Challenges and Experiences of Students in the Virtual Classroom World: A Literature Review

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ABSTRACT

The study aims to discuss the experience students face in the virtual classroom mode. The limitations and challenges which students face while enrolling in online modes to learning from MOOC Courses to Distance Learning. The community of the people undertaking online education has increased significantly in the past few years. The paper reviews the literature on the topic of online classes, asynchronous and synchronous modes of delivery, the perception of students in the virtual learning and the experiences and challenges faced.

Keywords— Online Learning, Online Classes, Online Education, Virtual Classroom

I. INTRODUCTION

The world has been battling with the novel coronavirus from the beginning of 2020 and the pandemic has bought everything to a lockdown including educational institutions - schools and universities have been closed since early march in order to sustain the spreading of the virus. This has resulted in a sudden surge of online platforms for education being used by students. Online education and online learning has been the only mode of education and learning for students across the globe.

To understand how the world of virtual classrooms work and how students can be more accustomed to this method of teaching there are various factors which come into play such as how are virtual classrooms different than face to face teaching, what is the most successful way of implementing virtual classrooms and do virtual classrooms yield better results for students. And most importantly how do students adjust to this new normal of online classes.

In various countries due to the outbreak of Covid-19 online teaching has been implemented as a way of teaching and learning for students. The mode of delivery of classes is asynchronous and synchronous- to better understand which mode is the best for students and their understanding of a particular subject knowledge is a critical element. How to implement online learning in the best possible way we need to find the right platforms digitally available.

Students when introduced with the idea of online learning asynchronous and synchronous modes of learning, the challenges faced and the experience these include recorded lectures, MOOCs, live lectures and the process of going through these in a situation of pandemic , it brings into effect various factors of what we can achieve through the virtual classroom mode. How will a student perform, what will they learn, does the non-traditional way of learning make a difference till what level on an individual. Online education has opened the doors for many people in distant areas who are able to access content from across the world. The virtual classroom needs a proper course structure designed.

The online education world is changing and so are the student expectations from it, gone are the days when the traditional methods excelled with the changing dynamics of learning and education, the digital world has bought new ways of assessment and experiences for students. In education now students want relevant content curated to their needs and current trends, now students want to be globally enriched and aware. The virtual classroom and online student committee is growing extensively and so along with it are the tools to deliver education to the students.

II. REVIEW OF LITERATURE

(Pstor, 2020) in the study it was revealed that students are not yet ready for synchronous mode of delivery of lectures because of issues of internet connectivity majorly and hence asynchronous mode of teaching should be implemented in extreme quarantine situation. The covid-19 pandemic has reflected digital learning as a new pedagogical method for learning and the delivery of these classes on the students as well has certain impacts including their challenges and experiences. The emphasis of this research was onto how internet connectivity is a big issue for students and is a hindrance in learning hence they need asynchronous modes which they can control when to learn flexibly

(Armstrong, 2011) The implementation of online tools for a qualitative approach, the tools were not as significant as the communication itself when it comes to online learning

(Barrett, 2010) In the dynamics of online education from the traditional view of teachers being role models and leaders has been changing in the view of online education, hence for this mode of instruction of a virtual classroom teachers need to be trained I the way they deliver and teach in online classes as more and more students are attracted to online courses and educational learning now a days

(Basilaia, Dgebuadze, Kantaria, & Chokhonelidze, 2020) In this particular research the university study of adopting G-suite as a mode of technological assistance for the delivery of Online instructions using Gmail, Google forms, Hangouts, Google Classroom, Calendar, Drive, to make a more widely available and accessible mode of shifting from traditional classes to online classes.

(Beaudoin, Kurtz, & Eden, 2009) The online course designed itself is an determinant of how satisfied e-learners feel in online learning, challenges which the students encountered were resolving issues by themselves, self-motivation and time management are critical to the success of online classes.

(Bowers, 2008) In the research it is concluded that the level of flexibility provided to online course takers is very pivotal to understanding how community college students take online courses. The purpose of taking online courses is to lead to a result as in an advance to an overall goal which can be their degree or their career enhancement and likely the self - fulfilment in students. The online method is a mode of convenience for them and this plays a very major factor in choosing online courses. Hence these courses should emphasize not only on the technological aspect but also strategies for learner success. Online learning does not only represent difficulties to the learner to the administrator of these courses as well.

(Brent, 2004) Encouraging engagement in online courses is very critical to ensure a good learning experience for students.

(Brozik & Zapalska, 2006) learning styles of individuals are different hence we need to adopt the student styles, even though one particular style was not deemed as appropriate we can imbibe different mechanisms to inculcate these.

(Cochran, Campbell, Baker, & Leeds, 2014) Students with lower GPAs are more likely to leave online courses midway. How can we retain students for the duration of these courses.

(Crawford, Butler-Henderson, Rudolph, & Glowatz, 2020) The challenges to higher education because of covid-19 have been significant; In Australia the start of the new semester was delayed by a month many universities were unprepared to deliver higher education online but had to eventually transition into it as there was no other option available. The diverse response to the complex challenge from India, Jordan, China, UK, USA, Republic of Ireland, Australia, Germany, Hong Kong showed how the student community was affected by this and how universities took the decision to move online and closed onsite education in the course of this pandemic and the higher education delivery was done for the student community without compromising academic quality and standards.

(Draus, Trempus, & Curran, 2014) Instructor generated video content has a positive and moderate impact on students in asynchronous mode of delivery. A greater influence of content is gathered by asynchronous mode of delivery.

(Falloon, 2011) The limitations of virtual classrooms and the challenges which a student faces in the same need to be addressed by the instructors

(Gillett-Swan) the learner in online education often feels isolated and the reasons can be the course design structure and engagement with student-on-student engagement with the other students hence leaving the learner challenges as isolation one of them

(Harris, S, & Elwyn) Motivators for students to take online classes and why do they prefer online classes is the money which is saved instead of a real institution going education, can be accessed from across the globe

(Hiltz & Wellman, 1997) Virtual Classroom students report with higher satisfactions as to that of the same students in a traditional classroom. Mastery of a course in online learning is superior or equal to that of traditional learning.

(Hostetter & Busch, 2006) The student presence in online learning how social presence can be used as a positive factor

(Huss & Eastep, 2013) Virtual Classroom settings and how these spaces help students in the non-traditional methods of learning

(Jayaratne & Moore, 2017) On the basis of the flexibility of the online courses' students choose online courses. Students who have previously enrolled in online classes have a positive mindset for online classes. Students prefer power points with a narrative in online classes to be more helpful and understanding. Testing in online courses is a huge task for both the instructor and the students hence they preferred essay type test modes for examinations.

(Johnston, Killion, & Oomen, 2005) The online course designed needs to be constructed in advance, it should be flexible, the instructor needs to be prompt with assignment feedbacks and emails, opportunities for student-on-student interaction should be created and monetary funding as well as technical support is essential, there should be basic orientation for the delivery platform. (Johnston, Killion, & Oomen, 2005) Students feel the nonverbal communication reduced their educational experience, a lot of confusion arises because of simultaneous engagement online with the web chat, audio,

presentation. Finally technological issues were a major setback.

(Mansour & Mupiga, 2007) On a key note rigid classes timing technical issues were the biggest concerns students have towards hybrid classes including both face to face and online classes both, whereas online discussions for some cases allowed students to have more time to reflect and prepare. For certain areas he negative of online classes was to feel lost in the cyber space. (Jorge Larreamendy-Joerns, 2006)

(McBrien, Jones, & Cheng, 2009) single semester study of students taking online courses, senor year students are less likely to leave their online classes.

(Mupinga, Nora, & Yaw, 2006) Every student comes to class with a certain expectations, to feel satisfied in an online class what can be done for the students.

(Murphy & Coleman, 2004) Challenges categorized as student behavior; text-only, online communication; purpose and quality of the discussion; and forum features in online classes play a pivot role as in how the alienated student feels when it comes to these areas of discussion regarding the component of online education

(Newberry) Raising student social presence in online classes in a way to understand what challenges and experiences students feel in an online class environment and how these can help the developers of online learning to deliver education a more student friendly method including factors like using media technology in a more efficient way.

(Palmer & Wojciehow, 2005) In the past decade there has been a revolution in the acceleration of use of technology for the purpose of education, overall, the online learning environment is different than the traditional classroom, the age of the student was a determining factor in the grade achieved by the student and students require certain level of computer literacy for the best functionality of online courses.

(Platt, Raile, & Yu, 2014) The level of interaction between the student and the teachers in an online classroom reflects an interpersonal feeling of education to the learner hence is a major area of research covered, also students found online learning to be more knowledgeable as an in-depth knowledge could be acquired

(Powers, Davis, & Torrence, 1998) To assess the environment of virtual classrooms and how they differ from face to face classes

(Rovait & Wighting, 2005) the sense of alienation in a of online classes is what the students experience, ways to create more interaction among students is

(Song, Singleton, Hill, & Koh, 2004) online learning requires constantly to take into consideration the student's perception of learning and to take their perspectives while the virtual classrooms are being delivered.

(Young & Norgard, 2006) Online course content and online course support plays a pivotal role in online learning

(Yılmaz, 2015) Virtual Classrooms have a positive impact when it comes to grade achievement or examination results of students. Students who have engaged in online courses achieve higher in terms of their term scores.

S. No	Title of the Paper	Names of Authors	Name and Indexing of the Journal Book, Book Chapter	Geography Region of Study	Framework adopted and major findings of the Study
1.	Sentiment Analysis on Synchronous Online Delivery of Instruction due to Extreme Community Quarantine in the Philippines caused by COVID-19 Pandemic	Cherish Kay L. Pastor	Asian Journal of Multidisciplinary Studies Vol. 3, No. 1, (2020) ISSN 2651-6691 (Print) ISSN 2651-6705 (Online)	Philippines	The students were not ready for synchronous delivery and students witnessed hardships in synchronous delivery with regards to poor internet connectivity being a reason and the covid-19 emergence of the mode of online delivery instruction was found in case of extreme quarantine
2.	Virtually the Same?: Student	Carrie Anne Platt, Amber N. W. Raile,	MERLOT Journal of Online Learning and	Mid-western USA	The experience of students in online classes was found by them as more knowledgeable, lack of equivalence among online and face-to-face was

	Perceptions of the Equivalence of Online Classes to Face-to-Face Classes	Nan Yu	Teaching Vol. 10, No. 3, December 2014		found, the same was for level of interaction between instructor and the student
3.	Going the Distance with Online Education	Jorge Larreamendy-Joerns, Gaea Leinhardt	Review of Educational Research Winter 2006, Vol. 76, No. 4, pp. 567–605		The education can reach greater distance learning's hence a very significant tool
4.	Virtual Spaces: Employing a Synchronous Online Classroom to Facilitate Student Engagement in Online Learning	J. Lynn McBrien and Phyllis Jones, Rui Cheng	International Review of Research in Open and Distance Learning Volume 10, Number 3. ISSN: 1492-3831		Analyses showed students were pleased with the method of using Virtual Space to study
5.	Asynchronous learning networks as a virtual classroom	Starr Roxanne Hiltz and Barry Wellman	(Hiltz & Wellman, 1997)		Virtual Classroom students and the Internet
6.	The Perceptions of Students toward Online Learning at a Midwestern University: What are Students Telling Us and What Are We Doing About It?	John A. Huss, Shannon Eastep,	Inquiry in education: Vol. 4: Iss. 2, Article 5.	Midwestern USA	an online course that some students rated as positive and successful were the same components rated by others as negative, unwanted, and unsuccessful
7.	Students' Perceptions of Online Learning and Instructional Tools: A Qualitative Study of Undergraduate Students	Armstrong, David A.	Turkish Online Journal of Educational Technology - TOJET, v10 n3 p222-226 Jul 2011	Turkey	tools used for communicating or conducting research were not as important as the communication itself

	Use of Online Tools (Armstrong, 2011)				
8.	Perceptions of College Students toward Online Classes Implications for Teaching Online	K.S.U. Jayaratne and Gary Moore	NACTA Journal, 2017	North Carolina, USA	Student Preferred Instructional Activities in Online Classes, Students' Testing Preferences in Online Classes
9.	Persistence in Online Classes: A Study of Perceptions among Community College Stakeholders	Denise E. Stanford Bowers	MERLOT Journal of Online Learning and Teaching Vol. 4, No. 1, March 2008		self-discipline, self-motivation, adequate time, appropriate technology, and adequate technological skills are all required commitments to the learning process.
10.	Student Motivations for Choosing Online Classes	Harris, Heidi S. and Martin, Elwyn	International Journal for the Scholarship of Teaching and Learning:	Oregon, USA	flexibility was the primary motivations for students who chose online courses
11.	COVID-19: 20 Countries' Higher Education Intra-Period Digital Pedagogy Responses	Crawford, Joseph; Butler-Henderson, Kerryn; Rudolph, Jürgen; Glowatz, Matthias; et al.	Journal of Applied Teaching and Learning (JALT), 3 (1):	20 Countries	How can we help students digitally in the times of covid 19
12.	The Influence of Instructor-Generated Video Content on Student Satisfaction with and Engagement in Asynchronos Online Classes	Peter J. Draus, Melinda S. Trempus, Michael J. Curran	MERLOT Journal of Online Learning and Teaching Vol. 10, No. 2, June 2014		Students Viewed a Considerable Amount of Instructor-Generated Video Content, Overall Satisfaction with the Course Was Improved, Student Engagement in Discussions Increased in Both Number of Responses and Depth of Responses, Students Perceived Value in Instructor-Generated Video Content
13.	Replacing the Classic Learning Form at	Giorgi Basilaia1, Marine Dgebuadze,	International Journal for Research in Applied Science	Georgia	G-Suite use for online education

	Universities as an Immediate Response to the COVID-19 Virus Infection in Georgia	Mikheil Kantaria3, Girshel Chokhonelidze4	& Engineering Technology (IJRASET) ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.429 Volume 8 Issue III Mar 2020- Available at www.ijraset.com		
14.	Students positive and negative experience in hybrid and online classes	Bassou El Mansour, Davison M. Mupinga,	(Mansour & Mupiga, 2007)		1) the unique characteristics of hybrid and online classes; 2) the positive and negative aspects of hybrid and online courses as experienced by students; and 3) what instructors can do to improve the teaching of hybrid and online courses.
15	Individual Student Characteristics: Can Any Be Predictors Of Success In Online Classes?	Louann Bierlein Palmer, Amy Wojciechowski			Various student characteristics were examined to determine their relationship to student grades (i.e., success) in an online undergraduate business course. This study explored the relationship between 13 different demographic or learner characteristics, and found strong connections
16	Virtual Teaching And Strategies: Transitioning From Teaching Traditional Classes To Online Classes	Bob Barrett, Franklin University, USA	Contemporary Issues In Education Research – December 2010 Volume 3, Number 12 (Barrett, 2010)	USA	Teacher Role in Online Learning
17	Student Satisfaction in the Virtual Classroom	James Johnston, Jeff Killion, Jody Oomen,	The International Journal of Health and Allied Sciences Vol. 3 No. 2 ISSN 1540-580X		Focus on what satisfaction along with instructions involved in online education, a fundamentally strong course design should be made. Keynote – 7 step model for online learning implementation
18	Assessing the Classroom Environment of the Virtual Classroom	Susan M. Powers Michaeleen Davis Eileen Torrence	Paper presented at the Annual Meeting of the Mid-Western Educational Research Association (MWERA), Chicago, Illinois, October 14-17, 1998		Students felt that the instructor was involved with the students and that the students were able to be involved and participate with each other

19	Feelings of alienation and community among higher education students in a virtual classroom	Alfred P. Rovait, Mervyn J. Wighting1	Internet and Higher Education 8 (2005) 97 – 110	Virginia, USA	Finding relationship of student alienation and sense of community in higher education online classroom environments. African-American participants generally felt more normless and had lower sense of social community and learning community than their Caucasian peers in a predominately White virtual classroom community
20	Encouraging Interaction in Online Classes	Brent Muirhead	International Journal of Instructional Technology and Distance Learning (Brent, 2004)		Maintaining of Interactive in online classes and give more of human presence to online learning
21	The Role of Student Characteristics in Predicting Retention in Online Courses	Justin D. Cochran, Stacy M. Campbell, Hope M. Baker, Elke M. Leeds (Cochran, Campbell, Baker, & Leeds, 2014)	Research in Higher Education. Feb2014, Vol. 55 Issue 1, p27-48. 22p. 9 Charts.	USA	Withdrawal rate from online courses is highest for freshman, Higher GPA students are less likely to withdraw
22	The Learning Styles expectations, and needs of online students	Davison M. Mupinga, Robert T. Nora, Dorothy Carole Yaw (Mupinga, Nora, & Yaw, 2006)	College Teaching Volume 54, Number 1, 2006 ISSN 8756-7555	Indiana USA	Instructions need to be designed effectively and incorporated More introverts found online learning ideal
23	Measuring Up Online: The Relationship between Social Presence and Student Learning Satisfaction	Carol Hostetter and Monique Busch (Hostetter & Busch, 2006)	Journal of Scholarship of Teaching and Learning, Vol. 6, No. 2, October 2006, pp. 1 – 12.		If Social Online Community Building in Online Courses can do as well as face to face classes and the differences
24	Assessing the quality of online courses from the students' perspective	Andria Young , Chari Norgard (Young & Norgard, 2006)	Internet and Higher Education 9 (2006) 107–115	Coastal Bend Region, Texas USA	Online course content, interaction, support, design
25	The	Jenna Gillett-	Journal of	USA	Focus on Individual Assessment online

	Challenges of Online Learning Supporting and Engaging the Isolated Learner	Swan	Learning Design, 10(1), pp. 20-30.		
26	Learning styles and online education	Dallas Brozik, Alina Zapalska	Campus-Wide Information Systems Vol. 23, No. 5 (2006) pp. 325–335	West Virginia USA	Different learning styles which can be adopted in online learning
27	Improving online learning: Student perceptions of useful and challenging characteristic	Liyan Song*, Ernise S. Singleton, Janette R. Hill, Myung Hwa Koh	Internet and Higher Education 7 (2004) 59 – 70	USA	To identify helpful and challenges in online learning
28	Experiences and Opinions of E-learners: What Works, What are the Challenges, and What Competencies Ensure Successful Online Learning	Michael F. Beaudoin, Gila Kurtz, Sigal Eden	IJELLO Volume 5, Number 1, Jan 01, 2009 ISSN 1552-2237 Publisher: Informing Science Institute	Western USA, Israel, Mexico, Japan	Online student satisfaction
29	Graduate Students' Experiences of Challenges in Online Asynchronous Discussions	Elizabeth Murphy, Elizabeth Coleman	CJLT Volume 30, Number 2, Jun 15, 2004 ISSN 1499-6677 e-ISSN 1499-6677	Canada	Challenges categorized as student behavior; text-only, online communication; purpose and quality of the discussion; and forum features
30	Exploring the Virtual Classroom: What Students Need to Know (and Teachers Should Consider)	Garry Falloon	MERLOT Journal of Online Learning and Teaching Vol. 7, No. 4, December 2011	New Zealand	Quality of learning experience, Limitations of Virtual Classroom, how to improve use of virtual classroom
31	The effects of "live virtual classroom" on students'	Özgür Yılmaz	Turkish Online Journal of Educational Technology	Turkey	To find the effects of virtual classroom on student achievements

	achievement and students' opinions about "live virtual classroom" at distance education		14(1):108-115 · January 2015		
32	Raising Student Social Presence in Online Classes	Brian Newberry	ERIC		Student social presence and effect

III.   CONCLUSION

The research on online classes, online education, online learning has been done since 1990s,

- New methods of online engagement are encouraged it was seen gap was identified in the area of study where students challenges and experience and how can we try to resolve them.
- The instructor (online teacher) and the student need to have clear paths of communication for the better functionality of these courses.
- No particular learning style was found to be viable for everyone hence a flexibility in these online courses is required.
- It is identified is the less focus on the teacher's delivery of the class and the teachers skills to facilitate online learning is an area of concern.

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