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MOOCs - The Learning Driver for the Students of Higher Education : Awareness among the Students regarding MOOCs

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Abstract

The purpose of the paper is to get the idea and to investigate the perception and awareness of Massive Open Online Courses(MOOCs) among the students of higher education as in today's era the online teaching become the essential part of learning due to COVID-19 and many other factors like accessibility, openness etc. So MOOCs are one of the emergent management solutions to assure that education is continuous and do not disordered. Here the data has been collected from the students of the higher education of Rajkot city by using the convenient sampling method. Data has been collected from 123 students and for the purpose of analysis of the data independent t-test, one way ANOVA, Cronbach's Alpha and in descriptive statistics percentage analysis is used by the researcher. From the data collected from the students we can conclude that UG and PG students have significant difference in their purpose of learning of MOOCs and the number of courses done by them. Researcher has also concluded that the selection of the different MOOCs provider do not vary significantly among the UG and PG students.

Keywords: Higher education, Massive open Online Courses (MOOCs), learning purposes.

Introduction

Sir Ken Robinson has truly said that the more complex the world becomes, the more creative we need to be to meet its challenges. In this competitive era, technology is the vital factor through which one can gain the knowledge which is available through worldwide and knowledge gaining is not just restricted to the classroom, and MOOC has turned out to be the recent development in the field of the education. MOOCs have attracted learners from around the world which shows the revolution in teaching that frees information from the barriers of paying for high-priced courses to

now imparting classes from the renowned professors at no cost or at low cost. Others perceive the MOOC movement as a reinvention of old classroom-learning theories being performed in new ways engaging students networking crosswise the world and attracting in new forms of acquiring knowledge. The word "MOOC" was derived in 2008 by Dave Cornier of the University of Prince Edward Island and Bryan Alexander of the National Institute for Technology in Liberal Education. The Massive Open Online Courses (MOOCs) used by hundreds of universities comprise of thousands of courses, generating opportunities for learners of all ages to develop themselves. Massive open online courses are a new type of online learning environment which permit an unlimited or boundless number of participants from anywhere in the world and free access to course content mostly given or delivered by world-well-known experts. MOOCs are majorly divided into three types such as cMOOCs that is Connectivist Massive Open Online Courses, another is xMOOCs that is Expanded/Extension MOOCs and the last part is hMOOCs that is Hybrid MOOCs. First, in 2008 MOOCs this came out on the path of connectivism theory and cMOOCs also originally build up on connectivism pedagogies which get the benefit of the online environment for joining or connecting the students. xMOOCs incline to provide material for the students for example notes, pre-recorded videos, utilization of discussion forum and also evaluate learning through quizzes. The year 2012 was selected by the New York Times as "The Year of the MOOC." MOOCs sustained this rise in the subsequent years, and by 2021 it grow into an environment in which more than 220 million learners took the benefit of the MOOCs and in the year 2021 new 40M students signed up for at least in one MOOC and during the pandemic year 2020 total 60M new learners signed up.

What does the word MOOCs represent?

The full name of the MOOCs define as "Massive Open Online Courses" in which the word "massive" denote an unlimited or unrestricted students, courses and its content and material used. Openness denotes that access of the course is open to for those who wants to learn that course. The online word denotes that MOOCs are geared up through online materials in the online environment and the Courses word point out that online course is started and finished within a limited period of time.

Different MOOCs Providers

MOOCs Providers:	
Canvas Network	**Khan Academy**
edX	**Udacity**
SWAYAM	**Udemy**
Coursera	**FutureLearn**

2020 Web Traffic
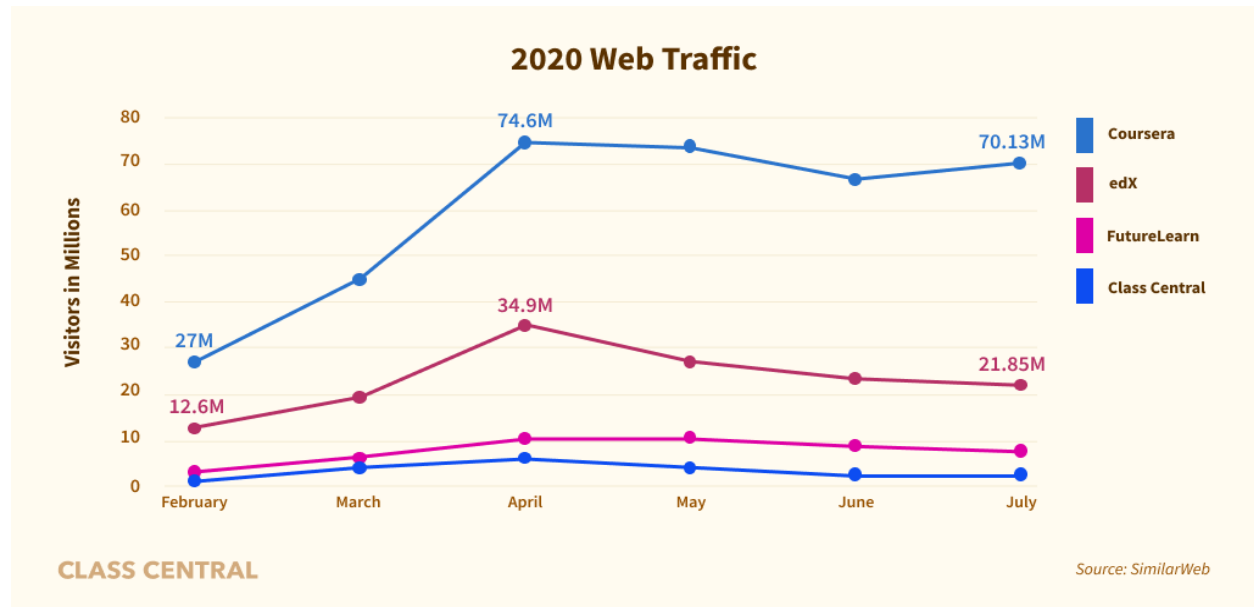
Canvas Network

This Canvas Network launched in the year of 2010 which is specializes in professional enlargement classes and lectures for teachers or other education leaders. Subjects comprise of leading and applying assessment in student affairs, supporting women in STEM fields, and research data management for librarians and Students can avail MOOCs in different languages like English, Chinese, Portugese, and Spanish. Canvas Network gives free and self-paced online classes like any other MOOCs provider so that learners can learn as per their convenience.

Khan Academy

The mission of the Khan Academy is education is a human right. This platform provides free online courses consist of videos, exercise and personalized learning dashboard. Khan Academy also supports K-12 students, with content for pre-algebra, English language education, AP chemistry, and U.S government and civics and also includes material of SAT, GRE etc.

edX

edX is a joint venture between Harvard and MIT in the year 2012. This platform gives various courses namely cyber security, python, humanities and many more which gives permission to 140 higher education institutions including many students too. edX allows academicians to enhance their skills by implementing MOOCs in a creative way by catering different needs of the students.

Udacity

This is a MOOC platform which works to earn profit by offering career development and vocational courses from 2011. The students who are interested in developing their career as an Android developer, who wants to master their skills in C++, Block chain can plump for this platform.

It renders many services where working professionals may increase their competence by using comprehensive career services namely personalized job coaching, resume building guidance and LinkedIn practice. Udacity allows its users to create detailed profiles to make use of as they are tied with major employers like Google and Mercedes-Benz.

SWAYAM

The full name of the SWAYAM is "Study Webs of Active Learning for Young Aspiring Minds." This programme is initiated by the Government of India to attain the three important principles of education that is access, equity and quality. SWAYAM platform developed and designed by MHRD and NPTEL with the help of the Google Inc. and Persistent Systems Ltd in the year 2017.

Udemy

Udemy established in the year of 2010 and this is MOOC provider for profit and offer 1,50,000 courses in 65 languages and the MOOCs courses includes office productivity, health and fitness, photography, finance and accounting classes, learning the key elements of Bit coin and block chain or developing global market analysis skills etc.

Coursera

Coursera was founded by the two Stanford professors in the year of 2012, which are the largest MOOCs providers in the world. Coursera offers more than 3,900 courses in the field of business, computer science, engineering, arts and humanities etc. and also offers online degrees through its partner schools.

FutureLearn

Future Learn founded by the 12 university partners, including King's College London and the University of Leeds in the year 2012 and offer the courses in the field of management, ecology and wildlife science. Future Learn also provides low cost academic programs that allow students to earn Bachelor of Arts in international business and many more.

Statement of the Problem

People mostly search for gathering knowledge in an efficient and less time-consuming way. So, online learning is a possible solution for the present situation. For students and teachers, it is graceful to complete a course using with the help of the MOOCs platform. Till date, there has been little research done on student's awareness and usage of MOOCs especially in this modern area so the statement of the present study's problem is " MOOCs - The Learning Driver for the Students of Higher Education : Awareness among the Students regarding MOOCs." So, an effort has been done to check the awareness and level of familiarity with MOOCs students. MOOCs may provide professionals an opportunity to upgrade their skill or further their education.

Review of Literature

(Raja M, 2021) Has studied "COVID-19 and students perception about MOOCs" a case of Indian higher educational institutions." The objective of the study was to measure the outcome or result of the MOOCs with special regard to COVID-19 students of higher eductional institutions. The researcheer has colllected data from the students of the higher educations by using the convenient sampling method and factor analysis was used by the researcher. Resesacher has concluded that the education should be free to increase the learning motivation and researcher has also concluded that if the MOOCs will be free of cost then enrollement in the MOOCs can be increased.

(Rahul, 2021) Has conducted a study on "A study on E-Learning using SWAYAM(MOOCs)-Awarness among under gradute and post gradute students." Researcher has collected data from 61 under graduate and 44 post gradute students of Mumbai University. Data has been collected through the questionnaire and nature of the study was descriptive. The objective of the study was to know the awarness among students as the online teaching has played an imporatant role during the COVID 19. The study has revealed that there was less awarness of MOOCs and SWAYAM but students had positive atttitude in accepting and adopting the different online platforms for online education. Researcher has also concluded that students had more attached and preferred calssroom teaching.

(Jrall R, 2021) Has made a research on "Awarness about MOOCs Platforms and its Usage: Need of an Hour in Pandemic." The major objective of the study was to measure the awarness and usage of MOOCs among teachers of M.Ed level. Researcher has collected data from 50 teachers by using purposive sampling method. The study was empirical in nature and researcher has concluded that as compare to males, female were more aware about the MOOCs and its resourcers.

(Purkayastha N, 2021) has conducted a study on "Awarness on Massive Open Online Course(MOOCs) among the Post graduate students of North East India with Special Reference to Assam University, Silchar and Tripura University, Agartala: A Study." The objectives of the study were to check the awarness level and perception of post graduate students of Assam and Tripura University. Researcher has concluded that MOOCs are the positive development in the field of the

education and also conluded that students were interested in MOOCs but they have less knowledge regarding MOOCs.

(DreisiebnerS, 2019) Made a study on "Content and instructional design of MOOCs on information literacy A comprehensive analysis of 11 xMOOCs." The objective of the study was to find the present status of information literacy through the Massive Open Online Courses. Researcher has used information literacy standards and performance indicators of Association of college and research libraries(2000). Researcher has concluded that the content and courses covereed by the IL MOOCs vary largly and also concluded that some MOOCs majorly reveal the performance indicators given by the ACRL standards on IL of 2000. Researcher has found out that MOOCs did not focus on subject-specific or country or culture specific.

(Ma L, 2019) Has conducted a study on "Drivers and barriers to MOOC adoption: perspectives from adopters and non-adopters." The objective of the study was to know the factors or drivers and barriers in adopting the MOOCs and also to get to know that which factors affect in adoption of the MOOCs. Researcher has used the questionnaire method to collect the data from 1018 people and strata is divided into adoptors and non adopters of the MOOCs. Researcer has found that non adoptors of the MOOCs were due to lack of publicity and related information.

(Kundu A, 2019) Conducted a study on "Perceptions of MOOCs among Indian State Universitystudents and teachers." The mojaor objective of the study was to know that whether the acceptibility of the MOOCs was llimited to Indian top university or else it is also reached to the other parts of the country. Questionnaire was used by the researcher to collect the data from 480 respondents and discriptive statistics like percantage analysis ans inferential analysis was used by the researcher. Researcher has oncluded that MOOCs was successful in reaching the goals of the learners.

(Soy, 2019) Has made a research on "A Study on the Awareness of MOOCs among Students of Higher Learning in Paschim Bradhaman District of West Bengal." The objectives of the study were to measure the awareness of MOOCs among and their look towards the MOOCs. Another objective was to check the perception of the students regarding MOOCs. Researcher has concluded that different students of different streams had significant difference in level of awareness regarding MOOCs.

(Smith N, 2017)Has conducted a study on "A comparison of MOOC development and delivery approaches." The purpose of the study was to made comparison in developing and delivering MOOCs and researcher has concluded that MOOCs can reach to thousands of students but the limitation found by the researcher was that self-made MOOCs have not so large so audience but it can be achieved and researcher has also found that MOOCs can be prominent in future years.

(Singh G, 2017) Has made a study on Awareness towards Massive Open Online Courses (MOOCs) and their usage for Teacher Education in India." Here the researcher has collected data from 156 educators and the awareness regarding different factors like concept, usability, technology and

current practices has been checked. Researcher has concluded that there was teacher educators had the fundamental knowledge regarding MOOCs and advantages and limitations of MOOCs. Researcher has given his view that the future scope of MOOCs is wide in India.

Research Gap

The present study has covered the awareness and perception of the students regarding Massive Open Online Courses which are most popular concept of the education for that reason research has selected this topic to check the awareness level of students of under graduate and post graduate students of Rajkot City. The present study also covers MOOCs completed by the under graduate and post graduate students and how the awareness level differs among UG and PG students.

Significance of the Study

Massive Open Online Courses have recognized new benchmarks in the online learning environment; Massive Open Online Courses (MOOCs) in various disciplines, including Library and information science, have been developed worldwide and so many professionals of different disciplines are attracted to MOOCs and involved themselves in assisting and providing MOOCs. With this study, the students and teachers will learn what Massive Open Online Courses are and how the teachers or any institute can disseminate the information about the MOOCs so the students can gain the knowledge worldwide.

Objectives of the study

1. To study the perception of the youth regarding Massive Open Online Courses (MOOCs).
2. To measure purpose of learning of MOOCs of UG and PG students.
3. To Study selection of courses done by the UG and PG students.

Research Methodology

Research Type: This research is exploratory in nature.

Sampling Technique: Here the researcher uses the Non –probability sampling technique.

Sampling Type: Here the researcher has collected data from the students by using the Convenience sampling.

Sampling Unit: students of UG and PG are the respondents of the study.

Sample Size: Researcher has collocated data from the 123 students.

Data Used: The present study is based on the Primary Data collected through the well-structured questionnaire.

Area under Study: Here the geographical area covered by the researcher is Rajkot city.

Data Analysis

As the data is primary in nature, the researcher, for authenticity of questions conducted the reliability test before jumping into further analysis. The results of the reliability tests are as below.

Reliability analysis with respect to Purpose of learning of MOOCs.

Reliability Statistics

Cronbach's Alpha	N of Items
.777	5

Source: computed from questionnaire.

Here the reliability test has been conducted to check the reliability of the data regarding purpose of Massive Open Online Courses and the result of the Cronbach's Alpha shows the value of 0.777 which shows that data is reliable.

Hypothesis 1

H0: There is no significant difference between educational qualifications and number of MOOCs completed by Students.

H1: There is significant difference between educational qualifications and number of MOOCs completed by Students.

Independent Samples Test								
	Levene's Test for Equality of Variances		t-test for Equality of Means					
	F	Sig.	t	df	Sig. (2-	Mean Difference	Std. Error	95% Confidence Interval of

						taile d)		Differe nce	the Difference	
									Lo wer	Upp er
How many MOO Cs comple ted earlier ?	Equal varian ces assum ed	22.5 58	.0 00	- 7.6 35	121	.000	-1.085	.142	- 1.36 7	- .80 4
	Equal varian ces not assum ed			- 6.4 78	54.3 10	.000	-1.085	.168	- 1.42 1	- .74 9

Analysis

Here, to measure that whether there is significant difference between educational qualification and No. of courses completed by the students through MOOCs platform, independent T- test is applied which shows the significance value 0.000 which is less than 0.05 so we can conclude that there is sufficient evidences to reject the null hypothesis and we can conclude that the Courses completed by UG students and PG students are not equal so there is significant difference between number of MOOCs completed by UG and PG students.

Hypothesis 2

H0: Selection of different MOOCs provider do not depend on educational qualifications.

H1: Selection of different MOOCs provider do not depend on educational qualifications.

Independent Samples Test									
	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Si g.	t	df	Sig. (2-		Std. Error	95% Confidence	

					taile d)	Mean Differe nce	Differe nce	Interval of the Difference	
								Low er	Upp er
Indicat e the name of the MOOC s provide r from where you have comple ted the above MOOC course:	Equal varian ces assum ed	.1 95	.6 59	- .6 75	121	.501	-.207	.307	- .815	.400
	Equal varian ces not assum ed			- .6 77	80.5 12	.501	-.207	.306	- .817	.402

Analysis

Here, to get to know that whether there is significant difference between educational qualification and the different platforms of MOOCs provider and for that purpose independent T test is applied and result shows that students of UG and PG have no significant difference in selecting the different MOOCs provider as the significance value is 0.501 which is more than 0.05 so we accept the null hypothesis and can conclude that selection of different MOOCs providers by UG and PG students do not vary significantly.

Different purposes of MOOCs of UG students

	SA	W (5)	A	W (4)	N	W (3)	DA	W	SD	D	Weig hted Mean
To Update my Skills.	33	16 5	39	15 6	8	24	1	2	1	1	23.2
To update my knowledge as it is relevant to school or	24	12 0	45	18 0	10	30	2	4	1	1	22.33

degree program or academic research.											
For personal growth and enrichment.	28	140	38	152	14	42	0	0	2	2	22.4
To meet the requirements of existing job demand for fun and Challenge.	17	85	42	168	16	48	6	12	1	1	20.93
To earn a certificate.	26	130	37	148	10	30	3	6	6	6	21.33

Analysis

From the above analysis we can say maximum that is 47% of the UG students agree on the purpose of to update their skills followed by 40% of the UG students strongly agree upon this statement and 54% students of UG are agree upon to update their knowledge as it is relevant to school or degree program. 46% of the UG students agree upon the purpose of their personal growth and enrichment and 34% of the UG students strongly agree upon this statement. 51% of the UG students agree upon the purpose to meet their job demand and 45% UG students agree upon the fact to earn the certificate and only 7% students strongly disagree upon this statement.

Different purposes of MOOCs of PG students

	SA	W (5)	A	W (4)	N	W (3)	DA	W	SD	D	Weighted Mean
To Update my Skills.	12	60	24	96	3	9	1	2	1	1	11.2
To update my knowledge as it is relevant to school or degree program or academic research.	12	60	25	100	3	9	1	2	0	0	11.4
For personal growth and enrichment.	19	95	6	24	1	3	0	0	15	15	9.133
To meet the requirements of	10	50	22	88	9	27	0	0	0	0	11

existing job demand for fun and Challenge.											
To earn a certificate.	12	60	22	88	7	21	0	0	0	0	11.26

Analysis

From the above analysis we can say maximum that is 58% of the PG students agree on the purpose of to update their skills followed by 29% of the PG students strongly agree and only 3% students disagree and strongly disagree on this statement. 60% students of PG are agree upon the purpose to update their knowledge as it is relevant to school or degree program. 46% of the PG students are strongly agree upon the purpose of personal growth and enrichment. 53% of the PG students agree upon the purpose to meet their job demand and the fact to earn the certificate.

Hypothesis 3

H0: Purpose of Learning through MOOCs is independent of educational qualifications.

H1: Purpose of Learning through MOOCs is dependent on educational qualifications.

t-Test: Two-Sample Assuming Equal Variances		
	Variable 1(UG Students)	*Variable 2(PG Students)*
Mean	22.04	10.8
Variance	0.821333333	0.888889
Observations	5	5
Pooled Variance	0.855111111	
Hypothesized Mean Difference	0	
Df	8	
t Stat	19.21874572	
P(T<=t) one-tail	2.78535E-08	
t Critical one-tail	1.859548038	
P(T<=t) two-tail	5.5707E-08	
t Critical two-tail	2.306004135	

Analysis

Here to measure whether is any significant differences in UG and PG students with regard to purpose of doing the MOOCs researcher has applied independent T-test and the value of T-test is