



THE STUDENT'S PERCEPTIONS OF COVID-19 AND THE USE OF TECHNOLOGY ENHANCED LEARNING FOR UK UNIVERSITY EDUCATION.

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ABSTRACT

The sudden Covid-19 pandemic outbreak has forced many universities and students globally to switch from conventional face-to-face learning to remote learning due to government mandates on self-isolation and social distancing to curb the spread of the pandemic. It is extremely necessary to explore the students' perception on the use of this online Learning that will address university educational needs and policy making. This study aims to explore the perception of the students on how technology enhanced learning adopted by the SBS during the C19 has impact on their academic life, learning productivity that can help the management in policy and decision making. This qualitative study used an interview (semi-structured) to answer the interview questions in relation to the research questions. 15 Postgraduate students of Salford Business School were successfully interviewed and their responses were analyzed using thematic analysis. The study has discovered internet connectivity, distraction and low participation of students in class as difficulties experienced by students in online learning. Students felt depressed and mentally stressed due to the online workload, fear of failure, lack of interaction (socially and academically). Extra learning strategies and alternative internet infrastructure were found to have been used by students to deal with challenges posed by online learning. Results also showed how lack of concentration and distraction have contributed to the reason why students interact less in online learning. The interviewees emphasized on the importance of students-to-students' and tutors-to-students' interaction in online learning.

Keywords: Salford Business School, Covid-19, Information Technology, Online Learning, Perception.

INTRODUCTION

The emergence of Covid-19 (C19) pandemic has brought a sudden shift to the educational system from conventional face-to-face learning to online learning. Information Technology (IT) has contributed immensely to the educational system during the quarantine period to avoid the stoppage of the learning process through innovative and technology enhanced learning (Muzaffar, et al., 2020). The Wuhan city of China was the first to testify to C19 in the year 2019(Wuhan Institute of virology, 2019), and that has been a persistent disease which had caused a severe damage to the entire world. Since then, The World Health Organization (WHO) acknowledged and declared C19 a pandemic due to its fast mode of propagation in which it keeps demoralizing lives of humans all over the continents on 11th March 2020 (WHO, 2020). According to WHO by October 2021, 253 million cases of C19 have been recorded all over the world with this deadly disease with over 5.1 million deaths in relation to the pandemic.

Because IT can improve the business value, impact the field of educational sector, it has brought a tremendous increase in the amounts of IT capital and investment even though it varies across different nations (developed and developing). This emergency transition has brought many challenges, and research has been conducted to analyze the impact of the C19 pandemic on educational institutions, mainly in response to the challenges and opportunities presented by this emergency. It has caused unexpected global destruction of traditional education and the migration of teaching methods.

Problem Statement

During the outbreak of the disease, government of these affected places ordered a paradigm shift of (internet-based) home-schooling in academic activities to control the negative effect of the school closure (Viner et al., 2020). The shift to technology enhanced tool for learning due to the C19 pandemic has impacted the education of students all over the world as well as in the United States. The devastating impact of the pandemic outbreak has affected almost every aspect of the society, industries and their stakeholders in which colleges, university and higher education in the UK is not exceptional. The cost of providing quality educational system and facilities has always been a burden on the budget of every developed nation (Kumaravelu et al., 2017). However, advancement in the education sector with innovated technologies in areas and processes that can embrace IT has the potential to decrease the burden and increase the ease of universal access to quality education to a larger extent.

Even though universities and colleges management are spending a great deal of money on innovative digital transformation that have been employed in the educational sector today for information processing, communication and research. When the management invest heavily on innovative technology on educational and instructional reasons, they cannot guarantee its influence on the quality and performance of students because innovative technology alone doesn't give full assurance on leaning outcome since there is no universal blueprints that can be adopted to achieve that but coupled without proper improvement on the existing culture, leadership talent, structure and policies of that particular university for an effective utilization. The epidemic has caused the greatest damage to the education system in the world (UN Sustainable Development Group). These above points have given an in-depth perception of how C19 and technology might impact the student academic learning, assessment outcome and performance in Salford Business School (SBS), UK.

Purpose of the Study

The education sector is adapting and grabbing the implementation of online learning unlike before in pre-C19 era where it has never been accepted as the formal mode of learning (Mahajan, 2018). In the mid-C19 period, stakeholders in the education sector in the world had no alternative than to embrace online due to its flexibility of learning and controllable environment during the pandemic (Mahajan, 2018), despite the benefit of online learning, its adoption has also posed another greater challenge such as the lack of communication and interaction between tutors and learners, social isolation, limitations of feedback from students, network, and bandwidth issues. It is extremely important to know and seek the opinions of learners on the adopted teaching mode (online learning) for better improvement, suggestion and future amendment and data-oriented decision for the management decision and policy makers. Therefore, this study would give SBS management some interesting insight into the student perception of online learning during the C19 pandemic.

Several studies have been conducted to examine the student's views on various learning technology adopted, but most of them recommended that further research should focus on student perceptions of online in relation to C19 to have sufficient rich information that can best improve online learning and teaching productivity. This study will fill the current knowledge gaps on perception of OL and experience that recommended multidisciplinary courses (Eldeeb, 2020). And how it has affected learning and productivity (Al-Kumaim, 2021).

Research Question

The following lists summarize the concise research questions which this study will try to answer:

- How are SBS students dealing with the challenges posed by online learning during the C19 pandemic?
- How has the C19 education crisis impacted on the SBS students experience in studying online?
- Why are the SBS students not interacting effectively with instructors using technology enhanced learning?
- How could SBS staff encourage more student interaction online?
- How has the online learning affect the psychological well-being of SBS students?

Aim and Objectives

Aim:

This study aims to explore the perception and understanding of the students on how technology enhanced learning adopted by the SBS during the C19 has an impact on their academic life, learning productivity that can help the management in policy and decision making.

The objective of the study are:

- To complete a literature review of online learning, perception of online learning during C19, psychological impact of online.
- To conduct a semi-structured interviews to 15 PG students of SBS.
- To Analyze the SBS students interview responses using thematic analysis (TA).
- Examine the influence of C19 on the students' experience in studying online.
- To highlight the importance of these technologies enhanced learning in combating the learning gaps established by C19.
- To outline sets of recommendations for SBS on online learning strategy that can improve teachers-to-student's interaction and learning productivity.

LITERATURE REVIEW

Online Learning

As defined by (Todri et al., 2020), Online learning (OL) is a learning approach of education that occurs when the students and teachers are separated by space and time. It is also known as online learning and e-learning which makes use of modern technology that is the newest and which brings together the tutors and students as a unit, engage and interact with one another and work together in groups during the current C19 crisis that forced the use of distance learning in the world of higher education. The

emergence of OL has brought about numerous technologies to our everyday life and great support to the education system (Johnson et al., 2016). "Blackboard Collaborate act as a good optional choice to traditional face-to-face and it require student's commitment as face-to-face classes" (Tonsmann, 2014). It offers text features, whiteboard and voice chat for effective learning activities (Chen, 2020).

Over some years, IT has gained so much attention because of all its ramifications. It has provided access to important and resourceful information to a larger extent through the internet, technological innovation in the IT sector and much flexibility in IT organizations and firms has continued to heighten the knowledge worldwide (Hasan & Sajid, 2013). Technological distance learning methods is synonymous with technology-driven learning in the 21st century. (Gulati, 2008) Learning technologies which could be computer, video, audio, and the Internet, seems to provide the answers to not only further learning where it has been disrupted (Shan, 2013) but it can also provide a unique opportunity to overcome the rigidity of different geographical areas good access to education.

Psychological Impact of Online Learning

There are numerous studies on the psychological aspects of IT adopted by online learning in higher education. According to UNESCO data, over 290 million students are interrupted in their learning process due to the closure of schools, colleges and campuses (Maulana, 2021). OL has encouraged self-learning and time flexibility, that's indicate a significant advantage of technology used during the pandemic. Despite its numerous strength and advantages, there exist its weakness and disadvantages. (Maulana, 2021). There is higher tendency that students and teachers may not have the same understanding regarding the operation of technology, device used and possible network errors and challenges. In a situation where by the online learning is asynchronous with no direct, live communication and interaction between the students and teachers; such can have psychological effects on students if it is done repeatedly. A study conducted by (Maulana, 2021) investigated the psychology impact of online learning on students of business administration in online theoretical and practical courses. The result of the study based on the findings concluded that the psychological effects such as stress, anxiety and depression of students were because most online learning influence the school performance but has no significant effect on students.

Online Learning During C19

The C19 pandemic has proven to be one of the main drivers of technology due to its spread of the adoption of technology enhanced learning in higher education all over the world which increased the use of IT teaching and learning process of universities (Rahim et al., 2020). The eruption of the C19 outbreak has brought unique difficulties and huge opportunities to higher education institutions worldwide, which has led to the introduction and improvement of e-learning strategies in universities, colleges forcing most institutions to implement e-learning solutions (Ahmad, 2020). Apparently, some institutions have no plans to use e-learning as a possible alternative to physical classroom teaching, and, most teachers are not prepared for effective, high-quality distance learning. (Ankuran, 2020) discovered the digital learning resources (social media) used to disseminate academic acquaintance and its impact on the Indian student during the C19 pandemic. In this qualitative research, he uses interview (semi-structured) and focus group to reveal the effectiveness of online classes and constraints. He concluded that the realization of the use of digital social media as a substitute for the conventional classroom teaching should be subjected

to the commitment of the faculty members of higher educationa. (Ida et. al, 2020) studied the level of motivation of students using digital learning during the C19 crisis, he conducted the research using a partial least squares with SmartPLS 2 analytical software. Based on the hypothesis tested on 190 respondents, he concluded that during the C19 pandemic, digital learning has a significant impact on students' learning motivation due to the numerous online self-learning as a result of the pandemic. He made recommendations for other researchers to use different time based data collection methods and some variables that may have a greater impact than digital learning.

There has been a sudden shift from traditional teaching to different online teaching such as enhanced learning, blended learning and so on due to the emergence of C19 in different universities across the world as discussed in case studies in China (Bao), Pakistan(Rosell), India(Strielkowski), among others. The continual spread of the C19 pandemic has become a serious global challenge to life and human health. The pandemic has triggered the interest of adopting and improving on the online education studies. (Paudel, 2021). To limit the stoppage and hindrance to the academic activities and programme that resulted due to pandemic, the management of several higher educations stepped up to design strategy and rushing in to implement technology enhanced learning in order to respond to the sudden global changes even though some LTA activities, such as national and international field trips and certain forms of assessment were altered and adjusted (Kernohan, 2020).

METHODOLOGY

This section discussed the research methodology used in this study. The research design follows the framework of research onion developed by Saunders et al. (2019). This includes philosophies, approaches, methodological choices and strategies that have been employed in this study. According to (Goundar, 2012), a systemic way and technique of solving research problem is through methodology. What it tries to find how and why a research problem was defined, the choice of data collection method and why the choosing techniques of data analysis. According to (Bryman & Bell 2015), the success and failure of any research process and studies largely depends on the reliability, credibility, completeness and accuracy of the research methods used that shows how essential a research methodology is in a study.

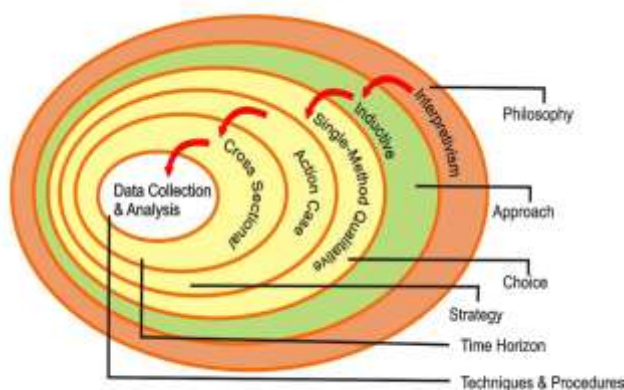


Figure 1: Research process design (customized version of Saunders's research onion adopted from Saunders et al; (2019)

Research process design

The design of any research process must follow meaningful structures that can provide the researcher with a reasonable opportunity to attain the aims, objectives, and provide answers to the research questions for conclusive recommendations (Sreejesh, 2013). This study adopted a resilient research design by (Saunders et al., 2019) as its framework.

Research Philosophy

For this study, an interpretivism research philosophy is adopted mainly because this study utilized an inductive approach in association to qualitative research that was used on which is related to the interpretivism approach and to properly evaluate the study objective and research questions.

Justification for the Interpretivism Research Philosophy:

According to Saunders et al. (2019) interpretivism focuses on complexity, multiple interpretations, meaning-making and productivity that give room for a researcher to interview numerous recruiters with vast experiences, while realism and positivism are philosophical based which are more inclined towards scientific enquiries. The chosen philosophy will allow the study to generate rich data by interviewing SBS students and gather the necessary data appropriate to answer the research questions.

Research Approach

There are two general ways of approaching the research problem basically: the deductive and inductive approach (Saunders et al., 2019). Inductive approaches are employed when the researchers want to start with collection of data for better understanding of certain occurrences in order to formulate a theory, deriving senses from the data through different analysis, findings. In case of deduction, reverse is the case because it moves from theory to data (Goundar, 2012). This study used an inductive approach because the inductive approach entangles a series of steps starting from a series of empirical observations, looking for patterns in these observations, and then theoretically confirming these patterns.

Justification for Using Inductive Approach:

Choosing a deductive approach for this study will not be appropriate because this study tends to move from data collection to theory, and also an inductive approach will give room for proper analysis and structure for this study.

Research Choice

Research choice can either be quantitative or qualitative research. (Riazi, 2016). Quantitative research is associated with variables data that can be measured numerically and analyzed using some statistical techniques such as mean, standard deviation, regression, hypothesis testing and so on. (Saunders et al., 2019, p. 178). However, due to the nature of the research questions, a qualitative research method was used in this research to extract primary data from interviewees (SBS students) and to unravel trends in thought and unearth opinions, views and plunge deeper understanding of the problem (Klein & Myers, 2000).

Justification for the Qualitative Research Choice:

For more insight on the topic of this study, it will be appropriate to use qualitative research since qualitative research is often associated with interpretive research philosophy and inductive approach

(Saunders et al, 2019). Also there won't be any statistical or numerical means for the interpretation of the data or responses from the respondents. The research question is (How and Why) that has also contributed to the reason why qualitative research was adopted as the best way to answer these types of question.

Research Strategy

Research questions, objectives, philosophy and research approach is a guide to proper and accurate choice of research strategy. (Saunders et al., 2019). Action-research, ethnography, grounded theory, case study, survey, experiment and archival research are various research strategies researchers can decide to go with. (Saunders et al. 2019). "The action case comprises an action component and a case component" (Vidgen and Braa, 1997). It is a mixed-method approach providing "a trade-off between being an observer who can make interpretations (understanding) and a researcher involved in creating change in practice". It could be considered to be the most appropriate for this study because it strikes a balance between a case study and action research. Action case study represents a hybrid research strategy for interpretivist understanding, which facilitates the development of generalizable theories (Bryman & Bell, 2011). It uses the components of both action research (Gummesson 2000) and case study research (Yin 1984; Eisenhardt 1989). Compared to other research strategies, the action case study is located between action research and soft case. And also allows for an interpretative study while retaining a limited amount of intervention, and that will be helpful to explore the view and perception of the students on online learning during the time of the C19 pandemic. The choice of action case is consistent across the research philosophy, approach, and choice adopted for this study.

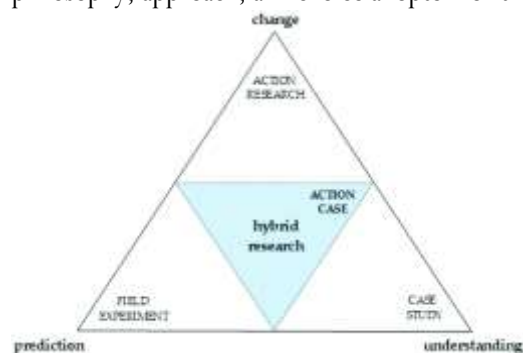


Figure 3.2 Action case research adapted from Braa and Vidgen, (2019).

Time Horizon

To determine whether this research is cross-sectional or longitudinal study, time horizon is required. A cross-sectional time horizon studies a snapshot at a precise period of time while a longitudinal time horizon studies the diary of a series of snapshots to complete the study design (Saunders et al. 2019). Cross-sectional time of the time horizon will be adopted within the period of the research based on this study research question.

Techniques and procedures

Sampling strategy

The most important thing in the context of this study as qualitative research is data that's rich, saturated, and trustworthy not the sample size. This study interview 15 respondents and the participants were recruited across different programmes in Salford Business School

Data Collection Method

Primary data were adopted directly from source using interviews to find an answer to research questions being investigated or realistic recommendations. The interview questions of this study were based on the outlined objectives, research question. According to (Sreejesh et al., 2013). Primary data provides the researchers high credibility and validity and full control over the data. (Persaud, 2012) pointed out that the complete control of the data collection process that provide high credibility and validity to the research is one of the main advantages of the primary data collection method. This study used primary gathered first hand data from the student of SBS using the single-method approach (interviews) data collection methods. Interview can be used to obtain detailed and in-depth answers to the question that appears to be contentious individually. The discussion is 30 minutes for each participant. 30 minutes was chosen for each participant because “there is no standard or fixed time for semi-structured interview, it depends on the interview questions” (Ahmad, 2015). The interview is conducted among some selected 15 individuals of the research participants using semi-structured interview. The response from the interview will be recorded digitally for a clearer, accurate, higher-quality transcription and play-back.

Data Analysis

This is the last layer of techniques and procedures of Saunders research onion. Thematic analysis method was used to analyze the data gathered for this study. According to Saunders et al. (2019), thematic analysis is a fundamental approach to qualitative data analysis by identifying, analyzing patterns and themes in the data from a different perspective related to research questions. Thematic analysis (TA) is a qualitative analytic that can be adopted to identify meaningful patterns across data generated from qualitative research and to make sense from the rich data (Braun & Clarke, 2016). This study also makes used of Nvivo software for proper transcription, sorting and analyzing of the codes to be generated from the audio recording, after which TA was performed to generate themes and patterns from the transcription. Nvivo is suitable for interpretive approach and researcher-driven study even though data analysis in Nvivo is subjective as researcher bias may occur in manual coding (Sotiriadou et al., 2014). This approach of the research method will be helpful in this study to know the online student experience on the technologies online learning adopted by SBS management during the pandemic crisis and to give suitable recommendation on how it could be improved.

RESULTS AND DISCUSSIONS

The findings of the result of the data collected through the semi-structured interviews from the interviewees. It also combines key literature with these findings to create a discussion in order to answer the research questions. All the interview questions as used in this study to gather the needed data from the interviewee are in relation with the research aims, questions and objectives of the study.

Results

This section presents the results and analysis of the data obtained from the interviewees on the perception of online learning during C19 pandemic in SBS. This aims to answer the research question of this study. After careful analytical thinking of the codes (nodes) that emerges from the interview transcriptions, 12 meaningful categories (themes) which are relevant to the study specific research questions have been organized. Since there is no specific formula to the number of themes, the more the data, the likely the

themes to generate (Braun & Clarke, 2012). To have a comprehensive understanding of this study, the findings were being organized according to different themes that are relevant to the research questions as presented in the introduction of this study.

<i>Research Question</i>	<i>Themes</i>
<i>RQ1</i>	<ul style="list-style-type: none"> • Internet connectivity • Distraction • Lack of interaction and participation • Extra learning strategies. • Alternative internet infrastructure
<i>RQ2</i>	<ul style="list-style-type: none"> • Improve technological skills
<i>RQ3</i>	<ul style="list-style-type: none"> • Lack of concentration • Environmental factors
<i>RQ4</i>	<ul style="list-style-type: none"> • Assessment/scores • Group breakout
<i>RQ5</i>	<ul style="list-style-type: none"> • Depression and Anxiety • Stress

Table 1: The study themes in relation to each research question.

Discussion of Results

This part aims to compare and contrast the critical analysis from the study in-depth interview (findings) and the fact on the existing related literature review.

Online learning Challenges

Despite some difficulties experience by SBS students during the online classes due to the pandemic crisis, most of them still appreciate the self-learning experience, compared to the pre-pandemic period where most of them rely on their fellow students on day-to-day school activities like assignment, assessment and others. They reported difficulties from the sudden shift from physical class to online class because it is something they never planned for even though some of them quickly adapted to the new situation. The findings of this study revealed that, the most pressing challenges face by SBS students with online learning classes during the C19 pandemic were found to be internet connectivity and bandwidth, distraction from home (learning environment), lack of interaction (social), psychological mental distress among many others. This finding is in line with the outcome of some previous studies. (i.e., Copeland et al., 2021; Kapasia et al., 2020; Fawaz et al., 2021). SBS students said that noisy and crowded individual in their home environment has been the major source of distraction which is consistent in the finding of (Li, 2014) that the inevitable noise from Hong Kong seems to be a “challenging issues to students online learning”. Lack of participation and interaction has also been identified as a challenge to online class in this study as SBS students found it challenging to associate with their fellow students (academically and socially). This is corresponding to a study by (Sher, 2019) who emphasized on the significant of social

and academic students-to-students' interaction on the level of learning satisfaction with online learning. Online class recording has been identified as one of ways the SBS students deal with challenges of online learning, the recording videos or audio can be play back even after the class for sufficient mastery. This is also in line with (Moos & Bonde, 2016) findings that video recording is useful tools to individual learners in online learning that can be play repeatedly and rewind at their own pace.

Importance of interaction in online learning

Unlike the conventional classroom learning that has given the students greatest opportunity to interact with fellow students and tutors, online learning appears to be less interactive and that has limited the level of dialogue and collaborations among these parties. Students interaction is reported by this study as one of the crucial factor for a sustainable learning productivity of online learning. Similarly, a study by (Teoh, 2011) emphasized on the quality interaction between the learners and tutors, learners and fellow learners. This study finding shows that SBS students are much interested in interacting with their tutors and peers for better and improved opinion on a particular module which is in contrast to (Kuo et al.'s 2014) finding that students are more interested in the interaction with their tutor than their fellow students in online learning. This study finding has also support the theory of social presence by (Chang and Hus 2016) which emphasized on person-to-person interaction in online learning discussion. The theory stated that social interaction between students is one of the most challenging issues in online class that needs utmost attention. Learning and social interactions are important for an effective learning to take place. This study finding is aligned with (Shen and Khalifa 2010), social well-being of students to students is paramount to enhance the learning effectiveness during online session. This study has also mirrored the theoretical framework of (Moore's, 1989) by emphasizing on the needs of person-to-person dialogue and collaboration in online education, most importantly interaction of students-to-students and instructors-to-students.

The importance of online learning to educational sector during C19 pandemic

The majority of the SBS students agreed that online learning and teaching is flexible in terms of time, energy and that's the only alternative means to learning for educational system to stop the spread of the pandemic and embrace the policy of social distancing. This finding is consistent with the findings of (Sobron et al, 2019). Also, inconsistent with previous study by (Tullis and Benjamin, 2011) on own and self-pace learning, the findings of this study also revealed that online learning gives students ability to learn at their own pace.

Psychological Impact of online learning

The themes that emerged from the interview data of this study shows that the psychological impact of online learning on SBS students consist of (depression, anxiety and stress). The findings of this study shows that the source of depression experienced by students is internet problem and the level of depression varies depending on how good or bad is the internet service during the online learning. This is aligned with the findings of (Maulana, 2020) that depression experienced by students due to online learning and their mood changes largely depend on unstable internet networks/ connections but had no effect on their academic achievement.

Also, the anxiety experienced by SBS students is due to workload of course work and assignments from tutors to be submitted within the deadline. This result ratifies previous work on workload from tutor and submission deadline that affected the psychological well-being of students in online learning (Zhai, 2020). Lastly, the findings of this study revealed that online learning during the C19 pandemic had a negative impact the mental stress of SBS students, they couldn't concentrate in the online learning. With that, they are scared of their performance at the end of the session. These findings are in support with the past studies (Marelli, 2020; Sahu, 2020) how online learning has caused stressed that could lead to negative impact on the learning and psychological health of students.

CONCLUSION

The purpose of this study is to examine the perception of the students on how online learning adopted by the Salford Business School during the covid-19 has impacted their academic performance and experience in order to help the management in areas of policy and decision making.

Research Question 1: How has the C19 education crisis impact the SBS students' experience in studying online?

SBS Students reported several advantages and the opportunities online learning has brought upon their life. The online learning platform used by SBS has introduced them to different fantastic technologies such as Blackboard collaborate, Team and so on. Some of these students never knew about most of these technologies until they joined Salford Business School and that has helped them tremendously, even though they were not in physical class. It is flexible because students can attend classes online anytime and anywhere even at their home. The SBS students appeared to have quickly adapted to online learning due to the government mandate and restriction in the country.

Research Question 2: How are SBS students dealing with the challenges posed by online learning during the C19 pandemic?

Through the findings of this study, it can be concluded that internet connectivity has been pointed out as one of the major challenges faced by SBS students in this study. Majority of them complained of lack of stable, strong connection and low bandwidth from their home and that alone has made the class difficult for students. To deal with the above mentioned challenges, some students acquired ISP devices with strong bandwidth while some switched to phones for the class session to manage the situation. The study has also identified the challenges of online learning to students differently (national and international students). Most international students made mention of interaction as one of the building blocks of online learning, due to low participation of students in online class. They were able to deal with that and to get in touch with fellow classmates outside the class sessions. Distraction from families and relatives is also another problem of online learning.

Research Question 3: How could SBS staff encourage more student interaction online?

Based on these study findings, it can be concluded that students wanted to be grouped in a smaller breakout group and attached scores to the level of participation in each group. They believed doing so will encourage their interaction with peers and tutors. Most students agreed that grouping in normal conventional class might not ginger interaction in some kind of students but when the participation serves as assessment and attracts some forms of marks, then, students will come out of their shells to participate.

Research Question 4: Why are the SBS students not interacting effectively with instructors using technology enhanced learning?

The findings of this study show several factors that contributed to the reason why students didn't turn on cameras and microphones during online learning sessions.

Some agreed not to be concentrating on the online class because it is so boring and they are busy doing something else like eating, laundry, on phone using facebook, Instagram and other social media. Some students are not prepared for the class and that makes them not properly dressed, in bed or in a private room where they cannot just put on their camera to invade privacy. This study has also concluded that most students are having their online learning in an environment that is noisy and crowded that can as well cause distraction. Some minutes break during online class can encourage student's interactions with peers and tutors.

Research Question 5: How has online learning affected the psychological well-being of SBS students? Based on this study finding, it can be deduced that online learning has impacted the mental health of SBS students because it has caused depression, stress and anxiety for some students. The above psychological impact was as a result of workload from instructors (course work), network/internet issues, boredom (no interaction) and the fear of failure. Even though some students' productivity has increased.

RECOMMENDATION

This study data has established that many students in their home environment do not have fast broadband and connectivity to effectively participate in the online class and that needs special attention. The interviewees stated that "one of the major challenges of learning online is basically network or service providers where you can't hear lecturers, your classmates, at times you can't even connect to your class and those were quite frequent, if the school can come to our rescue". That is aligned with the response of a member of SBS leadership interviewed that says "students rely on the infrastructure of the university because in their home environment, they don't have fast broadband to connect to the online class most especially live streaming". It will be very interesting if the school can deal with such challenges by providing the students with the right infrastructure and facilities. Even after the pandemic that students are now allowed to come to class physically, blended learning should be adopted so students that are not physically present can still participate in the class. Since online learning has impacted positively the educational life of some students. The interviewees suggested, "I would love to have some classes physically and online, maybe 75% for normal class while the remaining 25% should be online. Online learning platform is just like a backup; you might not be in classes physically all the time, but you will still participate". To combat the challenges of social interaction, instructors should create a time to discuss with students on issues outside academic matters that can also improve the mental health of students. The interviewees stated that "My social interaction was zero and that has really affected me psychologically somehow. I didn't get to socially mix with people, peers and so on, if tutors can create some activities outside learning where students can mix, play and discuss". The students agree that effective interaction between tutors and students or students themselves is essential in online learning. SBS leaders need to strengthen their current policy on student's interaction by compelling the students to use an assessment in a way that would force them to participate in the class. Students should also be broken into smaller groups in online class for proper participation and interaction of student-to-students and tutors-to-students, most participants' responses. "The tutor should always attach assessment to feedback and level of participation from students, the tutor can as well split students into different groups and ensure equal participation and send a summary of the class probably at the end of each module".

REFERENCES

- Ahmad, T. B. T. (2020). Teaching remotely during COVID-19: Opportunities for creativity and innovation. *IJUM Journal of Educational Studies*, 8(1), 1-3.
- Ankuran Dutta (2020). Impact of Digital Social Media on Indian Higher Education: Alternative Approaches of Online Learning during COVID-19 Pandemic Crisis. *International Journal of Scientific and Research Publications*, 10(5). ISSN 2250-3153.
- Al-Kumaim, N.H.; Alhazmi, A.K.; Mohammed, F.; Gazem, N.A.; Shabbir, M.S.; Fazea, Y. (2021). Exploring the Impact of the COVID-19 Pandemic on University Students' Learning Life: An Integrated Conceptual Motivational Model for Sustainable and Healthy Online Learning. *Sustainability*. 2546. <https://doi.org/10.3390/su13052546>
- Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. *Hum. Behav. Emerg. Technol.*, 2, 113–115.
- Braun, V., Clarke, V. & Weate, P. (2016). Using thematic analysis in sport and exercise research.
- Braun, V. & Clarke, V. (2012) Thematic analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Bryman, A. & Bell, E. (2011) *Business research methods*, 3rd ed. Oxford University Press, Cambridge, New York, NY.
- Bryman, A. and Bell, E. (2015) *Business Research Methods*. 4th edn. Oxford: Oxford University Press.
- Copeland, W. E., McGinnis, E., Bai, Y., Adams, Z., Nardone, H., Devadanam, V., & Hudziak, J. J. (2021). Impact of COVID-19 pandemic on college student mental health and wellness. *Journal of the American Academy of Child & Adolescent Psychiatry*, 60(1), 134–141.
- Eldeeb, R., A. (2020). Students' perceptions of e-learning. *IOSR Journal of Research & Method in Education*, 4(3), 33-36.
- Fawaz, M., Al Nakhal, M., & Itani, M. (2021). COVID-19 quarantine stressors and management among Lebanese students: A qualitative study. *Current Psychology*, 1–8.
- Goundar, Sam. (2012). Chapter 3 - Research Methodology and Research Method. https://www.researchgate.net/publication/333015026_Chapter_3_Research_Methodology_and_Research_Method
- Gulati, S. (2008) 'Technology-enhanced learning in developing nations: A review', *International Review of Research in Open and Distance Learning*.
- Gummesson, E. (2000) *Qualitative methods in management research*, 2nd ed. SAGE, Thousand Oaks, Calif.
- Hasan, T. and Sajid, A. R. (2013). ICTs in Learning: problem faced by Pakistan. *Journal of Research and Reflections in Education*, 54-64.
- Ida, F., Fitra P., Oganda F. R. Sari, T. W. and Untung, R. (2020). "Effect of Digital Learning on Student Motivation during Covid-19". *The 8th International Conference on Cyber and IT Service Management (CITSM 2020) On Virtual*, October 23-24, 2020.
- Johnson, A. M., Jacovina, M. E., Russell, D. E., & Soto, C. M. (2016). Challenges and solutions when using technologies in the classroom. In S. A. Crossley & D. S. McNamara (Eds.) *Adaptive educational technologies for literacy instruction* (pp. 13-29). New York: Taylor & Francis. Published with acknowledgment of federal support.
- Kapasias, N., Paul, P., Roy, A., Saha, J., Zaveri, A., Mallick, R., & Chouhan, P. (2020). Impact of lockdown on learning status of undergraduate and postgraduate students during COVID 19 pandemic in West Bengal. *India. Children and Youth Services Review*, 116, 105194.
- Kernohan, D. (2020). Which universities are moving to remote teaching? *WONKHE*, 13 March 2020. 42.
- Klein, K. & Myers, Michael. (2000). *Klein Myers/Evaluating Interpretive Field Studies*.
- Kuo, Y. C., Walker, A. E., Schroder, K. E. E., & Belland, B. R. (2014). Interaction, internet self-efficacy, and self-regulated learning as predictors of student satisfaction in online education courses. *Internet and Higher Education*, 20, 35–50
- Kumaravelu, Arul & Suresh, E. (2017). *The Quality of Education and its Challenges in Developing Countries UN Sustainable Development Group Policy Brief: Education during COVID-19 and beyond*. <https://unsdg.un.org/resources/policy-brief-education-during-covid-19-and-beyond>. Accessed.
- Mahajan, M.V. (2018). A study of student's perception about e-learning. *Indian J. Clin. Anat. Physiol.* 2018, 5.
- Marelli S., Castelnovo A., Somma A., Castronovo V., Mombelli S, Bottoni D, & Ferini-Strambi L. (2020). Impact of COVID-19 lockdown on sleep quality in university students and administration staff. *J Neurol* 268:1–8 14.
- Maulana, H. A. (2021). The Influence of Psychological Impact of Online Learning during Covid 19 on Student's Academic Achievement: A Case Study at Vocational Higher Education. *Psychocentrum Review*, 3(1), 10–21. DOI: 10.26539/pcr.31560.
- Moos, D. C., & Bonde, C. (2016). Flipping the classroom: Embedding self-regulated learning prompts in videos. *Technology, Knowledge and Learning*, 21(2), 225–242.

- Muzaffar, A.W.; Tahir, M.; Anwar, M.W.; Chaudry, Q.; Mir, S.R.; Rasheed, Y. A Systematic Review of Online Exams Solutions in E-learning: Techniques, Tools, and Global Adoption. arXiv 2020, arXiv:2010.07086
- Panter, D. Rindskopf, & K. J. Sher (Eds), APA handbook of research methods in psychology, Vol. 2: Research designs: Quantitative, qualitative, neuropsychological, and biological (pp. 57–71). Washington, DC: American Psychological Association. (p. 65).
- Paudel, P. Online Education: Benefits, Challenges and Strategies During and After COVID-19 in Higher Education. *Int. J. Stud. Educ.* 2021, 3, 70–85.
- Persaud, N. (2012) *Encyclopedia of Research Design*. Thousand Oaks: Sage Publications.
- Rahim, E., Burrell, D. N., & Duncan, T. (2020). Best practices and emerging trends for knowledge based organizations and academic institutions around e-learning. *International Journal of Smart Education and Urban Society (IJSEUS)*, 11(2), 16-27.
- Rosell, C. (2020). COVID-19 Virus: Changes in Education | CAE. <https://www.cae.net/covid-19-virus-changes-in-education/>. Accessed
- Saunders M, Lewis P and Thornhill A. 2019. *Research methods for business students*. Eighth edition. London: Pearson.
- Shan, F. (2013). ICT in education: A critical literature review and its implications. *International Journal of Education and Development Using Information and Communication Technology (IJEDICT)*. 9. 112-125.
- Shen, K. N., Yu, A. Y., & Khalifa, K. (2010). Knowledge contribution in virtual communities: Accounting for multiple dimensions of social presence through social identity. *Behaviour & Information Technology*, 29(4), 337–348.
- Sobron, A., Bayu, B., Rani, R., & Meidawati, M. (2019). The Effect of Online Learning on Science Learning Outcomes of Elementary School Students. 1(1), SNSE VI / Articles. <https://doi.org/10.31004/basicedu.v4i2.332>
- Sotiriadou, P., Brouwers, J. & Andrew L. (2014). Choosing a qualitative data analysis tool: A comparison of NVivo and Leximancer. *Annals of Leisure Research*. 17. 218-234. 10.1080/11745398.2014.902292.
- Sreejesh, S., Anusree, M.R., and Mohapatra, S. (2013) *Business Research Methods: An Applied Orientation*. 1st edn. Cham: Springer.
- Strielkowski, W. (2020). COVID-19 pandemic and the digital revolution in academia and higher education. Preprints 2020:2020040290. <https://doi.org/10.20944/preprints202004.0290.v1>
- Teoh A. P. (2011). Students' Interaction in the Online Learning Management Systems: A Comparative Study of Undergraduate and Postgraduate Courses", *Asian Association of Open Universities Journal*, Vol. 6 Issue: 1, pp.59-73,
- Todri, A, Papajorgji, P., Moskowitz H., & Francesco S. (2020). Perceptions regarding Distance Learning in Higher Education, Smoothing the Transition. *Contemporary Educational Technology*, 13(1), ep287
- Tonsmann, G. (2014). A Study of the Effectiveness of Blackboard Collaborate for Conducting Synchronous Courses at Multiple Locations. *Insight: A Journal of Scholarly Teaching*. 9. 54-63. 10.46504/09201404to.
- Viner, R. M., Russell, S. J., Croker, H., Packer, J., Ward, J., Stansfield, C., Mytton, O., Bonell, C., & Booy, R. (2020). School closure and management practices during coronavirus outbreaks including COVID-19: a rapid systematic review. *The Lancet. Child & adolescent health*, 4(5), 397–404. [https://doi.org/10.1016/S2352-4642\(20\)30095-X](https://doi.org/10.1016/S2352-4642(20)30095-X)
- World Health Organization epidemiological. (2021, October 26). Weekly epidemiological update on COVID-19. <https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19--26-october-2021>
- Zhai Y., Du X. (2020). Mental health care for international Chinese students affected by the COVID-19 outbreak. *Lancet Psychiatry*. 2020, 7: e22. 10.1016/S2215-0366(20)30089-4