# A STUDY ON PERCEPTION AND USE OF MOOC AMONG TEACHERS AND STUDENTS

Submitted to the Mahatma Gandhi University, Kottayam. In The Partial Fulfilment Of The Requirements For The Award Of

## MASTER OF COMMERCE

Submitted By

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*Under The Guidance of* 

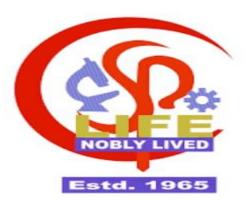
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# **BONAFIDE CERTIFICATE**



This is to certify that the dissertation entitled "PERCEPTION AND USE OF MOOC AMONG TEACHERS AND STUDENTS" is a record of original work done by Miss. JENNY ROSA (Reg. no: 180011024109) in partial fulfillment of the required for the degree in Master of Commerce under the guidance of Ms. Teresa Stephen, Assistant Professor, Department of Commerce.

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#### **DECLARATION**

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Date:

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# CHAPTER 1 INTRODUCTION

#### 1.1INTRODUCTION

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 thought 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 correspondence 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 materials had become not there 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 organized and does not have a uniform grading pattern. The learners in c-MOOCs chose their own topics, material, pace and goals instead of a pre-designed common syllabus. The c-MOOCs approach encourages the learners 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 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 at free 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 city 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 University Grants Commission (UGC) along with the HRD(Human Resource Development) Ministry has launched the MOOC program in India for higher secondary, bachelors and masters degrees. This will cover a wide range of subjects that may or may not be taught in regular campus studies.MOOC is a web based Platform which provides unlimited number of students worldwide with change of distance education with the best institutes in the world. It is like an online platform were students and teachers come together and form an online pool of resources. And which are readily available for you to utilize, you have the option of listening to lectures, downloading notes, contributing your own, and most importantly, sharing your point of view by communicating with your peers. Networking makes the process seems like a virtual online classroom.

MOOCs represents the prolongation of the numerous experiments already performed in the area of distance learning and e-learning. MOOCs are becoming the most visible aspect of the "Open Educational Resources" (OER) movement, which is expanding and will, like open-source software, generate business on the side. Indeed, it is possible to imagine that a private tuition service might develop around the best MOOCs. If that MOOC remains free then there can be no doubt that the movement is meritorious and should be encouraged. Lifelong learning is desperately lacking in many countries, as is training for the carriers of the future.

But still there exist lack of understanding among students and teachers about this new e-learning platform. The purpose of the study is to examine teachers and students perception towards MOOCs. Specifically, we seek to explore motivation and barriers for MOOC enrolment and how computer access and literacy affect their online learning experiences. In this paper, present results from the survey, covering teachers and students in Ernakulam city.

#### 1.2 STATEMENT OF THE PROBLEM

The importance of virtual learnings has gaining in now- a- days. The virtual learning courses like MOOCs integrate social networking, accessible online resources which help to develop the skills and knowledge. The purpose of this platform is in fact to

work with the masses., and the transfer and dissemination of knowledge to large group of people who want to gain knowledge in certain filed. This research paper analysis how technology has the power to tackle the large- scale educational problem of the students as well as faculty group. Moreover, it also pinpoints the effectiveness, significance and limitations of MOOCs on students and faculty cater. As today it has a drastic change from traditional leasing to online learning it is important to study the acceptance and efficiency of these Platforms. This study focuses on one of these online resource MOOCs.

#### 1.3 SIGNIFICANCE OF THE STUDY

One of the most recent educational phenomena related to distance learning education are MOOCs (Massive Open Online Courses). They retain and extend some of the features that attract the students and teachers to distance learning education flexibility is among them.

MOOC courses are important to assist formal education and distance learning, especially in the technology area. Moreover, that it is an area that needs sharing. For professional education, MOOC will bring a breath fresh air to the students' knowledge.

MOOCs takes into consideration the differences of individual learners and it allows students to practice their own individual learning style. It is the most individualistic learning method ever made if implemented correctly. MOOCs materials are designed to automatically change and adapt according to the knowledge, skills and needs of each individual student. And also, there has a customizable learning environment. The students have total control of their learning environment. Coupled with the advantage of self-paced learning, this results in highly time efficient learning solution both for the students and the teachers.

#### 1.4SCOPE OF THE STUDY

MOOCs is a new opportunity that allows free online courses that cover a wide range of topics and vocation. That has a far-reaching impact on the way education is being rendered today.

The study on perception and use of MOOCs among teachers and students was a depth survey done through questionnaire and secondary data. The scope of the study was confined to Ernakulam district. The study considers both teachers and students.

#### 1.5 OBJECTIVES OF THE STUDY

- To evaluate the effectiveness of MOOCs in developing the skills.
- To analyze the attitude of teachers and students towards MOOCs platform.
- To study which category more prefer the MOOCs Platform.
- To evaluate the factors influencing to prefer the online courses.

#### 1.6 HYPOTHESIS

H1: No. of MOOC Platforms adopted by the respondents varied with educational qualification.

H2: There is a significant relationship between level of education and completion of course.

#### 1.7 RESEARCH METHODOLOGY

## 1.7.1 Research design

For this study the design used was descriptive.

#### 1.7.2Source of data

The data collected for the study was done by both primary and secondary methods of data collection. Primary data for the study was collected through structured questionnaire using both in physical and google forms. Secondary data was collected by means of book, internet, online resources.

#### 1.7.3 Tools of data collection

**Struct**ured questionnaire was used both in paper and google forms were used for data collection.

#### 1.7.4 Tools for analysis

Statistical tools like percentage method, Simple arithmetic mean, Correlation and Chisquare test, were used for data analysis.

# 1.7.5 Sample size

Were data was collected from 100 respondents including both 50 from teachers, and 50 from students categories.

## 1.7.6 Sampling technique

The techniques used for the study was convenience sampling.

#### 1.8LIMITATIONS

- The area of the study was limited to Ernakulam city.
- Study covers only from teachers and students.
- Validity and reliability of the data depends on the truthfulness of the responses from students and teachers.
- A structured questionnaire was the basis for collecting data, so it has the usual deficiency attached to this technique of data collection.

#### SCHEME OF CHAPTERIZATION

CHAPTER 1- The first chapter entitled "Introduction" portrays the introduction, statement of the problem, significance of the study, scope of the study, objectives of the study, research methodology, limitations of the study and scheme of chapterization.

CHAPER 2- The second chapter entitled "Review of Literature" deals with the review of related literature obtained from various sources.

CHAPTER 3- This chapter deals with the overall view of "MOOC"

CHAPTER 4- This chapter deals with analysis and interpretation of available information collected from the respondents.

CHAPTER 5- It deals with summary of findings, conclusions and suggestions for the study.

**BIBLIOGRAPHY** 

**APPENDIX** 

# CHAPTER 2 REVIEW OF LITERATURE

## **REVIEW OF LITERATURE**

The MOOCs phenomenon has been a subject of scholarly research and even more a topic of frequent debate in popular press and social media for a few years now. The published work relating to the topic is reviewed by the researcher. The relevant literature is reviewed on the basis of Books, Articles, Theses and Websites. The detailed review is given below:

#### Katz & Trentin, 2008

This paper discuss MOOCs are a specific artefact in the e-learning domain. e-learning has the great functional advantage in terms of liberation of interactions between learners and instructors, or learners and learners, from limitations of time and space through the asynchronous and synchronous learning network model.

#### **Artino (2008)**

This study states that instructional quality is a significant positive predictor of students' satisfaction. Liaw (2008) conducted a study on students usage of a Blackboard e-learning system at the University of Central Taiwan. His findings showed that e-learning effectiveness can be influenced by the quality of multimedia instruction. Instructional quality has a significant effect on students' MOOC usage behavior.

#### Reschly and Christenson's (2012)

His study considers students' affective reactions in the classroom, school identification, valuing learning, and sense of belonging as factors that characterize affective engagement. However, drawing on the premise that language represents a primary means of communication in computer-mediated interactions, as well as the lack of social cues that characterize learning in nonformal, digital educational settings, MOOC research primarily relies on linguistic indices in assessing affective engagement (e.g., positive or negative emotions) in MOOCs.

#### Haggard et al. (2013)

Academic Research on MOOCs Blog posts Journalistic coverage Essayist Commentary

a) Literature on MOOC production and what MOOCs mean for the Academy: General consensus that MOOCs are not an immediate threat to higher education, however minority view is that MOOCs could announce the arrival of 'disruptive innovation' in higher education.

- b) Literature on Learners and MOOCs: Quantitative studies have generated schema of learners based on their activity during the course, while survey/individual reports have largely suggested a positive experience for learners who complete a course.
- c) Journalistic writing about MOOCs: Largely positive 'hype driven' spin from 2012 media, but growing skepticism from 2013.

#### Juinn & Tan (2013)

Conducted a study in Taiwan using UTAUT as a theoretical lens to investigate Taiwanese college students' acceptance of English e-learning websites. They found that effort expectancy has a positive effect on behavior intentions. Their study also revealed that facilitating conditions have a direct effect on the use of English e-learning websites. In the area of open access educational content, Dulle (2015) conducted a study in Tanzanian universities using UTAUT. The study revealed that effort expectancy is a key determinant of researchers' behavioral intentions of open access usage. Dulle (2015) also found that facilitating conditions significantly affect researchers' actual usage of open access educational content. While UTAUT focuses on technology adoption in general, when considering the adoption and usage

#### Wang Zuo-li(2013)[12]

This scholar believe that Chinese should develop MOOC as soon as Chinese platforms of MOOC are very inadequate. They discuss the existing platforms as a reference and study the techniques and operating mode of foreign platforms.

#### Yang, Sinha, Adamson & Rose, 2013).

This study related to practical aspects of MOOCs focuses on the alarming retention statistics, as only a minimal percentage of those who start a MOOC end it (Koller & al., 2013; Yang, Sinha, Adamson & Rose, 2013).

#### **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. It was found that most of the participants for this MOOCs course were from United Kingdom and America. The studies on perception and 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.

#### Gasevic et al. (2014)

Study of 266 proposals submitted to the Gates Foundation funded MOOC Research Initiative Emerging Themes: Low course completion/learner engagement is a major issue. Social learning, SNA and self-regulated learning are key topics being considered by researchers. Research Methods: This study also looked at research methods being employed by MOOC researchers. Mostly mixed-methods research is being employed, with a focus on design-based research, and involving largely instructional interventions. Most data collection was using grades, surveys and interviews, with only a minority using learning analytics/educational data mining tools.

#### Chatterjee & Nath (2014)

A study has been made some of the major issues regarding popularity and perception of MOOCs in higher education in India. some of these factors involve low rate digital literacy, lack of infrastructure, the difference in status between MOOCs and traditional education, centralization of MOOCs and language barriers. 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.

#### Bisera Petkovska 2014

This paper discusses a new trend in education, so-called Massive Open Online Courses-MOOC and their implementation in higher education. MOOC courses are designed for an unlimited number of users, they are usually free and they are available exclusively online.

#### Raffaghelli, J., Cucchiara, S., Persico, D. (2015)

Reviewed and analyzed 60 journal articles published from January 2008 to May 2014. Research aims Interest has been primarily concentrated on the study of learning dynamics in MOOCs, the way MOOCs can be designed, their relationship with educational theory as well as their impact on the present and future of higher education institutions. Teaching processes are hardly under the lens of researchers. There is a very small number of studies concentrating on technological tools suitable for open and massive online 27 A Critique of MOOC's Development and an Empirical Exploration of MOOC Users with special reference to India courses.

Research Paradigms Data-driven approaches (design based, qualitative, quantitative or mixed method studies all together) outnumber conceptual and theoretical papers, although the latter still form the biggest category. Research Methods As for data collection methods, observation and critical analysis (termed 'Conceptualization of dimensions') is by far the most frequently used method, confirming that the area is in a rather preliminary phase of study where hypothesis building is still one of the main activities. Surveys are also frequently used. In data analysis, descriptive statistics is used much more frequently than other statistical methods. This is in line with the fact that this research area is still rather young and, as such, more involved in understanding the general scenario rather than finding out the answers to causal questions. Aboshady et.al (2015)

A study was conducted on perception and use of MOOCs among under-graduates' medical students in Egypt. The study was conducted using two thousand one hundred and six randomly selected participants from ten medical school in Egypt. It was found in this study that clinical year students were more knowledgeable than academic year students. though 29% of the students had enrolled in at least one MOOCs course, only 6.5 % of them were actively enrolled. Better internet connection and time management skills were some of the challenges in Egypt regarding MOOCs.

#### Espinoza et al., (2015) and García Espinosa et al., (2015)

They are discovered that these environmental conditions consisted of 1) a slow and unstable Internet connection, 2) a lack of attention to learners' personal needs and, 3) the lack of workplace understanding and support. Taken as a whole, these factors impeded online learning. Learners without a steady network connection, needs-based support, and employer understanding tend to not finish online courses and have difficulty in acquiring new knowledge (García Espinosa et al., 2015).

#### Chang, Hung, and Lin (2015)

They revealed that personal learning styles affected non-adoption of MOOCs. According to them, a learning style can be decided by the combination of four determinants, "active or reflective," "sensing or intuitive," "verbal or visual," and "sequential or global". They found that those who had high reflective learning styles had a low possibility of using MOOCs. Among the top five reasons for not using MOOCs, three were related to the learners' preference for traditional delivery methods.

#### Veletsianos & Shepherdson (2016)

Empirical MOOC research between 2013-2015 (183 studies) Findings: a) More than 80 per cent of all literature originates from North America and Europe. b) Very few studies used qualitative methods. Learner's voice is largely missing. c)There is a paucity of research on instructor focused topics. d) Lack of research on learner subpopulations – most studies analyze a MOOC cohort in its 28 A Critique of MOOC's Development and an Empirical Exploration of MOOC Users with special reference to India entirety instead of breaking down learners by various groupings. e) There is lack of clarity about the different types of MOOCs (cMOOCs and xMOOCs), as well as a number of experimental design MOOCs.

#### **Audrey Watters**

In her article called 'Beyond the MOOC' in the series Top Ed-Tech Trends of 2015 brilliantly gathered and summarized a lot of Western discussions and debates around MOOCs in 2015 and further in 2016 (Watters, 2015; Watters, 2016).

#### Shih, Velan & Shulruf, 2017

This study learning technologies are a crucial learning resource that enable and empower a MOOC's WBIS. They are 'defined as the range of software-enabled technical features and functions integrated into e-learning programs that facilitates the learning process'.

#### Ghazali & Nordin(2017)

This paper explores the perception and learning in MOOCs from the perspective of three senior Malaysian university lectures. The data was collected using semi structured interviews of 30 to 45 minutes. It was fund that the students attitude, human resources, time constraints and the lectures self- efficiency 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 super ion of students.

#### **Reference:**

- 1.Katz & Trentin,2008"Attitudes affecting college students' preferences for distance learning.
- 2.Artino (2008)"Motivational beliefs and perceptions of instructional quality: Predicting satisfaction with online training
- 3.Reschly and Christenson's (2012), Revue Internationale des technologies en pédalogie universitére, international journal of technologies in higher education, "the MOOC what the research says"international journal of technology in higher education.
- 4.Haggard et al.(2013)Academic Research on MOOCs Blog posts Journalistic coverage Essayist Commentary, "The maturing of MOOC".
- 5. Juinn &Tan (2013), "UTAUT as a theoretical lens to investigate Taiwanese college students acceptance of E-learning websites".
- 6. Wang Zuo-li (2013),
- 7. Yang, Sinha, Adamson & Rose, 2013), "Digital Badges as a motivator in MOOC", The carpe Diem MOOC experience.
- 8.Murray, J. A. (2014). Participants' perceptions of a MOOCs focus on "Equine Nutrition",

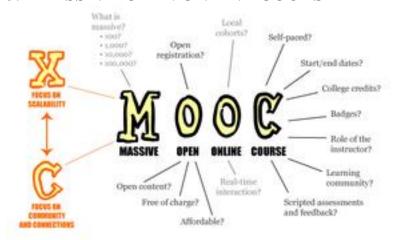
Insights 27(2):154-59.

- 9. Gasevic et al. (2014), A qualitative evaluation of evolution of a e-learning analytics tool. *Computers & Education*, 58(1), 470–489.
- 10. Chatterjee, P., & Nath, A. (2014). Massive open online courses (MOOCs) in education—A case study in Indian context and vision to ubiquitous learning.
- 11.Bisera petkovska 2014.The Perception of University Lecturers of Teaching and Learning in Massive Open Online Courses (MOOCs).
- 12.Raffaghelli, J, Cucchiara, s, Persico, D. (2015) Higher education and the digital revolution
- 13. Lewin, T. (2013). Universities abroad join partnerships on the web.
- 14.Lugton, M. (2012). What is MOOCs? What are the different types of MOOCs? xMOOCs and cMOOCs.
- 15. Pappano, L. (2012). The Year of the MOOCs.
- 16. Aboshady et.al (2015). "Perception and use of MOOC among under graduates medical students".
- 17. Veletsianos & Shepherdson (2016), Empirical MOOC research between 2013-2015.
- 18. Audrey Watters, "Beyond the MOOC in the series top ed tech trends of 2015".
- 19. Shih, Velan & Shulruf,2017, "Leraning technologies are a crucial learning resource that enable and empower a MOOC's WBIS.
- 20.Ghazali & Nordin (2017), "Perception and learning in MOOCs from the perspective of Malaysian unitersity lecturers".

# CHAPTER 3 THEORETICAL FRAMEWORK

#### THEORETICAL FRAMEWORK

#### 3.1 MASSIVE OPEN ONLINE COURSE



Source: en.wikipedia.org

Poster, entitled "MOOC, every letter is negotiable", exploring the meaning of the words "massive open online course"

A massive open online course (MOOC) is an online course and aimed at unlimited participation and open access by web. in addition to traditional course materials, such as filmed lectures, readings, and problem sets, many MOOCs provide interactive courses with user forums or social media discussions to support community interactions among students, professors, and teaching assistants, as well as immediate feedback to quick quizzes and assignments. MOOCs are a recent and widely researched development in distance education, first introduced in 2008 and emerged as popular mode of learning in 2012.

Early MOOCs (cMOOCs) often emphasized open-access features, such as open licensing of content, structure and learning goals, to promote the reuse and remixing of resources. Some later MOOCs(xMOOCs) use closed licenses for their course materials while maintaining free access for students.

#### **EUROPEAN CONTEXT**

In the framework of the pedagogical research developed as a collaboration with different EU-funded MOOC projects, a more comprehensive definition was adopted "an online course designed for large number of participants that can be accessed by anyone anywhere, as long as they have an internet connection, is open to everyone

without entry qualifications and offers a full/complete yours experience online for free".

#### 3.2 HISTORY

#### WHAT IS MOOC?

Before the Digital Age, distance learning appeared in the form of correspondences courses in the 1890-1920s and later radio and television broadcast of courses and early forms of e-learning. Typically, fewer than five percent of students would complete a course. The 2000s saw changes in online or e- learning and distance education, with increasing online presence, open learning opportunities.

#### FROM WHERE DID MOOCS ORIGINATE?

MOOCs have gained such popularity because they have taken a massive step towards making education and teaching content available online.

Following examples such as e-commerce in the retail business and YouTube in the entertainment Industry, online technology is now also used for education.

The biggest MOOC platforms were all created at leading U.S universities in 2011/2012. Important pioneers were professors Anant Agrawal from MIT (edx), Daphne Koller and Andrew from Stanford (Coursera) and Sebastian Thrun also from Stanford (Udacity).

A university professor offers his lectures in a digital format as an experiment, and is suddenly (and unexpectedly) able to reach more than 1,00,000 participants around the world. Due to the success, online education is then institutionalized through a standalone Platform.

Later on, the terminology was further differentiated into so-called xMOOCs (large number of participants), cMOOCs ("connectivist" approach with fewer participants who are more active themselves), or special pMOOCs (more job related for professionals). However, the terminology is not always distinct and generally not that important.

# 3.3 TABULATION OF THE SIGNIFICANT DIFFERENCES BETWEEN xMOOCs AND cMOOCs.

The first MOOC emerged from the Open Educational Resources (OER) movement, which was sparked by MIT open course ware project. the OER movement was motivated from work by researchers who pointed out that class size and learning

outcomes had no established connection, with Daniel Barracks work being the most often-cited example.

Within the OER movement the Wikiversity was found in 2006 and the first open course on the platform was organized in 2007. Ten- week course with more than 70 students was used to test the idea making Wikiversity an open and free platform for education in the tradition of Scandinavian free adult education, Folk high school and the free school movement. The term MOOC was coined in 2008 by Dave Cormier of the University of Prince Edward Island in response to a course called Connectivism and Connective Knowledge. Which was led by George Siemens of Athabasca University and Stephan Downes of the National Research Council, consisted of 25 tuition-paying students in extended Education at the University of Manitoba, as well as over 2200 online students from the general public who paid nothing. All course content was available through RSS feeds, and online students could participate through collaborative tools, including blog posts, threaded discussions in Moodle, and second life meeting. Stephen Downes considers these so-called cMOOCs to be more "creative and dynamic" than the current xMOOCs, which he believes "resemble television shows or digital textbooks".

Other cMOOCs were then developed; for example, Jim Groom from The University of Mary Washington and Michael Branson Smith of York college, city University of New York hosted MOOCs through several universities starting with 2011's 'Digital Storytelling' (ds106) MOOC.

MOOCs from private, non-profit insertions emphasized prominent faculty members and expanded existing distance learning offerings (e.g.: podcasts) into free and open online courses.

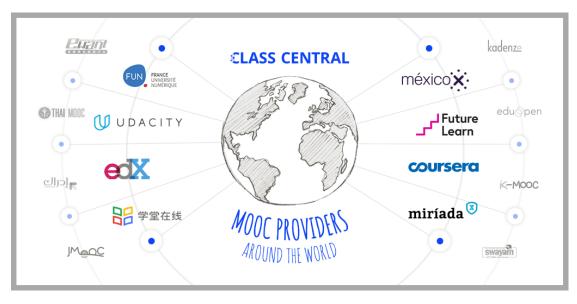
Alongside the development of these open courses, other E-learning Platforms emerged- such as Khan Academy, Peer-to Peer University(P2PU), Udemy and Alison -which are viewed as similar to MOOCs and work outside the university system or emphasize Individual self -paced lessons.

As MOOCs developed with time, multiple conceptions of the Platform seem to have emerged. Mostly two different types can be differentiated: those that emphasize a connectivist philosophy, and those that resemble more traditional course. To distinguish the two, several early adopters of the Platform proposed the terms "cMOOC" and xMOOC".

cMOOCs are based on principles from connectivist Indicating that material should be aggregated (rather than pre-selected), remixable, re-purposable, and feeding forward (i.e. evolving materials should be targeted at future learning). cMOOC instructional design approaches attempt to connect learners to each other to answer questions or collaborate on join projects. This may include emphasizing collaborative development of the MOOC. Andrew Ravenscroft of the London Metropolitan University claimed that connectives MOOCs better support collaborative dialogue and knowledge building.

xMOOCs have a much more traditional course structure. They are characterized by specified aim of completing the course obtaining certain knowledge certification of the subject matter. They are presented typically with a clearly specified syllabus of recorded lectures and self-test problems. However, some providers require paid subscriptions for acquiring graded materials and certificates. They employ elements of the original MOOC, but are, in some effect, branded IT Platforms that offer content distribution partnerships to institutions. The instructor is the expert provider of knowledge, and student interactions are usually limited to asking for assistance and advising each other on difficult points.

# 3.4 MASSIVE LIST OF MOOC PROVIDERS AROUND THE WORLD



Source: classcentral.com

Back in October 2011, Stanford professors launched three free online courses, open to the public. One by one, these courses went massive, with enrolments topping 1,00,000 students each. Soon the media was calling these courses MOOCs, short for massive open online courses. Since then more than 900 universities around the world have launched free online courses. By the end of 2018, more than 100 million students had signed up for at least one MOOC. In addition to the larger global platforms (Coursera, edx, Future Learn), many national governments around the world have launched their own country-specific MOOC Platforms, including India, Mexico, Thailand, Italy, and Israel.

At Class Central we try to catalog as many MOOCs as possible, and our listing currently includes more than 12,000 of them. But due to limited resources (and sometimes a language barrier), we cannot index every single one. If you're looking for MOOCs from around the world (many in languages other than English), this list is our best attempt to catalog all the MOOC platforms that are out there. It includes 35 different Platforms. The list has been adapted with permission from Mindshift: Break Through Obstacles to Learning and Discover Your Hidden Potential by Barbara Oakley (Tarcher-Perigee, April2017). We first published this list in 2017. It was updated and expanded in 2019.

### **Coursera / United States**

Two Stanford professors, Andrew Ng and Daphne Koller, officially launched Coursera in January 2012. With over 37 million students and \$313.1 million raised in funding, Coursera is the biggest MOOC provider in the world. It has over 160 university partners and more than 20 industry partners, offering approximately 3,100 online courses. Beyond single courses, Coursera offers its own credential, known as a specialization. Coursera's catalog currently lists more than 300 specializations. The platform also hosts fully-online master's degrees in fields such as computer science, data science, business, and public health. Coursera for business makes online courses available to business clients.

#### edX

Founded by Harvard University and MIT in 2012, edX is a non- profit organisation. It's the second largest MOOC provider in the world, with more than 18 million

students. edX offers approximately 2,200 courses and boasts 139 university partners. edX offers a number of different types of certificate programs, including Micro Masters (which offer a pathway to credit), XSeries, Professional Certificate, and Professional Education. Like Coursera, edX has launched multiple online degree programs.

#### **Future Learn**

Future Learn is a UK-based MOOC provider. The Open University launched Future Learn at the end of 2012. After a recent investment round, Future Learn is now jointly owned by the Open University and the Australia based SEEK Group. With almost 10 million users, Future Learn is the UK's biggest MOOC platform. Most of its university partners are located in the UK and Europe, but it also has a few university partners in other countries, including the United States, Australia, and South Korea. Future Learn offers its own credential program, which is known as Future Learn programs. Among MOOC platforms, Future Learn leads the way with its degree offerings, with 15-degree programs currently available (including one bachelor's degree).

#### SWAYAM/India

SWAYAM is India's national MOOC Platform. It offers over 2,150 courses taught by close to 1300 instructors from over 135 Indian universities. One aspect that sets it apart from other providers is that it allows students in India to earn academic credit online. Since the Platform was launched in 2017, over 10 million learners have taken courses on SWAYAM. At the rate it's growing, in a few years, SWAYAM could become the world's largest MOOC provider.

#### **Udacity / United States**

Udacity has pivoted away from its prior identity as a MOOC Platform. It was the first of the original MOOC platforms to reach unicorn status, and it partners with technology companies to create Nanodegrees that train students for technology focused jobs. Nanodegrees cost around \$1000 and they can take a few months to complete. Although Udacity has stopped releasing free courses, it still has some courses in its catalog that are free to audit.

Udacity partnered with Georgia Tech to create and launch the first MOOC-based degree, a low cost, completely online Masters in computer science degree. To date, the program has enrolled more than 9000 students.

Recently, Udacity has undergone multiple changes, as the company strives to improve its performance.

#### Kadenza / United States

Kadenza is a MOCC platform that specialize in creative and arts education. It partners with some of best art institutions and universities around the world to launch online courses. It was co-founded by Ajay Kapur, a classically trained Indian musician and computer scientist. He is Associate Dean for Research and Development in Digital Arts at the California Institute of the Arts. in October 2013 he taught a course called "Introduction to Programming for Musicians and Digital Artists" on Coursera. However, he soon realized that some of the things he wanted to do with arts education were not possible with Coursera, so he created his own Platform. Kadenze has also launched its own certificate initiative, which is called Kadenze programs. Typically, the first course in program is free. Students can also earn academic credit for many Kadenze courses and programs.

#### Canvas Network/ united states

Canvas Network might not have the big names, but they do have a number of free online courses taught by various institutions around the world. some of their courses still offer completely free certificates and badges. Recently, they shifted their focus to professional development. Courses for educators, removing some courses that were not in this specific field and currently listing less than 50 courses. Some courses have paid options that can be used for official credit for licensure renewal or university credits.

Canvas Network is based on the Canvas LMS, which was developed by Instructure.

# **Stanford Lagunita**

Stanford has been self-hosting courses for a long time now. It uses Open edX, the open source version of edX.

#### Miriadax

Miriadax X is a regional MOOC platform that has 494 courses in Spanish and Portuguese. These courses are created by its 91 university partners, which are located in Spain, Argentina, Peru, Colombia, Mexico, Brazil, Chile, and other Spanish and Portuguese speaking countries.

#### MexicoX

MexicoX is a MOOC platform funded by the Mexican government, and it has more than 40 partners(universities and institutions from the Federal Public Administration). It has more than 2.5 million registered learners, a majority of whom are located in Mexico.

#### 3.5 CHARACTERISTICS OF MOOCs

Massive Open Online Courses are available online, often free of charge, and provided by recognizable institutions. These online courses respect certain technical specifications and the following four characteristics: they leverage web formats, are collaborative, contain evaluation modules, and are limited in time.

#### 1. USING WEB FORMATS

MOOCs heavily rely on different web formats. Consequently, the large majority of nurses consist of pre-recorded videos that are streamed by users. To create content tools like YouTube or Vimeo are commonly used. Streamed videos are meant to simulate the presence of the trainer. MOOCs can also use live- stream to create a virtual classroom environment. Occasionally, teachers also organized live session with their students using tools like Hangouts or Upstream. This is a unique opportunity for students to get in touch with the trainer directly and ask questions. MOOCs also offer meetups and in- person get togethers. Meetups are generally organized by MOOC participants who want to meet up with other course participants in their area, they are an opportunity to discuss course topics but also work on group projects.

#### 2. COLLABORATIVE LEARNING

One key aspects of MOOC are their collaborative component. During a MOCC, everything possible is done to recreate the in- class experience, including the use of collaborative tools. Rather than a vertical distribution of knowledge, MOOCs allow for the emergence of learning communities where the input of each participant enriches the course. Social Q & A Forums (advanced forums with voting functionalities), Facebook groups, meetups, or peer corrections are used to encourage and develop collaboration.

#### 3. ASSESSING KNOWLEDGE

In addition to content designed to convey knowledge, MOOCs offer tools to assess the transfer and retention of this knowledge. These modules help make courses more dynamic and interactive and generally take the form of multiple-choice exams, programmed tests, or essay questions that are corrected automatically, by teachers or by classmates. Additionally, MOOCs can offer certificates to those who have completed the course. These certificates are how most American MOOC platforms. monetize their content.

#### 4. TIME LIMITS

The final characteristic of MOOCs is the notion of time limitations. MOOCs have specified start and end dates. Course content (documents, videos, etc.) is delivered sequentially, each week. For the learner, coursework is spread over time. Temporally structuring course content helps make it seem like a series of mini events and allows for the creation of an efficient communication strategy including teasers, email updates, etc. It is also an effective means to ensure that the MOOC mimics a traditional attended course with weekly classes.

#### 3.6 BENEFITS

#### IMPROVING ACCESS TO HIGHER EDUCATION

MOOCs are regarded by many as an important tool to widen access to Higher Education (HE) for millions of people, including those in the developing world, and ultimately enhance their quality of life. MOOCs may be regarded as contributing to the democratization of HE, not only locally or regionally but globally as well.

MOOCs can help democratize content and make knowledge reachable for everyone. Students are able to access complete courses offered by universities all over the world, something previously unattainable. With the availability of affordable technologies, MOOCs increase access to an extraordinary number of courses offered by world -renowned institutions and teachers.

# PROVIDING AN AFFORDABLE ALTERNATIVE TO FORMAL EDUCATION

The costs of tertiary education continue to increase because institutions tend to bundle too many services. With MOOCs are for large number of participants, can be accessed by anyone anywhere as long as they have an internet connection, are open to everyone without entry qualifications and offer a full / complete course experience online for free.

#### SUSTAINABLE DEVELOPMENT GOALS

MOOCs can be seen as a form of open education offered for free through online platforms. The (initial) philosophy of MOOCs is to open up quality Higher Education to a wider audience. As such, MOOCs are an important tool to achieve Goal 4 of the 2030 Agenda for Sustainable Development.

#### OFFER A FLEXIBLE LEARNING SCHEDULE

Certain lectures, videos, and test through MOOCs can be accessed at any time compared to scheduled class times. By allowing learners to complete their coursework in their own time, this provides flexibility to learners based on their own personal schedules.

#### **ONLINE COLLABORATION**

The learning environments of MOOCs make it easier for learners across the global to work together on common goals. Instead of having to physically meet one another, online collaboration creates partnerships among learners. While time zones may have an effect on the hours that learners communicate, projects, assignments, and more can be completed to incorporate the skills and resources that different learners offer no matter where they are located.

#### 3.7 SUMMARY OF STRENGTHS AND WEAKNESSES

The main points of this analysis of the strengths and weaknesses of MOOCs can be summarized as follows;

#### **STRENGTHS**

- MOOCs, particularly xMOOCs, deliver high quality content from some of the world's best universities for free to anyone with a computer and an Internet connection:
- MOOCs can be useful for opening access to high quality content, particularly in developing countries, but to do so successfully will require a good deal of adaptation, and substantial investment in local support and partnerships;
- MOOCs are valuable for developing basic conceptual learning, and for creating large online communities of interest or practice;
- MOOCs are extremely valuable form of lifelong learning and continuing education;
- MOOCs have forced conventional and especially elite institutions to reappraise their strategies towards online and open learning;
- Institutions have been able to extend their brand and status by making public their expertise and excellence in certain academic areas;
- MOOCs main value proposition is to eliminate through computer automation and /or peer-to-peer communication the very large variable costs in higher education associated with providing learner support and quality assessment.

#### **WEAKNESSES**

- The high registration numbers for MOOCs are misleading; less than half of registrants actively participate, and of these, only a small proportion successfully complete the course; nevertheless, absolute numbers are still higher than for conventional courses;
- MOOCs are expensive to develop, and although commercial organisations offering MOOC Platforms have opportunities for sustainable business models, it is difficult to see how publicity funded higher education institutions can develop sustainable business models for MOOCs.

- MOOCs tend to attract those with already a high level of education, rather than widen access.
- MOOCs so far have been limited in the ability to develop high level academic learning, or the high-level intellectual skills needed in a knowledge-based society.
- Assessment of higher levels of learning remains a challenge for MOOCs, to the extent that most MOOC providers will not recognize their own MOOCs for credit.
- MOOC materials may be limited by copyright or time restrictions for re-use as open educational resources.

#### 3.8 FUTURE OF MOOCs

MOOCs are state of art. But the high technology cannot ensure the quality and success of MOOC Does a MOOC- based program lead to a degree from an accredited institution? It may not be easy. Although MOOCs have the strength of free courses, free courses, free courses are far from a degree from an accredited university. Because learners must play for degrees. it explains that MOOCs are situated with being selfcontradicting between access and cost. There is no such thing as free lunch. Although there have been lots of other forms of open educational resources(OERs) or Open Course Wares (OCWs) in the world, nobody is sure whether this movement has been successful in improving the access opportunity toward higher education or not. It is near a myth that the MOOC based program will not only democratize higher education but also end the unsustainable trajectory of tuition. the strongest disruptor is the selfishness of traditional higher education institutes. it just seems that MOOCs threaten so- called "brick-and-mortar" institutions. In fact, the traditional higher education institutes hold the initiative of the MOOC- based program. And learners also have been interested in MOOCs from traditional universities rather than only MOOC -based institutes, especially for a degree. The universities offering MOOCs were generally not willing to provide their own academic credit for the courses: citing residency requirements, they claimed to be protecting the integrity of the residential campus Experience. Accordingly, MOOCs may remain be "tsunami" of teacup.

MOOCs may bring not only affirmative sides including autonomy, diversity, openness, and connectedness/ interactivity through online courses, but also negative aspects such as limitation of the learning potential caused by the lack of structure, support, and moderation normally associated with an online course. High

noncompletion rates are related to the issues of quality, sustainability, and pedagogy: "Although improving the quality of learner's learning is one of the priorities of the major MOOC providers, most of their courses currently lack a sophisticated learning architecture that effectively adapts to the individuals needs of each learner."

Based on the facts mentioned above, several recommendations can be suggested for the success of MOOCs. First, a combination of xMOOC and cMOOC is needed for pedagogical aspects as well as reuse, revision, remix, and redistribution of courses. As alternatives to MOOCs, hMOOC, MOOR, MOOL, DOOC, POOC, and SPOC can be suggested. Second, instructional strategies should be transplanted into the course in order for learners to perform autonomous self-study and reflection upon interaction with other participants pants in an open social context. Third, strategic communication system:(e.g.; regular messages) should be provided. It will assist to maintain the engagement and focus of learners on the course experience and to enhance the perception of "teaching presence" by learners. pointed out an "absence of serious pedagogy in MOOCs "and criticized the format of "short, unsophisticated video chunks, interleaved with online quizzes, and accompanied by social networking'.

MOOCs have potential to enable free university level education on an enormous scale. A concern about MOOCs is also very big. Compared with the fast expansion of MOOCs through utilizing well- packaged your materials, instructional design quality in majority of MOOCs scored low. Fischer said, "whether or not a particular learning environment (eg: a specific MOOC course or MOOC Platform) succeeds depends greatly on whether students can learn what they want and when they want it, freed from the restrictions of curriculum consisting of desirable and undesirable content that has been segmented into majors and degree programs." MOOCs can win success when they stick to the first great cause of free- paying university and make an effort to be pedagogically driven rather than technologically in teaching and learning design.

#### 3.9 MOOC PROGRAM IN INDIA

The University Grand Commission (UGC) along with HRD (Human Resource Development) Ministry has launched the MOOC program in India for higher secondary, bachelors and master's degrees. This will cover a wide range of subjects that may or may not be taught in regular campus studies.

A new portal for MOOCs named 'Study Webs of Active -Learning for Young Aspiring Minds', in short, SWAYAM, is said to present students with an opportunity to study anything from list of 2000 courses out which 200 are currently available for registration. Audio- visual medium, illustrations, research and case studies with self-assessment are few mediums chosen to approach the study of these courses.

To provide further information on SWAYAM and MOOCs in general, Professor A.K Bakshi, Chairman of the Centre for E-Learning, said, "These online courses have been developed by team of senior academicians and are expected to enhance the gross enrolment ratio in higher education without compromising with the quality. These courses will also help in bridging the digital divide in the country."

## 3.10 Employment Opportunities post Online Education

The new world of online education provides inexpensive education of college -level courses in many fields of study. However, it is said that employers are not completely convinced with the level of education and coursework provided by the MOOCs unless the candidate is looking for jobs in the Technology or Computer Science sector.

Generally, it is said that MOOCs are focused on proving education that will improve skills in specific fields of study, mostly focused on technology, science and mathematics. Although some of online courses provide records of completion of the courses, the online education concepts are relatively new. it is found that students are ready for this new concept however many employers are still hesitant and special about it.

To summarize MOOCs are a great platform for higher education not just in India but all over the world but it comes with its pros and cons when it comes down to the future prospects of students that have passed out of MOOCs. Since the concept is new and has garnered praise recently, it can turn out to be one of the best concepts off late.

#### 3.11 STEPS TO TAKING A MOOC

Interested in taking MOOC? You can usually get started within minutes as long as you have an email address. But to get the most out of your time and ensure your academic and professional goals are met, you may need to take additional steps.

#### 1.FIGURE OUT YOUR REASONS FOR TAKING A MOOC

If you are taking MOOC because you are interested in writing your own apps for smartphones as a hobby, that's one thing. On the other hand, if you are taking a MOOC to get a certificate of completion or obtain academic credits, that's a different story. For example, in order to get a certificate of completion, you may need to take the course during a set period of time and pay a fee. if you're getting academic credit for taking the MOOC, you'll need to make arrangements with your school.

#### 2.DETERMINE IFA PREREQUISITE IS REQUIRED

Because even most advanced MOOCs are available to anyone, it may not seem like prerequisites should matter. But to make the most of what the course has to offer, it will help to have an understanding of the foundational concepts before taking the MOOC. If you are paying a fee to get a certificate of completion, not only do you risk not learning the material, but you risk not getting that certificate.

#### 3. CONFORM TECHNICAL REQUIREMENTS

If a student has an internet connection, they can take a MOOC. However, if a particular MOOC has large data requirements, such as videos, an online text book or other course materials, a broadband connection may be essential. Additionally, specific software may be necessary to access or view course materials, such as a PDF. While most computers will have the ability to run the necessary software, some computers running older operating systems may not be compatible with certain courses.

#### 4. REGISTER WITH THE MOOC PROVIDER

Registration usually consists of just providing a name and e-mail address. After that, individuals can immediately start taking their MOOC. In situations where the individual wants to receive a certificate of completion or other recognized credit, a formal application may be necessary. It may ask for the individual's reasons for taking the MOOC, academic history and relevant work experience.

#### 5. PAY THE FEE

Most MOOCs are free and those that aren't often provide some form of recognition upon completion of the MOOC, such as academic credit or a certificate. Depending on the MOOC, fees may be paid upfront or as the student makes progress through multiple courses.

#### 6.APPLY TO THE RELEVANT ACADEMIC INSTITUTION

If a MOOC offering will result in an academic degree, a formal application to the degree granting institution will be required. In many situations, a school's online degree program will be offered through a MOOC provider. In this sense, the MOOC provider isn't offering a degree. Rather, a school has chosen the MOOC provider to deliver the online course material to the student.

#### 3.12 MOOC TECHNOLOGY



Source: mooclearningworld.com

MOOC course material are often delivered in multiple formats, such as video lecture recordings, written text and academic exercises. Rarely will lectures be offered live, but this is occasionally available. Some MOOCs consists mostly of written text, including lecture slides, quizzes and worksheets requiring students to read the material and engage in written exercises. Others will have a stronger emphasizes on video lectures.

Because the course materials are offered electronically, students must ensure they have the hardware and software needed to successfully review all materials. the typical laptop that can open PDFs web pages and run online streaming videos should have no problem with the clear majority of MOOCs. Individuals with only a smartphone for internet access may struggle with some of the course materials, such as completing certain exercises. It may also be difficult to read large amounts of texts on a small screen. Additionally, those without a broadband internet connection may become impatient with the slow loading of videos and downloading of course materials.

Most MOOCs can be taken at any time with no set schedule whatsoever. However, some MOOCs, such as those offered with a certificate or for academic credit, must be

taken during a certain time period, usually lasting several weeks to several months. there are also MOOCs that are completely self-paced, yet have a particular starting date. Some special programs consisting of multiple MOOCs will strongly recommended courses be taken in a particular order.

## 3.13 MOOCs AS PART OF A BIGGER MOVEMENT

# 3.13.1 MOOCs AND OPEN EDUCATION

MOOC can be seen as a form of open education offered free through online Platforms. The

Philosophy of MOOCs is to open up quality higher education to a wider audience. However, although the concept of open education is often mentioned, it is not usually combined with a clear and solid description of what the term means. What "open" means in open education has been the subject of some debate (OpenEducation Handbook,2014) and is increasingly becoming associated with "free" only. Note for example that the One Education Consortium focuses its description to the free and open sharing in education.

In his book "The Battle for Open", Martin Weller (2014) gives an overview of the open movement, and concludes that "adopting a single definition is counter - productive" and that motivations for the open approach are the most important. In the traditional historical context open education is aimed at education for people with no or limited access to the educational system. In a somewhat boarder context, it is recognized that primarily open education is associated with removing barriers to education (Bates,20150. Instead of providing a definition one could adopt the following statement related to the most common referred purpose of open education; The aim of open education is to increase access to and successful participation in education by removing barriers and offering multiple ways of learning and sharing knowledge.

This potential of open education was strongly marked by the Cape Town open education Declaration (Shuttleworth /OSF, 2008). Note that the above aim of open education is not related to barriers of access only (i.e. not only aimed at the entry barriers), but at all barriers along the learning paths.

In this context, MOOCs form part of open education and should be defined as such. Mulder and Jansen (2015) explore if MOOCs can be instrumental to open up education. They conclude that some barriers will not or probably cannot be removed easily by MOOCs and the providers.

Moreover, MOOC themselves do create other barriers like network connectivity (learners need good internet connection), digital literacy and for now also cultural language barriers (as still most MOOC are from western countries in English). They state that in general MOOCs are (still) a promising tool for open education.

### 3.13.2 MOOCS AND ONLINE EDUCATION

It is important to know that online education is not the same as open education. Moreover, like with MOOC and open education, it is hard to define a broad accepted definition of online education. For example, the following definition of online courses exists:

A course where most or all of the content is delivered. Online (>80% of content is delivered online).

Typically, there are no face to face meetings. An umbrella term used to describe any education or training that occurs online. In online education the learning is a result of (online facilitated) experiences that are not constrained by time and or distance. The label 'online' applies to both deliveries of course materials and to the interaction between teachers and learners, and between learners.

All course activity is done online; there are no required face to face sessions within the course and no requirements for on -campus activity.

In the context of MOOCs, online courses must be seen as a course that is offered fully online. if it is not, then it is a blended or hybrid course. The deciding factor should not be only related to the amount of course content offered online but all other course elements as well (i.e. study guide/ syllabus, educational content, facilitation of (academic) interaction, activities/ tasks, including feedback, assessment and exam). As such even if a single in -person, on- campus class is scheduled and required, then the course is blended. Thus, students in MOOCs rarely if ever need to step on campus.

# CHAPTER 4 DATA ANALYSIS AND INTERPRETATION

### DATA ANALYSIS AND INTERPRETATION

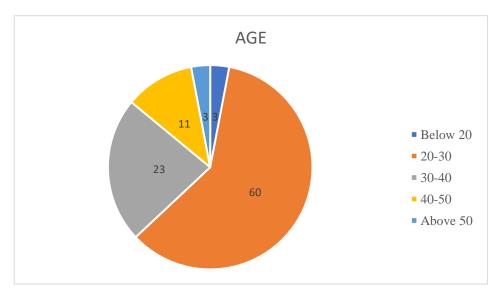
In this chapter, analysis of details given by responding are presented and the interpretation of the study are discussed. The descriptive information and statistical analysis produced by the collected survey as shown. Records are statistically analysed. The results entitled "PERCEPTION AND USE OF MOOC AMONG TEACHERS AND STUDENTS". In the present study the attempt has been made to know the attitude of teachers and students towards MOOC platform.

# PERCNTAGE ANALYSIS

Table 4.1

AGE WISE CLASSIFICATION

| AGE      | NO. OF<br>RESPONDENTS | PERCENTAGE |
|----------|-----------------------|------------|
| Below 20 | 3                     | 3          |
| 20-30    | 60                    | 60         |
| 30-40    | 23                    | 23         |
| 40-50    | 11                    | 11         |
| Above 50 | 3                     | 3          |
| Total    | 100                   | 100        |



Source: Primary data

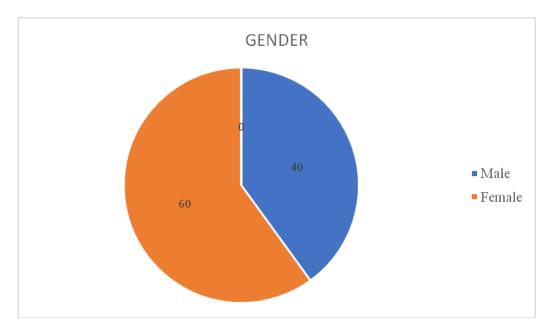
# **INTERPRETATION**

Five categories used for gathering information regarding the age of the respondents. The age group of 20-30 were composes the majority of the respondents. The table 4.1 shows that 3% of the respondents were belongs to the age group of both below 20 and above 50. Whereas 60% of the respondents lies between 20-30 age category.23% of them belongs to the age group of 30-40 years. 11% of them belongs to the age group of 40-50 years.

Table 4.2

GENDER WISE CLASSIFICATION

| GENDER | NO. OF<br>RESPONDENTS | PERCENTAGE |
|--------|-----------------------|------------|
| Male   | 40                    | 40         |
| Female | 60                    | 60         |
| Total  | 100                   | 100        |



# **INTERPRETATION**

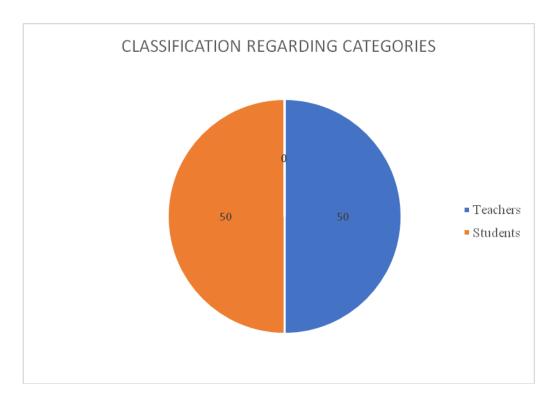
The table 4.2 reveals that 60% of the respondents are female whereas 40% of the respondents are confined to male category.

Table 4.3

CLASSIFICATION REGARDING CATEGORIES

(TEACHERS AND STUDENTS)

| CATEGORIES | NO. OF RESPONDENTS | PERCENTAGE |
|------------|--------------------|------------|
| Teachers   | 50                 | 50         |
| Students   | 50                 | 50         |
| Total      | 100                | 100        |



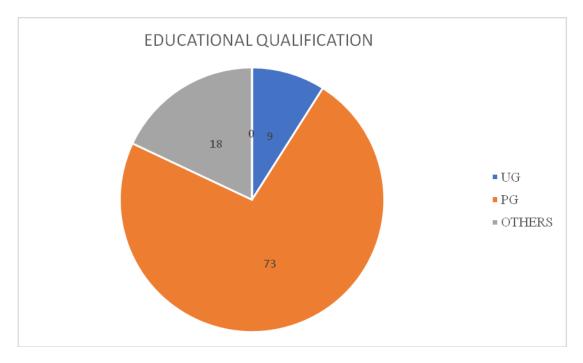
# INTERPRETATION

The table 4.3 reveals that 50% of the respondents in both teachers and students category.

Table 4.4

CLASSIFICATION REGARDING EDUCATIONAL QUALIFICATION

| EDUCATIONAL<br>QUALIFICATION | NO. OF<br>RESPONDENTS | PERCENTAGE |
|------------------------------|-----------------------|------------|
| UG                           | 9                     | 9          |
| PG                           | 73                    | 73         |
| OTHERS                       | 18                    | 18         |
| TOTAL                        | 100                   | 100        |

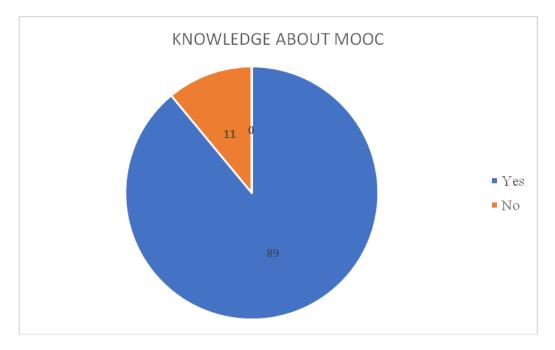


# **INTERPRETATION**

From the table 4.4, it is seen that majority of the respondents qualified Post Graduation i.e. 73%. 9% of the respondents of the survey are Under Graduates. 18% of the respondents belongs to others. As a matter of fact, all of the respondents of the study are educated.

Table 4.5 **KNOWLEDGE ABOUT MOOCs** 

| OPINION | NO. OF RESPONDENTS | PERCENTAGE |
|---------|--------------------|------------|
| Yes     | 89                 | 89         |
| No      | 11                 | 11         |
| Total   | 100                | 100        |



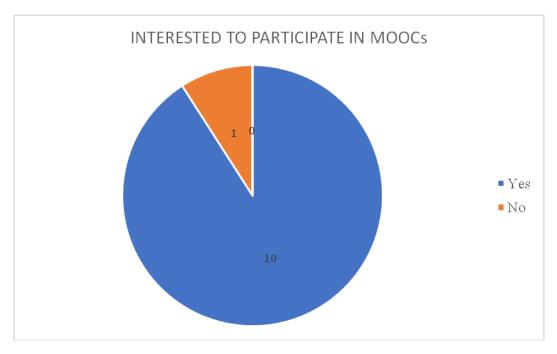
# **INTERPRETATION**

Table 4.5 shows that majority of the respondents had knowledge about MOOCs or websites providing such courses i.e. 89%. And the rest of 11% of the respondents don't have any knowledge about MOOC platforms.

Table 4.6

INTERESTED TO PARTICIPATE IN MOOCS

| OPINION | NO. OF RESPONDENTS | PERCENTAGE |
|---------|--------------------|------------|
| Yes     | 10                 | 91         |
| No      | 1 9                |            |
| Total   | 11                 | 100        |

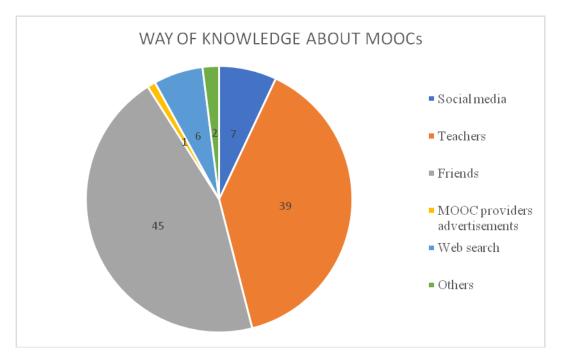


# **INTERPRETATION**

Table 4.6 shows that after informing the students who did not know about MOOCs that the system provides scientific courses different disciplines given by the specialists from the top universities world- wide for no or low fees through the internet.90% of the respondents showed an interest in participation in MOOCs.

Table 4.7
WAY OF KNOWLEDGE ABOUT MOOCs

| MEDIA                         | NO. OF RSPONDENTS | PERCENTAGE |
|-------------------------------|-------------------|------------|
| Social media                  | 6                 | 7          |
| Teachers                      | 35                | 39         |
| Friends                       | 40                | 45         |
| MOOC providers advertisements | 1                 | 1          |
| Web search                    | 5                 | 6          |
| Other                         | 2                 | 2          |
| Total                         | 89                | 100        |



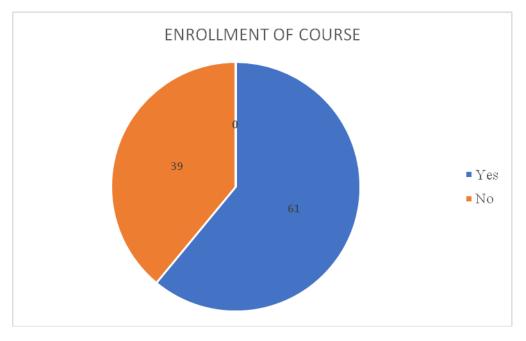
# INTERPRETATION

The table 4.7 assess how students and teachers found out about MOOCs. The data shows that through friends are the primary ways 45% of the students and teachers were introduced to MOOCs. While knowledge through a teacher was the second (39%). Through social media, 7%. Web search engines took the 4<sup>th</sup> place (6%). 2% of the respondents founds some other ways to know about MOOCs and very small role method through MOOC providers advertisements i.e. 1%.

Table 4.8

ENROLLMENT OF COURSE

| OPINION | NO. OF<br>RESPONDENTS | PERCENTAGE |
|---------|-----------------------|------------|
| Yes     | 54                    | 61         |
| No      | 35                    | 39         |
| Total   | 89                    | 100        |

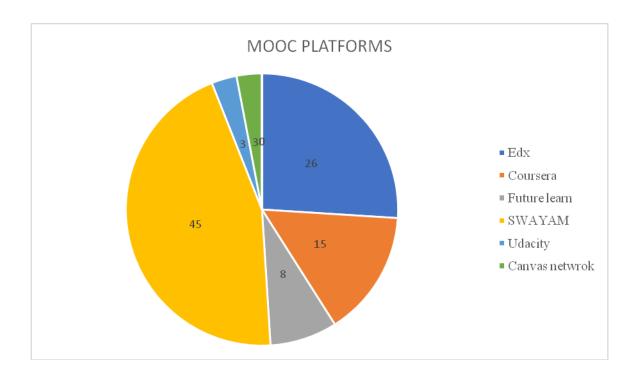


# **INTERPRETATION**

Of those who knew about MOOCs, 61% of the respondents were enrolled the course in MOOC platforms and other 39% of the respondents are not enrolled any courses in MOOC platforms.

Table 4.9 **CLASSIFICATION REGARDING MOOCs PLATFORMS** 

| PLATFORMS         | NO. OF RESPONSES | S PERCENTAGE |  |
|-------------------|------------------|--------------|--|
| Edx               | 20               | 26           |  |
| Coursera          | 12               | 15           |  |
| Future learn      | 6                | 8            |  |
| SWAYAM            | 35               | 45           |  |
| Xueltangx         | 0                | 0            |  |
| Udacity           | 2                | 3            |  |
| Kadenze           | 0                | 0            |  |
| Canvas network    | 2                | 3            |  |
| Stanford Lagunita | 0                | 0            |  |
| Mexico x          | 0                | 0            |  |
| Total             | 77               | 100          |  |



# **INTERPRTATION**

Out of 54 respondents we have obtained 77 responses in which 45% of them prefer SWAYAM platform. 26% of responses shows interest in Edx platform. Coursera platform were chosen by 15% of them. While 8% of them has choose Future learn platform. 3% of the responses were chosen both Udacity and Canvas network.

Table 4.10

CERTIFICATE OBTAINED

| OPINION | NO. OF RESPONDENTS | PERCENTAGE |  |  |
|---------|--------------------|------------|--|--|
| Yes     | 33                 | 61         |  |  |
| No      | 21                 | 39         |  |  |
| Total   | 54                 | 100        |  |  |



# **INTERPRETATION**

Above result shows that 61% of the respondents have got certificates on completion of course in MOOC platforms. Whereas 39% of them did not get the certificate.

Table 4.11

GETTING CERTIFICATE

| OPINION                  | NO. OF RESPONDENTS | PERCENTAGE |
|--------------------------|--------------------|------------|
| Important                | 28                 | 52         |
| Important to some extent | 26                 | 48         |
| Not important            | 0                  | 0          |
| total                    | 54                 | 100        |



# **INTERPRETATION**

From the table 4.11, 52% of the respondents shows that getting certificate is important after completion of course. Whereas 48% of the respondents have the opinion of getting certificate is important to some extent.

# MEAN AND STANDARD DEVIATION

Table 4.12

MODES OF USING MOOC

| MODES  | NO. OF<br>RESPONDENTS | MINIMUM | MAXIMUM | MEAN | SD    |
|--|-----------------------|---------|---------|------|-------|
| Video lectures<br>by MOOC<br>providers       | 54                    | 1       | 5       | 4.61 | 0.680 |
| Reading<br>materials by<br>MOOC<br>providers | 54                    | 1       | 5       | 3.89 | 0.737 |
| Google and other search engines              | 54                    | 1       | 5       | 4    | 1.138 |
| In MOOC forums                               | 54                    | 1       | 5       | 3.6  | 0.914 |
| External forums                              | 54                    | 1       | 5       | 3.32 | 1.139 |
| Other open sources                           | 54                    | 1       | 5       | 3.54 | 1.411 |
| Others                                       | 54                    | 1       | 5       | 3.6  | 0.914 |

# **INTERPRETATION**

The above table reveals that attitude of respondents towards MOOC platforms. From this it is clear that 'Video lectures by MOOC providers' (mean-4.61) and 'Google and other search engines' (mean-4) are most commonly used for MOOCs. The mean score for 'Reading materials by MOOC providers' is 3.89 and 'In MOOC forums' it is 3.6. The mean value for other open sources and external sources are 3.54, 3.32 respectively.

Table 4.13

MOTIVATIONAL FACTORS TO PARTICIPATE IN MOOCS

| FACTORS                              | NO. OF<br>RESPONDENTS | MINIMUM | MAXIMUM | MEAN | SD   |
|--------------------------------------|-----------------------|---------|---------|------|------|
| They are free                        | 54                    | 1       | 5       | 5    | 0    |
| To improve career                    | 54                    | 1       | 5       | 4    | 0    |
| There is no obligation to complete   | 54                    | 1       | 5       | 4.72 | 0.57 |
| Hard to do it for<br>work            | 54                    | 1       | 5       | 4.05 | 0.23 |
| Help me in<br>studies                | 54                    | 1       | 5       | 4.88 | 0.32 |
| Obtain<br>additional<br>certificates | 54                    | 1       | 5       | 4.05 | 0.23 |

The above table reveals, the main factor that motivate the respondents to participate in MOOCs 'They are free' (highest mean- 5). The mean score of 'Help me in studies' stands second position (mean- 4.88). Mean value of the factor 'There is no obligation to complete' is 4.72. 'Hard to do it for work' and 'Obtain additional certificate', these factors having same mean value. (4.05). The factor 'To improve career' has lowest mean value. (4)

Table 4.14

PREFERENCE ON USING THE KNOWLEDGE GAINED DURING MOOCs

| PREFERENCE              | NO. OF<br>RESPONDENTS | MINIMUM | MAXIMUM | MEAN | SD   |
|-------------------------|-----------------------|---------|---------|------|------|
| In personal<br>project  | 54                    | 1       | 4       | 3.64 | 0.61 |
| Enhance my CV           | 54                    | 1       | 4       | 2.68 | 0.93 |
| Work                    | 54                    | 1       | 4       | 3.42 | 0.71 |
| Personal<br>development | 54                    | 1       | 4       | 3.48 | 0.69 |

This table show that majority of the respondents using the knowledge gained during MOOC for their personal project (highest Mean 3.64). Respondents uses the knowledge obtained from MOOC for personal development and work which has almost similar mean value (3.48 and 3.42). Whereas the respondents give least preference for 'Enhance my CV' (mean- 2.68).

Table 4.15 **LIMITATIONS TO COMPLETE THE COURSE** 

| LIMITATIONS                     | NO OF<br>RESPONDENTS | MINIMUM | MAXIMUM | MEAN | SD   |
|---------------------------------|----------------------|---------|---------|------|------|
| Lack of time                    | 54                   | 1       | 5       | 3.23 | 1.30 |
| Slow internet speed             | 54                   | 1       | 5       | 3.57 | 1.16 |
| Lack of<br>technology<br>access | 54                   | 1       | 5       | 3.52 | 1.24 |
| Lack of computer literacy       | 54                   | 1       | 5       | 3.38 | 1.49 |
| Language<br>difficulty          | 54                   | 1       | 5       | 3.52 | 1.20 |

The table shows that major limitations to complete a course is 'Slow internet speed' (mean-3.57), 'Lack of technology access' (mean-3.52) and 'Language difficulty' (mean-3.52). 'Lack of computer literacy' has the mean value 3.38. 'Lack of time' has the least mean value (3.23).

Table 4.16 **SATISFACTION LEVEL OF RESPONDENTS** 

| FACTORS                         | NO. OF<br>RESPONDENTS | MINIMUM | MAXIMUM | MEAN | SD   |
|---------------------------------|-----------------------|---------|---------|------|------|
| Overall experience              | 54                    | 1       | 4       | 3.52 | 0.56 |
| Exams and assignments           | 54                    | 1       | 4       | 3.05 | 0.42 |
| Student instructor interaction  | 54                    | 1       | 4       | 3.20 | 0.68 |
| Video lecturing                 | 54                    | 1       | 4       | 3.08 | 0.62 |
| Availability of study materials | 54                    | 1       | 4       | 3.47 | 0.56 |

The above table shows that the respondents satisfaction level on factors affecting MOOC. Most of the respondents are satisfied with the 'Overall experience' in MOOC platforms. 'Availability of study materials' has the second highest mean value (3.47) on which the respondents are satisfied. Respondents are satisfied with 'Student instructor interaction' (mean- 3.20) in MOOC platforms. 'Video lecturing' and 'Exams and assignments' has almost similar mean values.

# 4.17 HYPOTHESIS TESTING

# 4.17.1 Chi-square test on educational qualification and platforms

# **FREQUENCIES**

|    |         | Statistics                   |                |
|----|---------|------------------------------|----------------|
|    |         | EDUCATIONAL<br>QUALIFICATION | MOOC PLATFORMS |
| N  | Valid   | 100                          | 100            |
| IN | Missing | 0                            | 0              |

# FREQUENCY TABLE

| EDUCATIONAL QUALIFICATION |       |           |         |                  |                       |  |
|---------------------------|-------|-----------|---------|------------------|-----------------------|--|
|                           |       | Frequency | Percent | Valid<br>Percent | Cumulative<br>Percent |  |
|                           | Other | 18        | 18      | 18               | 18                    |  |
| X7-1: 1                   | PG    | 73        | 73      | 73               | 91                    |  |
| Valid                     | UG    | 9         | 9       | 9                | 100                   |  |
|                           | Total | 100       | 100     | 100              |                       |  |

|       |          | MOOC I    | PLATFORMS |               |                       |
|-------|----------|-----------|-----------|---------------|-----------------------|
|       |          | Frequency | Percent   | Valid Percent | Cumulative<br>Percent |
|       |          | 45        | 45        | 45            | 45                    |
|       | Canvas n | 1         | 1         | 1             | 46                    |
|       | Coursera | 9         | 9         | 9             | 55                    |
|       | edx      | 9         | 9         | 9             | 64                    |
|       | edx, Cou | 3         | 3         | 3             | 67                    |
| Valid | edx, Fut | 3         | 3         | 3             | 70                    |
|       | edx, SWA | 5         | 5         | 5             | 75                    |
|       | edx, Uda | 1         | 1         | 1             | 76                    |
|       | Future 1 | 2         | 2         | 2             | 78                    |
|       | SWAYAM   | 22        | 22        | 22            | 100                   |
|       | Total    | 100       | 100       | 100           |                       |

# Crosstabs

|  |     | Case Pr             | ocessing S | ummary  |       |         |
|--|-----|---------------------|------------|---------|-------|---------|
|  |     |                     | (          | Cases   |       |         |
|  | 7   | Valid Missing Total |            |         | Гotal |         |
|  | N   | Percent             | N          | Percent | N     | Percent |
| Educational qualification * mooc platforms | 100 | 100.00%             | 0          | 0.00%   | 100   | 100.00% |

|                      | <b>EDUC</b> | ATIONAL        | QUA      | LIFICAT               | TION * M | OOC   | PLAT                | FOR             | MS C                | rossta              | bulat           | ion                |           |
|----------------------|-------------|----------------|----------|-----------------------|----------|-------|---------------------|-----------------|---------------------|---------------------|-----------------|--------------------|-----------|
|                      |             |                |          |                       | M        | OOC P | LATF                | ORM             | S                   |                     |                 |                    | Tota<br>1 |
|                      |             |                |          | Canvas<br>networ<br>k | Courser  | edx   | edx<br>,<br>Co<br>u | edx<br>,<br>Fut | edx<br>,<br>SW<br>A | edx<br>,<br>Ud<br>a | Fut<br>ure<br>1 | SW<br>AY<br>A<br>M |           |
|                      |             | Count          | 5        | 0                     | 2        | 1     | 2                   | 0               | 3                   | 0                   | 1               | 4                  | 18        |
| EDUC                 | Other       | Expected Count | 8.1      | 0.2                   | 1.6      | 1.6   | 0.5                 | 0.5             | 0.9                 | 0.2                 | 0.4             | 4                  | 18        |
| ATIO                 |             | Count          | 35       | 1                     | 7        | 8     | 1                   | 2               | 2                   | 1                   | 1               | 15                 | 73        |
| NAL<br>QUAL<br>IFICA | PG          | Expected Count | 32.<br>9 | 0.7                   | 6.6      | 6.6   | 2.2                 | 2.2             | 3.7                 | 0.7                 | 1.5             | 16.<br>1           | 73        |
| TION                 |             | Count          | 5        | 0                     | 0        | 0     | 0                   | 1               | 0                   | 0                   | 0               | 3                  | 9         |
|                      | UG          | Expected Count | 4.1      | 0.1                   | 0.8      | 0.8   | 0.3                 | 0.3             | 0.4                 | 0.1                 | 0.2             | 2                  | 9         |
|                      | •           | Count          | 45       | 1                     | 9        | 9     | 3                   | 3               | 5                   | 1                   | 2               | 22                 | 100       |
| Total                |             | Expected Count | 45       | 1                     | 9        | 9     | 3                   | 3               | 5                   | 1                   | 2               | 22                 | 100       |

|                    | Chi-Square | Tests |                                   |
|--------------------|------------|-------|-----------------------------------|
|                    | Value      | df    | Asymptotic Significance (2-sided) |
| Pearson Chi-Square | 20.124a    | 18    | 0.326                             |
| Likelihood Ratio   | 19.45      | 18    | 0.365                             |
| N of Valid Cases   | 100        |       |                                   |

a. 25 cells (83.3%) have expected count less than 5. The minimum expected count is .09.

Null hypothesis,  $H_0$ : No. of MOOC platforms adopted by the respondents does not varies with educational qualification

Alternative hypothesis, H<sub>1</sub>: No. of MOOC platforms adopted by the respondents varies with educational qualification

The table shows the relationship between Educational qualification and No. of MOOC platforms. In this Chi-square value is 20.124 and 'p' value in the Asymptotic significance column is 0.326, which is greater than the level of significance, i.e.0.05. Therefore, we accept the null hypothesis(H0) that "No. of MOOC platforms adopted by the respondents does not varies with educational qualification". While, we reject the alternative hypothesis(H1) that "No. of MOOC platforms adopted by the respondents varies with educational qualification.

4.17.2 Correlation testing on educational qualification and completion of course

|   | Educational qualification | Completion of course |
|---|---------------------------|----------------------|
| Educational qualification                               | 1                         | 0.187697             |
| Pearson correlation Sig.(2 tailed)                      |                           |                      |
| Completion of course Pearson correlation Sig.(2 tailed) | 0.187697                  | 1                    |
|   |                           |                      |

Null hypothesis,  $H_0$ : There is no significant relationship between Level of education and Completion of course.

Alternative hypothesis, H<sub>1</sub>: There is significant relationship between Level of education and Completion of course.

From the correlation table, it can be seen that the correlation coefficient(r) equals 0.187, indicating a very strong positive relationship. Therefore, we accept alternative hypothesis(H<sub>1</sub>) that is "There is a significant relationship between educational qualification and completion of course". While, the null hypothesis(H<sub>0</sub>) "There is no significant relationship between the educational qualification and completion of course" is rejected. So, we can conclude that for the selected sample there is evidence that educational qualification is related to completion of course. In particular, it seems that the more the educational qualification, the greater is their course completion (r = 0.187).

# CHAPTER 5 FINDINGS, CONCLUSION AND SUGGESTIONS

# 5.1FINDINGS

- The age group of 20-30 were composes the majority of the respondents. The table 4.1 shows that 3% of the respondents were belongs to the age group of both below 20 and above 50. Whereas 60% of the respondents lies between 20-30 age category.23% of them belongs to the age group of 30-40 years. 11% of them belongs to the age group of 40-50 years.
- 60% of the respondents are female whereas 40% of the respondents are confined to male category.
- 50% of the respondents are both teachers and students category.
- Out of 100 respondents, 73% of them are qualified with Post Graduation. 9% of the respondents of the survey are Under Graduates. 18% of the respondents belongs to others.
- Majority of the respondents had knowledge about MOOCs or websites providing such courses i.e. 89%. And the rest of 11% of the respondents don't have any knowledge about MOOC platforms.
- Among 100 respondents, 90% of the respondents showed an interest in participation in MOOCs. Whereas the rest 10% has no interest to participate in MOOC.
- Through friends are the primary ways 45% of the students and teachers were introduced to MOOCs. While knowledge through a teacher was the second (39%). Through social media, 7%. Web search engines took the 4<sup>th</sup> place (6%). 2% of the respondents founds some other ways to know about MOOCs and very small role method through MOOC providers advertisements i.e. 1%.
- 61% of the respondents were enrolled the course in MOOC platforms and other 39% of the respondents are not enrolled any courses in MOOC platforms.
- Out of 54 respondents we have obtained 77 responses in which 45% of them prefer SWAYAM platform. 26% of responses shows interest in Edx platform. Coursera platform were chosen by 15% of them. While 8% of them has choose Future learn platform. 3% of the responses were chosen both Udacity and Canvas network.
- 98% of the respondents regularly use video lectures by MOOC providers. Only 2% of them are not using video lectures regularly.
- 91% of the respondents regularly use reading materials by MOOC providers. Remaining 9% of them are not using reading materials regularly.
- 85% of the respondents regularly use google and other search engines. Only 15% of them are not using these modes regularly.
- 81% of the respondents use MOOC forums regularly.
- External forums are regularly used by 78% of the respondents. Whereas 22% of them are not using it on regular basis.
- 70% of the respondents uses other open sources. Remaining 30% are not using it regularly.
- 94% of the respondents agrees that it is free to participate in MOOC platforms. 6% of them disagree with the same.
- 91% of the respondents agrees, MOOC platforms helps in improving their career. 9% of them disagrees with it.

- 92% of the respondents agrees that there is no obligation to complete the courses in MOOC platforms. Whereas 8% of them states that there is obligation in completion of courses.
- 80% of the respondents agrees that their work motivates them to participate in MOOC.
- 94% of the respondents agrees that MOOC helps them in studies. 6% of them does not agrees with it.
- 83% of the respondents agrees that they participate in MOOC for getting additional certificates while 17% of them are not participating in MOOC to get certificates.
- 68% of the respondents prefer use the knowledge gained from MOOC for their personal projects. Around 20% of the respondents use the knowledge gained from MOOC for their personal development and work. 12% of them uses it for CV enhancement.
- 61% of the respondents have got certificates on completion of course in MOOC platforms. Whereas 39% of them did not get the certificate.
- 52% of the respondents shows that getting certificate is important after completion of course. Whereas 48% of the respondents have the opinion of getting certificate is important to some extent.
- 51% of the respondents shows that Slow internet speed' as the major limitation in MOOC, 21% of them shows that 'Lack of technology access' and 'Language difficulty' as the second limitation. 'Lack of computer literacy' stands the third which shows 5%. 2% of them shows 'Lack of time' as a least limitation.
- Most of the respondentsi.e.35% are satisfied with the 'Overall experience' in MOOC platforms.29% of the respondents satisfied with the 'Availability of study materials. 22% of respondents are satisfied with 'Student instructor interaction' in MOOC platforms. 'Video lecturing' and 'Exams and assignments' are satisfied with 9% and 5% of the respondents respectively.

# 5.2CONCLUSION

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 at free cost. This feature often makes MOOCs popular Among students. These features have led to an increasing trend of popularity for MOOCs.

The importance of virtual learnings has gaining in now- a- days. The virtual learning courses like MOOCs integrate social networking, accessible online resources which help to develop the skills and knowledge. The purpose of this platform is in fact to work with the masses., and the transfer and dissemination of knowledge to large group of people who want to gain knowledge in certain filed.

Above 50% of the respondents shows that they are actively participated in MOOC platforms. Majority of the respondents are teachers who participate in MOOCs rather than students. MOOC is considered to be the most easily accessible in the current situation and also for the future due to the technology advancement. The study shows that it is a positive attitude towards the experience. But better time management skills and faster internet connection speeds are required. In which further studies are needed for involving enrolled large representative samples, to access their experiences using MOOCs. In addition, more efforts are needed to raise awareness among students of such courses, as most students who had not heard about MOOCs did show interest in participating once they become aware of the course.

# **5.3 SUGGESTIONS**

# • ONLINE TEST FROM COMFORT ZONE

Since we all are adaptable with the technologies, so it will be easy for us to get access into online platforms. It will be more user friendly if the users could attend the online test from their comfort zone itself.

# • INFORMATION FROM EDUCATIONAL INSTITUTIONS AND OTHER MEDIAS

From the study it was found that majority of the users of the MOOC platforms are teachers compared to students. Therefore, it will be more effective if students get informed about such platforms from educational institutions and other medias.

# • MAKING PLATFROMS MORE USER FRIENDLY

Since the users does not belongs to any particular age category, making the platforms more user friendly, will attract even more candidates.

## • ENSURE EASY AVAILABILITY OF CERTIFICATES

Must ensure easily availability of certificates after the completion of course will make the users more satisfied with the course and may help to re-join in similar platforms for their career progress.

# • ASSESSMENT IN REGULAR MANNER

Even though MOOC platforms have no obligation to complete the course it will be more effective if the assessment could do in regular manner, it will help to better valuable results.

# **BIBLIOGRAPHY**

### **BIBLIOGRAPHY**

- 1.Katz & Trentin,2008"Attitudes affecting college students' preferences for distance learning.
- 2.Artino (2008) "Motivational beliefs and perceptions of instructional quality: Predicting satisfaction with online training
- 3.Reschly and Christenson's (2012), Revue Internationale des technologies en pédalogie universitére, international journal of technologies in higher education, "the MOOC what the research says"international journal of technology in higher education.
- 4.Haggard et al.(2013) Academic Research on MOOCs Blog posts Journalistic coverage Essayist Commentary, "The maturing of MOOC".
- 5. Juinn &Tan (2013), "UTAUT as a theoretical lens to investigate Taiwanese college students acceptance of E-learning websites".
- 6. Wang Zuo-li (2013),
- 7. Yang, Sinha, Adamson & Rose, 2013), "Digital Badges as a motivator in MOOC", The carpe Diem MOOC experience.
- 8.Murray, J. A. (2014).Participants' perceptions of a MOOCs focus on "Equine Nutrition",

Insights 27(2):154-59.

- 9. Gasevic et al. (2014), A qualitative evaluation of evolution of a e-learning analytics tool. *Computers & Education*, 58(1), 470–489.
- 10.Chatterjee, P., & Nath, A. (2014). Massive open online courses (MOOCs) in education—A case study in Indian context and vision to ubiquitous learning.
- 11.Bisera petkovska 2014.The Perception of University Lecturers of Teaching and Learning in Massive Open Online Courses (MOOCs).
- 12.Raffaghelli,J,Cucchiara,s,Persico,D.(2015)Higher education and the digital revolution
- 13.Lewin, T. (2013). Universities abroad join partnerships on the web.
- 14.Lugton, M. (2012). What is MOOCs? What are the different types of MOOCs? xMOOCs and cMOOCs.
- 15. Pappano, L. (2012). The Year of the MOOCs.
- 16. Aboshady et.al (2015). "Perception and use of MOOC among under graduates medical students".
- 17. Veletsianos & Shepherdson (2016), Empirical MOOC research between 2013-2015.
- 18. Audrey Watters, "Beyond the MOOC in the series top ed tech trends of 2015".
- 19. Shih, Velan & Shulruf,2017, "Leraning technologies are a crucial learning resource that enable and empower a MOOC's WBIS.
- 20.Ghazali &Nordin (2017), "Perception and learning in MOOCs from the perspective of Malaysian unitersity lecturers".

## Websites

- www.wikipedia.com
- www.ijcrt.org
- http://scholar.google.co.in
- http://www.researchgate.net/
- http://shodhganga.inflibnet.ac.in/

# **APPENDIX**

# **QUESTIONNAIRE**

I am a student of St. Paul's college, Kalamassery, conducting a project on 'Perception and use of MOOC among teachers and students. The purpose of the study is to know your opinion on the perception and use of MOOC. Kindly provide your sincere and genuine responses. I hereby declare that the information collected through this will be used only for academic purpose and identity of the respondent involved will not be disclosed.

| <ol> <li>Name:</li> <li>Age :</li> </ol>   |
|--|
| Below 20 20-30 30-40 40-50 Above 50  |
| 3. Gender  |
| Male   |
| Female   |
| others  4. Category  |
| Student  |
| Teacher  |
| 5. Educational qualification  UG   |
| 6. Stream / Department:  |
| 7. Have you heard about the online education system and the Massive Open Online Courses (MOOCs)? |
| Yes No   |
| 8. How you know about MOOCs? Social media  |
| Teachers   |
| Friends  |
| MOOC providers advertisements  |
| Web search   |
| Others   |

| 9 How you enrolle<br>Yes No  | ed any cours | ses?        |                  |           |          |
|------------------------------|--------------|-------------|------------------|-----------|----------|
| 10. Which MOOC               | olatform are | you use?    |                  |           |          |
| Edx                          |              | •           |                  |           |          |
| Coursera                     |              |             |                  |           |          |
| Future Learn                 |              |             |                  |           |          |
| Swayam                       |              |             |                  |           |          |
| Xuetang X                    |              |             |                  |           |          |
| Udacity                      |              |             |                  |           |          |
| Kadenze                      |              |             |                  |           |          |
| Canvas network               | П            |             |                  |           |          |
| Stanford lagunita            |              |             |                  |           |          |
| Miri addax                   |              |             |                  |           |          |
| Mexico X                     |              |             |                  |           |          |
|                              |              |             |                  | ~         |          |
| 11. Which of the fo          | llowing did  | you use du  | ring the MOOC    | CS        |          |
|                              | Always       | Usually     | Regularly        | Sometim   | es Never |
| Video lectures               |              |             |                  |           |          |
| Reading materials            |              |             |                  |           |          |
| reading materials            |              |             |                  |           |          |
| Google and other             |              |             |                  |           |          |
| search engines               |              |             |                  |           |          |
| In MOOC forums               |              |             |                  |           |          |
| External forums              |              |             |                  |           |          |
| 0.1                          |              |             |                  |           |          |
| Other open sources           |              |             |                  |           |          |
| 12. What are the fac         | ctors you to | motivate fo | or participating | in MOOCs  |          |
|                              | Strongly     | Agree       | Agree nor        | Disagree  | Strongly |
| TI C                         | agree        | 1.20.00     | disagree         | 2 1048100 | disagree |
| They are free                |              |             |                  |           |          |
| Improve career No obligation |              | -           |                  |           |          |
| Do it for work               |              |             |                  |           |          |
| Help in studies              |              |             |                  |           |          |
| Additional                   |              |             |                  |           |          |

| certificate   |                   |            |                 |          |                  |
|---|-------------------|------------|-----------------|----------|------------------|
| 13. How will you use the knowledge gained during your MOOCs?  |                   |            |                 |          |                  |
| 13. How will you  | i use the know    | ieuge game | u during your i | noocs:   |                  |
| In personal proje   | ct                |            |                 |          |                  |
| Enhance my CV   |                   |            |                 |          |                  |
| Work  |                   |            |                 |          |                  |
| Personal develop  | ment              |            |                 |          |                  |
|   |                   |            |                 |          |                  |
| 14. Getting certif  | ficate is,        |            |                 |          |                  |
| Important   |                   |            |                 |          |                  |
| Important to som  | ne extent         |            |                 |          |                  |
| Not important   |                   |            |                 |          |                  |
| 15. Have you completed any course and get certificate?  Yes No  16. Getting certificate is?  Important Important to some extent Not important  17. Rate your satisfaction level |                   |            |                 |          |                  |
|   | Very<br>satisfied | Satisfied  | Dissati         | sfied Ve | ery dissatisfied |
| Overall experience  |                   |            |                 |          |                  |
| Exams and assignments   |                   |            |                 |          |                  |
| Interaction   |                   |            |                 |          |                  |
| Video<br>lecturing  |                   |            |                 |          |                  |
| Availability of study materials   |                   |            |                 |          |                  |

# 18. What are the limitation to complete a course?

|                           | Not at all important | Slightly important | Moderate important | Very important | Extremely important |
|---------------------------|----------------------|--------------------|--------------------|----------------|---------------------|
| Lack of time              |                      |                    |                    |                |                     |
| Slow internet speed       |                      |                    |                    |                |                     |
| Lack of technology        |                      |                    |                    |                |                     |
| Lack of computer literacy |                      |                    |                    |                |                     |
| Language difficulty       |                      |                    |                    |                |                     |

| 19. Any suggestions for improvement. |       |
|--------------------------------------|-------|
|                                      |       |
|                                      |       |
|                                      |       |
|                                      | • • • |