Facebook in Higher Education: Proposed Model for Sustainable Education in the Faculty of Business and Entrepreneurship (FoBE) at the National University of Samoa (NUS)

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Abstract

This study seeks to elucidate the plausible Higher Education (HE) consequences amassed via Facebook as a tool of HE in the context of the Faculty of Business and Entrepreneurship (FoBE) at the National University of Samoa (NUS). It further expounds on the contests/complications in HE amid the backdrop of sustainable education. Scarcity of research calls for a deliberated narration establishing the prominence of sustainable education. The proposed model is expedient for policy makers, educational practitioners, stakeholders of the university and for governance policy and planning. The outcomes of this study would augment both the international and local literature with scholarship pertaining to themes of bourgeoning prominence in aid of augmenting improvements in HE.

Keywords: Social media, sustainable education, Faculty of Business and Entrepreneurship, National University of Samoa

Introduction

Globally the radical and augmented impacts of Information and communication technologies (ICT) in Higher Education (HE) has not only shifted the landscape of the open and flexible learning milieu but has further delivered voluminous probable and disputing assessments in the context of HE (Legon et.al, 2019; Seaman, et.al 2018). The overall trend espousing open and flexible delivery has been in rejoinder to shifting student demands and the opportunities offered by technology for universities (Naidu, 2017).

Credible assessments from the literature reviews on HE admits fostering didactic improvements (McCarthy, 2010), contending supportive teaching and learning outcomes (Hennessy, 2016), motivating and engaging students and fostering inquiry and investigation (Dzidonu, 2010), eradicating geographical limitations that challenge learning, endorsing differential instruction and enabling greater access for stakeholders (Betz, 2011; Dzidonu, 2010; Hennessey, 2016). This has made education more effervescent and gratifying. The disputing views however, submit the negative impacts on students' learning proficiencies (Lenhart et al., 2010).

Social media which ascends amid the radical transformation of ICTs has become a pervasive wonder and a fundamental part of the social communiqué in the contemporary era. It has infiltrated and realized numerable benefits; nevertheless thoughtful sentiments have enunciated the detriments of social media consumption (Anderson, 2019; Ean and Lee, 2016; Hew, 2011; Lim and Richardson, 2016; McCarthy, 2010; Roblyer et al., 2010).

Social media consumption has advanced immeasurably and social networking apps continue to intensify as communities embrace them into their routine (Kallas, 2020; DreamGrow Digital). According to the Internet World Stats (IWS) (2019), approximately 4.54 billion users are connected to the internet internationally, whilst 68.4 per cent are from the Oceania region. As the accessibility level of tech accelerates in developing countries, the use of computers, mobile devices, and the Internet continues to increase (Poushter, 2016).

Below are the four (4) main research objectives:
1. To identify the number of teaching staff that are using Facebook as a teaching and learning tool in the FoBE at NUS.
2. To measure the effectiveness of Facebook as a teaching and learning tool for staff in the FoBE at NUS.
3. To investigate the challenges of using Facebook as a teaching and learning tool for staff in the FoBE at NUS.
4. To explore the sustainability of Facebook as a teaching and learning tool for staff in the FoBE at NUS.

Literature Review

The landscape of social media has been dominated by the elite "Facebook" (Clement, 2020; Statista, 2020; Lantz-Andersson et al., 2013). Facebook was conceived and hosted into the tech led domain in 2004 by Mark Zuckerberg, a fledgling and striving University scholar from Harvard (Bellis, 2020). The supremacy of Facebook as a trailblazer is discernible from its growing user base; which was at 2.414 billion users in 2019 (Clement, 2020; Statista, 2020), frequency of use which was highest for the Facebook app (Pew Research Centre, 2019) and the amount of time spent on Facebook which logged higher tallies than other apps (Clement, 2020; Statista, 2020). Sterling (2010) discloses that Facebook surpasses Google in terms of online consumption. According to the Citigroup Interwebs analyst Mark Mahaney, Facebook consumption has precipitously increased, whilst a slower rise had been noted for Google, a temperately flat line for Microsoft, a decline for Yahoo, and a serious fall for AOL (Mahaney, 2010). Students are prodigiously utilising Facebook as a social networking tool (Clements, 2015; Cheung et al., 2011; DiVall and Kirwin, 2012; Fewkes and McCabe, 2012; Godwing-Jones, 2010; Hurt et al., 2012; Hou et al., 2015; Kent, 2013; Manca and Ranieri, 2013; Prescott et al., 2015). The prominence of Facebook for students at the high school and tertiary levels is marked by the high usage for educational and social objectives (Gamez, 2015; Kirschner, 2015; Kirschner and Karpinski, 2010; Lantz-Andersson et al., 2013; Qureshi et al., 2014; Wise et al., 2011).

ICT integration for Teaching and learning (T&L) endeavours is not a novel occurrence for the HE sector. Universities have been contending to this for nearly two decades in succession from the 1990s to replace traditional instructional methods and to augment it via tech innovations (Kaware and Sain, 2015; Westera, 2015). Facebook has been used as a supplementary tool in supporting T&L endeavours. Its application ranges from stimulating class discussions, constructing academic content/resources and enabling greater resource sharing. It has afforded greater safety and confidentiality for user groups as well (Bahati, 2015; Bowman and Akcaoglu, 2014; Camus et al., 2016; Clements, 2015; Dougherty and

Andercheck, 2014; Shraim, 2014; Maben et al., 2014; Manca and Ranieri, 2013; Naghdipour and Eldridge, 2016). Current literature advocates that Facebook advances collaborative learning, extends classroom interface and emboldens timid students to partake in the learning process (Camus et al., 2016; Fewkes and McCabe, 2012; Hurt et al., 2012; Kabilan et al., 2010; Kharbach, 2014; Manan et al., 2012).

Facebook also reinforces student engagement (Alshammari et al., 2015; Schindler et al., 2017) and studies scrutinizing the effect of Facebook on behavioural engagement focus on greater membership in learning activities plus collaboration with peers and instructors (Bahati, 2015; Bowman and Akcaoglu, 2014; Dougherty and Andercheck, 2014; Fagioli et al., 2015; Habibi et al., 2018; Rambe, 2012; Staines and Lauchs, 2013). Literature confirms that Facebook is a preferred tool in comparison to other instructional tools by students (Clements, 2015; Hou et al., 2015; Kent, 2013). Returns amassed via Facebook is evident via enriched collaborations, consultations on conjectural and applied problem solving, exchanged scholarship, and articulated sentiments as well as educational victories and trials (Bowman and Akcaoglu, 2014; Dougherty and Andercheck, 2014; Dyson et al., 2015; Maben et al., 2014; Beynen and Swenson, 2016). Other studies affirm higher levels of emotional engagement and raised levels of belongingness (Bowman and Akcaoglu, 2014; Dougherty and Andercheck, 2014; Naghdipour and Eldridge, 2016).

Scholarships on cognitive engagement deliberates that Facebook participation is correlated to educational diligence (Fagioli et al., 2015) and self-regulation (Dougherty and Andercheck, 2014) while other studies show low altitudes of knowledge construction in Facebook posts (Hou et al., 2015). Facebook also supplements lectures (Dougherty and Andercheck, 2014; Nakamaru, 2012; Prestridge, 2014). The inclination towards Facebook consumption has highly been endorsed for its social support and interaction capabilities, (Go et al., 2016; Guo et al, 2012; Neier and Zayer 2015; Rae and Lonborg, 2015; Tang et al., 2016) and as an educational learning tool (Abedin, 2016; Hamid et al., 2015; Kirschner, 2015; Puhl et al., 2015; Udrea et al., 2017). It is further testified that Facebook in HE heightens academic life (Boateng and Amankwaa, 2016), improves student retention (Clafferty (2011) and performance (Barczyk and Duncan, 2013; Hung and Yuen, 2010). Research further purports the positive influence on educational performance (Al-rahmi et al., 2017; Gonzalez et al., 2016) and student achievement in universities (O'Bannon et al., 2013). Literature illuminates on resource detection, explanation and curation (Antonio and Tuffley, 2015), research scholarship dissemination and collaborator recruitment coupled with provision for enduring the affiliation amid institutions and graduates in support of life-long scholarship and alumni support (Carter, 2018).

Scholarships also underline the drawbacks and issues arising from Facebook in the HE context. Hamid et al. (2015) pinpoints that the manner in which tech operates and its extent of integration impacts whether Facebook will payback or weaken the learning and teaching practices in the educational milieu. Czerkawski (2016) says that assimilating social media apparatuses supplements formal education whilst Greenhow and Lewin (2016) highlight the prominence of integration of formal with informal learning. Tadros (2011) on the other hand, summarizes that educationalists need to comprehend the convergence and consequently develop a new way of teaching to fulfil the obligations of the 'net generation' scholars. Integration in practice has been hampered due to several reasons. These include cultural resistance,

pedagogic issues, privacy concerns and institutional restraints (Manca and Ranieri, 2016a, b). Çoklar (2012) contends on the students' attitude and the precision of information regarding Facebook and its impact on the importance rendered to its practice for formal instruction. The author further deliberates over the issue of faculty control over social media and the level of staff involvement (Çoklar, 2012). Researchers (Kabilan et al., 2010; Alt, 2017) ascertain that Facebook may cause inadvertent learning which may deleteriously influence students. Keenan et al. (2018) accentuates on instructors' apprehensions regarding; student professionalism, social media being an interference, alterations to student-instructor relations and a deficiency of time for instructors to acquire knowledge and training on social media consumption and application.

Another study endorses that the incidence of Facebook chats has been deleteriously correlated to academic preparation (Junco, 2012a, 2012b). Studies also highlight the effect of academic procrastination (Nadkarni and Hofmann, 2012; Şahin, 2014). Towner et al. (2011) discusses time as a major consideration for using Facebook and reflects on faculty workload (VanDoorn and Eklund, 2013; Moran et al., 2011). Other scholars discourse on the issues of digital divide, non-familiarity with social media (Keenan et al., 2018; VanDoorn and Eklund, 2013) and generation gap (Jones, 2002). On a similar note Ahmed (2011) posits on the intercultural viewpoints concerning the consumption of social media in HE. Other academics deliberate on stakeholder support and online professional behaviour (Greysen et al. 2010; Prescott et al. 2012). Comparable scholarships have further shown that social networking poses risks such as loss of privacy, intimidation, damaging contacts and more (Alshammari et al., 2015; Livingston and Brake, 2010). Intellectual property issues have also been much deliberated upon in the literature (Henderson et al., 2010; Minocha, 2009). Various other researchers have indicated internal organizational barriers that encumber HE from proficiently and meritoriously integrating new technologies (Linder-VanBerschot and Summers 2015; Westera, 2015). Zhong et al. (2011) discourses on personality traits on the use of Facebook. It is established by the authors that tech savvy users are more likely to spend time on Facebook in contrast to those with lower levels of understanding. Some other investigators have established a positive or almost null association amid grades received by students and Facebook (Capano et al., 2010; Hargittai and Hsieh, 2010).

This research has discoursed on the potential benefits and the barriers to adoption of Facebook as an educational tool. The purpose of this research is to explore the contests/complications in HE of Facebook as a learning tool amid the backdrop of sustainable education.

Methodology

This study has undertaken a mixed quantitative and qualitative research methodology approach. The research conducted an exploratory review of the secondary literature sourced from mainly journals. Primary data was collected using the Google online survey application which has generated mainly quantitative data for this paper. Prior to the online survey, the research had to undergo research ethical clearance through the University Research and Ethics Committee (UREC). Official ethical clearance to conduct the online survey was received by the 20th of November, 2020. The online survey participants were required to voluntarily consent in taking part in the survey in alignment with the UREC policy.

Participants were anonymous and protected via using the shielded question methodology – which is simply avoiding questions that require participants to identify themselves either directly or indirectly. To further maintain anonymity of the study only one (1) of two (2) researchers had access to the online survey raw data results. This was because the survey required participants to provide their email addresses to avoid duplication of input. Overall, the study had a total of twelve (12) questions. Seven (7) of the questions were strategic research questions, while the other four (4) were consent and demographical questions to help segregate the data in terms of age and gender. The link to the online survey questions was sent out to the FoBE staff email addresses on Wednesday 25th November, 2020. The survey was closed on the 5th of December, 2020, giving FoBE staff participants a maximum of only eight (8) days to complete the survey. The collected data from the above questions was analysed using the Statistical Package for the Social Science (SPSS) software and the Google analytical report application.

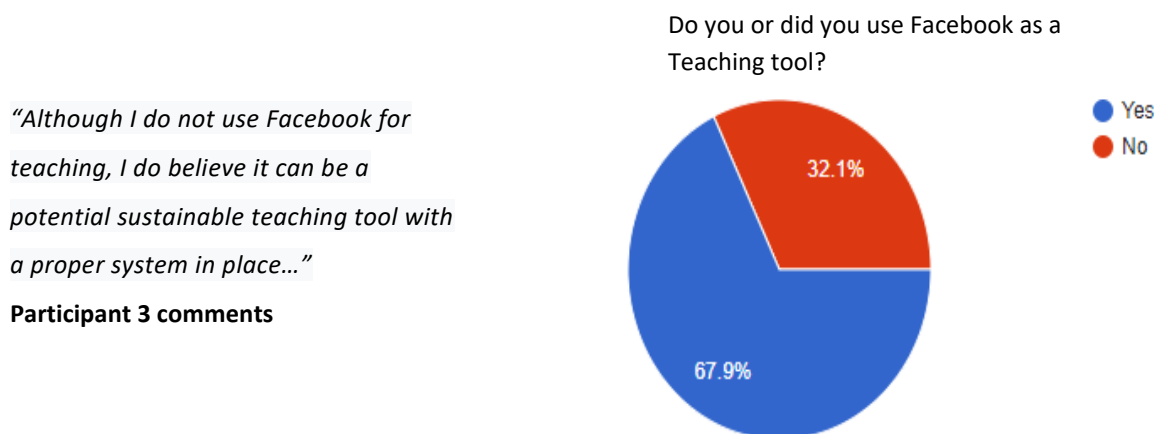## Growing University and a Growing Faculty

One of the major factors that decision makers of the FoBE have to take into serious consideration to support the idea of potentially adopting a model for using Facebook as a teaching tool is that the University is growing. Since 2013, the NUS staff population has increased from 310 to 400 by 2019 (NUS, 2020). According to the NUS Statistical Digest 2019, the FoBE academic staff makes up approximately 8% of that total figure. The FoBE staff population has actually decreased from its peak overall staff ratio representation of 12% in 2013. What the 2019 digest fails to identify is that to make up for the decrease in staff, FoBE has taken up more part-time lecturers due to the shortage of specialised teachers in country to deliver particular courses. Overall, part-time staff at the University makes up approximately 9% of the NUS total staff population. The majority of that 9% are part-timers from the FoBE and Faculty of Health Science. The considerable high number of FoBE part-time staff is also a supporting point for FoBE to consider potentially increasing its reliance on remote teaching tools and methods such as Moodle through using Facebook. This is because part-time lecturers are either employed full-time elsewhere or retired which means that they are only likely to be on campus during their face to face teaching hours. The majority of part–timer teaching hours are scheduled after working hours traditionally between 5:30 and 7:30pm to cater to the part-timer's availability. In terms of consultation, students cannot access the part-time lecturer's regularly on campus and have a limited window before and after the late classes. The current primary method for student consultation with part-time lecturers is via email which studies have shown increasing evidence of it being outdated, insufficient and out of favor with the current and incoming generations of students (Weiss et al., 2008, EAB Colleges and Universities, 2019; Straumsheim, 2016). This is where Facebook can potentially be that medium between the part-time lecturers and their students. In terms of student population, FoBE has the highest roll growth for the University in the year 2019 taking up a staggering 25% of the total roll growth ratio (NUS, 2020). This is because the FoBE overall enrollment has increased from its lowest of 23% in 2016 to 28% by 2019 of the total University enrollment. The FoBE is also increasing the number of its programmes to cater to the demand and the need for postgraduate level programmes. This means that student numbers are increasing despite a drop in full time staff figures. With the increasing staff and student population and a growing deficit, there is evidence of increasing pressure for FoBE to explore alternative avenues to support its programmes (NUS, 2019).

Fortunately for FoBE, the Equivalent Full-time Student (EFTS) ratio seemed to have dropped from 23% in 2018 to 18% by 2019 (NUS, 2020). It is inevitable that with an increasing student and staff population and depleting resources, the FoBE will have to explore and consider all available and free avenues and tools to assist with the delivery of its programmes, mandates and services.

Survey Findings

From the FoBE academic and teaching staff population of 40 individuals (inclusive of part-timer but exclusive of administrative staff), a total of 28 participants took part in the survey. From the total participants, 76% were female respondents with only 24% male. This figure reflects the wider NUS staff demographics with females making up for 54% of the staff population (NUS, 2020). The majority of participants claimed to be between 30-40 and 40-50 years of age. The dominant senior age percentage of FoBE staff likely had an impact on the 32% of participants who claimed to not use Facebook as a teaching tool. Data from the 32% specifically states that some of the participants have never used Facebook at all. This is quite clear with participant one (1) saying: 'I do not personally use Facebook so I am not in a position to make a judgment'. Participant two (2) states something quite similar: 'I do not use Facebook as a tool so I do not know the pros and cons'. Although some of the participants have never used Facebook at all, there are positive signs that suggest that this group of senior aged staff may be open to experimenting and taking on the challenge of using Facebook to aid their teaching and research. This is clearly evident with the below statement made by participant three (3).

Figure 1: Response on Facebook as a Teaching Tool

"Although I do not use Facebook for teaching, I do believe it can be a potential sustainable teaching tool with a proper system in place…"
Participant 3 comments

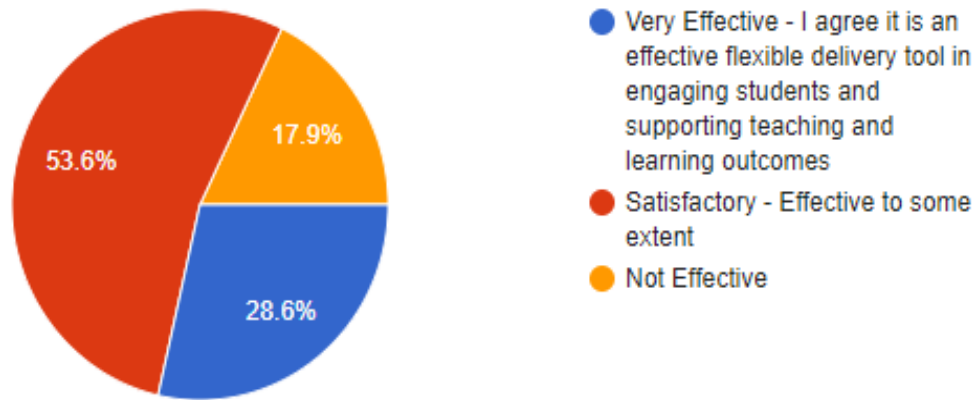Do you or did you use Facebook as a Teaching tool?

The majority of FoBE staff participants have claimed to have used Facebook for teaching either in the form of communicating with students, organising classes, steering discussion and circulating notes. Although there is a large percentage of FoBE Facebook users, the majority of the participants were quick to identify what they believed from experience were the weaknesses of Facebook in terms of teaching. This is clearly reflected in figure 2 which highlights that only 28.6% of participants found Facebook from personal experience to be 'very effective' for teaching. The majority participants at 53.6% found Facebook

to be 'satisfactory-effective to some extent'. 17.9% of the participants did not support the concept of using Facebook as a teaching tool.

**Figure 1: Effectiveness Percentage**

From your own personal experience, how effective is Facebook as a teaching tool?

- Very Effective - I agree it is an effective flexible delivery tool in engaging students and supporting teaching and learning outcomes
- Satisfactory - Effective to some extent
- Not Effective

53.6% of participants stated that they would promote Facebook as a teaching tool to others, while 32% were unsure and 14.3% disagreed clearly. However, the overall survey data showed that the participants see great potential in the concept with 71.4% opting to claim that they believe that Facebook is a sustainable teaching tool in the long run. The mixed strings of results suggest that although some of the participants do not support or advocate the concept of using Facebook as a teaching tool, they believe it is viable and are still broad minded to accepting the idea.

Figure 2: Promotion and Sustainability Percentage

Would you promote or recommend Facebook as a teaching tool to others?

- Yes
- No
- Maybe
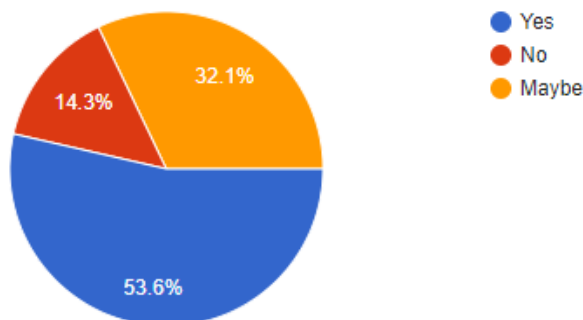
Do you think Facebook is a sustainable teaching tool?

- Yes
- No
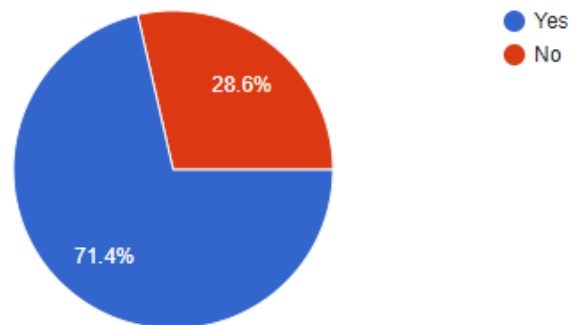
Identified Challenges and Strengths of using Facebook as a Teaching Tool

The survey participants have identified a number of challenges and strengths towards the concept of using Facebook as a teaching tool. Challenges are identified below in a sequential order based on the number of times each particular challenge was referenced.

Internet Accessibility

Samoa's current position as a developing nation brings about quite obvious challenges in terms of its internet bandwidth and limited resources. It is believed that students who come from rural areas of Samoa will generally struggle to access Facebook. It was also believed that students from rural areas will have personal limited access to resources such as smart phones or computers at home. However, there is insufficient evidence to support this claim as this is solely based on the perception and assumption of FoBE academic and teaching staff respondents.

NUS Facebook Restrictions

Current internal NUS practices and processes restrict staff and students from accessing Facebook on the University network between 8am to 4pm. This is to strategically limit the online traffic due to the limited bandwidth. Participants have claimed that they have used their own personal resources to access Facebook for teaching purposes. Others stated that they had to wait until after 4pm for Facebook restriction to open for them to access it in order to reach their students.

Line Between Professional and Personal Boundaries (Distracts)

Facebook brings about the potential risk of students and staff over stepping the line between professional and personal communication. Facebook is widely seen as a platform for entertainment and social engagement and could easily be abused by either side of the communication. In fact, there have been multiple studies specifically in this area as it seems to be an increasing problem globally (Persson and Thunman, 2017; Lantz-Andersson et al., 2013). Stephens (2019) in his study suggests that simply providing a system that sets social media boundaries between teachers and students will suffice.

Privacy Breach Risk

Facebook poses a high risk of user exposure to malware, viruses and hacks that may affect the contents under discussion. Facebook also plays host to potential sources of misinformation. Basic awareness programmes and workshops can potentially ease this identified challenge. In addition to the above four (4) challenges highlighted by participants there was a strong argument about Facebook being a supplementary online teaching tool to Moodle. Some of the participants have disagreed with the general notion of online teaching by stating their preference for face to face. Part of this same group has acknowledged that due to their age they are to some extent resistant but are generally supportive to the idea.

Strengths

The strengths of using Facebook as a teaching tool as identified by the participants is chronologically identified below:

Most Popular Social Media Outlet

Participants have claimed Facebook as the most popular social media outlet used in Samoa. This suggests that most students are already on the social media platform. It was argued that teaching methods should keep up with what is trending and cater to the preference of its students.

User Friendly

Students are more comfortable with Facebook in comparison to traditional tools of communication such as emailing. This is because Facebook brings about an informal and inviting atmosphere.

No Need for Training

In comparison to Moodle, Facebook does not require the University to organise trainings or workshops for students and staff as the applications' user friendly interface is easily self-taught. Students or staffs who are not familiar with Facebook can easily access assistance from family members or colleagues.

Increased Student Engagement

Participants have claimed that it is easier to get hold of students through Facebook in comparison to the traditional email which students seem not to pay much attention to.

After Hours Engagement

Facebook allows students and teachers to engage well beyond the traditional hours of teaching. Participants have stated that this gives them more flexibility in comparison to the traditional email correspondence.

Proposed Facebook Teaching Model

It is no secret that the Facebook interface was not designed for teaching. This limits Facebook's ability to be the primary teaching tool for online learning. It is therefore proposed that Facebook is ideally a secondary supplementary teaching tool to Moodle. Such as the traditional email, Moodle also seems to struggle with popularity with students. This is particularly found in universities that do not make it mandatory for students and teachers to engage through Moodle or alternative online teaching platforms (Sáiz-Manzanares et al, 2020; Thomas, 2017). Facebook in this scenario could be the medium that helps students engage more between the Moodle platform and the actual lecturer. This could be done by using Facebook as a communication and discussion tool to engage students into Moodle through sharing its link in group or individual messenger chats. The below proposed model attempts to depict and demonstrate this process.

Figure 3: Proposed Facebook Teaching Model
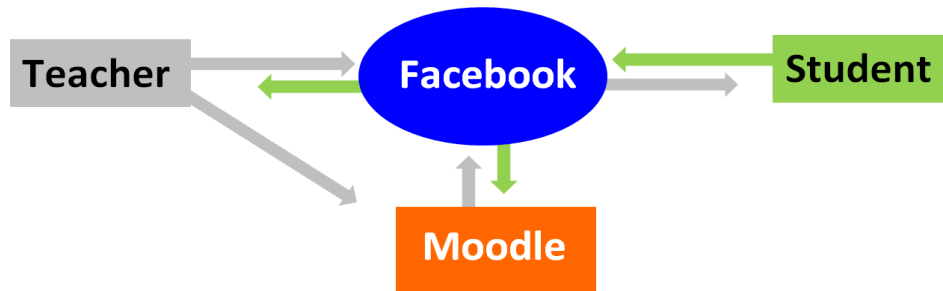
In order for the above proposed model to work, FoBE staff will have to have direct access to using Facebook via the University's network. This will require the University to ease its restrictions on blocking Facebook. The negative effects of Facebook comprise of: lavishness of time and distractions (Fodeman and Monroe 2009) and the lack of formality (Baran, 2010), which were also mentioned by the survey respondents. Thus, there is continuing debate as to whether Facebook should be deliberated as pedagogical tool in HE. The rejoinders from this study's participants propose that FoBE staff see more affirmative features than negative. Notwithstanding the optimistic outcomes that have appeared from the current study, it is prudent to stress that Facebook must be assimilated with thoughtfulness. To moderate the deleterious effects, workshops to create advocacy and policies and guidelines on Facebook needs to be developed for staff and student reference. The current small-scale scholarship advocates that there is need for additional enquiries in this area of higher education. Assimilating Facebook with Moodle, also mandates further research to make a distinction of its practicality in the university context. Based on the findings, Facebook could be useful, but to build a vibrant learning environment, exploring the students' views/perceptions and investigating their digital literacy would be pertinent for sustaining the model.

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