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### RESEARCH ARTICLE

#### A QUALITATIVE ANALYSIS OF THE IMPACT OF CULTURAL INERTIA ON STUDYNET/CANVAS USE IN TEACHING AND LEARNING AT A POST-92 UNIVERSITY

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#### Abstract

Since this line of inquiry is underrepresented in the literature on technology adoption, this study investigates the effect of inertia on technology usage and acceptance in Higher Education institutions. The paper considers the benefits and drawbacks of using technology, especially studynet/canvas and its effect on teaching and learning, as well as why some people embrace technology more slowly than others. The researcher used open-ended questions to assess the views of UH academics and students on a variety of topics, including self-efficacy, for example, self-confidence and self-belief in one's ability to master new technology; compatibility; instructor effectiveness; and facilitating conditions; and then analysed their overall influence on teaching and learning, especially in relation to technology use, adoption and acceptance in HEIs. The researcher discovered that users have a high level of self-efficacy, and compatibility has also been suggested to play a significant role in user adoption of the platform.

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#### Introduction:-

The research's aim is to discuss recent trends in the education sector, which have seen a push for increased in-class and out-of-class use of online technology as a critical component of teaching and learning. This pattern is not only seen in fully online programmes, but it is also increasingly being introduced into conventional delivery modes that attempt to incorporate the advantages of a more blended approach to teaching and learning. To this end, the study's main goal is to assess the cultural factors that impede or encourage users' usage, acceptance, and adoption of technology, as well as to comprehend their implications not only for a post-92 university but also for the HE sectors. Despite the successes scored with the implementation of studynet/canvas at UH, many users continue to find it difficult to accept and/or promote full use of the technology package due to their previous exposure to technology and the users' ultimate appetite for short-term gains. This is in line with Gregson et al. (2015), who stated that many academics still fail to persuade students to use the full capabilities of technology software packages because many are motivated by short-term benefits, such as time savings. As a result, this research will focus on the cultural issues that have hampered the introduction of studynet/canvas at UH, as well as recommendations for how users can foster a positive environment conducive to the adoption of the full technology kit.

Inevitably, Higher Education Institutions across the United Kingdom are grappling with figuring out the best way to improve the experience of domestic and international students, especially in terms of access to teaching and learning services. Most importantly, they are grappling with identifying effective delivery modes that improves student satisfaction. Several scholars, for example, Vannatta and Nancy (2004), Park et al (2012), and Teo et al (2019), argued that few studies have been conducted to understand the factors that affect academics and students'

willingness to accept technology as a teaching and learning tool. An analysis of literature reveals that there have been very few studies conducted to assess the influence of inertia on the implementation of studynet/canvas at UK HEIs (Teo et al, 2019). As a result, a study of how inertia influences technology adoption and use at UH is needed. This research uses the concept of inertia to better understand why some educators and students are hesitant to adopt emerging technology as a teaching and learning resource. Inertia, according to Chapman (2011), is a collective mindset maintained by individuals that can either encourage or hinder their ability to participate in the use of modern technologies. He claimed that introducing technology into organisations would contribute to people's tolerances and/or intolerances of new ways of doing things. According to Hofstede (2003) in Kakay (2016), individualistic societies value autonomy, freedom, reward systems, anonymity, specific friendship, autonomous decision-making, and pleasure seeking, while collectivistic societies value group objectives, obligations, obedience, communal identification, emotional independence, sharing, and group decisions. Reflecting on the current global spread of technology as a teaching and learning tool across nations, this study is critical and urgent in streamlining efforts to promote or facilitate the development of an enabling environment for better experience, satisfaction, and participation, particularly in relation to technology usage.

In this context, the paper examines the inertia affecting technology adoption and use at UH by addressing the following questions: How does self-efficacy help in the more effective use of studynet/canvas? What role does compatibility play in studynet/canvas acceptance? How does instructor effectiveness influence the use of studynet/canvas? What facilitating conditions influence the use of studynet/canvas? The use of inertia in this study stems from the fact that many studies have overlooked its importance in shaping teaching and learning in higher education institutions. This study not only provides an appropriate basis for understanding the inertia affecting Studynet/canvas usage in the Business School, but it could also serve as a possible guide for other HEIs in understanding the fundamental issues/challenges users face in the adoption and acceptance of technology. This will enable them to use the study's recommendations to re-orient their activities so that they are more suitable for the wider acceptance and adoption of any technology employed.

### **Literature Review:-**

The review of the secondary data of several studies on the efficacy of technology use in teaching and learning, show that a staggering 87% (52 out of 60 studies) pointed out that, the slow acceptance is due to the inertia developed by users (lecturers and students), including compatibility, facilitating conditions, self-efficacy, and instructor effectiveness. Glegg&Levac (2018); Gudmundsdottir&Hatlevik (2018); and Mata-López & Tobón (2019) pointed to capability, motivation and self-confidence as crucial self-efficacy factors that influences the acceptance and use of ICT within the e-learning scheme. Islam et al (2019) identified additional factors responsible for students' internet self-efficacy, including learning content, instructor attitude and technology accessibility as central to the adoption of e-learning. The outcomes of their study show that, even though usefulness and ease of use positively affects the intention to use technology in learning, but argued that, they (usefulness and ease of use) are largely influenced by learning content. They, however, proclaimed that, instructor attitude is insignificant to the degree of adoption and usefulness of the technology in learning, but emphasised that, accessibility moderately influences ease of use and adoptability of the technology in students' learning. In a recent study conducted by Todd & Zvoch (2019) concluded that, prior self-efficacy studies were monolithic in nature and largely skewed to developed countries' settings, including the United Kingdom with limited recourse to understanding and/or investigating individuals' technological self-efficacy from developing countries' perspectives. Therefore, this study seeks to assess the ICT usage and adoption experiences of domestic and international students, including those from developing countries.

Liébana-Cabanillas et al (2018) defined compatibility as the perception that, innovation is consistent with the extant values, past experiences and needs of prospective users. Several theorists, for example, Liébana-Cabanillas et al (2018); Wang et al (2018); and Kamolsook (2019) argued that, compatibility is largely dependent on the previous learning and teaching experience as well as the knowledge gained by students and lecturers in comparable learning system. Isaac et al (2019); and Jimenez et al (2019) considered compatibility as the primary antecedents for user adoption of new technology or application, whilst Mirabolghasemi et al (2019) suggested that, compatibility is a crucial determinant of innovative ICT adoption in HEIs. In a similar study, Huang et al (2019) found out that, innovation or modernisation of teaching and learning affect teacher's decision-making process in the formulation of learning objectives, learning content, media choice, organisational approach, instructional strategic choice and approach adopted in assessing students. In an earlier study, Acharya & Lee (2018) stressed that, many teachers and students are slow in adapting to the change process, and therefore, questions mainstream education's success in implementing innovative approaches in enhancing teaching and learning. Therefore, to overcome the sluggish

response and participation of academics and students to the modernisation process of teaching and learning, Nuñez et al (2019) suggested that, the personal willingness of teachers to adopt and integrate innovations into their classroom practice would be crucial in achieving this fit.

Wu et al (2019) defined facilitating conditions as the factors in the environment, which exerts influence over a person's desire and enthusiasm to perform a task/activity. Thomas & Thorpe (2019) suggested that, HEIs should promote facilitating conditions as a practice to ensure staff comfortability and confidence in the use of new technology. Elnaghi et al. (2019) argued that, convenience and accessibility of the ICT infrastructure support is fundamental to its successful implementation in any organisation. This is consistent with the earlier views of Kirkwood & Price (2013), who suggested that facilitating condition enhances the availability of technical and infrastructure support, which provides opportunity for students and lecturers to adopt the use of Canvas at UH. Afanasyev et al (2019); and Lee, H. C., & Blanchard (2019) proclaimed that, training is fundamental to the classroom success of a lecturer, as it help defines not only his/her profile but equip him/her with suitable and contemporary pedagogic knowledge of how to operate the new technology. Bordalba & Bochaca (2019), Garcia et al. (2019) and Makarova et al. (2019) argued that, the drive and enthusiasm among policy-makers to integrate technology as an instructional instrument far outweighs its usefulness, as it is seldomly employed in teaching and learning, which significantly inhibits practitioners and students' ability to embrace it. The slow embrace of the technology in classrooms by practitioners and students, have led theorists, including Dunleavy et al. (2007) to conclude that, the significance of technology in teaching and learning have been oversold by enthusiasts and policymakers, whilst being underappreciated by academics and students. However, they argued that, irrespective of this overwhelming effort, there will be limited change in the approach to teaching and learning. This, Bordalba & Bochaca (2019) purported makes it increasingly difficult to dissuade them away from existing systems.

A review of the arguments of several theorists, for example, Bagozzi (2007); Dwivedi et al (2019); and Kemp et al (2019), suggested that, the Technology Acceptance Model (TAM), acts as an important precursor for the use of technology, as it determines individuals desire for adoption and use, including attitudes and subjective norms. Bagozzi (2007); and Dwivedi et al (2019) emphasised that, TAM provides an explanation to the causal relationships between internal psychological variables such as beliefs, attitudes, and behavioural intention and actual system use. Kemp et al (2019) professed that, TAM plays a critical role in assessing a person's perceptions with regards usefulness, adoptability and ease of use of a technology and suggested that, it is central in determining an individual's attitude to the use and acceptance of technology. Analyses of the views of various proponents, suggests that, TAM has been widely validated, used and accepted as a useful model for predicting a person's behavioural acceptance of stream of technologies, including their use and applicability (Tsai, 2014; and Bhattacharjee et al, 2018). Therefore, the researcher contend that the empirical findings were limited, and the researchers failed to undertake detailed literature search to evaluate and understand the factors influencing technology acceptance. Consequently, the current study will critically evaluate the factors that inhibits the use, acceptance and adoption of studynet/canvas among users (academics and students) at the University of Hertfordshire (Jung et al, 2018; and Liu et al, 2018). Invariably, the overarching aim of this study is to present a different perspective from other theorists' arguments of technology use, acceptance and adoption, and highlight the factors that promotes or inhibits the acceptance and/or adoption of technology by UH academics and students. Hence, this will enable the researcher to understand the role played by inertia in influencing studynet/canvas acceptance and use among academics and students and provide concise empirical data, which will add to the growing literature on technology use by exploring more thoroughly the inhibitors or promoters. Quintessentially, the findings of this study will throw a new light and redirect the argument of technology acceptance, use and adoption and provide managers with the underlying factors responsible for the slow or successful acceptance of studynet/canvas by staff and students.

Moore et al (2018) suggested that, HEIs are becoming increasingly aware of the resistance among students and staff toward the embrace of new technology and emphasised that, it plays a key role in slowing down the implementation of new instructional methods. Tsay et al (2018); Changeux (2019); and Morrison et al (2019) established that, HEIs have distinct features, which are consistent with the culture inherent in the way they operate, and therefore, influences the speed of implementation of new instructional methods. Polden (2019) specifically highlighted values, beliefs and norms as central influencing factors of the behaviour of HEI stakeholders, including students and academics, which determines the type of decisions they make, and the processes involved. Brooks (2019) noted that, HEIs in the United Kingdom are marching towards a culture that embraces technology as instructional tools, but warned that, many international students come from nations lagging in the use of such instruments in classrooms.

However, it important to emphasise that, despite the overwhelming literature on the use of technology in HEIs, very limited empirical studies have been conducted on the effect of cultural inertia of technology use, acceptance and adoption (Dawson et al, 2019; Fink, 2019; and Santa et al, 2019). This paper attempts to fill a void in the literature.

## **Methods:-**

### **Methodology of the study**

The study involved an on-line structured interview using Bristol online/JISC Online Survey, with the interview questions distributed among users (UH staff and students). The structured interview questions took approximately 20 minutes to complete with a reminder sent repetitively to encourage participants to participate in the exercise. The questions focused on four broad themes, including self-efficacy, compatibility, instructor effectiveness and facilitating conditions. A total of 45 respondents completed the questions online from a population of approximately 200 academic staff from the Business School and 500 students from various undergraduate and postgraduate modules, including Business Strategy, Managing Strategy and Global Business environment. The interview was designed using open-ended questions. Consequently, 13 academics and 32 students completed the structured open-ended questions forwarded across the business school. This enabled the researchers to obtain subjective perspectives of the respondents about the influence of inertia on studynet/canvas at UH. Due to time limitation and the cross-sectional nature of the research, the researchers opted not to classify the respondents based on their gender and age, as it will take a long time to analyse the data, but rather to generically classify them into academics and students (users). The participants were sent messages encouraging them to participate in the study by completing the questions using the studynet/canvas 'announcement handle' for various Business undergraduate and postgraduate modules as well as the 'generic Business School email portal. All participants in the study were active academics and students, and between the age range of 18 and 65 years. The sample was ethnically diverse to encompass all students and academics irrespective of their ethnic backgrounds. The recruitment of the participants was dependent on their willingness to participate and their withdrawal from the process was guaranteed at any time. Before conducting the research, the researchers obtained ethical approval from the ethics committee at the University of Hertfordshire.

### **Procedure**

The recruitment strategy was based on circulating e-mails to willing participants (students and lecturers) using convenience sampling technique by requesting for their participation in the structured interview. Participants were required to give their consent to participate in the structured interview and appropriately informed about the purpose of the study: "the effect of inertia onstudynet/canvas at UH". To build trust, the participants were assured of the confidentiality and anonymity of their personal data, and the freedom to withdraw at any time – that is, before or during their completion of the structured interview template. They were also required to complete an informed consent before completing the structured interview template. The structured interview approach followed the use of open-ended questions, which enabled the researchers to obtain appropriate qualitative responses that addressed the research questions and objectives of the study. The process took approximately 20 minutes to complete and was conducted over a two-week period (14 days).

### **Data Analysis**

The researcher identified appropriate research gaps from various secondary sources about the impact of inertia on technology use in teaching and learning and formulated questions tailored to the research objectives. After an iterative process, the researcher decided on a set of questions considered appropriate for the field study. The researcher analysed the qualitative data obtained from the structured open-ended interview questions. The respondents were categorised into two groups: academics and students, and randomly selected without recourse to distinguishing their gender and age, as the study was cross-sectional in nature with very limited time span for completion. Therefore, the study is limited in scope and specificity, as generic data set was collected and used when conducting the analysis for the two categories defined.

The qualitative data was manually analysed using a thematic approach, which enabled the researcher to identify patterns and commonalities in the responses of the respondents. It eventually allowed appropriate themes to emerge after an iterative process, which were represented in a schematic diagram (see figure 1.6e)

### **Research findings**

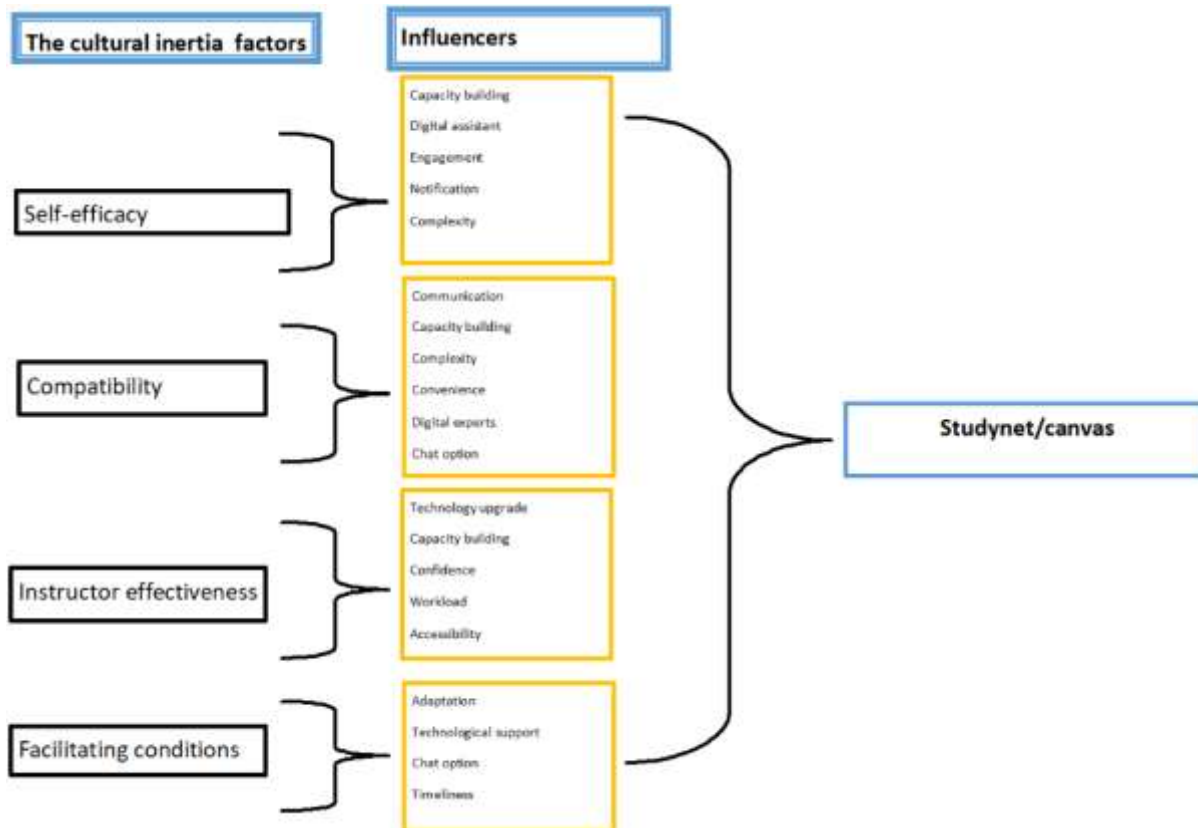
The Figure 1.6e is a schematic diagram from a field study of the factors influencing the use of studynet/canvas at the University of Hertfordshire, including self-efficacy, compatibility, instructor effectiveness, and facilitating

conditions. It is a demonstrable representation of respondents' qualitative responses to the factors stifling studynet/canvas' adoption/use at UH. The schematic representation of this study's contribution to knowledge was derived from the themes of UH respondents' online standardised responses, which included students and academics.

Thematic analysis was used to create a graphical diagram of the inertia influencing studynet/canvas use at UH. This helped to set the field study apart from previous theoretical debates. Sub-factors arose organically from iterations and were then organised into themes, as shown in figure 1.6e. The factors influencing inertia of studynet/canvas use, such as self-efficacy, compatibility, instructor effectiveness, and facilitating conditions, were investigated in order to assess their impact on users, including students and academics, in the domain of teaching and learning.

To ensure validity and reliability, the qualitative data responses were triangulated with secondary data. The researcher was able to compare the results of the qualitative data, using contextualised quotes, with those of the literature review, and then conducted a comparative analysis. As a result, the researcher believes that by analysing the data using the study's themes/objectives, the results will collaborate and strengthen the research findings.

**Figure 1.6e:-** Schematic summary of the cultural inertia affecting the use of studynet/canvas at the University of Hertfordshire.



### Theme 1: Self-efficacy

In this research, self-efficacy refers to students' and academics' belief and faith in their ability to use, embrace, and follow studynet/canvas in teaching and learning.

### Objective 1: To evaluate whether Studynet/Canvas affects the self-efficacy of respondents at UH

It is apparent from the findings of the study that, most of the respondents show confidence in using studynet/canvas, as a teaching and learning platform. However, to attain self-efficacy, most of the respondents purported that, capacity building, including online and offline training, mentoring support, personal online support and the provision of induction at the start of each semester is central to building confidence and the ease of use, adoption and application of studynet/canvas as a platform for teaching and learning. They argued that, assigning digital assistants/digital web experts to continually support the needs of users in a timely manner can speed up the adoption, use and acceptance of the platform. Most respondents suggested that, the introduction of a chat option, including

live video chat/function/feature and virtual drop-ins using MS Teams or Zoom can help build confidence and increase the acceptance of the platform.

*“Introductory training on using the site. It is always taken for granted that all students are familiar with it”.*

#### **Respondent 018**

*“I think it would be useful to have an induction to canvas. Especially after being abroad we didn't have the opportunity to practice and were just expected to go with it”.*

#### **Respondent 021**

Despite the overwhelming consensus among respondents, a few were more inclined to indicate that partnering or collaborating with ‘Zoom’ for the delivery of live lectures could be instrumental in enhancing their experience and increasing the platform's usability. Furthermore, a minority of users seem to have difficulty navigating and accessing services, limiting their ability to fully use the platform. It is evident that, the respondents were worried about the platform's complexity, believing it to be unfriendly to users, especially in terms of navigating notifications and finding the right announcements. This implies that accessing resources can be difficult and intimidating for certain people, limiting their ability to complete tasks and access resources efficiently.

*“Maybe an instruction on how to use it. I am a 1st year student and I had a big problem with it and still learning how to use it with all its functions”.*

#### **Respondent 017**

##### **Theme 2: Compatibility**

Compatibility was defined in this study as the perception that innovation is compatible with existing principles, past teaching and learning experiences, including information acquired by students and academics, when comparing studynet/canvas to other teaching and learning channels and its ability to stimulate creative skills.

##### **Objective 2: To assess whether compatibility is central to the acceptance of CANVAS by respondents**

The study's findings show that while most respondents find the platform easy to use, they would prefer a direct link to the canvas page rather than using a secondary route, such as studynet, to gain access. They claimed that it muddles communication and makes it difficult to navigate and access information, especially with the addition of the double security wall. They proposed that incorporating a live video/group/course chat option that allows users to connect directly with one another rather than utilising secondary pathways like MS Teams could boost the platform's use, acceptance, and acceptance. Most respondents emphasised that the platform is difficult to navigate due to the plethora of information provided and argued that, unless one is tech-savvy, it is difficult to know where the right features or functionalities can be accessed. This implies that many people avoid using certain features or functionalities because they are unaware of their availability, the nuances of their application, and the benefits they provide to users.

*“Having a chat between students, like a “group popup” chat, where as a user you can create and set reminders”.*

#### **Respondent 027, student**

*“It is not as easy to personalise, and it is really messy because all the old data is on there and it is not as easy as the old system to “tidy up”. I think it is easier for the students. I have no problem with it, I just do not find it instinctive”.*

#### **Respondent 020, academic**

*“I think canvas supports learning because all the resources are in one place and easily accessible”.*

#### **Respondent 021, student**

Despite the apparent consistency among respondents, a minority claimed that they prefer traditional face-to-face classroom teaching and learning or physically searching for resources in a library to using technology as a teaching and learning resource. It is evident that, a few also find the platform convenient and useful due to the asynchronous opportunity it offers to revisit and access resources as and when necessary. In addition, a few argued that, capacity building through one-to-one training, online support, self-learning, and revision/refresher courses can significantly increase usage of the platform. They emphasised that, assigning of digital experts to users can

enhance accessibility and user experience. This suggests that, the provision of the requisite support services to users can stimulate and improve their experience and make the platform more acceptable.

*“It gives me the opportunity to go back to the previous sessions and revise. It also enables me to see the deadline in real time”.*

**Respondent 017, student**

*“My skills as a teacher/trainer are enhanced but it is not the most optimal form - the classroom is better.”*

**Respondent 015, Academic**

**Theme 3: Instructor effectiveness**

Instructor effectiveness in this study was defined as students' and academics' ability to adapt to the change from studynet to canvas, as well as their willingness to innovate and embrace innovative approaches in formulating learning objectives, learning content, media selection, organisational approach, instructional strategic choice, and other approaches to assessing students' learning.

**Objective 3: To analyse whether CANVAS is an effective instructor tool for users**

Most respondents said that capacity building, which includes training support, designating digital assistants, one-on-one face-to-face support, informal discussions, and mentorship, is critical to ease of studynet/canvas uptake and acceptance. They contended that providing appropriate capacity-building instruments/tools could significantly increase their self-motivation, confidence, and willingness to explore and use the platform more frequently and effectively. It is critical that workload stress does not act as an impediment to users effectively engaging and exploring the platform, as most emphasised that designing personal training programmes tailored to users' needs, including users' inputs in the process, can be useful in overcoming the barriers. Furthermore, most respondents proposed that providing free time from other workload stressors can enable them to acquire the necessary technological skills and knowledge for ease of platform usage. This implies that efforts should be made to ensure that users have enough time to engage with and learn about the platform's features and functionalities.

*“Currently we are being bombarded with online training invitations. This is a little overwhelming. We need to have a personal programme of training (which we have a say in) and sufficient time free from other work in which to do the training”.*

**Respondent 022, academic**

*“It's just fine as it is, I'm willing to try things on canvas, but as staff we might improve if we shared the way we use it more with close colleagues on an informal basis, I get more from that than training sessions”.*

**Respondent 025, academic**

It is important to note that, despite the overwhelming support for capacity building, a few respondents emphasised that technology upgrades should be accompanied by timely support/help, which they argued improves users' skills and knowledge. They stated that time and personal circumstances, such as the use of features/functionality, limit their willingness and desire to explore the platform. A significant number of respondents believe that a better layout of the platform and ease of access can improve their knowledge and skills of its usage, allowing them to learn and understand the fundamentals of the features/functionality faster and more effectively.

*“Timely help when setting features up”.*

**Respondent 023, academic**

*“Time and personal circumstances such as the need to use the features”.*

**Respondent 012, academic**

**Theme 4: Facilitating conditions**

Facilitating conditions was defined in this study as practices that ensure students and academics are exposed to opportunities that make access and use of studynet/canvas easy, and that they are comfortable and confident in using the platform with little difficulty.

**Objective 4: To evaluate whether appropriate facilitation conditions exists at UH for the implementation of studynet/canvas**

Most respondents stated that providing appropriate technological support, such as virtual drop-ins, one-on-one support, mentoring, online training, and an IT Helpdesk, is critical to the adoption, use, and acceptance of studynet/canvas because it assists users in overcoming various complexities associated with their tasks. They suggested that rapid resolution and the assignment of a specialised cadre of digital assistants to assist users in resolving technical issues at critical times are critical in overcoming the lack of confidence and stigma associated with the platform's acceptance and use. The findings show that most respondents would like assistance in the areas of response time to important demands and the introduction of chat options, including short online videos for users to access as alternatives to attending training events. Most respondents also emphasised that simplifying the platform by displaying contents on a single page and providing search options that allow users to quickly and easily navigate and search for information/resources/written instructions can lead to increased use and acceptance of the platform. This implies that, complexity and time constraints in understanding the operationalization of the platform leads to its slow acceptance and use.

*“Essential. We need a dedicated cadre of digital assistants to support tutors with on-line teaching, not just a few people, however willing and able, Tell the power to get on it”.*

**Respondent 005, academic**

*“More support at the right times e.g. the lead up to and the early weeks of term. But continuing support needs to be available”.*

**Respondent 011, academic**

*“Short videos rather than the need to attend a training course”*

**Respondent 010, academic**

In contrast to the preceding arguments, it is clear from the findings that a few of the respondents cited delays or slow response times from digital assistants, as well as a lack of knowledge of appropriate contact support, as impediments to the platform's rapid acceptance, adoption, and use. Furthermore, a significant number of respondents suggested that users be provided with a quick adaptation timeline, particularly when new changes or improvements are made to the platform. Respondents argued that in order to improve and enhance the new skills and knowledge required for the changes and improvements, users should be allocated an appropriate timeline, which should be incorporated as part of their workload hours, to learn about the features and functionalities introduced. As a result, they believe that allocating hours to platform usage as part of their workload can go a long way toward improving user experience and promoting platform acceptance.

*“Very important - but the GLJ team's support is overkill. The key thing is having local technical support from key individuals”.*

**Respondent 013, academic**

*“In this Pandemic crisis many tutors have had to quickly adapt their material for online. We haven't been given any training to do online delivery and I strongly believe in moving forward we ALL need more training and pedagogic direction of how we will deliver our modules in Semester A. OUP academics have a wealth of experience and training - some with over 10 years SDL experience”.*

**Respondent 032, academic**

**Discussion:-**

This section will discuss the findings of the study and compare the outcomes with the arguments of past theorists.

**Self-efficacy**

The study's findings demonstrate that capacity building, such as online and offline training, mentorship support, personal online support, induction sessions, assigning digital assistants, and incorporating live chat options, including live video, can help users feel more confident about using the platform. This could be due to the frequent hiccups they encounter while using the platform, despite its widespread acceptance. According to the study's findings, despite increased user acceptance of the studynet/canvas platform, a significant number of users still find



the platform unfriendly and argue about the complexity they encounter when using it daily. This means that tech-savvy individuals are at ease with the platform, whereas those who prefer traditional classroom settings are still slow to embrace the technology and the benefits it brings to the larger institution. The essential arguments of Glegg&Levac (2018), Gudmundsdottir&Hatlevik (2018), and Mata-López &Tobón (2019) for capacity building and self-confidence are congruent with the findings of this study. It is also consistent with Islam et al's (2019) claim that learning content, instructor attitude, and technology accessibility are all important factors in technology adoption. However, this is the first study to highlight mentoring support, personal online support, induction sessions, assigning digital assistants, and integrating live chat options on the studynet/canvas platform as important in improving user self-efficacy. This means that the self-efficacy of technology use is determined by the users' motivation, requirements, and desires, which vary depending on their willingness to accept technology and their cultural backgrounds.

### **Compatibility**

According to the study's findings, the primary compatibility issues inherent in the use, acceptance, and adoption of the studynet/canvas platform are accessibility, communication problems, and complexity. This could be due to information overload and the platform's lack of simplification. This implies that if the platform is made user-friendly and simple to understand, it will be more widely accepted by users, particularly international students and less tech-savvy academics. On the other hand, a sizable proportion of respondents stated that they prefer the more traditional approach to the synchronous approach currently being promoted and embraced by the UH. Despite their dislike for the canvas platform, a few people love the unrestricted asynchronous access to resources that it allows. Furthermore, a few respondents cited capacity building as a means of improving compatibility, including one-on-one and online support; self-learning; revision/refresher courses; and the use of digital experts. Unlike previous theorists, such as Liébana-Cabanillas et al (2018), Wang et al (2018), Kamolsook (2019), Isaac et al (2019), Jimenez et al (2019), and Mirabolghasemi et al (2019), the study presented inconsistent arguments about the compatibility influencers of the studynet/canvas platform. It is worth noting that this is the first study to highlight accessibility, communication difficulty, platform complexity, asynchronous platform benefits, capacity building, revision/refresher courses, and the use of digital experts as critical compatibility arguments advanced by users. This means that users of different platforms may face different compatibility issues, depending on their platform's convenience or experience.

### **Instructor effectiveness**

Most respondents suggested that, capacity building, less workload stress, and the incorporation of timely technology usage into instructors' workloads can significantly increase and improve their effectiveness. This could be due to the instructors' inability to obtain valuable time outside of their assigned workload hours to learn more about the platform's features and functionalities. This implies that instructors should be given free time outside of work hours to improve on their studynet/canvas skillsets and, most importantly, to increase their frequency of use of the platform. However, the study found that a few respondents emphasised the importance of timely information/training being provided to instructors whenever the studynet/canvas platform is upgraded. On the other hand, a significant number of respondents expressed concern about the platform's layout, stating that it is unfit for purpose because users must navigate through multiple channels to access the platform, particularly after the introduction of the double security wall. This implies that users' desire to frequently engage and learn about the platform's rudiments is stifled by its ease of accessibility. This study's findings are consistent with those of Huang et al (2019) and Nuez et al (2019), who identified learning objectives and learning content as significant influencers of instructor effectiveness. This is the first study to identify capacity building, workload stress, free time, timely technology upgrades, better platform layout, and accessibility as key factors in improving instructor effectiveness. This means that, depending on the type of platform users are exposed to, their experiences may differ across HEIs.

### **Facilitating conditions**

Most respondents believe that capacity building, such as virtual drop-ins, one-on-one support, mentoring, online training, IT helpdesk, digital assistants, timeliness, chat options, and platform simplification, are critical facilitating conditions for the ease of use of studynet/canvas. This could be due to the important role these features/functionalities play in improving users' familiarity, knowledge, and experience, as well as their ease of use of the platform. This implies that the technologist and management should pay close attention to these critical elements in order to create an environment that facilitates and stimulates better users' experience of the platform. The study's findings suggest that, a few of the respondents were concerned about delays in providing appropriate and timely assistance, a quick adaptation timeline, and an overwhelming workload hour as a major drawback in facilitating the platform's usage. The perspectives of Kirkwood and Price (2013), Afanasyev et al (2019), and Lee

and Blanchard (2019) of facilitating conditions, such as technical support, infrastructure support, training, appropriate resources, and expertise, are consistent with the findings of this study. It is worth noting, however, that this is the first study to propose virtual drop-ins, one-on-one support, mentoring, online training, IT helpdesk, digital assistants, timeliness, chat options, and platform simplification as key facilitating conditions affecting the ease of use of the studynet/canvas platform. This demonstrates that users can only perfect their platform use if they are exposed to a variety of opportunities that improve their understanding, experience, and knowledge of the platform.

### **Conclusions And Implications:-**

The findings indicate that users are extremely confident in using the studynet/canvas platform, with most stating that they are becoming increasingly comfortable with operating the functionalities/features as well as accessing resources. Despite the overwhelming confidence expressed by respondents, the results suggest that a small number of people had trouble using the platform as a teaching and learning tool. This suggests that users' requirements and skills vary, as does their level of awareness of how the platform works. As a result, additional work needs to be done to increase broad adoption and acceptability, especially among those who are having trouble completely embracing the platform as a teaching and learning tool. In other words, providing users with timely support and training can go a long way toward facilitating platform adoption and acceptance.

It is evident from the findings that, most respondents prefer platform simplification and the need for direct link and/or access to the studynet/canvas page without the need for a secondary route. This implies that there are significant structural compatibility issues, such as platform navigation, communication barriers, and information overload, that must be addressed in order to increase user adoption and acceptance of the platform. As a result, upgrading the platform to provide users with direct access to contents and materials, including communication tools, can significantly improve compatibility and increase the platform's general acceptance and adoption.

The study's findings reveal a need for capacity building, such as training, allocating digital assistants, one-on-one face-to-face help, and informal dialogues and mentorship, in order to boost users' self-motivation, confidence, and willingness. This implies that in order to increase the willingness and frequency with which users use the platform, all hands must be on deck to provide an appropriate user-friendly environment that is stimulating and enticing.

Enabling conditions, such as suitable guidance, technical assistance, and training, are critical in encouraging user acceptance and adoption of the platform. Furthermore, the findings underlined the necessity of timely help as a key component in overcoming the challenges connected with using the platform. It also emphasised the importance of easy navigation and the use of online videos as a substitute for face-to-face training sessions. This indicates that the right conditions must be supplied for users to feel comfortable exploring the platform, as well as ensuring that the provisions are supplied in a timely, convenient, and acceptable manner.

### **Reference:-**

1. Abdekhoda, M., Dehnad, A., & Zarei, J. (2019). Determinant factors in applying electronic medical records in healthcare. *East Mediterr Health J*, 25(1), 24-33.
2. Abubakar, M. T. (2019). Assessment of College Students' Preference on the Usage of Google Drive as a Learning Platform: An Empirical Evidence. *American International Journal of Social Science Research*, 4(2), 24-34.
3. Abugre, J. B. (2018). Institutional governance and management systems in Sub-Saharan Africa higher education: developments and challenges in a Ghanaian Research University. *Higher Education*, 75(2), 323-339.
4. Acharya, B., & Lee, J. (2018). Users' perspective on the adoption of e-learning in developing countries: The case of Nepal with a conjoint-based discrete choice approach. *Telematics and Informatics*, 35(6), 1733-1743.
5. Altanopoulou, P. and Tselios, N. (2017) Assessing Acceptance Toward Wiki Technology in the Context of Higher Education, *International Review of Research in Open and Distributed Learning*, Volume 18, Number 6, 131 - 140
6. Anna, J. (2020). Culture first, technology second: How to implement a digital asset management (DAM) initiative with no DAM system. *Journal of Digital Media Management*, 8(3), 194-200.
7. Aparicio-Ting, F. E., Slater, D. M., & Kurz, E. U. (2019). Inquiry-Based Learning (IBL) as a Driver of Curriculum: A Staged Approach. *Papers on Postsecondary Learning and Teaching*, 3(1), 44-51.

8. Atanasoski, N., & Vora, K. (2019). *Surrogate Humanity: Race, Robots, and the Politics of Technological Futures*. 1<sup>st</sup> edition, Duke University Press. USA
9. Awa, H. O., Ojiabo, O. U., & Emecheta, B. C. (2015). Integrating TAM, TPB and TOE frameworks and expanding their characteristic constructs for e-commerce adoption by SMEs. *Journal of Science & Technology Policy Management*, 6(1), 76-94.
10. Bagozzi, R. P. (2007). The legacy of the technology acceptance model and a proposal for a paradigm shift. *Journal of the association for information systems*, 8(4), 3.
11. Baguma, R., Bagarukayo, E., Namubiru, P., Brown, C., & Mayisela, T. (2019). Using WhatsApp in Teaching to Develop Higher Order Thinking Skills--A Literature Review Using the Activity Theory Lens. *International Journal of Education and Development using Information and Communication Technology*, 15(2), 98-116.
12. Bahaj, S., Aljaaidi, K., & Ahmed, T. (2019). Using TAM model to empirically examine students' attitudes towards e-services in college of business administration. *Management Science Letters*, 9(5), 651-660.
13. Beare, H., Caldwell, B. J., & Millikan, R. H. (2018). *Creating an excellent school: Some new management techniques*. 3<sup>rd</sup> edition, Routledge, London.
14. Becker, M., Wiegand, N., & Reinartz, W. J. (2019). Does It Pay to Be Real? Understanding Authenticity in TV Advertising. *Journal of Marketing*, 83(1), 24-50.
15. Bell, L. (2019). *Leading and Managing Professional Learning. Principles of Educational Leadership & Management*, 8<sup>th</sup> edition, Sage, London.
16. Bernard, R. M., Borokhovski, E., Schmid, R. F., Tamim, R. M., & Abrami, P. C. (2014). A meta-analysis of blended learning and technology use in higher education: From the general to the applied. *Journal of Computing in Higher Education*, 26(1), 87-122.
17. Bessa, B. R., Santos, S., & Duarte, B. J. (2019). Toward effectiveness and authenticity in PBL: A proposal based on a virtual learning environment in computing education. *Computer Applications in Engineering Education*, 27(2), 452-471.
18. Bhattacharjee, A., Davis, C. J., Connolly, A. J., & Hikmet, N. (2018). User response to mandatory IT use: a Coping Theory perspective. *European Journal of Information Systems*, 27(4), 395-414.
19. Binyamin, S. S., Rutter, M. J., & Smith, S. (2019). Extending the Technology Acceptance Model to Understand Students' use of Learning Management Systems in Saudi Higher Education. *International Journal of Emerging Technologies in Learning*, 14(3), 111-130.
20. Boisvert, C. (2012). *Improving adult-child conversations in preschool settings: An examination of alternative professional development approaches*. First edition, Pro Quest publishing, Oakland University, Michigan.
21. Booth, D. (2019). Marketing analytics in the age of machine learning. *Applied Marketing Analytics*, 4(3), 214-221.
22. Bordalba, M. M., & Bochaca, J. G. (2019). Digital media for family-school communication? Parents' and teachers' beliefs. *Computers & Education*, 132, 44-62.
23. Bowen, H. (2018). *Investment in learning: The individual and social value of American higher education*. 2<sup>nd</sup> edition, Routledge, NY.
24. Brooks, R. (2019). *Black, Female, and Teaching Social Justice. Black Women and Social Justice Education*, 1<sup>st</sup> edition, State University of New York Press, NY
25. Burge, E. J., Gibson, C. C., & Gibson, T. (Eds.). (2011). *Flexible pedagogy, flexible practice: Notes from the trenches of distance education*. 1<sup>st</sup> edition, Athabasca University Press. Edmonton
26. Cárdenas-Robledo, L. A., & Peña-Ayala, A. (2019). A holistic self-regulated learning model: A proposal and application in ubiquitous-learning. *Expert Systems with Applications*, 123, 299-314.
27. Chandio, F. H., Irani, Z., Zeki, A. M., Shah, A., & Shah, S. C. (2017). Online banking information systems acceptance: An empirical examination of system characteristics and web security. *Information Systems Management*, 34(1), 50-64.
28. Changeux, J. P. (2019). Two Cultures and Our Encyclopaedic Brain. *European Review*, 27(1), 54-65.
29. Chao, C. M. (2019). Factors determining the behavioral intention to use mobile learning: An application and extension of the UTAUT model. *Frontiers in psychology*, 10(2), 1652.
30. Chapman, T. (2011). Smoke and mirrors: The influence of cultural inertia on social and economic development in a polycentric urban region. *Urban Studies (Edinburgh, Scotland)*, 48(5), 1037-1057
31. Cheng, A., Nadkarni, V. M., Mancini, M. B., Hunt, E. A., Sinz, E. H., Merchant, R. M., ... & Bigham, B. L. (2018). Resuscitation education science: educational strategies to improve outcomes from cardiac arrest: a scientific statement from the American heart association. *Circulation*, 138(6), e82-e122.
32. Choi, J., & Ollerhead, S. (Eds.). (2018). *Plurilingualism in Teaching and Learning: Complexities across contexts*. 2<sup>nd</sup> edition, Routledge. NY

33. Chou, C. M., Shen, C. H., Hsiao, H. C., Shen, T. C., & Shen, T. C. (2019). An Investigate of Influence Factor for Tertiary Students' M-Learning Effectiveness: Adjust Industry 4.0 & 12-Year Curriculum of Basic Education. *International Journal of Psychology and Educational Studies*, 6(2), 66-76.
34. Collins, A., & Halverson, R. (2018). *Rethinking education in the age of technology: The digital revolution and schooling in America*. 2<sup>nd</sup> edition, Teachers College Press, New York.
35. Conway, A., Dowling, M., Binchy, Á., Grosvenor, J., Coohill, M., Naughton, D., ... & Devane, D. (2019). Implementing an initiative to promote evidence-informed practice: part 1—a description of the Evidence Rounds programme. *BMC medical education*, 19(1), 74.
36. Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management science*, 35(8), 982-1003.
37. Dawson, P., Henderson, M., Mahoney, P., Phillips, M., Ryan, T., Boud, D., & Molloy, E. (2019). What makes for effective feedback: Staff and student perspectives. *Assessment & Evaluation in Higher Education*, 44(1), 25-36.
38. Delaney, D., Kummer, T. F., & Singh, K. (2019). Evaluating the impact of online discussion boards on student engagement with group work. *British Journal of Educational Technology*, 50(2), 902-920.
39. Dempster, J. A., Benfield, G., & Francis, R. (2012). An academic development model for fostering innovation and sharing in curriculum design. *Innovations in Education and Teaching International*, 49(2), 135-147.
40. Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M., & Williams, M. D. (2019). Re-examining the unified theory of acceptance and use of technology (UTAUT): Towards a revised theoretical model. *Information Systems Frontiers*, 21(3), 719-734.
41. Ellinas, C., Allan, N., & Johansson, A. (2017). Dynamics of organizational culture: Individual beliefs vs. social conformity. *PLoS one*, 12(6), e0180193.
42. Elnaghi, M., Alshawi, S. N., Kamal, M. M., Weerakkody, V., & Irani, Z. (2019). Exploring the role of a government authority in managing transformation in service re-engineering—Experiences from Dubai police. *Government Information Quarterly*, 36(2), 196-207.
43. Elyakim, N., Reyshav, I., Offir, B., & McHaney, R. (2019). Perceptions of Transactional Distance in Blended Learning Using Location-Based Mobile Devices. *Journal of Educational Computing Research*, 57(1), 131-169.
44. Enlow, M. B., White, M. T., Hails, K., Cabrera, I., & Wright, R. J. (2016). The infant behavior questionnaire-revised: Factor structure in a culturally and sociodemographically diverse sample in the United States. *Infant Behavior and Development*, 43(2), 24-35.
45. Esterhuizen, P., & Howatson-Jones, L. (2019). *Reflective Practice in Nursing*. 4<sup>th</sup> edition, Learning Matters. London
46. Feixas, M., Martínez-Usarralde, M. J., & López-Martín, R. (2018). Do teaching innovation projects make a difference? Assessing the impact of small-scale funding. *Tertiary Education and Management*, 24(4), 267-283.
47. Fernback, J. (2018). *Academic/Digital Work: ICTs, Knowledge Capital, and the Question of Educational Quality*. tripleC: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society, 16(1), 143-158.
48. Fink, A. (2019). *Conducting research literature reviews: from the Internet to paper*. 5<sup>th</sup> edition, Sage Publications. CA
49. Frost, D. (2012). From professional development to system change: teacher leadership and innovation. *Professional development in education*, 38(2), 205-227.
50. Galib, M. H., Hammou, K. A., & Steiger, J. (2018). Predicting Consumer Behavior: An Extension of Technology Acceptance Model. *International Journal of Marketing Studies*, 10(3), 73-85
51. Garcia, A., Abrego, J., & Jauregui, J. (2019). Technologies Frequently Used by Elementary Principals. *Universal Journal of Educational Research*, 7(1), 95-105.
52. Ghobakhloo, M., Arias-Aranda, D., & Benitez-Amado, J. (2011). Adoption of e-commerce applications in SMEs. *Industrial Management & Data Systems*, 111(8), 1238-1269.
53. Glegg, S. M. N., & Levac, D. E. (2018). Barriers, facilitators and interventions to support virtual reality implementation in rehabilitation: a scoping review. *PM&R*, 10(11), 1237-1251.
54. Gregson, M., Hillier, Y., Biesta, G., Duncan, S., Nixon, L., Spedding, T., & Wakeling, P. (2015). *Reflective teaching in further, adult and vocational education*. First Edition, Bloomsbury Publishing, New York.
55. Gudmundsdottir, G. B., & Hatlevik, O. E. (2018). Newly qualified teachers' professional digital competence: implications for teacher education. *European Journal of Teacher Education*, 41(2), 214-231.

56. Gumusluoglu, L., Karakitapoğlu-Aygün, Z., & Scandura, T. A. (2017). A multilevel examination of benevolent leadership and innovative behaviour in R&D contexts: A social identity approach. *Journal of Leadership & Organizational Studies*, 24(4), 479-493.
57. Haggard, S., & Kaufman, R. R. (2018). *The political economy of democratic transitions*. 1<sup>st</sup> edition, Princeton University Press, Chichester.
58. Hai, P. T. T., Trang, B. M., & Le Thach, N. (2018). Teaching Career and Factors that influence Job Satisfaction of Novice Teachers. *Journal of Institutional Research South East Asia*, 16(2). 225-235
59. Hanks, J. B. (2019). Simulation in Surgical Education: Influences of and Opportunities for the Southern Surgical Association. *Journal of the American College of Surgeons*, 228(4), 317-328.
60. Hayes, S. (2019). *The Labour of Words in Higher Education: Is it Time to Reoccupy Policy?*. 1<sup>st</sup> edition, Brill, Netherlands
61. He, J., & Freeman, L. A. (2019). Are men more technology-oriented than women? The role of gender on the development of general computer self-efficacy of college students. *Journal of Information Systems Education*, 21(2), 7.
62. He, W., Holton, A., Gu, H., Warschauer, M., & Farkas, G. (2019). Differentiated Impact of Flipped Instruction: When Would Flipped Instruction Work or Falter?. *International Journal of Teaching and Learning in Higher Education*, 31(1), 32-49.
63. Hockly, N., & Dudeney, G. (2017). *Digital Learning in 2020. Digital Language Learning and Teaching: Research, Theory, and Practice*, 1<sup>st</sup> edition, Routledge, NY.
64. Hofstede, G. (2003) *Culture's consequences: Comparing values, behaviours, institutions and organisations across nations*, 2<sup>nd</sup> Edition. London, McGraw Hill in Kakay, S. (2017) *The effect of collectivism on family meal consumption behaviour: The implications on food companies in Sierra Leone*, 1<sup>st</sup> edition, Lambert Academic publishing, Saarbrücken, Germany
65. House-Peters, L. A., Del Casino Jr, V. J., & Brooks, C. F. (2019). Dialogue, inquiry, and encounter: Critical geographies of online higher education. *Progress in Human Geography*, 43(1), 81-103.
66. Huang, F., Teo, T., & Zhou, M. (2019). Factors affecting Chinese English as a foreign language teachers' technology acceptance: A qualitative study. *Journal of Educational Computing Research*, 57(1), 83-105.
67. Huda, M. (2019). Empowering application strategy in the technology adoption: insights from professional and ethical engagement. *Journal of Science and Technology Policy Management*, 10(1), 172-192.
68. Ibáñez, M. B., Portillo, A. U., Cabada, R. Z., & Barrón, M. L. (2020). Impact of augmented reality technology on academic achievement and motivation of students from public and private Mexican schools. A case study in a middle-school geometry course. *Computers & Education*, 145(3), 103734.
69. Isaac, O., Aldholay, A., Abdullah, Z., & Ramayah, T. (2019). Online learning usage within Yemeni higher education: The role of compatibility and task-technology fit as mediating variables in the IS success model. *Computers & Education*, 136, 113-129.
70. Islam, A.Y.M.A, Mok, M.M.C., Xiuxiu, Q., Leng, C.H. (2019) Factors influencing students' satisfaction in using wireless internet in higher education Cross-validation of TSM, 4(37), 3-4
71. Jackson, D., & Moloney, K. (2019). 'Uneasy lies the head that wears a crown'. A qualitative study of ethical PR practice in the United Kingdom. *Public Relations Inquiry*, 8(1), 87-101.
72. James, A. (2019). *The Power of Play in Higher Education: Creativity in Tertiary Learning*. 1<sup>st</sup> edition, Springer, Winchester
73. Jimenez, N., San-Martin, S., & Puente, N. (2019). The path to mobile shopping compatibility. *The Journal of High Technology Management Research*, 30(1), 15-26.
74. Johnson, S. L., Gray, P., & Sarker, S. (2019). Revisiting IS research practice in the era of big data. *Information and Organization*, 29(1), 41-56.
75. Jones, T. W. (2019). *From Willard Straight to Wall Street: A Memoir*. 1<sup>st</sup> edition, Cornell University Press, NY
76. Jung, H. J. (2015). Fostering an English teaching environment: Factors influencing English as a foreign language teachers' adoption of mobile learning. *Informatics in Education-An International Journal*, 14(2), 219-241.
77. Jung, T. H., Lee, H., Chung, N., & tom Dieck, M. C. (2018). Cross-cultural differences in adopting mobile augmented reality at cultural heritage tourism sites. *International Journal of Contemporary Hospitality Management*, 30(3), 1621-1645.
78. Kamolsook, A., Badir, Y. F., & Frank, B. (2019). Consumers' switching to disruptive technology products: The roles of comparative economic value and technology type. *Technological Forecasting and Social Change*, 140(2), 328-340.

79. Kehrwald, B. A., & Parker, B. (2019). Implementing online learning: Stories from the field. *Journal of University Teaching & Learning Practice*, 16(1), 1.
80. Kemp, A., Palmer, E., & Strelan, P. (2019). A taxonomy of factors affecting attitudes towards educational technologies for use with technology acceptance models. *British Journal of Educational Technology*.
81. Kim, C., Yuan, J., Kim, D., Doshi, P., Thai, C. N., Hill, R. B., & Melias, E. (2019). Studying the Usability of an Intervention to Promote Teachers' Use of Robotics in STEM Education. *Journal of Educational Computing Research*, 56(8), 1179-1212.
82. Kim, S., Filimonau, V., & Dickinson, J. E. (2020). The technology-evoked time use rebound effect and its impact on pro-environmental consumer behaviour in tourism. *Journal of Sustainable Tourism*, 28(2), 164-184.
83. Kirkup, G., & Kirkwood, A. (2005). Information and communications technologies (ICT) in higher education teaching—a tale of gradualism rather than revolution. *Learning, Media and Technology*, 30(2), 185-199.
84. Klofsten, M., Fayolle, A., Guerrero, M., Mian, S., Urbano, D., & Wright, M. (2019). The entrepreneurial university as driver for economic growth and social change-Key strategic challenges. *Technological Forecasting and Social Change*, 141, 149-158.
85. Lau, P. Y. Y., Lee, C. K. C., & Ho, C. (2019). University student engagement in learning: Insights from academic fieldtrips in the Malaysian tropical rainforests. *Education+ Training*, 61(3), 342-358.
86. Lee, M. S., & An, H. (2018). A study of antecedents influencing eWOM for online lecture website: Personal interactivity as moderator. *Online Information Review*, 42(7), 1048-1064.
87. Li, H., Ngo, H. Y., & Cheung, F. (2019). Linking protean career orientation and career decidedness: The mediating role of career decision self-efficacy. *Journal of Vocational Behavior*, 4(2), 103322.
88. Li, Y., Yang, H. H., MacLeod, J., & Dai, J. (2019). Developing the rotational synchronous teaching (RST) model: Examination of the connected classroom climate. *Australasian Journal of Educational Technology*, 31(1), 116-134.
89. Liébana-Cabanillas, F., Marinkovic, V., de Luna, I. R., & Kalinic, Z. (2018). Predicting the determinants of mobile payment acceptance: A hybrid SEM-neural network approach. *Technological Forecasting and Social Change*, 129(4), 117-130.
90. Liu, D., Lu, W., & Niu, Y. (2018). Extended technology-acceptance model to make smart construction systems successful. *Journal of Construction Engineering and Management*, 144(6), 04018035.
91. Liu, D., Lu, W., & Niu, Y. (2018). Extended technology-acceptance model to make smart construction systems successful. *Journal of Construction Engineering and Management*, 144(6), 04018035.
92. Makarova, E. A., Makarova, E. L., & Korsakova, T. V. (2019). The Role of Globalization and Integration in Interdisciplinary Research, Culture and Education Development. *Journal of History Culture and Art Research*, 8(1), 111-127.
93. Manià, K., Mabin, L. K., & Liebenberg, J. (2018). 'To go boldly': teaching science fiction to first-year engineering students in a South African context. *Cambridge Journal of Education*, 48(3), 389-410.
94. Mata-López, W., & Tobón, S. (2019). Analysis of Factors Associated to the Enrollment and Demand of Computing-Related Careers. *Social Sciences*, 8(1), 1.
95. McIntyre, J., Youens, B., & Stevenson, H. (2019). Silenced voices: The disappearance of the university and the student teacher in teacher education policy discourse in England. *Research Papers in Education*, 34(2), 153-168.
96. Mehralian, G., Nazari, J. A., & Ghasemzadeh, P. (2018). The effects of knowledge creation process on organizational performance using the BSC approach: the mediating role of intellectual capital. *Journal of Knowledge Management*, 22(4), 802-823.
97. Merriam, S. B., & Grenier, R. S. (Eds.). (2019). *Qualitative research in practice: Examples for discussion and analysis*. 2<sup>nd</sup> edition, Jossey-Bass, CA.
98. Meyer-Galow, E. (2018). *Business Ethics 3.0: The New Integral Ethics from the Perspective of a CEO*. 1<sup>st</sup> edition, Walter de Gruyter GmbH & Co KG, MA.
99. Mirabolghasemi, M., Choshaly, S. H., & Iahad, N. A. (2019). Using the HOT-fit model to predict the determinants of E-learning readiness in higher education: a developing Country's perspective. *Education and Information Technologies*, Volume 24, Issue 6, pp 3555-3576
100. Momani, A. M., Jamous, M. M., & Hilles, S. M. (2017). Technology Acceptance Theories: Review and Classification. *International Journal of Cyber Behavior, Psychology and Learning (IJCPL)*, 7(2), 1-14.
101. Moore, E. J., Smith, F. G., Hollingshead, A., & Wojcik, B. (2018). Voices from the field: Implementing and scaling-up Universal Design for learning in teacher preparation programs. *Journal of Special Education Technology*, 33(1), 40-53.

102. Morrison, G. R., Ross, S. J., Morrison, J. R., & Kalman, H. K. (2019). *Designing effective instruction*. 8<sup>th</sup> Edition, Wiley, MA.
103. Mousavi, S., Bossink, B., & van Vliet, M. (2019). Microfoundations of companies' dynamic capabilities for environmentally sustainable innovation: Case study insights from high-tech innovation in science-based companies. *Business Strategy and the Environment*, 28(2), 366-387.
104. Mueller, M. (2017). *Will the Internet Fragment?: Sovereignty, Globalization and Cyberspace*. 1<sup>st</sup> edition, John Wiley & Sons. MA
105. Mukherjee, S. P. (2019). *Quality in Higher Education*. In: *Quality*. India Studies in Business and Economics. 2<sup>nd</sup> edition, Springer, Singapore.
106. Musgrove, F. (2019). *Ecstasy and holiness: Counter culture and the open society*. 2<sup>nd</sup> edition, Routledge, NY.
107. Naidoo, R., & Jamieson, I. (2005). Empowering participants or corroding learning? Towards a research agenda on the impact of student consumerism in higher education. *Journal of education policy*, 20(3), 267-281.
108. Nikou, S. A., & Economides, A. A. (2019). Factors that influence behavioral intention to use mobile-based assessment: A STEM teachers' perspective. *British Journal of Educational Technology*, 50(2), 587-600.
109. Nikou, S. A., & Economides, A. A. (2019). Factors that influence behavioral intention to use mobile-based assessment: A STEM teachers' perspective. *British Journal of Educational Technology*, 50(2), 587-600.
110. Nuñez, J. C., Derluy, I., & Valcke, M. (2019). Student teachers' cognitions to integrate comprehensive sexuality education into their future teaching practices in Ecuador. *Teaching and Teacher Education*, 79(2), 38-47.
111. Orbeta, E. D., & Decano, R. S. (2019). Factors Associated With Students' performance In English In The Implementation Of Spiral Progression. *Pupil: International Journal of Teaching, Education and Learning*, 3(1), 125-134
112. Palermo, C., Kleve, S., McCartan, J., Brimblecombe, J., & Ferguson, M. (2019). Using unfolding case studies to better prepare the public health nutrition workforce to address the social determinants of health. *Public health nutrition*, 22(1), 180-183.
113. Panconesi, G., & Guida, M. (Eds.). (2017). *Handbook of Research on Collaborative Teaching Practice in Virtual Learning Environments*. 1<sup>st</sup> edition, IGI Global. PA
114. Park, S. Y., Nam, M. W., & Cha, S. B. (2012). University students' behavioral intention to use mobile learning: Evaluating the technology acceptance model. *British journal of educational technology*, 43(4), 592-605.
115. Picciano, A. G. (2019). *Online Education: Foundations, Planning, and Pedagogy*. 1<sup>st</sup> edition, Routledge. NY
116. Pitts, S. (2019). *A century of change in music education: Historical perspectives on contemporary practice in British secondary school music*. 2<sup>nd</sup> edition, Routledge. NY
117. Polden, D. J. (2019). *Lawyers, Leadership, And Innovation*. *Santa Clara Law Review*, 58(3), 427.
118. Ramon, S., Moshe Grodofsky, M., Allegri, E., & Rafaelic, A. (2019). Service users' involvement in social work education: focus on social change projects. *Social Work Education*, 38(1), 89-102.
119. Reyes, R. S., McDermott, P. A., Watkins, M. W., Rovine, M. J., & Chao, J. L. (2020). Forecasting Accuracy of Earliest Assessment Versus Transitional Change in Early Education Classroom Problem Behavior Among Children at Risk. *School Psychology Review*, 49(1), 47-59.
120. Rowley, J., Bennett, D., & Schmidt, P. (Eds.). (2019). *Leadership of Pedagogy and Curriculum in Higher Music Education*. 1<sup>st</sup> edition, Routledge. London
121. Ruthven, I., & Chowdhury, G. G. (Eds.). (2015). *Cultural heritage information: Access and management*. 1<sup>st</sup> edition, Facet Publishing. Croydon.
122. Sánchez-Prieto, J. C., Hernández-García, Á., García-Peñalvo, F. J., Chaparro-Peláez, J., & Olmos-Migueláñez, S. (2019). Break the walls! Second-Order barriers and the acceptance of Learning by first-year pre-service teachers. *Computers in Human Behaviour*, 95(1), 158-167.
123. Santa, R., MacDonald, J. B., & Ferrer, M. (2019). The role of trust in e-Government effectiveness, operational effectiveness and user satisfaction: Lessons from Saudi Arabia in e-G2B. *Government Information Quarterly*, 36(1), 39-50.
124. Saroia, A. I., & Gao, S. (2019). Investigating university students' intention to use mobile learning management systems in Sweden. *Innovations in Education and Teaching International*, 56(5), 569-580.
125. Salas, E., Tannenbaum, S. I., Kraiger, K., & Smith-Jentsch, K. A. (2012). The science of training and development in organizations: What matters in practice. *Psychological science in the public interest*, 13(2), 74-101.
126. Schill, M., & Godefroit-Winkel, D. (2019). Consumer segments in the smart environmental objects market. *Journal of Consumer Marketing*, 36(2), 317-327.

127. Selase, A. M., Selase, A. E., Ayishetu, A. R., Comfort, A. D., Stanley, A., & Ebenezer, G. A. (2019). Impact of Technology Adoption and Its Utilization on SMEs in Ghana. *International Journal of Small and Medium Enterprises*, 2(2), 1-13.
128. Şengül, M., & Türel, Y. K. (2019). Teaching Turkish as a Foreign Language with Interactive Whiteboards: A Case Study of Multilingual Learners. *Technology, Knowledge and Learning*, 24(1), 101-115.
129. Shao, C., & Kwon, K. H. (2019). Clicks intended: An integrated model for nuanced social feedback system uses on Facebook. *Telematics and Informatics*, 39, 11-24.
130. Sharif, A., Afshan, S., & Qureshi, M. A. (2019). Acceptance of learning management system in university students: an integrating framework of modified UTAUT2 and TTF theories. *International Journal of Technology Enhanced Learning*, 11(2), 201-229.
131. Shorfuzzaman, M., Hossain, M. S., Nazir, A., Muhammad, G., & Alamri, A. (2019). Harnessing the power of big data analytics in the cloud to support learning analytics in mobile learning environment. *Computers in Human Behavior*, 92(1), 578-588.
132. Silander, C., & Stigmar, M. (2019). Individual growth or institutional development? Ideological perspectives on motives behind Swedish higher education teacher training. *Higher Education*, 77(2), 265-281.
133. Silic, M., & Back, A. (2016). Factors driving unified communications and collaboration adoption and use in organizations. *Measuring Business Excellence*, 20(1), 21-40.
134. Skinner, E. A. (2016). Seven guideposts to the study of perceived control across the lifespan. *Perceived control: Theory, research, and practice in the first*, 50(2), 309-340.
135. Sobieraj, S., & Krämer, N. C. (2020). Similarities and differences between genders in the usage of computer with different levels of technological complexity. *Computers in Human Behavior*, 104, 106145.
136. Stephenson, J. (Ed.). (2018). *Teaching & learning online: new pedagogies for new technologies*. 2<sup>nd</sup> edition, Routledge, NY
137. Stephenson, J. (Ed.). (2020). *Teaching & learning online: new pedagogies for new technologies*. 2<sup>nd</sup> edition, Routledge, NY.
138. Stephenson, J. (Ed.). (2020). *Teaching & learning online: new pedagogies for new technologies*. 2<sup>nd</sup> edition, Routledge, NY.
139. Stone, L. D., & Hart, T. (2019). *Sociocultural Psychology and Regulatory Processes in Learning Activity*. First edition. Cambridge University Press, TJ International Ltd, Padstow Cornwall.
140. Sue, D. W., Sue, D., Neville, H. A., & Smith, L. (2019). *Counseling the culturally diverse: Theory and practice*. 1<sup>st</sup> edition, Wiley, NJ
141. Surbakti, F. P. S., Wang, W., Indulska, M., & Sadiq, S. (2020). Factors influencing effective use of big data: A research framework. *Information & Management*, 57(1), 103146.
142. Surry, D. W., & Land, S. M. (2000). Strategies for motivating higher education faculty to use technology. *Innovations in Education and Training International*, 37(2), 145-153.
143. Teixeira, A. M., Bates, T., & Mota, J. (2019). What future (s) for distance education universities? Towards an open network-based approach. *RIED. Revista Iberoamericana de Educación a Distancia*, 22(1), 107-126.
144. Teo, T., Zhou, M., Fan, A. C. W., & Huang, F. (2019). Factors that influence university students' intention to use Moodle: a study in Macau. *Educational Technology Research and Development*, 67(3), 749-766.
145. Teo, T., Doleck, T., Bazelais, P., & Lemay, D. J. (2019). Exploring the drivers of technology acceptance: a study of Nepali school students. *Educational Technology Research and Development*, 67(2), 495-517.
146. Thomas, G., & Thorpe, S. (2019). Enhancing the facilitation of online groups in higher education: a review of the literature on face-to-face and online group-facilitation. *Interactive Learning Environments*, 27(1), 62-71.
147. Thomas, L. J., Parsons, M., & Whitcombe, D. (2019). Assessment in Smart Learning Environments: Psychological factors affecting perceived learning. *Computers in Human Behaviour*, 95(1), 197-207.
148. Tiokhin, L., Hackman, J., Munira, S., Jesmin, K., & Hruschka, D. (2019). Generalizability is not optional: insights from a cross-cultural study of social discounting. *Royal Society open science*, 6(2), 181386.
149. Todd, B. L., & Zvoch, K. (2019). The effect of an informal science intervention on middle school girls' science affinities. *International Journal of Science Education*, 41(1), 102-122.
150. Tommasetti, A., Singer, P., Troisi, O., & Maione, G. (2018). Extended theory of planned behavior (ETPB): investigating customers' perception of restaurants' sustainability by testing a structural equation model. *Sustainability*, 10(7), 2580.
151. Tsai, C. H. (2014). Integrating social capital theory, social cognitive theory, and the technology acceptance model to explore a behavioral model of telehealth systems. *International journal of environmental research and public health*, 11(5), 4905-4925.



152. Tsay, V., Kunanbayeva, D., Sataev, S., & Skiba, M. (2018). Peculiarities of the Organizational Changes in Higher Educational Institutions. *Journal of Advanced Research in Law and Economics*, 9(1 (31)), 323-332.
153. Udugama, I. A., Gernaey, K. V., Taube, M. A., & Bayer, C. (2020). A novel use for an old problem: The Tennessee Eastman challenge process as an activating teaching tool. *Education for Chemical Engineers*, 30(1), 20-31.
154. Vannatta, R. A., & Nancy, F. (2004). Teacher dispositions as predictors of classroom technology use. *Journal of Research on Technology in Education*, 36(3), 253-271.
155. Wang, X., Yuen, K. F., Wong, Y. D., & Teo, C. C. (2018). An innovation diffusion perspective of e-consumers' initial adoption of self-collection service via automated parcel station. *The International Journal of Logistics Management*, 29(1), 237-260.
156. Weerawardena, J., Mort, G. S., & Liesch, P. W. (2019). Capabilities development and deployment activities in born global B-to-B firms for early entry into international markets. *Industrial Marketing Management*, 78(4), 122-136.
157. Wheeler, S. (2019) *Digital learning in organisations, Help your workforce capitalise on technology*, Kogan page limited, London
158. Wilson, N. S., Zygouris-Coe, V., & Cardullo, V. (2019). Expert Readers Using an iPad to Learn: Implications about the Role of Metacognition in Teaching and Learning with iPads. *Ubiquitous Learning: An International Journal*, 12(3), 10-11.
159. Xhomaki, B., Maletic, A., Di Mitri, D., & Szűcs, A. (2019). Reimagining education for the digital age Position Paper of the Lifelong Learning Platform. *Opus et Educatio*, 5(4), 10-30
160. Yada, A., Tolvanen, A., Malinen, O. P., Imai-Matsumura, K., Shimada, H., Koike, R., & Savolainen, H. (2019). Teachers' self-efficacy and the sources of efficacy: A cross-cultural investigation in Japan and Finland. *Teaching and Teacher Education*, 81(2), 13-24.
161. Yakubu, M. N., & Dasuki, S. I. (2019). Factors affecting the adoption of e-learning technologies among higher education students in Nigeria: A structural equation modelling approach. *Information Development*, 35(3), 492-502.
162. Yang, H. H., Feng, L., & MacLeod, J. (2019). Understanding College Students' Acceptance of Cloud Classrooms in Flipped Instruction: Integrating UTAUT and Connected Classroom Climate. *Journal of Educational Computing Research*, 56(8), 1258-1276.
163. Yeop, M. A., Yaakob, M. F. M., Wong, K. T., Don, Y., & Zain, F. M. (2019). Implementation of ICT Policy (Blended Learning Approach): Investigating Factors of Behavioural Intention and Use Behaviour. *International Journal of Instruction*, 12(1), 767-782.