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Re-design the Classroom for Online Learning

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ABSTRACT

It is now impossible to assess the effect of deferent teaching methods and performance in a dynamic technical environment. With the pace of technical dominance in the education market, the old teaching pattern is obsolescent every day. It is necessary to research how emerging technology support teaching and the education of students. The younger generation is always technical than, the older generation. Therefore, new instructional approaches must be sought, in particular on technology to attract this generation. Integrating technology into a traditional educational institution is not an easy task, as students and academics rely on traditional methods of learning and are unwilling to change with the new technology. They are also more convenient with the current methods. The influence of technology in the education sector is, nevertheless, inevitable. This paper discusses how technology affects online education and its future.

Keywords: Online learning, Hybrid learning, Online education Traditional Classroom, Digital Education

1. INTRODUCTION

In the 20th Century and the first of the 21st , we have seen dramatic changes due to the exponential development of telecommunications and the Internet industry in the world. The mentioned technological changes have affected education systems to change their traditional method of learning and shift to the blending of new and innovative ways of and for delivering education.

Shifting from the traditional Face-to-Face (FTF) classroom model to online platforms collectively known as online Education, As per the Blustain, Goldstein & Lozier, 1999 the 'residential based model,' that is, students attending classes at prearranged times and locations, will disappear in the near future. There is no doubt that online education has progressed as an "anywhere" to an "anytime" to an "any pace" delivery method.

Online learning is used nowadays popular as a replacement of the face to face education due to COVID 19 pandemic. This has made extra efforts to help the learners to get close with interactive content. The teacher-learner collaboration is a must for successful online education in any education platform.

The development of online courses in higher education is not an easy task. It will take a long time for the production and setting the course online. Maloney-Krichmar and Abras (2003) stated that WWW facilitated the widespread use of websites and the development of online community organizations enabled by web pages and different forms of communication tools.

Since then, universities and colleges in the United State and around the globe have provided not only online classes, and also full online degree courses (Wallace, 2003). To increase student enrollments (45%) (Parsad, Lewis, & Tice, 2008). Due to the busy lifestyle, all of us are having limited time to study; therefore, the flexible schedule is the most important factor for the students.

2. DISCUSSION

Online teaching and learning is a new experience for most of the academics. Online learning can be categorized into three central groups, fully Online, blended or hybrid format, and traditional courses using web-based supplements. Fully online courses are conducted through the Internet with no face to face interaction or campus visits; all activities of the course are expected to conduct in an online learning environment. Blended or Hybrid courses consist of both online and classroom sessions, with the proper mix of online and classrooms, based on the nature of the course. The traditional courses interact with web-based supplements such as content sharing, social media groups etc.

Online learning helps to a large number of students to fulfil their academic needs ignoring the geographical barriers that traditional education classes are unable to meet. The demand for online courses is derived from a push "to provide quality education to all students, regardless of location and time" (Chaney, 2001, p.21).

The flexible learning environments is required for the for potential learners who are hospitalized, a Pandemic situation like Covid 19, is with single parents or any other specific cases. The factors described above will influence the growth in the amount of distance learning courses and programs that are offered by the education institutes.

Distance education started in the United States in the 1800's at the University of Chicago,(Mclsaac & Gunawardena, 1996). With the development of radio during the period of WorldWar I pave the way for using that technology for distance education in colleges and schools such as Wisconsin in the 1920s (Mclsaac & Gunawardena, 1996).

The introduction of the World-Wide Web in 1991 was a helped to positive move in online education and was a significant milestone in online teaching and learning. Maloney-Krichmar and Abras (2003) reported that WWW "facilitated the widespread usage of websites and the creation of online community groups assisted by web pages and various types of communication software" (p.4). Since then, colleges and universities in the United States and around the world have offered not only online classes, but also full online degree programs (Wallace, 2003).

Online education opens new opportunities for higher education institutions. The working crowd may enjoy flexibility in office work, study, and family life. The wide range of various technological advancement used by educational institutes for their online programs may enhance the interaction between students and instructors, and among the students at large (Bell & Fedeman, 2013).

3. INFLUENCE OF TECHNOLOGY AND EVOLUTION OF ONLINE COURSES

In digital education, learning is either asynchronous or synchronous or a combination of both. Asynchronous learning is learning and teaching that does not exist at the same time (Moore & Kearsley, 2011), however synchronous learning applies to learning and teaching that occurs at the same time, all through technology like the internet. As online learning started at the end of the twentieth century, most of the online services and courses were synchronous and used chat rooms, text messages, and more.

Both discussion forums and text messages, which are synchronous, allow users to determine who is involved in the discussion. The invention of the @ sign in 1972 that can be used in email messages (Maloney-Krichmar & Abras, 2003) and the introduction of the World Wide Web (WWW) in 1991 for Internet access (Harasim, 2000) were the new adaptations of online education. The universal use of websites created resources for the creation of online groups and communities. Emailing, video conferences, texting, working together using Google Drive, Google Doc, Google Drive, Dropbox, Facebook , Twitter, etc. have become commonly used in the virtual classroom.

Online education could be classified according to the participants of the course

- 1) University-oriented online education, the participants of which are persons studying in colleges for the intent to obtain a degree or diploma
- 2) Massively Open Online Courses (MOOCs), most of which are Massively Open Online Classes, the users of whom are self-motivated persons or whose programmes are oriented on their learning goals based on previous experience as well as skills. Typically, students in a study in colleges where online course types are being applied alongside traditional classroom-based classes.

Two forms of online classes are typically delivered at these universities – entirely online courses (face to face classroom) and blended / hybrid courses (a mix of face-to-face and web-based and technology-oriented formats).

To expand the availability of university education to broader portions of the population, the Massively Accessible Online Course (MOOC) framework, that encompasses university-based and business-based online services, was launched in 2008. The university-based service was launched by Ivyleague Higher Education Institutions, such as eduMOOC in 2011 by the University of Illinois Springfield, Coursera in 2012 by the joint efforts of five universities (Princeton, Stanford, California / Berkeley, Michigan-Ann Arbor and Pennsylvania) and edX in 2012 by Harvard University and the Massachusetts Institute of Technology.

4. BENEFITS OF ONLINE LEARNING

Online classes are shown to be beneficial to students who prefer self Learning (You and Kang, 2014). As per the research published by Kirtman, the student reacted to the online study Required courses by saying, "It's more self-guided so I can spend more time on the topics I use. Need assistance with and less with ideas that I can pick up easily "(Kirtman, 2009, p. 110). Self learners prefer to use separate "cognitive and metacognitive techniques" Achieve their learning target "(You & Kang, 2014, p. 126). Learners who are in a position to focus in Management skills often used on their learning abilities, checked content daily, sought the guidance of teachers or colleagues, followed targets and had the expertise to do so. (You & Kang, 2014).

The advantage of accessibility in online courses can not really be exaggerated due because of its significance of the causes of how learners are drawn to online learning. Online learning helps students to work in a location and time that is consistent with their educational needs. A variety of professors and students reflected on their desire to pay more time on the course content.And fewer on problems such as parking, noise, and other issues that could occur concerning the conventional classroom atmosphere (Thomson, 2010). A secondary school teacher stated, "I don't miss the enormous image of lost time that will eventually become a fact in a face-to - face school setting," and further stated that, "No timetable limits us ... We meet and remain as long as we like in virtual space "(Thomson, 2010, p. 36).

As a result of increased connectivity and participation in distance learning, several schools in the city, such as the state school institutions in the country are starting to mandate students to complete an online course as a requirement for graduation

(Matuga,2009). The trend of high school registration of online classes has resulted of colleges offering university and secondary school credit courses. Classes in which school students are registered can be taught by either a university professor or with a secondary school teacher (Matuga, 2009).

In the last few years, attempts have been made to create courses that provide high school students with academic credit and secondary school credit for enrolling and completing the program. Many universities and colleges are trying to capitalize on funds offered by the government to serve secondary school students by providing alternatives. They are taking undergraduate classes in fields such as mathematics, chemistry and foreign languages, while also enrolling in high schools(Matuga, 2009, p. 4).

Online classes will have ability to open up more options for students in small, rural, or low socio-economic school districts (Chaney, 2001, p. 21) to attend classes that would not normally be available. The increasing demand that makes Its strategic lead in the overall readiness of college graduates in the international market could be able to catch up and reduce the financial pressure by offering more resources at a lower cost (Bowen, et al., 2014). The expansiveness of online learning will bring about the change that education has already been looking for, steadily breaking down the monetary and Local obstacles and, at some times, unbeatable challenges to offer and higher education for all students in the country.

There are several suspected advantages and benefits of online learning. Some of the most significant are, its efficacy in teaching students, it being used as a career creation, its cost-effectiveness to combating the increasing costs of education, credit equivalence, and the potential to provide everyone with a internet (Bartley & Golek,2004)

The higher educational area is what really gained the most coverage for online learning. In the literature, the growing cost of higher education, as well as the value of a higher education degree, are recorded. The lifelong income gap continues to expand for the graduates (Dynarski & Scott-Clayton, 2013). The cost of higher education is increasing higher than inflation, and there is a rapid rise in student loan debt. (Finaid.org, 2014). Many academics and teachers agree that online learning could be an efficient strategy to tackle the rising cost of higher education by sharing the cost of a class through a larger number of students relative to the traditional lecturing method, splitting the cost by tens or hundreds of thousands of students (Bowen, 2013)

There is a possibility that online education would be sufficient to provide anybody, anytime, and anywhere with a world-class education as long as it is connected to the Internet. Khan Academy, Udacity, edX, and Coursera are among the most popular websites, and businesses focused on this assumption, and several excellently-respected academics and businessmen have strong hopes and aspirations for online learning, especially in large free online courses (Bowen, 2013)

The success of the online methods depends on students fundamental skills, indeed, to most of the supposed advantages of online learning. If online learning is usually less efficient than the traditional face-to-face model, some of the alleged statements and advantages of online learning listed above are highly suspect. The good, bad, and mixed of neutral effects of the efficacy of online learning with the comparison of conventional method need to analyze to resolve this issue.

Compared to the conventional face-to-face format, there are a significant number of studies that find strong, statistically relevant effects on student learning performance in the online or hybrid format. Enhanced learning as measured by test results, student interaction with the class content, improved understanding of learning as well as the online environment, a greater sense of community between students, and decrease of withdrawal or failure are some of the successful learning results. (Riffell and Sibley,2005)

Navarro and Shoemaker (2000) found that, regardless of context characteristics, student learning results for online individual students were as good as or better than conventional students and that the students were highly satisfied with online learning. Rovai and Jordan (2004) analyzed the relationship among traditional classroom versus blended format , and found that students in the blended format had a greater sense of community than the traditional learned students. In a study comparing results of the students researchers found that grades for online students were four points higher than for the conventional learned students.(Harmon & Lambrinos, 2006)

Students were randomly selected to the conventional format (control) and a blended interactive online learning format in a methodologically rigorous study conducted at Ithaca (Bowen & Ithaca, 2012), which met once a week where students did most of the online work. The researchers found that both groups had similar learning results and that the hybrid course promised cost savings and efficiency benefits over time. In addition, as new technologies and applications for online learning are increasingly developed and tested, these learning improvements and cost-saving benefits are expected to increase.

Researchers found that students using PeerWise, a newly developed online pedagogical platform that allows students to write, post, answer, debate and score multiple choice questions with little feedback from the teacher, had stronger learning outcomes and enhanced learning expectations and motivation for learning (Feeley & Parris, 2012) in a broad political science course using mixed methods. In a broad randomized control trial to further improve the use and efficacy of PeerWise, a review on the impact of virtual achievements, a badge-based award system in PeerWise, showed that there was a substantial positive impact on the amount of contributions from students without a related loss of quality (Denny, 2013). When online learning expands, further elements of 'gamification' are being applied to the virtual learning environment to increase the activity participation and decrease retention by using game mechanics and virtual achievements in non-game environments to involve users (Deterding, Dixon, Khaled, & Nacke, 2011)

While the success of online learning has positive outcomes, this is still questionable if this necessarily remains true across research. A team of researchers at the Stanford Research Institute International performed a systematic literature search between 1996 to 2008 and found more than a thousand online learning research studies (Means et al., 2010). The researchers reviewed 45 studies in this meta-analysis that used a strict method for choosing studies. That used a rigorous study design, compared online learning with the conventional format, quantitatively assessed student learning outcomes, and provided sufficient information to determine effect size, and observed on average that learners perform modestly in an online method.

In research where online components were combined with face-to-face teaching, the disparity in student learning outcomes was more significant, and these combined conditions also included additional learning time and teaching elements not obtained by students in the normal condition. The differences in the implementation of online learning did not have a significant effect on student learning outcomes. However, it should be mentioned that there is still a limited number of studies for this specific finding. The researchers found that the online concept's combination of hours wasted, curriculum and pedagogy created the observed difference in learning outcomes, even though there was no confirmation that online learning is preferable as a learning tool, (Bernard et al., 2004; Clark, 1994).

5. FUTURE OF ONLINE EDUCATION

As there is a strong possibility which degree education will become the predominant knowledge platforms of education institutes, a number of issues including such as design, quality to ethics and economics must be addressed in order to ensure that the necessary to produces positive results. Some of the problems facing students and teachers in eastern and western countries, participate in online classes. Asian students are not inherently bad online learners, but that they would be sensitive to the value and real benefits of personal contact in the process of learning. As a result of this, integrated online and in-class courses are suggested to be more productive and to produce more positive feedback for these students rather than courses that are carried out purely online.

The online education market is gradually growing as companies around the world strive to retain a competitive advantage in global education markets. Theresa Chen stated that as "continuous learning is increasingly seen as a necessity for almost everyone in our rapidly evolving and increasingly global society. the demand for more scalable learning environment is increasing" (Chen, 2003, p. 37)

There are some issues to be considered with online market growth. What is their justification for moving online as academics struggle with limited university budgets for information technology that could be redundant in less than two years? What kind of instruction will be provided to faculty and students and what technical help will be required at any point of the process of course design, execution and follow-up of online education in the institute? schemes will be put in place to ensure that quality programs are provided? (Beatty & Guenter 2001)

Lectures have been conducted in separate buildings in a university, by highly structured and standardized groups of students guided and taught by teachers who work virtually alone. This method was seen in several quarters to be outdated over the last two decades. We have seen the advent of a modern paradigm where education in the online environment is conducted.

As a whole, students are directed and encouraged by group facilitators, online instructors and researchers around the world, by students learning personal curricula within their own rate. While we are at the center of this modern vision today, the future will see institutions and conventional modes of education no longer available.

6. CONCLUSION

Education institutes may be eager to keep pace with international online developments in the Education, the difficult problems facing online teaching and learning, must be discussed first. There has to be adequate preparation and encouragement for both teachers and students for online courses to be successful as they implement new techniques in reaction to current educational technology. It is also clear that support networks need to be introduced at all levels of the online learning process and depending on the cultural background, language etc. in which online learning is presented globally. While the widely held belief that students in eastern countries are less autonomous than students in western countries. In their learning process, they favoured more direct personal contact that conventional classroom environments easily offered. It basically the learners are very aware to the benefits of direct interaction that online learning simply fails to offer. Most of the students appreciated the extra versatility and resources offered by online learning, technical challenges, with sufficient teacher support. Aside from and reacted well to interconnected tasks ranging from digital environments to more familiar, conventional teaching, contexts.

In accordance with the concept of its online classes, Some universities are already holding virtual graduations. Students take part in synchronous in the virtual graduation ceremony, as Mary Thorpe states, 'obtaining their master's degree at a distance, through a virtual VC handshake, rather than a physical one' (Thorpe, 2000, p. 11). For most of students, online learning will be the first option because they have to handle their families and careers. The online learning would make it a more appealing option in order to continue their professional growth.

7. REFERENCES

- [1] Blustain, H., Goldstein, P., & Lozier, G. (1999). "Assessing the New Competitive Landscape," in *Dancing with the Devil*, Editors: Richard N. Katz and Associates, Jossey-Bass Publishers, San Francisco.
- [2] Bell, B. S., & Fedeman, J. E. (2013). E-learning in postsecondary education. *The Future of Children*, 23(1), 165-185

- [3] Bowen, W. G. (2013). Higher education in the digital age. Princeton University Press.
- [4] Bowen, W.G., Chingos, M.M., Lack, K. A., & Nygren, T.I. (2014). Interactive Learning Online at Public Universities: Evidence from a Six-Campus Randomized Trial. *Journal Of Policy Analysis & Management*, 33(1), 94-111. doi: 10.1002/pam2178
- [5] Bartley, S. J., & Golek, J. H. (2004). Evaluating the Cost Effectiveness of Online and Face-to-Face Instruction. *Educational Technology & Society*, 7(4), 167–175.
- [6] Bernard, R. M., Abrami, P. C., Lou, Y., Borokhovski, E., Wade, A., Wozney, L., ... Huang, B. (2004). How Does Distance Education Compare With Classroom Instruction? A Meta-Analysis of the Empirical Literature. *Review of Educational Research*, 74(3), 379–439.
- [7] Beatty-Guenter, P. (2001) Distance education: does access override success? Available online at: www.cirpa-acpri.ca/prevConferences/victoria2001/papers/bg_paper.htm (accessed 21 March 2004).
- [8] Bowen, W. G., & Ithaka, S. (2012). Interactive learning online at public universities: Evidence from randomized trials. Ithaka S+R. Retrieved from <http://mitcet.mit.edu/wpcontent/uploads/2012/05/BowenReport-2012.pdf>
- [9] Chaney E. G. (2001). Web-based instruction in a Rural High School: A Collaborative Inquiry into Its Effectiveness and Desirability. *NASSP Bulletin*, 85(628), 20-35.
- [10] Chen, T. (2003) Recommendations for creating and maintaining effective networked learning communities: a review of the literature, *International Journal of Instructional Media*, 30(1), 3544
- [11] Denny, P. (2013). The Effect of Virtual Achievements on Student Engagement. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 763–772). New York, NY, USA: ACM
- [12] Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: defining gamification. In *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments* (pp. 9–15). AC
- [13] Harmon, O. R., & Lambrinos, J. (2006). Online Format vs. Live Mode of Instruction: Do Human Capital Differences or Differences in Returns to Human Capital Explain the Differences in Outcomes?
- [14] Kirtman, L. (2009). Online versus in-class courses: An examination of differences in learning outcomes. *Issues in Teacher Education*, 18(2), 103-116. Retrieved from <http://search.proquest.com/docview/233320851?accountid=27700>. Lehmann
- [15] Mclsaac, M. S., & Gunawardena, C. N. (1996). Distance education. In D. H. Jonassen (Ed.), *Handbook of research for educational communication and technology: A project of the Association for Educational Communication and Technology* (pp.403-437). New York: Simon & Schuster Macmillan.
- [16] Maloney-Krichmar, D., & Abras, C. (2003). History of emergence of online communities. In K. Christensen & D. Levinson (Eds.), *Encyclopedia of community: From village to virtual world*. Thousand Oaks: Sage Publication, 1023-1027.
- [17] Maloney-Krichmar, D., & Abras, C. (2003). History of emergence of online communities. In K. Christensen & D. Levinson (Eds.), *Encyclopedia of community: From village to virtual world*. Thousand Oaks: Sage Publication, 1023-1027.
- [18] Matuga, J. M. (2009). Self-regulation, goal orientation, and academic achievement of secondary students in online university courses. *Journal of Educational Technology & Society*, 12(3), 4-n/a. Retrieved from <http://search.proquest.com/docview/1287037464?accountid=27700>
- [19] Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2010, September). Evaluation of EvidenceBased Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies. Monograph. Retrieved February 1, 2014, from <http://www.ed.gov/about/offices/list/opepd/ppss/reports.htm>
- [20] Parsad, B., Lewis, L., & Tice, P. (2008). Distance education at degree-granting postsecondary institutions: 2006-07. Washington D.C.: National Center for Education Statistics Institute of Education Sciences.
- [21] & Sibley, D. (2005). Using web-based instruction to improve large undergraduate biology courses: An evaluation of a hybrid course format. *Computers & Education*, 44(3), 217–235.
- [22] Thomson, L. D. (2010). Beyond the Classroom Walls: Teachers' and Students' Perspectives on How Online Learning Can Meet the Needs of Gifted Students. *Journal of Advanced Academics*, 21(4), 662-712. <http://joa.sagepub.com.pluma.sjfc.edu/content/21/4/662.full.pdf+html>
- [23] (2000) Online learning not just an e-university idea, *Adults Learning*, 11(8), 1112. Yin, R. L., Urven, L. E., Schramm, R. M. & Friedman, S. J. (2002) Assessing the consequences of online learning: issues, problems, and opportunities at the University of WisconsinWhiteWhitewater, *Assessment Update*, 14(2), 413
- [24] Wallace, R. (2003). Online learning in higher education: A review of research on interactions among teachers and students. *Education, Communication & Information*, 3(2), 241-280.
- [25] You, J. W. , & Kang, M. (2014) The role of academic emotions in the relationship between perceived academic control and self-regulated learning in online learning. *Computers & Education*, 77, 125-133.