# A Study on Perception Towards MOOCs in Traditional Educational Institutions

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## 1. Introduction:

Massive Open Online Courses are online courses aimed at providing quality courses on education using tools like video lectures, web-based lectures and interactive support community for an unlimited number of participants using Internet access (Kaplan & Haenlein, 2016). The idea for MOOCs was initially introduced in 2008 though it started gaining popularity in 2012 after course providers like Coursera, Udacity, and edX in association with top reputed universities emerged (Lewin, 2013). Traditionally, in distance education, courses were offered using correspondences via postal services (Pappano, 2012). In later years, the knowledge regarding specific courses in distance education was also imparted through television and radio broadcasts. Lately in the last two decades, e-learning using web-based course material had become another medium through which distance education was offered. MOOCs are the latest technology feature to be added to distance education.

MOOCs fall into two basic categories namely c-MOOCs and x-MOOCs (Levy, 2014). Learning in c-MOOCs or Connectivist MOOCs is not properly organised and does not have a uniform grading pattern. The learners in c-MOOCs choose their own topics, material, pace and goals instead of a pre-designed common syllabus. The c-MOOCs approach encourages the learner to form public learning network groups to discuss the materials of interest with little effort to grading and certification. Mostly, c-MOOCs are free and open to all. On the other hand, x-MOOCs offer courses that have pre-designed syllabus and recorded video lectures and content with proper grading and certification facilities. Most of the new MOOCs providers like Udacity, Coursera belong to this latter category of MOOCs. All the students for any particular course in x-MOOCs follow the same set of goals and course trajectory (Lugton, 2012).

MOOCs were first popular in the western countries but have gradually found popularity in countries like India too. This popularity is due to the fact that there are hardly any entry-level requirements or pre-requites for pursuing MOOCs courses. Anyone interested with

an internet connection can opt for MOOCs. Most of the times, it has been seen that many of the introductory courses for some subjects are offered free of cost. This feature often makes MOOCs popular among students. These features have led to an increasing trend of popularity for MOOCs in India too. Much of this popularity is still limited to the metropolitan cities of India like–Delhi, Mumbai, Kolkata, and Chennai where the fundamental requirements for MOOCs i.e. internet access is more easily available than the other parts of India. The aim of this paper is to study the perception towards MOOCs in cities like Guwahati. In addition, in this research paper, various studies have been made to understand the perception of both teachers and students from the traditional or conventional education system towards various factors related to MOOCs.

## 2. Literature Review:

Murray (2014) conducted a survey on perception towards MOOCs using participants of a MOOCs course on "Equine Nutrition" offered by The University of Edinburgh. The course covered topics ranging from anatomy and physiology of the gastrointestinal tract to nutrition related disorders. The university already had a history of providing six MOOCS courses from the previous year. Around 24000 number of participant enrolled to this MOOCS course though only 44 percent received a statement of accomplishment and the completion rate was only 30 percent. The survey revealed that the highest number of participants was in the 25-34 age group with 90 percent female participants and most of the participants had not taken a MOOCS previously. It was found that most of the participants for this MOOCS course were from United Kingdom and America. The studies on perception revealed that 90 percent rated the MOOCS as either excellent or very good and that most of the participants watched the lecture videos every week.

In another study by Cole & Timmerman (2015), the perceptions and attitudes of college students regarding MOOCs in United States of America were studied. The study focused on taking students responses to eight open ended questions on issues ranging from reliability, content, learning to communication has been categorized into six categories. Eighty-four participants answered to all eight questions and these answers were examined using thematic analysis. The findings suggest that most students do not perceive learning in c-MOOCs to be of the same quality as that in the traditional educational system. Also, it was found in this study that students feel the amount of interaction

in learning via MOOCS is limited compared to traditional system. The conclusive remarks provide a suggestion that instead of giving critical opinions, rather a way should be found to help MOOCs find the target audience and how they should be served.

Another research paper by Ghazali & Nordin (2017) explores the perception and learning in MOOCs from the perspective of three senior Malaysian university lecturers. The data was collected using semi-structured interviews of 30 to 45 minutes. It was found that the students' attitude, human resource, time constraint and the lecturer's self-efficacy were some of the common challenges for learning in MOOCs. The study revealed that one of the causes for low completion rate is due to the lack of proper monitoring and supervision of students. Infrastructure and technical issues are some of the other challenges to be found in this study. The findings also suggest that steps need to be taken regarding students perception of MOOCS implementation.

A study was conducted by Aboshady et al. (2015) on perception and use of MOOCS among undergraduate medical students in Egypt. The study was conducted using two thousand one hundred and six randomly selected participants from ten medical schools in Egypt. It was found in this study that clinical year students were more knowledgeable than academic year students. Though 29 percent of the students had enrolled in at least one MOOCS course, only 6.5 percent of them were actively enrolled. Better internet connection and time management skills were some of the challenges in Egypt regarding MOOCs.

In another paper by Chatterjee & Nath (2014), a study has been made on some of the major issues regarding popularity and perception of MOOCs in higher education in India. Some of these factors involve low rate of digital literacy, lack of infrastructure, the difference in status between MOOCs and traditional education, centralization of MOOCs and language barrier. Most of the MOOCs are conducted in English medium whereas most of the students in India belong to diverse language backgrounds. In this paper, a study has been made using participants from mostly Computer Science stream belonging to urban colleges in metro cities of India. It was found that though the students are familiar with digital environment, the percentage of students opting for MOOCs is considerably very less. This paper suggests promoting massive digital literacy drive, developing the infrastructure, upgrading the status of MOOCs and introducing MOOCs in regional languages as some of the solutions to boost the popularity of MOOCs in India.

## 3. Methodology:

For this study, a total of twenty three questions were developed to understand the perception towards MOOCs from both students and teachers associated with the traditional graduate and under graduate degree programs. The student participants and teacher participants in this study were from diverse educational backgrounds like arts, commerce and mostly engineering belonging to reputed colleges and universities in greater Guwahati in the state of Assam, India. It was assumed that not all the students and teachers were familiar with MOOCs, so a brief introduction on MOOCs was provided in the questionnaire. The present study was conducted in three private colleges and one private university in Kamrup district of Assam. A total of 65 students and 20 teachers participated in this study.

The goal of this study is to know the general opinion of college and university teachers and students towards MOOCs. In this research study conducted, we also tried to understand the suggestions provided by the participants to make MOOCs popular and successful in India. The questionnaire has twenty-three questions that considered a whole range of issues. Some of the questions were on issues like familiarity with MOOCs, whom the participants think MOOCs are suitable for, if the participants know any MOOCs providers and MOOCs courses related to their discipline, and if they are, open to pursuing MOOCs any such courses. The questionnaire also included questions on if the participants thought MOOCs was popular in India and if not, then how to make MOOCs popular in India.

## 4. Findings and Discussion:

In this research study, it was found that 52% percent of the students and 64% had not even heard of the term MOOCs before this survey. The participants had heard even less about "SWAYAM", the Indian version of MOOCs. Once the participants were made familiar with the concept of MOOCs by way of reading the brief introduction provided in the questionnaire, 100% of the teachers and 98% of the students agreed on the necessity for MOOCs. Most of the participants have had no friends or family who had taken MOOCs courses earlier but 91% of the student participants and 82% of the teacher-participants are interested in taking a MOOCs course. This percentage increases slightly for both teachers and students when a preferred course is available as MOOCS. It was also found that 91% of the teacher and 77% of the student

community differentiated between degrees obtained through MOOCs when compared to traditional education. Around 91% of the teachers and 84% of the students would prefer education through MOOCs to open distance-learning education. The details of the findings of this study are presented in **Table 1.**

**Table 1:** Study on basic perception towards MOOCs

| **Questions** | **Students** | | **Teachers** | |
|---|---|---|---|---|
| | Yes | No | Yes | No |
| Have you heard of MOOCs? | 48% | 52% | 64% | 36% |
| Have you heard of SWAYAM? | 28% | 72% | 18% | 82% |
| Is there a necessity for MOOCs? | 98% | 2% | 100% | 0% |
| Do you have family/friends who have taken MOOCs? | 26% | 74% | 9% | 91% |
| Do you differentiate between traditional learning and learning via MOOCs? | 77% | 23% | 91% | 9% |
| Are you interested in doing MOOCS courses? | 91% | 9% | 82% | 18% |
| Will you study if your preferred courses are offered as MOOCs? | 93% | 7% | 91% | 9% |
| Do you know of any MOOCS providers for your discipline of study? | 23% | 77% | 18% | 82% |
| Do you think you will benefit by learning using MOOCs? | 98% | 2% | 100% | 0% |
| Will you recommend your friends/family to learn via MOOCs? | 98% | 2% | 82% | 18% |
| Will you prefer education through MOOCs over conventional education? | 72% | 28% | 73% | 27% |

| | | | | |
|---|---|---|---|---|
| Will you prefer education through MOOCs over Open Distance Learning education? | 84% | 16% | 91% | 9% |
| Do you think MOOCS s are popular nowadays? | 67% | 33% | 72% | 28% |

In this study, it was also found that that 85.5% of the participants knew names of fewer than three MOOCs providers, 14.5% of the participants knew names of MOOCs providers between four and seven. It can be seen from figure 1 that none of the participants knew names of more than seven MOOCs providers. Also, during research it was found that that 83% of the participants would feel happy to get a MOOCs degree, whereas 17% of the participants feel that the mode of education while gaining a degree does not matter. It was also found that none of the participants would feel ashamed or any kind of regret after attaining a course degree using MOOCs. The reason for MOOCs not being popular in Guwahati was also asked to the participants and 11% of the participants blamed the students or government for not making MOOCs popular. It can be seen from figure 2 that 61% of the participants blamed the media for its negative influence regarding MOOCs and 17% blamed other sources.

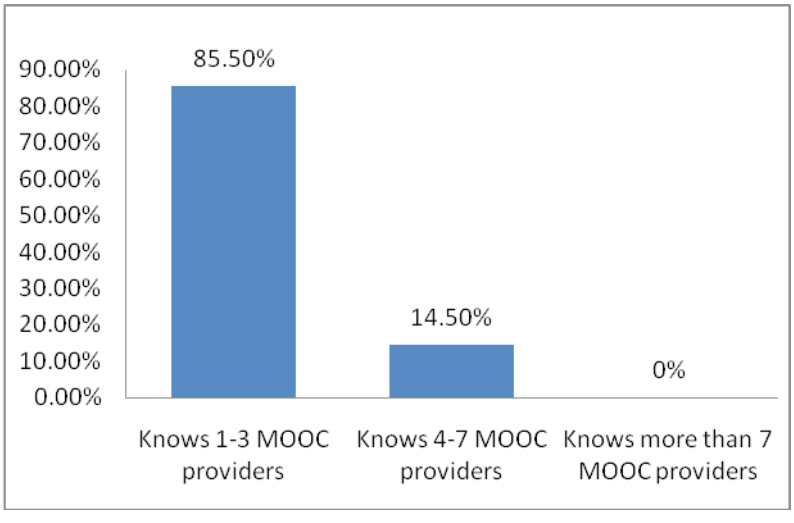


**Figure 1:** Participants Information regarding names of MOOCS providers

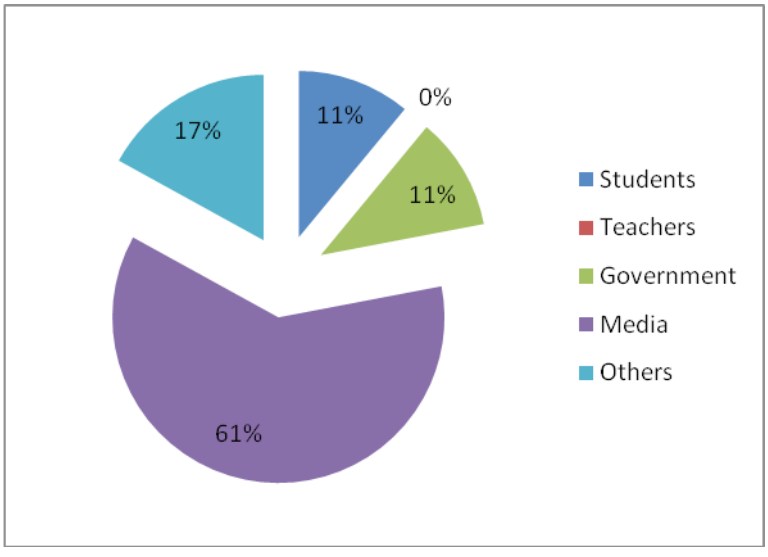


**Figure 2:** Reason for MOOCs not being popular according to participants

It was found that most of the information regarding MOOCs was gained through television, newspaper and social media while information through radio was the least common form of communication medium to get information on MOOCs. 72% of the students and 82% of the teachers believe that taking a MOOCS course may help them in gaining extra knowledge about a particular subject. 64% of the teachers believe that taking a MOOCS course will help them in understanding the subject better and also in future job prospects. Whereas 57% of the students believe that taking, a MOOCS will help them in understanding the subject better. Around 82% of the teachers also believe that taking a MOOCS may help them in further studies. The findings regarding the gaining information on MOOCs and benefits of MOOCS are displayed in Table 2.

**Table 2:** Perception regarding getting information about MOOCs and benefits of MOOCs

| Questions | | Students | | | Teachers | | |
|---|---|---|---|---|---|---|---|
| | | Always | Sometimes | Never | Always | Sometimes | Never |
| How often do you get information about MOOCs from these forms of communication? | Radio | 14% | 16% | 70% | 14% | 72% | 14% |
| | Television | 14% | 72% | 14% | 18% | 82% | 0% |
| | Newspaper | 14% | 66% | 20% | 14% | 72% | 14% |
| | Social Media | 28% | 58% | 14% | 27% | 73% | 0% |
| How do you think you will benefit by learning using MOOCs? | Gain extra knowledge | 72% | 28% | 0% | 82% | 18% | 0% |
| | Will help in future job prospects | 43% | 57% | 0% | 64% | 36% | 0% |
| | Will help in understanding the subject better | 57% | 43% | 0% | 64% | 36% | 0% |
| | Will help as certificates are issued over successful completion | 57% | 43% | 0% | 64% | 36% | 0% |
| | Will help in further studies | 57% | 43% | 0% | 82% | 18% | 0% |

It was found that 72% of the students and 91%of the teachers agreed that MOOCs would benefit senior citizens. It was also found in this study that 100% of the students agree and 73% of the teachers strongly agreed that learning using MOOCs would benefit the dropouts. 86% of the student participants believe that persons who want to gain knowledge via means other than just conventional classroom learning are the target audience for MOOCs whereas 82% of the teacher participants believe that persons who do not have time for conventional education are the more specific target audience for MOOCs. It was found that 58% of the students and 82% of the teacher participants believed that students should take the first step and an active role in making MOOCs popular. 71.5% of the student participants strongly agree and 73% of the teachers agree that only by improving the infrastructure and internet services in India can MOOCs be made popular.

| Questions | | Students | | | | | Teachers | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Strongly Agree | Agree | Undecided | Disagree | Strongly Disagree | Strongly Agree | Agree | Undecided | Disagree | Strongly Disagree |
| Whom do you think learning via MOOCs will benefit the most? | Senior Persons | 0% | 72% | 28% | 0% | 0% | 9% | 91% | 0% | 0% | 0% |
| | Housewives | 0% | 86% | 14% | 0% | 0% | 18% | 82% | 0% | 0% | 0% |
| | Drop-outs | 0% | 100% | 0% | 0% | 0% | 73% | 27% | 0% | 0% | 0% |
| | Employees who cannot go for traditional learning | 43% | 57% | 0% | 0% | 0% | 64% | 36% | 0% | 0% | 0% |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Whom do you think are the target customers for using MOOCs for learning? | Persons who do not have time for conventional education | 43% | 57% | 0% | 0% | 0% | 18% | 82% | 0% | 0% | 0% |
| | Persons who cannot afford conventional education | 43% | 57% | 0% | 0% | 0% | 18% | 73% | 9% | 0% | 0% |
| | Persons who want flexibility in learning at their own time | 29% | 71% | 0% | 0% | 0% | 64% | 36% | 0% | 0% | 0% |
| | Persons who want to gain knowledge via means other than just conventional classroom learning | 14% | 86% | 0% | 0% | 0% | 64% | 36% | 0% | 0% | 0% |
| Whom do you think should take the first step in making MOOCs popular? | Government | 43% | 28.5% | 28.5% | 0% | 0% | 57% | 43% | 0% | 0% | 0% |
| | Student community | 14% | 58% | 28% | 0% | 0% | 18% | 82% | 0% | 0% | 0% |
| | Teachers Community | 28.5% | 28.5% | 43% | 0% | 0% | 64% | 36% | 0% | 0% | 0% |
| | Others | 0% | 57% | 43% | 0% | 0% | 18% | 36% | 46% | 0% | 0% |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Which form of communication will help MOOCs to be made more popular? | TV | 43% | 57% | 0% | 0% | 0% | 64% | 36% | 0% | 0% | 0% |
| | Radio | 29% | 57% | 14% | 0% | 0% | 36% | 64% | 0% | 0% | 0% |
| | Newspaper | 28.5% | 71.5% | 0% | 0% | 0% | 18% | 36% | 46% | 0% | 0% |
| | Social Media | 71.5% | 28.5% | 0% | 0% | 0% | 64% | 36% | 0% | 0% | 0% |
| | Others | 0% | 86% | 14% | 0% | 0% | 18% | 36% | 46% | 0% | 0% |
| What are our opinions on the following statements? | MOOCs will need another decade to be popular | 29% | 14% | 57% | 0% | 0% | 36% | 64% | 0% | 0% | 0% |
| | MOOCs can only be popular when facilities like internet are accessible to all | 71.5% | 28.5% | 0% | 0% | 0% | 18% | 73% | 9% | 0% | 0% |
| | MOOCs are the way forward in the future since they cost less and the timings are flexible | 57% | 43% | 0% | 0% | 0% | 36% | 64% | 0% | 0% | 0% |

**Table 3:** Perception regarding target group of MOOCs and opinions on popularity of MOOCs

## 5. Conclusion:

MOOCs have been popular in India during the last couple of years but this popularity is limited to mostly the metropolitan cities. A study had been made in this paper to see the popularity of MOOCs in Guwahati city. The perception towards MOOCs is studied from the perspective of both the student and the teacher communities. One of the major challenges to popularity of MOOCs is poor internet infrastructure. But, the introduction and wide spread use of 4G spectrum in mobile phones could be seen as a viable solution to the internet infrastructure problem.

Another major challenge for MOOCs is the prejudice regarding a degree attained form conventional education system when compared to the degree obtained from MOOCs or open distance learning. According to the University Grants Commission of India (UGC), the degree obtained by open distance is at par with the degree obtained through conventional education. However, the bias towards the conventional educational system remains largely due to a lack of awareness among the public. The role of media is critical in this scenario if both open distance learning and MOOCs are to become popular. Positive influence from media, rigorous and good advertising along with more student and teacher involvement are some of the requirements to be fulfilled if MOOCs are to be popular in India. Since India is on its way to lessen the digital divide, better internet facilities and good advertising for MOOCs will go a long mile in making MOOCs popular in towns and cities across India.

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