ISSN (e): 2250 – 3005 || Volume, 10 || Issue, 7|| July – 2020 || International Journal of Computational Engineering Research (IJCER)

Students' Perspective Learning Online: Higher Education Evolution.

Darshni Gunasekaran

Ouest International University Malaysia.

Gunadevi K. Jeevi Subramaniam

Politeknik Sultan Azlan Shah, Malaysia

ABSTRACT

Teaching and learning in higher institutions are facing a new learning style during the pandemic. It has shifted from traditional to virtual learning. This contingency plan with unpredicted incidents had transformed into online education platforms. The purpose of this research is to measure students' perceptions of virtual learning in higher institutions. Data was collected by distributing google form questionnaires to 60 students from a different university in Malaysia. This paper attempted to investigate students' perceptions of learning expectations online focusing on instructional design, course opening, assessment, and interaction. This study employed qualitative forms of gathering and analysing student perceptions on the implementation and use of online materials. Response based on positive and negative experiences were examined. Factors that contribute to those experiences were identified. The results indicated that there is a need to strengthen learning readiness and the need for multiple technology features to motivate online learning. This work will benefit designers, lectures, and universities to strengthen the practices in making the learning needs more effectively.

KEYWORDS: Online, learning style, virtual learning, expectations, readiness

Date of Submission: 01-10-2020 Date of acceptance: 14-10-2020

I. INTRODUCTIONAND BACKGROUND

Online learning had grown strong with the introduction of the Internet and the World Wide Web. The possibility of teaching online had increased greatly, and looking at today's online learning with rich educational resources and various media had drowned and the capability to support both real-time face-to-face communication between instructors and learners around the globe at any time at any place. The Fourth Industrial Revolution (IR4.0) brings technology into our everyday lives, making education accessible anytime, anywhere. (The Star Sunday 29 Mac, 2020). Therefore, during the Covid-19 Pandemic, the Higher Education institutions had reshuffled the teaching and learning pedagogy to online learning to a period.

An experimental study of 228 university students, Xu et al. (2014) found that personalized virtual online learning environments improved students' exam performance, satisfaction, and self-efficacy compared to non-personalized virtual learning environments. Online learning is a form of distance learning or distance education, which has long been a part of the American education system, and it has become the largest sector of distance learning in recent years (Bartley & Golek, 2004; Evans & Haase, 2001). In Malaysia the Higher Education system changes and transformation over the years to produce high-quality education and produce a skilled workforce. Therefore effective teaching and learning must be delivered. The government has formulated three well-planned education blueprints: Malaysian Education Blueprint 2013–2025; the NHEAP 2007–2010; and the NHESP beyond 2020. All this is to support and produce better human capital. Hence, with the need for change in the education systems to suit the current generation Higher Educations Institutions adapting the Current trends with online learning and online materials. According to Norazah, et al., (2011), Higher Institutions are offering more than 50% of their courses online and 80% of the learning materials are shared online. Therefore, during the Covid-19 pandemic, when the lesson is to be conducted online, there should be lesson issues faced.

The purpose of this research is to measure students' perceptions of virtual learning in higher institutions. The paper is structured into two main sections. First to explore how the experience with technology

www.ijceronline.com Open Access Journal Page 30

and online learning affects students' and secondly how online learning effects compared to traditional classroom learning.

II. LITERATURE REVIEW

Facing the challenge to continue the Teaching and Learning during Pandemic in Higher Education Institution(HEIs) in the year 2020 had been overcome by the Malaysian Universities and colleges. Ever since technology has been integrated with the Teaching and Learning that had been tremendous growth in E-learning in the past several years. Consequently, the effort had been taken by HEIs to continue teaching online to ensure that effective learning continues. The technology took over to facilitate face-to-face learning to a virtual platform. The existence of the Internet has made online learning possible, and educators are interested in online learning to enhance and improve student learning, particularly in higher education (Farinella, Hobbs, & Weeks, 2000; Kim & Bonk, 2006; Pape, 2010). In Malaysia, under a nationwide Movement Control Order (Tee, 2020). on16 March 2020, all the public universities and colleges are encouraged or mandate to carry out online learning (Lim, 2020). This also applies to all private universities and colleges in Malaysia.

There are numerous options and opportunities in carrying out teaching. It can become transformative when educators create lessons across different platforms according to the current situation. Technologies can be adopted in different perspectives, and incorporate in various teaching methods. Educators can construct such possibilities by using the existing teaching platform such as cloud computing which is becoming one of the powerful approaches in delivering education contexts through technology. According to Khampusaen (2014), the term "cloud computing" refers to the delivery of IT applications and services over the Internet, such as on a college or university network. Its applications provide flexibility for all e-learning. Thus, Cloud-based tools are especially known to support e-education where it provides tailored access to services and provides engaging and alternative learning experiences for learners and instructors. This is supported by Chang, Gutl, and Ebner (2018) stated that cloud-based tools can be classified into seven different groups. This includes content creation tools, collaboration tools, and assessment and feedback tools. According to (Lim, Ramadan, &Teoh, 2020) some of the platforms suggested were using live streaming on Facebook or YouTube, Lightboard Video Technology, Zoom, or in-house e-learning platforms. There are more platforms that educators can use to make their lesson more interesting and effective in online teaching.

In online education, educational content can be learned asynchronous or synchronous or blend of both. According to Romiszowski (2007), online learning which is normally associated with asynchronous and synchronous, both of which lesson is carried out using technologies and internet (Moore & Kearsley, 2011) and this is supported by Allen & Seaman, 2017) as teaching and learning had increased in using technology in universities. Malaysia had evolved to stay relevant with the current situation in order to ensure a stable and strong in giving institution relevant curricula and pedagogy to all the higher institution's needs. As a result, education has transformed vividly during the pandemic with online platforms. According to Abdul Karim Alias, Director of Centre for Development of Academic Excellence (USM) highlighted, "Online learning and online education are no longer an option – it's a must."

Teaching online is an approach that can be seen as a fragmented approach to produce as quality and effective teaching. Formal learning environments are generally quiet, but fragmented learning takes place in relatively noise or casual environments, leaving learners relaxed (Huang, 2016). There are many theories surrounding how students learn, though, this paper focuses on constructivist learning theory from the meaning of learning methods which addresses how online learning allows students to actively be involved in the learning, carry out assignments, and involve in group discussions. Nevertheless, there is a need for persistent concerns on the quality of e-learning relative to a face-to-face learning environment (Panyajamorn et al., 2018). Therefore, a brief study on the point of the learners on how online learning takes palace is focused.

III. METHODOLOGY

This study employed a qualitative form of gathering and analysing student perceptions on the implementation of online learning. The research design selected for this study was qualitative research using document analysis. Qualitative research provides an understanding of a situation or phenomenon rather than defining cause and effect (Glesne, 1999). The respondents of the study were represented by various institutions in Malaysia. Respondents from private institutions sums up the highest number of percentage of 71% (n = 22), followed by respondents from government institutions with 25.8% (n = 8). The total number of online learners who participated in this survey was 31 respondents. The number of male respondents were 54.8% (n = 17) and the female respondents were 45.2% (n = 14). The survey also varied with respondents from different levels of higher education. It consists of learners from Postgraduates, Bachelor's Degree, Diploma, Foundation, and Alevels programs. Respondents from the Bachelor's Degree program carry a total number of 67.7% (n = 21), followed by respondents from Foundation and A-Levels programs with 16.1% (n = 5) of the overall survey. Meanwhile, 12.9% were from Diploma programme and 3.2% (n = 1) from Postgraduates programme. The

questionnaire prepared for this study is intended to measure the perceptions of students' learning online. The researchers provided descriptions on how the lesson was delivered, operating the online learning platforms, the implementation of online assessments, the interaction among students, assessments, the different types of teaching technology used by the educators, and the challenges. The questionnaire contains two sections, the first one is n the respondents' demographic and the second section contains 9 open-ended items where the respondents write their answers through google forms which were shared using WhatsApp platform and emails. It was adapted from the Online Learning Survey (Leonard & Guba, 2001).

IV. THE FINDINGS AND DISCUSSION

Social presence is a key factor in online learning and gives a direct impact on the development of a learning community and interaction in online environments (Kehrward, 2008; Swan, Garrison, & Richardson, 2009). This study had been carried out to examine the HEI students' learning experiences towards the online classes. The results of this research had been grouped in two clusters: the strengths of learning online and weakness learning online.

4.1 Students' perceived strengths of online learning

Most studies of online learning have focused on how to present materials to learners; as a result, little attention has been devoted to the experiences and perceptions of students in the online learning environment (Gao & Lehman, 2003; Liaw & Huang, 2000; Northrup, Lee, & Burgess, 2006; Zhang, 2005). The results from the study had provided positive strengths on how the lesson was delivered. A range of questions was asked about their experience learning online. The focus was on how the lessons were delivered, the learning platforms, the implementation of online assessments, the interaction among students, the different type of teaching technology used by the educators, and the challenges faced by the students

4.1.1 Lesson delivery

Based on the students' experience of online learning, they had listed some of the platforms used by their lecturers, and Google classroom was one of the commonly used platforms. According to Iftakhar (2016 cited Marry 2014), Google classroom presents more professional and authentic technology to use in the learning environment. The respondents state that they were able to carry out discussions with the assigned works more effectively. Most of the respondents indicated that they were satisfied with the lesson as it was well prepared and the lesson sequences were clear and precise. They also reflected "we could learn in the flexible situation and with self-paced learning situation". Another student commented "the lesson was delivered with arranged notes with information, questions, and answers. This gives us more time to read and answer the given questions". The students were satisfied with the delivery of the lesson as they find the online interaction gives them more time to read and respond to their lecturers. Besides that, they do find it effective as they could get feedback and extra help to clear their doubts. Learning online had been a strength as to how it had been identified by researchers (Petrides, 2002; Schrum, 2002).

Participants' perception of conveniences in operating Google classroom and other similar platforms had been reflected positively. They responded, "when lessons are delivered and notes are given it becomes easy to store them paperless and keep the files in a more organized manner". Another respondent mentioned that it is much easier to receive notes online as they can be saved in folders". In this way, students' stress level is reduced where they don't have to rush themselves taking down notes while the lecture is in progress. A similar response was given by another student, "there is no more hassle printing down the notes as all are available online". This shows that they are comfortable with the note-keeping methods, "able to start revising as whenever needed with a single tap on respective learning platforms used by the lecturers". Online learning gives convenience to the students as the lessons were delivered not only by giving a lecture but it becomes handy with the learning materials in electronic format.

Education can become transformative when lecturers and students blend the learning method with the latest technology, content knowledge, and experiences. According to Crawford; Joseph; et al (2020), there had been many Higher Education Institutions adopting numerous ways, to adaptations in unfolding the teaching method to suit the digitalization era.

4.1.2 Implementation of Online Assessments

The impact of online education is visible on every aspect of the teaching and learning process. Referring to (Sorensen, 2013), assessment is the key to any teaching and learning. It is an approach containing evaluation and feedback, promoting student learning. Almost all of the participants in this study had viewed that implementation of online assessment has changed their perspectives on assessments. The respondents have stated that they find online assessments were effective and convenient for them to carry it out. "using the google forms to carry out tests and assessments is more approachable". Another had responded, "carrying out

assessments such as tests and quizzes is interesting as we get our results immediately". Referring to (Sorensen, 2013), feedback and evaluation have a profound impact on both teachers and learners. Several respondents mentioned that a simple assessment in the form of online quizzes after each covered lesson acts as a motivator for them. This is due to the feedback that they receive due to the assessments. Besides that, there was also a response mentioned how it motivates them "It provides an insight on the level of understanding on a particular lesson or topic when a short quiz is given online using google forms". Moreover, there were views on how it helps them to check on their understanding of the topic learned for the week. "the test alerts me by giving a sense of realization on what I had learned and understood during my online class". Thus, the results from the study would be a great opportunity for the teachers to improve their teaching techniques as well concerning students' performance using online assessments. Ayman (2020), highlighted the learning enjoyment will occur when the learners find the online courses offer advantages.

4.1.3 The Interaction Among Students

Cloud-based tools are especially known to support e-education, providing tailored access to services. It also provides engaging and alternative learning experiences for learners and instructors. This is supported by Chang, Gutl, and Ebner (2018) stated that cloud-based tools can be classified into seven different groups. This includes content creation tools, collaboration tools, and assessment and feedback tools. The respondents have stated that they find these tools easy and convenient where they have made statements such as "it is easy as I can contact my classmates whenever I want", Another student had mentioned, "I'm relieved that I could use WhatsApp, Google Classroom and Google Meet to reach out to my friends during COVID- 19 pandemic. It helps us to complete our group project together". It shows that the learners were comfortable communicating using tools to complete their group activities. According to the researchers, collaboration tools are the applications that engage students in communication. It enables students to exchange information with their peers and instructor. According to Iftakhar (2016 cited Marry 2014), Google Classroom presents more professional and authentic technology to use in the learning environment. It enables students to carry out discussion threads and assigned works more effectively.

Google Meet on the other hand is known as a tool for virtual communication that enables video conferencing. According to Gallant (2020), this cloud-based tool can be a platform for both teachers and students to have a live synchronous session where they can engage in discussions or conduct debates. The respondents had mentioned that there were able to complete the group discussion task successfully on time. "I was able to carry out the group discussion within the given time frame without any problem". Another student had mentioned that "It is a very useful tool for conducting virtual classrooms". The online learning had simplified the progression of interaction among their course mates. The result of the study shows students overall learning expectations had been met.

4.2 Students' perceived weakness of online learning

This finding when matched with the outcomes with the strengths shown that, the learners had the excitement and greater level of enjoyment. However, there are perceived weaknesses reported. The lack of face-to-face interaction is one of the weaknesses reported by the respondents. "I would like to see my lecturer teaching with her body language as now I only look at the shared slides and her/his voice" Added by another student "I prefer to look at her/ his expressions when teaching, it gives me a better understanding and I remember better". The results support the findings of Debowski (2003), carrying out fully-online classes is generally gives less effective compared to face-to-face learning.

Although there are advanced tools used in online teaching to emulate face-to-face interaction, they may be out of reach for many distance learners. Findings from the survey showed there were students with limited access to a personal desktop computer and do not have access to high-speed data networks. "...it takes a longer time for me to download documents and sometimes my connection breaks". Some of the students also mentioned that they do face anxiety when they could not join the class fully due to connection. "I could only attend the lesson for 40 minutes due to the internet connection". This is in line with Bailey et al, (2013), the need for access to devices such as smartphones and computers and the internet is important to carry out digital instructional materials. The Lack of connectivity would prevent widespread use of the Internet in the students' online learning and carrying out online assessments. Therefore, both technical and pedagogical are seen as important to make the lesson methods meaningful.

According to Bandura (1986), the student's behaviours actively interact with their learning in motivational factors and the environment influences. The lack of social connection may decrease participants' satisfaction in online learning and discourage their desire for help from fellow students. As there were some responded stated, "... I prefer being with the other members face-to-face to carry out discussion when carrying out assignments". Similar responses were given on the presentation task, "it is very satisfying to have a

presentation in class rather than online". As a result, the sense of being connected in online learning is weaker compared to face-to-face learning.

V. CONCLUSION

The finding of the study revealed that most of the students gave positive feedback in online learning. The students agreed that the lessons delivered online gave them a clear understanding of the lesson and it also effects their self- motivation to improve in the quality of their learning. The results also show that online learning management was able to simplify in process of keeping lecture notes systematically and safe cost. Besides, students assert that virtual communication tools enables them to connect with their peers and lecturers. Although there are more responses on the strengths of online learning, there are some significant weaknesses of online learning that students perceive. It is important to understand the Individual Difference (ID) factors in learning second language. In order for the teaching and learning process to take place efficiently, effective teaching and learning styles and strategies should be acknowledged and implemented. Students would benefit more through online education when the basic necessity of the process is being fulfilled.

REFERENCES

- [1]. Allen, I. E., & Seaman, J. (2017). Distance education enrollment report 2017. Digital learning compass.
- [2]. Ayman Bassam Nassoura, (2020), Measuring Students' PerceptionsOf Online Learning in Higher Education International, Journal of Scientific & Technology Research Volume 9,04.
- [3]. Bailey, R., Hillman, C., Arent, S., & Petitpas, A. (2013) Physical Activity: An Underestimated Investment in Human Capital? Journal of Physical Activity & Health, 10, pp.289-308.
- [4]. Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory Englewood Cliffs, NJ: Prentice Hall.
- [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]. Burgess, J. (2006). Blogging to learn, learning to blog: In: Bruns, A., Jacobs, J. (eds.). (2006). Uses of Blogs. 104–114. Peter Lang, New York
- [7]. Chang, V., Gütl, C., & Ebner, M. (2018). Trends and opportunities in online learning, MOOCs, and cloud-based tools. Second handbook of information technology in primary and secondary education, 935-953.
- [8]. Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., ... & Lam, S. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. Journal of Applied Learning & Teaching, 3(1), 1-20.
- [9]. Farinella, J. A., Hobbs, B. K., & Weeks, H. S. (2000). Distance delivery: The faculty perspective. Financial Practice and Education, 10, 184–194.
- [10]. Gallant, G. (2020). Collaborative Learning Approaches and the Integration of Collaborative Learning Tools. Integration of Instructional Design and Technology to Support Rapid Change
- [11]. Glesne, C. (1999). Becoming qualitative researchers (2nd ed.). New York: Addison Wesley Longman.
- [12]. Huang Jianfeng. Research on Fragmentation Learning Strategy Based on "Internet Plus": The Evolution from "Fragment" to "Integrality". Electrical Education Research, 2017 (8), 78-82.
- [13]. Huang Jianfeng. Fragmented Learning: A New Style of Learning Based on "Internet+". Education Exploration, 2016 (12), 115-119.
- [14]. Iftakhar, S. (2016). Google classroom: what works and how. Journal of Education and Social Sciences, 3(1), 12-18.
- [15]. Kehrwald, B. (2008). Understanding social presence in text- based online learning environments. Distance Education, 2 (1), 89-106.
- [16]. Khampusaen, D. (2014). Teaching English Language with Cloud-Based Tools. International Journal of the Computer, the Internet and Management, 22(1), 87-91
- [17]. Kim, K. J., & Bonk, C. J. (2006). The future of online teaching and learning in higher education. Educause quarterly, 29(4), 22-30.
- [18]. Lim, I. (2020, March 16). COVID-19: What are Malaysia's public universities doing? Online classes and more. Malay Mail. https://www.malaymail.com/news/malaysia/2020/03/16/ COVID-19-what-are-malaysias-public-universities-doingonline-classes-and-mo/1847071
- [19]. Malaysian Education Blueprint 2013–2025; the NHEAP 2007–2010; and the NHESP beyond 2020. Published, Kementerian Pendidikan Malaysia.
- [20]. Moore, M. G., & Kearsley, G. (2011). Distance education: A systems view of online learning. Cengage Learning.
- [21]. Norazah, M.N., Mohamed Amin, E., & Zaidan, A.B. (2011). Integration of e-learning in Teaching & Learning in Malaysia Higher Education Institutions. In M.A. Embi (Eds). e-learning in Malaysian higher education institutions: status, trend & challenges. Malaysia: Ministry of Higher Education. (81-98).
- [22]. Panyajamorn, T., Suanmali, S., Kohda, Y., Chongphaisal, P., & Supnithi, T. (2018). Effectiveness of E-Learning Design in Thai Public Schools. Malaysian Journal of Learning and Instruction, 15(1), 1-34.
- [23]. Petrides, L.A. (2002). Web-based technologies for distributed (or distance) learning: Creating learner-centered educational experiences in the higher education classroom. International Journal of Instructional Media, 29(1), 69-77.
- [24]. Ramadan, S. (2020). COVID-19: 9 universities are now conducting classes online. Hype. https://hype. my/2020/184628/COVID-19-9-universities-are-nowconducting-classes-online/
- [25]. Romiszowski, A and Mason, R. "Computer-Mediated Communication," in Handbook of Research for Educational Communications and Technology, ed. David H. Jonassen (Mahwah, NJ: Lawrence Erlbaum, 2004), pp. 397–431; and Stefan Hrastinski and Christina Keller, "Computer-Mediated Communication in Education: A Review of Recent Research," Educational Media International, vol. 4, no. 1 (March 2007), pp. 61–77. ←
- [26]. Star online Sunday, 29 Mar 2020 By CHRISTINA CHINhttps://www.thestar.com.my/news/education/2020/03/29/learning-mustnt-stop-with-covid-19
- [27]. Swan, K., Garrison, D. R., & Richardson, J. (2009). A constructivist approach to online learning: The community of inquiry framework. In C. R. Payne (Ed.), Information technology and constructivism in higher education: Progressive learning frameworks (pp. 43-57). Hershey, PA: IGI Global.
- [28]. Teoh, P. (2020, March 15). COVID-19: Universities activate e-learning mode. New Straits Times. https://www.nst.com.my/news/nation/2020/03/574766/COVID-19-universitiesactivate-e-learning-mode

- [29]. Tee, K. (2020, March 19). Minister: Employers must pay salaries during COVID-19 shutdown. Malay Mail.https://www.malaymail.com/news/malaysia/2020/03/19/ministeremployers-must-pay salaries-during-movement-control order-period/1848020
- [30]. Wang Zhuli. New Constructivism: Learning Theory in the Internet Age. Journal of Distance Education, 2011 (2), 11-18.
- [31]. Xu, D., Huang, W. W., Wang, H., & Heales, J. (2014). Enhancing e-learning effectiveness using an intelligent agent-supported personalized virtual learning environment: An empiricalinvestigation. Information & Management, 51(4), 430–440.

Darshni Gunasekaran, et. al." Students' Perspective Learning Online: Higher Education Evolution." *International Journal of Computational Engineering Research (IJCER)*, vol. 10, no.7, 2020, pp 30-35.