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AWARENESS AND UTILIZATION OF MASSIVE OPEN ONLINE COURSES (MOOCS) BY THE STUDENTS OF KARNATAKA STATE OPEN UNIVERSITY, MYSORE: A STUDY

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ABSTRACT

The emergence of Massive Open Online Courses (MOOCs) as an electronic learning trend, and its huge enrolment across the globe This study was carried out to investigate the electronic learning participation among students of Karnataka State Open University, Mysore. The aim of the study is to identify the place of access, frequency, and purpose of use of MOOCs, to investigate various problems faced while participating in MOOCs and to know the level of awareness and utilization of MOOCs. It is clear from the study that students are aware of MOOCs available via various platforms like Swayam. The educational institutions should develop good information and communication technology based infrastructure for providing better access to Massive Open Online Courses.

KEYWORDS: *E-learning, Online Learning, Higher Education, Open University, Hybrid Learning*

INTRODUCTION

The Massive Open Online Course (MOOC) movement is playing a pivotal role in transforming the higher education. A MOOC is an online course aimed at large-scale interactive participation and open access via the web. The concept of Massive Open Online Courses (MOOCs) came 'originally from academic research in the early 1960s with people linking to others using the computer to listen, discuss and learn about certain topics of interest' (Ryan, L. 2013). The phenomenon of MOOCs has recently attracted considerable attention in the fields of higher education, lifelong learning, and distance education. Technological improvement in education has given many people global access to free online learning in a wide variety of subjects. The MOOCs provide a unique platform for people of similar interest to study, learn and interact together on a particular topic of interest. MOOCs are a variety of distance learning education, some of which can register thousands of participants in a single course The underlying idea of a MOOC is accessibility since anyone can participate by working collaboratively either to acquire new knowledge or to expand existing knowledge. The researchers have conducted a survey on students of Karnataka State Open University, Mysore to knows the awareness and utilization of Massive Open Online Courses.

OBJECTIVES OF THE STUDY

The objectives behind conducting the present study are:

- To identify the place of access, a frequency of use and purpose of the use of MOOCs.
- To investigate various problems faced while participating in MOOCs.

- To examine the level of awareness and utilization of MOOCs.
- To examine the level of priority towards devices performed to access MOOCs.

Scope, Limitations, and Methodology

The scope of the study is restricted to know the awareness and utilization of MOOCs by the students of Karnataka State Open University, Mysore. The survey method was adopted, using a questionnaire as a tool for data collection. A structured questionnaire was designed and distributed among post graduate and undergraduate students. Out of 525 questionnaires distributed, 467filled in questionnaires were received back amounting 88.95%. In addition to the questionnaire method, interview schedule was also used to collect the required information as a supplement to the questionnaire method. The collected data has been analyzed and interpreted.

Analysis and Interpretation of Data

The data collected by different methods were analysed, interpreted and the same has been presented in the following tables.

Demographic Distribution of Students

The demographic distribution of students under the study has been shown in Table 1. The Table 1 show that out of the 467 total students, 269(57.60%) are male and remaining 198(42.40%) are female. About 97 (20.77%) of students belong the age group of 'Below 24' years, followed by 93(19.91%) belong to '29-30' years, 75(16.06%) belong to '31-32' years, 69(14.78%) belong to 'Above 33' years, 68(14.56%) belong to '27-28' years and 65(13.92%) respondents belong to the age group of '25-26' years.

Table 1: Demographic Distribution of Students

Options	Responses	Percentage
Gender		
Male	269	57.60
Female	198	42.40
Age		
Below 24	97	20.77
25-26	65	13.92
27-28	68	14.56
29-30	93	19.91
31-32	75	16.06
Above 33	69	14.78
Educational Qualification		
Under Graduate	189	40.47
Post Graduate	278	59.53

The above Table 1 also depicts that educational qualification of students, About 189(40.47%) are undergraduate students and 278 (59.53%) are postgraduate students.

Level of Awareness of MOOCs

The level of awareness of MOOCs by the students has been summarized in Table 2. The Table 2 depicts that 137(29.34%) of students are 'Extremely Aware' of MOOCs, followed by 92(19.70%) opine as 'Somewhat Aware', 88 (18.84%) opine as 'Moderately Aware', 83 (17.77%) opine as 'Slightly Aware' and 67 (14.35%) of students opine as 'Not at all Aware' of Massive Open Online Courses.

Table 2: Level of Awareness of MOOCs

Level of Awareness	Responses	Percentage
Not at all aware	67	14.35
Slightly aware	83	17.77
Somewhat aware	92	19.70
Moderately aware	88	18.84
Extremely aware	137	29.34

Place of Access to the Internet

The place of access to the internet to participate in MOOCs by the students has been summarized in Table 3. The Table 3 depicts that 219 (46.90%) of students access internet form their home, followed by 118 (25.27%) access fromworkplace/ office, 76(16.27%) access from the cyber centers and 54 (11.56%) of students access the internet for MOOCs from the library.

Table 3: Place of Access to the Internet

Place of Access to Internet	Responses	Percentage
Work Place/ Office	118	25.27
Library	54	11.56
Home	219	46.90
Cyber Centres	76	16.27

Devices Preferred to Access MOOCs

The devices preferred to access MOOCs by the students has been summarized in Table 4. The Table 4 depicts that desktop computers are preferred by the students with a mean value of 3.66 and SD 1.17, followed by Smart Phones with a mean value of 3.53 and SD 1.23, Laptops are preferred by students with a mean value of 3.55 and SD 1.25. The Tablets are also preferred by the students to access MOOCs with a mean value of 2.23 and SD 1.39.

Table 4: Devices Preferred to Access MOOCs

Preferred Devices	Very Low Priority	Low Priority	Medium Priority	High Priority	Very High Priority	Mean	Sd
Desktop Computer	29 (06.21)	53 (11.35)	96 (20.56)	157 (33.62)	132 (28.27)	3.66	1.17
Smart Phone	38 (08.14)	68 (14.56)	82 (17.56)	162 (34.69)	117 (25.05)	3.53	1.23
Tablet	212 (45.40)	85 (18.20)	68 (14.56)	53 (11.35)	49 (10.49)	2.23	1.39
Laptop	57 (12.21)	43 (09.21)	46 (09.85)	226 (48.39)	95 (20.34)	3.55	1.25
$\chi^2 = 442.609$, df = 12, χ^2/df = 36.88, P($\chi^2 > 442.609$) = 0.000							

The Table 4 also depicts that 132 (28.27%) of students opine level of priority towards desktop computers as very high and 29(06.21%) opine as very low, followed by 117(25.05%) of students opine level of priority towards smart phone as very high and 38(08.14%) opine as very low, Tablets were also preferred with very low priority of 212 (45.40%) and 49(10.49%) opine as very high. The laptops are opined as a high priority of 226 (48.39%) and 43 (09.21%) opine as low priority.

The Chi Square test was conducted and there exists significant relationship between devices preferred to access MOOCs and level of priority opined by the students. (χ^2 = 442.609, df = 12, χ^2/df = 36.88, P(χ^2> 442.609) = < 0.000)

Reasons for Use of MOOCs

The reason for use of MOOCs by the students has been summarized in Table 5. The Table 5 depicts that educational purpose is the reason for use of MOOCs with Mean value of 3.93 and SD 01.22, followed by chatting/discussion with a mean value of 03.08 and SD 01.39, Social Networking with Mean value of 2.32 and SD 01.46. The reason for Information Sharing with Mean value of 2.85 and SD 01.44.

Table 5: Reasons for Use of MOOCs

Reasons	Never	Rarely	Sometimes	Often	Always	Mean	SD
Educational purpose	23 (04.93)	54 (11.56)	67 (14.35)	108 (23.13)	215 (46.04)	3.93	1.22
Social Networking	215 (46.04)	58 (12.42)	83 (17.77)	49 (10.49)	62 (13.28)	2.32	1.46
Information Sharing	109 (23.34)	112 (23.98)	64 (13.70)	93 (19.91)	89 (19.06)	2.85	1.44
Chatting/ Discussion	83 (17.77)	93 (19.91)	86 (18.42)	112 (23.98)	93 (19.91)	3.08	1.39
χ^2 = 363.445, df = 12, χ^2/df = 30.29, P(χ^2> 363.445) = 0.0000							

The Table 5 also depicts that 215(46.04%) of students always use MOOCs for educational purposes and 23(04.93%) of students never use in MOOCs for educational purposes, followed by 215 (46.04) of students never use MOOCs for social networking and 49(10.49%) of students use often, 112 (23.98%) of students rarely use MOOCs for information sharing and 64(13.70%) use sometimes. About 112(23.98%) of students often use in MOOCs for chatting/ discussion and 83(17.77%) of students never use MOOCs for chatting/discussion.

The Chi-Square test was conducted and there exist significant relationship between reasons for use of MOOCs and the level of priority opined by the students. (χ^2 = 363.445, df =12, χ^2/df = 30.29, P(χ^2> 363.445) = 0.000)

Level of Quality of Education in MOOCs

The opinion gathered about the level of quality of education in MOOCs by the students has been summarized in Table-6. The Table-6 depicts that 173(37.04%) of students opine as excellent, followed by 128(27.41%) opine as very good, 78(16.70%) opine as good, 53(11.35%) opine as fair and 35(07.49%) of students opine level of quality of education in MOOCs as poor.

Table 6: Level of Quality of Education in MOOCs

Level of Quality	Responses	Percentage
Poor	35	07.49
Fair	53	11.35
Good	78	16.70
Very Good	128	27.41
Excellent	173	37.04

Level of Agreement in MOOCs Contents

The opinion about level of the agreement provided in MOOCs by the students has been summarized in Table 7. The Table 7 also depicts that 183(39.19%) of students strongly agree with the level of agreement, followed by 139(29.76%) of students agree,65(13.92%) of students neither agree or disagree, 46(09.85%) of students disagree and 34(07.28%) of students strongly disagree with the level of provided agreement in MOOCs.

Table 7: Level of Agreement in MOOCs Contents

Level of Agreement	Responses	Percentage
Strongly Disagree	34	07.28
Disagree	46	09.85
Neither Agree or Disagree	65	13.92
Agree	139	29.76
Strongly Agree	183	39.19

Problems Faced while Participating in MOOCs

The problems faced while participating in MOOCs by the students has been summarized in Table 8. The Table 8 also depicts that 216(46.25%) of students opine as neutral towards problems faced by inadequate infrastructure, followed by 68(14.56%) of students opine as a minor problem. About138(29.55%) of students opine as moderate problems towards option of they don't have personal computers and 92(17.70%) of students opine it as major problem, 157(33.62%) of students opine lack of interest as major problem and 85(18.20%) of students opine as moderate problem. About 137(29.34%) of students opine lack of power supply as the moderate problem and 89(19.06%) ofstudents opine as a major problem. About 132 (28.27%) of students opine poor internet connectivity as the moderate problem and 94 (20.13%) of students opine as a minor problem. About 142(30.41%) of students opine inadequate knowledge of e-learning programmes as minor problem and 94(20.13%) of students opine as neutral.

Table 8: Problems Faced while Participating in MOOCs

Problems	Major Problem	Minor Problem	Moderate Problem	Neutral
Inadequate infrastructure	97 (20.77)	68 (14.56)	86 (18.42)	216 (46.25)
Don‘t have a personal computer	92 (19.70)	132 (28.27)	138 (29.55)	105 (22.48)
Lack of interest	157 (33.62)	93 (19.91)	85 (18.20)	132 (28.27)
Lack of power supply	89 (19.06)	113 (24.20)	137 (29.34)	128 (27.41)
Poor internet connectivity	112 (23.98)	94 (20.13)	132 (28.27)	129 (27.62)
Inadequate knowledge of e-learning programmes	109 (23.34)	142 (30.41)	122 (26.12)	94 (20.13)
$\chi^2 = 159$, df = 15, $\chi^2/df = 10.6$, $P(\chi^2 > 159) = 0.0000$				

The Chi-Square test was conducted and there exists a significant relationship between problems faced while participating in MOOCs and the response of students. (χ^2 =159,df =15, χ^2/df = 10.6, P(χ^2> 159)=0.0000)

Level of Satisfaction about MOOCs

The level of satisfaction obtained about MOOCs by the students has been summarized in Table 9. The Table 9 depicts that 165(35.33%) of students are extremely satisfied with the MOOCs, followed by 123(26.34%) of students are very much satisfied, 84(17.99%) of students are moderately satisfied, 63(13.49%) of students are slightly satisfied and 32(06.85%) of students are not at all satisfied with the MOOCs.

Table 9: Level of Satisfaction about MOOCs

Level of Satisfaction	Responses	Percentage
Not at all satisfied	32	06.85
Slightly satisfied	63	13.49
Moderately satisfied	84	17.99
Very much satisfied	123	26.34
Extremely satisfied	165	35.33

SUGGESTIONS

Based on the above results the following suggestions are made for further improvement in awareness and utilization of MOOCs.

- The print and electronic media should create awareness about MOOCs to the public.
- The universities or college should develop good ICT based infrastructure for providing access to MOOCs.
- The educational institutions should organize workshops and training programmes for students, research scholars and staffs at regular interval of time to keep them in tune with the latest educational technologies.

- The library staff should send e-mail alerts regarding newly launched MOOCs courses globallyto the users regularly.
- The broadband facility should be strengthened at remote parts ofthe country so that interested people in remote areas can get the benefits of MOOCs.

CONCLUSIONS

The idea of a Massive Open Online Course has attracted huge media attention in recent years. MOOCs have been used widely as stand-alone, online courses with or without credits. In order to improve on MOOC usagethe universities or colleges must promote the use of MOOCs by providing resources such as internet access and computer labs for students and also come up with activities that will influence students to join for MOOCs. Teachers should also encourage and support students to use MOOCs in innovative ways. The computer skills training should also be part of the educational curriculum at all levels. The MOOCs content developer must ensure good instructional quality by using the right pedagogical approaches and also ensure that the sites and content are of high quality.

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