used for acquiring knowledge. Because of the availability of these devices such as smartphones, laptops, i-pads, tablets it has become much easier and convenient to look for the areas and further explore them. Thus MOOCs are now evolving as leading educational platforms as a result of the social, national and global changes in Higher Education Institutes (HEIs).Most of the IITs are offering MOOC course either paid or free of cost. Being tech savvy, the students of HEIs participate in MOOC courses enthusiastically. National Programme on Technology Enhanced Learning (NPTEL) and SWAYAM are the two main initiatives taken by government of India.

MOOC is relatively a new platform for learning where the learners from any country can join and learn together irrespective of their age, background, caste, creed and religion. They can learn at any place and at any time which is convenient to them with their own pace. Through this connection, they can share and interact with other participants as well. That is the reason why it is becoming popular these days. Due to diverse learning community it claims to cater their needs and aims to offer best educational experience to the learners.

To define the basic principle of learning in a blended mode, Garrison and Vaughan state that: Face-to-face oral communication and online written communication are optimally integrated such that the strengths of each are blended into a unique learning experience congruent with the context and intended educational purpose. (5)

This blended mode of learning can benefit both the learners and the instructor. The learners can watch a number of appropriate video lectures and can do the quizzes and assignments through MOOCs. Meanwhile the instructor canconcentrate more on learners' individual performance and involve them in the discussion and can correct them. Let's discuss some advantages and disadvantages of MOOC course.

Advantages

The MOOC courses come with a lot of advantages:

Convenient

The online courses or MOOCs are convenient for the users because if one misses a class one can always watch its recorded video. Time is nota constraint as it can be watched at one's ease.

Self-paced

This makes it very suitable for the learners. Most of the learners who would opt for a MOOC course would mostly be occupied with other errands, therefore a self-paced course will add to their convenience.

Flexibility

Online courses also offer a lot of flexibility in terms of time, venue or duration to do an assignment, a quiz or to watch the video lectures.

Self-discipline

The courses which are not self-paced and progress with a timeline/deadlines to meet, can also work as a source of self-discipline.

Infrastructure

This could be another factor for a few who are uncomfortable on chairs etc. They can just be at their ease working on their bed or a place that would be comfortable enough. No additional infrastructure is required to pursue the course.

Free of cost

Many online courses are also free of cost which makes it an incentive for more people to register for a course without bothering about the fees.

Diversity

The people enrolling for online courses are from different countries, of different age groups and sex. It brings in a lot of diversity in all aspects. As the world is becoming a global village, many courses also help to connect with people from all over the world.

Easy Availability of Content

The content is easily available, accessible and can be seen even after the scheduled time/slot.Learning through mobile technologies has now become very common these days. It facilitates these MOOC courses where one just needs a cell phone with an internet connection. Further it providesample knowledge to the learners through different sources and makes learning available anywhere and anytime.

Highly Qualified Instructors

The instructors delivering lectures at MOOC courses are highly qualified and knowledgeable which makes the experience enriching for the learners.

Better pedagogical Techniques

As the instructors are highly qualified the pedagogy is also unique and very enhancing.

Disadvantages

MOOCs or online courses do have a lot of advantages but at the same time there are some drawbacks too:

Personalization

The main issue with MOOC course is that the teacher being physically present in class can know all the students, their strengths, their calibre as an individual which is very important for a mentor/teacher in order to make teaching very learner centred. Therefore, thousands of students taking a MOOC course cannot be personally dealt with. This leads to widening the gap between the mentor and the learners. This is more appropriate in case of a course in Communication and Soft Skills, as these courses require individual attention and the physical presence of a teacher. Personalization is actually what lacks in the MOOC courses.

Practice

One can enhance or learn Communication Skills only with a lot of practice, especially in terms of confidence building and speaking. Courses related to other fields could still be done online but learning a language or improving ones' communication skills is changing from becoming typically a skills centred approach or making it target situation analysis to being a learner centred approach.

Need Analysis

Any communication course or an ESP course has to be based on a need analysis which should be done before starting a course. This is lacking in the MOOC course – no need analysis of the learners can be done in a MOOC course therefore it does not make it very specific to the learners needs. To classify thousands of learners as one and not giving individual attention to each learner may not fulfil the overall objectives of the course.

No error Analysis

It is difficult to keep track of all the students' assignments and quizzes.

High Drop-out Rate

Most of the learners join the course initially but do not complete it due to the disinterest or the absence of instructor physically. The drop-out rate amongst the learners is very high. Only 8 percent of the learners who enrol for any course actually complete it leading to high attrition.

Non availability of the Instructors

The instructors are not always available.

Difficult Meet ups

Scheduling meet ups are difficult because learners may not show up.

Over-crowding

It is already mentioned that the learner - teacher ratio is very important. When there are fewer learners the teacher can work on each learners' strengths and weakness but the structure of the MOOC courses is such that it is impossible to cater to each learner's problems or need leading to a feeling of being on their own amongst the learners.

Unreliable Grading System

Grading multiple choice questions can be fair enough even if the software evaluates it but grading the assignments which are essay based etc. still remains a challenge as a learner will not be satisfied if software does it. Descriptive type assignments have to be evaluated manually which is again a challenge in the MOOC courses for the same reason of the number being high.

Discussion Sessions

With an online discussion sessions learners have much more time to formulate and post their responses; this gives important advantages, but it also has disadvantages.

Findings of the Study

The questionnaire (attached as Annexure I), distributed among the students, had ten questions in all covering almost all the aspects of the course. The survey based on a questionnaire has a mixed review. Some feel MOOC course is important and effective but the majority has concluded that it is not very effective in a blended mode. After collecting their responses, the exact comments given by them are described in verbatim as under:

S. No.	Aspects/Areas	Responses from the Data Collected
1.	Objectives Fulfilled	1. Useful to some extent. 2. More like a lecture and less practical. 3. Will not be able to learn too much from the course. 4. Good method to enlighten the loopholes to be filled in our general communication. 5. Do not have enough time because of the busy schedule. 6. Gives information but not practical because by watching videos we cannot be prepared for the corporate world. 7. Boring videos therefore does not contribute to increasing our knowledge regarding the corporate world. 8. Theoretical not practical skills. 9. Lot to offer can actually benefit in the corporate world. 10. Clear, useful and helpful content along with exposure. 11. Improves communication skills and helps to build effective communication. 12. Average. 13. As compared to the main course, not helpful. 14. Content is not enough. 15. Objectives are not fully met. 16. Helped to understand the importance of team work.
2.	Syllabus	1. Boring 2. Good 3. This course can be life changing for someone who is shy to present his knowledge. 4. Theoretical and not practical. 5. Improves interaction. 6. It is very varied and helpful. 7. Not appropriate at all. 8. Practice is there but not applicable. 9. Syllabus is good but its presentation is worthless and way of teaching or delivering it is not good. 10. A clear and crisp layout. 11. Videos are important. 12. Great essence in terms of development of soft skills. 13. Not relevant. 14. Improves reading and writing skills. 15. It could more elaborative. 16. Average and basic. 17. Good focus on listening, reading and writing skills. 18. Syllabus is sufficient therefore college syllabus should be removed. 19. No effect on verbal communication and speaking. 20. Online group discussion is not beneficiary.
3.	Instructors' Style of Teaching:	1. Videos are good but face to face sessions are useless and monotonous. 2. Liked the videos, especially pronunciations. 3. Not effective and very boring. 4. Style is good. 5. Was not able to connect. 6. Failed to build our interest. Not attractive. 7. Enlightens us with the topic. 8. Indulging, interesting and effective. 9. Idea of providing power point presentations along with text document with the videos is helpful. 10. Boring and not better than PEC faculty. 11. Examples very poorly delivered. Very vague. 12. Lot of time taken focussing on things which can be avoided. 13. Face to face sessions not required as they are very lengthy and not to the point. Recorded videos and enough and satisfactory. 14. Videos are excellent. 15. Technical problems.

4.	Materials	1. The materials are resourceful, interesting, up to the mark, adequate and relevant along with good examples. 2. Good but few things are not clear. Can use more examples. 3. Not useful 4. All general topics, some technical topics should also be added. 5. Boring and presentations of the materials could be more organised. 6. Email writing was interesting and useful. 7. Not influencing at all –lot of gaps in their communication. 8. Very lengthy. Must write in point what they want to convey. 9. Teachers lacked enthusiasm. 10. Less of examples and illustration. 11. Lot of material but can be presented in a better and concise way. 12. Everything has meaning and nothing Is illogical or unnecessary. 13. Useful and covers all the topics. 14. Time consuming.
5.	Testing and Evaluation	1. Quality and level of assignments and quizzes is good and time given is enough. 2. Good evaluation technique and interesting. 3. Helps to improve our English. 4. Quizzes are well structured and evenly distributed covering all the topics. 5. Level is low especially the graded ones. Easy. Should be more difficult and are not challenging enough. 6. Time consuming and hectic. 7. Not interesting especially the promise activity was useless. 8. Evaluation method is not just. 9. Average –could have been more relevant. 10. No error analysis.
6.	What difficulties you encountered in being able to attend the MOOC course?	1. Management is a big problem. 2. Registration process was very difficult. 3. Face to face sessions not conducted properly. 4. Boring and time consuming. 5. No proper arrangement. 6. Additional burden and fruitless. 7. A lot of technical problems. 8. Should be made compulsory.
7.	How did the online course benefit you?	1. Helped me improve my communication skills especially reading and writing skills. 2. Does not benefit as compared to class lectures. 3. Better than the course in PEC. 4. Improving my soft skills 5. Not beneficial at all. 6. Need a lot of practice and visualisation in reality. 7. Videos are informative but should be to the point. 8. Time waste and useless 9. Should be in some other semester. 10. Online courses are beneficial but not from IIT Bombay. 11. Tips are useful. 12. It is a burden. 13. Prepares for the corporate world and improves our communication skills and also increases our confidence.
8.	How efficient was the course on 'Soft Skills and Workplace Communication':	1. Course is efficient and wide range of activities is used. 2. Lack of efficiency and long hours. 3. Lacks feedback. 4. Duration of the videos should be reduced. 5. More elaboration could have been done on the concepts. 6. Low level of questions. 7. Average 8. Practical is missing. 9. Course is good but its implementations are not effective. 10. Should replace PEC course.
9.	How would you rate the following modes of teaching?	1. PEC teachers are better and highly qualified. 2. There should be no blended course. Too much burden. 3. Classroom teaching is the best, effective and a better way to execute a course.
10.	Timing:	1. Time is more than enough. 2. Timing should be reduced.

From the above survey we can deduce that the objectives of the course were not fully met, as the learners felt that more practical application was required. The content was very satisfactory and knowledgeable, resourceful, relevant with good examples, but delivery of the course did not make it

very effective as one cannot be prepared for the corporate world only by watching videos. The syllabus had a clear and crisp layout but was more theoretical than being practical. As the learners' group consisted of engineering students there could have been more technical topics as well. This point again brings us back to the same discussion that online courses cater to masses and therefore cannot be very specific to the learners' needs. The learners also felt that pronunciation was appropriate which signifies the standard of English was suitable for all. The videos overall could not build learners' interest but the power point presentation provided along with the text document with the videos was extremely helpful and informative.

Testing and Evaluation plays a very major role in any kind of learning. According to Dan Douglas, "The most important reason is also fairness. Tests allow us to get a 'second opinions' about our students' progress-they can help confirm our own assessments and help us make decisions about learners needs with more confidence. Tests also provide some standardisation and learners progress can be judged from one time to next, that the assessments are reliable." (1)The course's evaluation technique was good and interesting, quizzes were well structured and evenly distributed covering all the topics. However, the learners belonged to all levels i.e. elementary, intermediate and advanced level therefore some learners felt that the level is relatively low, it should have been more difficult and were not challenging enough, while others felt it was apt.

Conclusion

Classroom teaching is more effective as communication skills require one to one interaction. Also, the learners who are pursuing engineering are a mixed group belonging to Advance as well as Basic level. Therefore there will always be discrepancies in terms of the level of evaluation. Some may find it very easy while others may find it very difficult. Therefore, for a MOOC course or any online course, it should not be made mandatory. It is an additional knowledge that should be an individual's choice to enrol or not. Most of the learners feel that nothing can be compared to classroom teaching. Classroom teaching especially for communication skills is very important to cater to every learner individually. Error analysis is very important which is not possible when you cater to thousands of learners.

Further from the survey it has come out that though the syllabus is very much pertinent to the current needs yet the delivery of the content is not appropriate. It could not generate interest among the learners. The way the content is delivered plays a vital role in determining whether or not the learner would gain from the course. The recorded videos could not make an impact on the listeners. Even though the teachers were learned academicians yet they were unable to make a good rapport among the students. The major reasons include use of very high vocabulary, inaccessibility of the content due to technical problems and lack of teacher-learner interaction. It was just a lecture based video programme that was only pouring the information without any activity or any feedback from the learner's part. From the ongoing discussion it can be concluded that classroom teaching is the best, effective and a better way to execute a course in Communication Skills.

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