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PRE-SERVICE TEACHERS' PERCEPTIONS OF REMOTE AND HYBRID MODES OF INSTRUCTION: IMPLICATION FOR LEARNING PREFERENCES

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ABSTRACT

As the world advances in technology, and its subsequent integration in education at all levels, especially higher education, different forms of learning modes/methods continue to emerge. Every student has their unique learning modes, which is partly due to the way they process information. Also, the COVID-19 pandemic forced many universities to suddenly embrace remote and hybrid modes of instructions without giving room to examine students' choices. Because compatibility in perceptions, and preference are likely to improve learning outcomes, therefore, this study investigates pre-service teachers' perception of remote and hybrid modes of instructions. The study which took 13 weeks was descriptively designed, with a sample of 472 students purposively selected from the Department of Science and Technology Education, Olabisi Onabanjo University, Ogun State, Nigeria. Microsoft forms-based instrument titled "Students Perceptions of Online and Hybrid Modes of Instruction Questionnaire (SPOHMIQ) (r = .72), was used for data collection. The research questions raised were answered using Median, S.D, t-test and ANOVA at .05 level of significance, on SPSS version 26. Findings showed that pre-service teachers' perceptions of remote and hybrid learning modes did not differ, just as there was no significant difference in their perceptions of the two modes based on course of study. This implies that stakeholders in education need to be aware of students' learning modes in the 21st Century, and appropriately tailor their learning needs for effective outcomes.

Keywords: Pre-service teachers; perceptions; remote learning; hybrid learning; Nigeria

INTRODUCTION

Education is critical not only for individual development, but also for national and global development. This is because without education, advancements in science, technology, and citizens' socioeconomic lives may be impossible. Before wading significantly into the 21st century, teaching and learning in education were mostly done through the face-to-face traditional modes of instructions. This existed in the form of the traditional teacher-student relationship and chalkboard method in the classroom (Oyeleke & Adebisi, 2018). This face-to-face traditional mode of instruction provides teachers and students with ongoing immediate

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feedback on their overall learning experience. Additionally, the mode enabled teachers to observe their students' body language and non-verbal cues directly. This enables teachers to modify or create a response or set of responses for their students immediately. The environment of the face-to-face traditional mode of instruction allows teachers to physically meet their students (Hilton, Moos & Barnes, 2020). One significant disadvantage of this mode is that it is centered on the teacher. However, this dominant mode of instruction was challenged in year 2020 when the COVID-19 pandemic threatened social interactions and other ways of life of people globally, and ultimately caused the government of many nations to immediately shut down all educational systems. As the COVID-19 pandemic significantly increased, governments of several nations introduced drastic measures which included strict restrictions in movement and social gatherings in public places. Since gathering of people were totally restricted, it was practically impossible for lecturers and students to meet in the normal traditional face-to-face classroom settings. As at April 27, 2020, a total of 186 countries shut their institutions, affecting over 1.2 billion students worldwide (UNESCO, 2020).

The global emergency lockdown, which was imposed by the Coronavirus disease, had a profound impact on how teaching and learning was carried out. Most universities, especially in Nigeria, suddenly discovered that there were no existing infrastructure to deal with the emergency, online-based teaching and learning (Grant, & Gedeon, 2020), just as lecturers had to convert their instructional contents into forms that could be shared with their students in an online environment, but without prerequisite knowledge, or support (Al-Kumaim, et al 2021). All these were done to ensure that teaching and learning activities were not totally paralyzed. This sudden switch, which was an emergency, was necessary in order to obey the rules of social distancing as necessitated by high infectious rate of the COVID-19 virus. This global and sudden change to remote learning mode was referred to, in most cases, as emergency remote teaching or simply as emergency online learning. In this study, remote learning is used interchangeably with online learning since both happen on the worldwide web (WWW) or the Internet.

The term Emergency Remote Learning (ERL) was used to denote the type of education that was provided during the COVID-19 pandemic lockdown of schools (Rahiem, 2020). It was a sudden but temporary shift from the traditional mode of instruction to online mode due to the COVID-19 lockdown (Hodges, *et al.*, 2020). According to Affouneh et al., (2020), ERL is an unplanned, and sudden transition from the conventional format of instruction to a remote form, which was initiated as a result of the emergencies of the outbreak of COVID-19 globally. It is also a temporary transition from traditional modes of instruction to a remote form due to crisis circumstances. ERL involves the use of fully remote teaching and learning solutions for instructional purposes which would otherwise have been delivered using the normal traditional face-to-face approach (Barbour, et al. 2020). The main focus of the ERL is not the recreation of a more robust ecosystem with regards to education, rather, it was aimed at providing a temporary platform for instructional supports during a crisis (Barbour, et al. 2020). During the lockdown, emerging technologies played important roles in the delivery of contents and interactions between lecturers and students (Czerkawski & Lyman, 2016).

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The COVID-19 pandemic aftermath also led a huge interest in another mode of instruction amongst educators and their students. This is referred to as hybrid learning. Hybrid learning, which is also referred to as blended learning, combines both online and physical appearance modes of instruction (Hentea, Shea, & Pennington, 2003; AlNajdi, 2014). Hybrid learning combines the benefits of both remote/online learning mode and face-to-face learning mode (AlNajdi, 2014). According to Halverson et al. (2012), hybrid mode of learning is a diverse, and an expanding area of design and inquiry combining the traditional face-to-face modes of instruction with the online mode. Also, Qi and Tian (2011) posit that this mode of instruction has four features which are a mix of individual and collective learning opportunities; a mix of asynchronous and synchronous learning; a mix of self, and group-paced learning formats, and a mix of formal, and non-formal learning which bother on the incorporation of lifelong learning and/or setting in the hybrid format. In hybrid learning, students enjoy the opportunity of physically meeting with their course lecturers, and their peers for discussion, debates, questioning, among others for further learning and other reasons, during the physical or face-to-face aspect of the mode. In the purely remote or online mode, the courses taught do not provide for the physical aspect of students' experience as found in the hybrid mode of teaching and learning. In hybrid mode, lecturers play the role of facilitators during which they guide and assist their students wherever and whenever necessary. They also play the role of instructors by providing students with complementary lessons and materials in line with online courses (AlNajdi, 2014). With regards to learning pace, the hybrid mode of instruction gives a convenient method of self-paced learning to students which uses rich media resources which are made available through the Internet. The mode also affords students the opportunity of a collaborative learning while leveraging on synchronized or traditional face-to-face settings (Stanford-Smith, et al. 2002).

As different forms of learning modes or methods continue to emerge, either as a result of advances in instructional design/pedagogies, or pandemics, the need will always arise to determine students' perceptions of the methods. The switch from the traditional mode to the emergency remote form of instruction was a smooth one for countries with ready-made, sophisticated online learning facilities, but was not so for many developing countries, Nigeria inclusive. This was because, aside the lack of facilities to make the switch, the abrupt nature at which schools were shut down was also a major challenge for lecturers and students because were not prepared. Specifically, this brought about stress, among other issues, on students which affected their mental well-being. This sudden change to emergency remote learning which was not the norm prior to the lockdown, not only disrupted higher education landscape (Iglesias-Pradas, et al 2021), but also severely affected lecturers and their students' learning experiences (Grant, & Gedeon, 2020). Just as students experienced certain problems during the transition, so did their lecturers, as both found the transition to the new mode of instruction not comfortable at the start (Grant et al. 2020). There were challenges relating to access to good computers, stable internet services, and more; all of which were essential to access study materials (Tick, 2019). Furthermore, sitting for long hours at their devices to learn was another challenge due to the fact that the situation was strange to many. Since the traditional mode of

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instruction was practically useless during the period of the lockdown, teachers and their students had to switch abruptly to this mode since it was the only alternative at the time (Muller, et al 2021).

The background has shown that there is the need to examine students' perceptions of modes of instructions, in this case, online and hybrid modes of instruction. Nowadays, many universities have made online/remote mode of instruction one of the ways of reaching their students, while the combination of both face-to-face and online mode (hybrid) is now also in vogue. Despite the fact that the pandemic has soft pedalled to some extents; with some countries lowering their earliest strict sanctions, the fact remains that remote learning and hybrid forms of learning have come to stay. In view of this, the need arises to assess students' perceptions toward these modes of content delivery – online learning or hybrid modes, with a view to tailoring students' educational needs to their preferred mode so as not to endanger their learning styles and outcomes as a result of using the wrong mode of instruction.

Individual students have their personal unique learning methods, and this is partly due to the way they like to process information (John, Shahzadi & Khan, 2016). For many decades, researcher have being trying to determine students' preferences for the acquisition of knowledge, based on their perceptions (Urval, Kamath, & Ullal, 2014; Zohre, Faride, & Mehrdad, 2014). This is important because the compatibility between perceptions, preference and format promises to enhance learning performance (Bangcola, 2016; Donald & Bacon, 2015). It should be noted that in any form of instructional mode, students' perceptions of such modes are important elements of their inclination towards learning (Chawla & Joshi, 2012). These perceptions, which include belief, excitement, motivation, apprehension, confidence, fear, computer anxiety, boredom, and enthusiasm, among others, are vital to their selection of instructional modes that suit their learning needs (Hilton, et al 2020; Konradt & Sulz, 2001). Consequently, stakeholders of online learning need to be further enlightened on students' perceptions and reactions to elements of online-based instruction, in addition to having the knowledge of applying these approaches in an effective manner that will enhance better learning outcomes (Koohang & Durante, 2003). This is further important because their perceptions is critical to motivation and learning. The need to furnish stakeholders with the current status of students' perceptions of remote and hybrid modes of learning with a view to aligning the right instructional modes to content delivery for students informed this study.

LITERATURE REVIEW

Herrington et al. (2001) reported that resources, pedagogies, and delivery modes are essential factors that must considered for educating students online. For instance, Gillis and Krull (2020) reported that during the switch to remote learning, students preferred the synchronous mode of learning over the asynchronous mode because they found it more effective. According to Demuyakor (2020), online instructional approach was satisfactory to students, although the students also reported higher cost of participating in lessons online. In the same vein, Allo

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(2020) reported that while students have positive perceptions of learning online, yet they reported some problems including financial issues, lack of Internet access, and poor online learning implementations.

Nguyen (2015) reported that online instructions will be as effective as conventional classes if designed appropriately. However, Platt, Raile, and Yu (2014) reported that students did not perceive online and traditional modes of instruction as equivalent. In addition, as the use of online learning method and its experience increase, it was found that students' perception of equivalence was positively correlated (Platt et al. 2014). Fortune, et al. (2011) also reported no significant difference in the instructional mode preferences among students in the two modes of instruction. According to Swan et al. (2000), students' perception of learning modes is influenced by various factors such as their lecturers' interaction with them, course design consistency, effectiveness of instructor's interaction being able to promote critical thinking, and information processing (Picciano, 2002), extent of interaction in the environment of online learning (Arbaugh, 2000), flexibility in online learning (McCall, 2002), ability to engage with the instructor, and peers in online learning environments (Kim et al. 2005), academic self-concept (Lim et al. 2007), technology use competencies, among others.

On the other hand, Tratnik et al. (2019) reported a significant difference in students' level of satisfaction between online and physical modes of learning. In this case, students were more interested in the traditional mode of learning. Also, Yamin (2020), and Kuzma et al. (2015) reported majority of students preferring the traditional physical classroom mode of instruction as against online learning mode. Converting a course from the traditional face-to-face mode of delivery to an online mode appears to lower students' satisfaction. Kemp and Grieve (2014) also reported that university students aligned with completing educational activities using the traditional physical mode as against learning online. They further reported that online-based and conventional activities can lead to the same level of outcome among students, but students prefer written activities to be done online while they engage in discussions in physically.

On hybrid mode of instruction, Ugur, et al. (2011) reported that students' perceptions was highly positive because they reported the mode to be an easy and effective mode of engendering their understanding of lessons, and that it provides participation opportunities in forum discussions. The students also reported that hybrid mode of instruction enables them to remember easily without any form of memorization. Vernadakis et al. (2012) also found that literature reveals blended learning as having positive influence on students' learning, just as comparison of online and hybrid modes of learning in the study of Vernadakis et al. (2012) showed that students were more interested in hybrid learning environment compared with online only mode. The rate of students' participation in learning online differs due to several factors (Ruthotto et al., 2020), one of which is course of study (Evans & Haase, 2001), and the factors have been linked with students' overall use of technologies (Arrosagaray et al., 2019). Corroborating this, Rizvi et al., (2019) also reported that the performance of students in an online instructional environment has been linked to factors such as educational level, among others (Szopinski & Bachnik, 2022).

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In view of the above background, the study examined the perceptions of pre-service teachers toward remote and hybrid modes of instructional delivery; determined if any significant difference exists in their perceptions toward remote (online only) learning mode based on course of study, and also examined if any significant difference exists in their perceptions toward hybrid (online and face-to-face) learning mode based on course of study.

METHOD

Research Design

While the traditional face-to-face mode of instruction is still being preferred by some students, the fact remains that online learning mode has moved into higher education. In view of this, there is the need to examine students' perceptions of the two modes in order to ensure that there learning needs are tailored according to the right mode. To carry out this survey, which was conducted at the Olabisi Onabanjo University, Ogun State, the study employed the descriptive survey type of the non-experimental type. There was a total of 13 weeks interval between the first and second administration of each study mode, and the instrument of data collection was administered after each mode of instruction was used.

Sample

The target population of the study was year three undergraduates in the Department of Science and Technology Education, Faculty of Education of the mentioned University. The study was carried out at two different times, using the same set of students. A total of 472 Science and Technology Education students consented to take part in the survey. Unit representations of sample from the Department of Science and Technology Education is shown in Figure 1 below:

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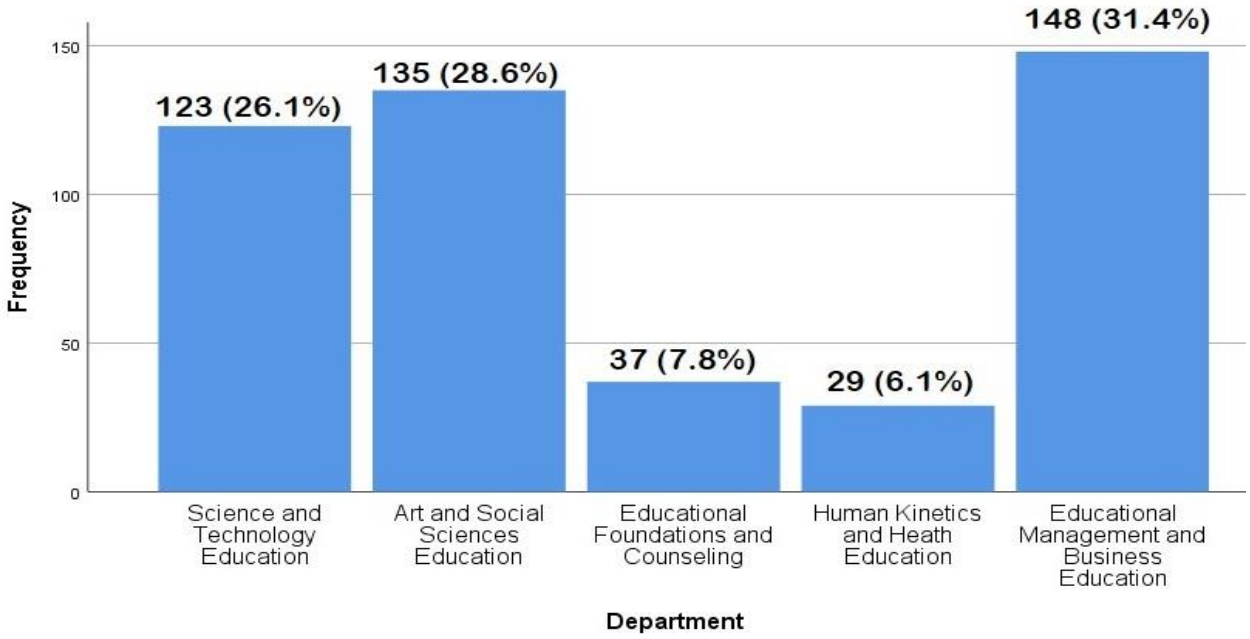

Figure 1. Unit representation of respondents

Instrument

Data collection in the study was done using a Microsoft forms-based online questionnaire titled Students Perceptions of Online and Hybrid Modes of Instruction Questionnaire (SPOHMIQ). The instrument consisted of a total of 18 items with options based on a four-point Likert scale of "Strongly Disagree (SD)", "Disagree (D)", "Agree (A)", and "Strongly Agree (SA)".

The questionnaire was administered via the students' online learning platform. Research question one was answered using descriptive statistics of Median (due to the ordinal nature of the collected data in line with DeCoster et al. (2011) and Standard Deviation. ANOVA at .05 level of significance was used to answer questions two and three. All the analysis was carried out using SPSS version 26. ANOVA is a parametric inferential statistics used to test for significant difference among the mean scores of three or more groups. In this study, there were five groups of students selected from the Departments of Science and Technology Education, Arts and Social Sciences Education, Educational Foundations and Counselling, Human Kinetics and Health Education, and Educational Management and Business Education, respectively (see Figure 1).

RESULTS

In Table 1 below, pre-service teachers' responses on the gains and the inherent challenges of remote and hybrid modes of instructions are itemized. Result showed that the pre-service teachers' responses to the items raised show that their opinions did not differ on their

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perceptions of remote and hybrid learning modes when compared. Their responses show that they prefer the two modes of instructions based on the prevailing factors surrounding the instructional modes. From the responses, it could be concluded that they are likely to use the two modes of instructions if the factors surrounding each as at the time of deployment are favourable.

Table 1
Pre-service teachers' perceptions of remote and hybrid modes of instruction

Statements	**Hybrid Mode**			**Remote Mode**		
	Median	**S.D**	**Remark**	**Median**	**S.D**	**Remark**
It allows me to work at my own pace.	3.00	1.35	Positive	3.00	1.34	Positive
It doesn't allow me relate well with my friends.	3.00	1.42	Positive	3.00	1.41	Positive
I am easily distracted at home than in the classroom.	4.00	1.33	Positive	4.00	1.24	Positive
It doesn't make me relate well with my lecturers.	3.00	1.46	Positive	3.00	1.47	Positive
I have difficulty staying motivated to complete my assignments.	3.00	1.35	Negative	3.00	1.30	Positive
It reduces my about my school works	3.00	1.35	Negative	3.00	1.41	Positive
It is easier to focus without the distractions of school.	2.00	1.30	Negative	2.00	1.33	Negative
I sometimes have difficulty understanding online assignments.	3.00	1.25	Positive	4.00	1.21	Positive
It gives me the opportunity to have a break from the stress of the school environment-only format.	3.00	1.38	Positive	3.00	1.41	Positive
It makes me miss participating in extracurricular activities.	2.00	1.51	Negative	3.00	1.48	Positive
I am not learning as much as I would in the physical classroom.	4.00	1.31	Positive	4.00	1.27	Positive
It makes me struggle to keep up daily routines.	3.00	1.38	Positive	3.00	1.34	Positive
I miss the social environment of the physical-only school environment.	3.00	1.37	Positive	4.00	1.22	Positive

Results in Table 2 below show no significant difference in pre-service teachers' perceptions of remote (online only) learning mode based on course of study. The result shows that across course of study, no significant difference exists in pre-service teachers' perception of remote

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learning mode. The result implies that across course of study, pre-service teachers have the same opinions about remote learning mode. The non-significant differences between the means of the groups are presented in Table 3.

Table 2
ANOVA result showing no significant difference in pre-service teachers' perceptions of remote (online only) learning mode based on course of study

Pre-service teachers' perceptions of remote learning mode based on course of study	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	369.164	4	92.291	1.120	.346
Within Groups	38489.650	467	82.419		
Total	38858.814	471			

Significant at $p<0.05$

Table 3
Results showing no significant differences in the means of the groups

Groups	**N**	**Mean**	**S.D**
Science and Technology Education	123	48.02	8.90
Art and Social Sciences Education	135	46.90	9.18
Educational Foundations and Counseling	37	46.70	10.45
Human Kinetics and Heath Education	29	47.90	7.70
Educational Management and Business Education	148	47.89	9.00
Total	472	47.29	9.08

As shown in Table 4 below, no significant difference exists in pre-service teachers' perceptions of hybrid mode of learning based on course of study. The result, as revealed in students' perceptions of online learning, also show that pre-service teachers did not differ in their perceptions of hybrid mode of learning based on course of study. The non-significant differences between the means of the groups are presented in Table 5.

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Table 4
ANOVA result showing no significant difference in pre-service teachers' perceptions toward hybrid (online and face-to-face) learning mode based on course of study.

Knowledge of infographics tools for teaching and learning	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	163.249	4	40.812	.384	.820
Within Groups	49594.698	467	106.198		
Total	49757.947	471			

Significant at p<0.05

Table 5
Results showing no significant differences in the means of the groups

Groups	**N**	**Mean**	**S.D**
Science and Technology Education	123	45.44	9.89
Art and Social Sciences Education	135	45.64	10.81
Educational Foundations and Counseling	37	44.90	11.58
Human Kinetics and Heath Education	29	44.00	7.36
Educational Management and Business Education	148	46.29	9.65
Total	472	45.49	10.27

DISCUSSION AND IMPLICATION OF FINDINGS

The result of the study has shown that the perceptions of pre-service teachers' on the gains and challenges of remote and hybrid modes of instructions did not differ. Their responses show that they prefer the two modes of instructions based on the prevailing factors surrounding each mode. From the result, it could be concluded that they are likely to use the two modes of instructions if the factors around each as at the time of deployment are favourable. They are, therefore, likely to choose the one that meet their needs. This finding is essential at this time, and in line with the report of Herrington et al. (2001) that resources, pedagogies, and delivery modes are essential factors that must be considered for educating students online, especially at this time that education has significantly shifted to online and hybrid modes in many nations. Also, Gillis and Krull (2020) corroborate this in their report that during the switch to remote learning, students preferred the synchronous mode of learning over the asynchronous mode because they found it more effective. In the same vein, Allo (2020) reported that while students have positive perceptions of learning online, yet they reported some problems including financial issues, lack of Internet access, and poor online learning implementations. In addition, Nguyen (2015) reported that online instructions will be as effective as conventional classes if designed appropriately, while Platt, Raile, and Yu et al. (2014) reported that students did not

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perceive online and traditional modes of instruction as equivalent, although as the use of online learning method and its experience increase, it was found that students' perception of equivalence was positively correlated (Platt et al. 2014).

The results also show that, across course of study, no significant difference exists in pre-service teachers' perceptions of remote (online only) learning mode and hybrid mode of learning, respectively. This shows that course of study did not influenced students' perceptions of remote (online only) and hybrid modes of learning. According to Fortune, et al. (2011), no significant difference exists in instructional mode preferences among students in the two modes of instruction, although, Swan et al. (2000) reported in their study that students' perception of learning modes is influenced by various factors such as their lecturers' interaction with them, course design consistency, effectiveness of instructor's interaction being able to promote critical thinking, and information processing (Picciano, 2000), extent of interaction in the environment of online learning (Arbaugh, 2000), flexibility in online learning (McCall, 2002), ability to engage with the instructor, and peers in online learning environments (Kim et al. 2005), academic self-concept (Lim et al. 2007), and technology use competencies, among others. In addition, the work of Tratnik et al. (2019) reported a significant difference in students' level of satisfaction between online and physical modes of learning, in which students were more interested in the traditional mode of learning.

This is just as Yamin (2020), and Kuzma et al. (2015) also reported that majority of students prefer the traditional physical classroom mode of instruction as against online learning mode. With regards to hybrid mode of instruction, Ugur, et al. (2011) reported that students' perceptions was highly positive because they reported the mode to be an easy and effective mode of engendering their understanding of lessons, and that it provides participation opportunities in forum discussions. Literature has revealed hybrid mode of learning as having positive influence on students' learning, just as the rate of students' participation in learning online differs due to several factors (Ruthotto et al., 2020), one of which is course of study (Evans & Haase, 2001), and the factors have been linked with students' overall use of technologies (Arrosagaray et al., 2019). Corroborating this, Rizvi et al., (2019) reported that the performance of students in an online instructional environment has been linked to factors such as educational level, among others (Szopinski & Bachnik, 2022).

The findings of this study have shown that part of ensuring that students learn effectively is also making effort to find out their preferred mode of instruction, especially as the world fully transitions to digital education. Because of this, there is the need to examine students' perceptions of the current modes of instruction, especially as necessitated by the COVID-19 pandemic breakout. There is no doubt in the fact that online instructions will be as effective as conventional classes if designed appropriately (Nguyen, 2015), yet, there is the need to find out individual students' perceptions of the modes of instruction examined in the study since most nations now use remote and hybrid modes of instruction, and also because discovering students' learning mode, which is personally unique to them, is necessary since this is the way they like to process information (John, Shahzadi & Khan, 2016). The result of this finding is

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important because the compatibility between perceptions, preference and format promises to enhance learning performance, and this is why learning must be structured and presented to students in the modes they prefer. This is confirmed by Chawla and Joshi (2012) in their report that in any form of instructional mode, students' perceptions of such modes are important elements of their inclination towards learning, and these perceptions, which include belief, excitement, motivation, apprehension, confidence, fear, computer anxiety, boredom, and enthusiasm, among others, are vital to their selection of instructional modes that suit their learning needs (Hilton, et al 2020; Konradt & Sulz, 2001). Given this, stakeholders in education must ensure that during policy formulations at any level of education, especially higher education, important attention must be given to ensuring that when contents are presented to students, they are presented in such a way that will ensure that majority of the students are taking and processing the contents in ways that meet their learning modes need.

CONCLUSION AND RECOMMENDATIONS

The study has shown that students will make use of any mode of instruction that suits their learning need if planned and executed effectively by their lecturers. Since students did not differ in their perceptions of remote and hybrid learning modes despite the shortcomings of each mode, it therefore shows that they will utilize the two modes if the factors surrounding their usage meet students' learning needs. It also connotes that whether remote or hybrid, students will utilize it if designed appropriately.

Based on the study's finding, learning through remote or hybrid modes of instructions are the same but, just as argued by some critics, the modes may not entirely replicate the type of learning that occurs in the conventional classrooms. But this does not in any way limit their efficiencies. Based on the findings, it becomes imperative for stakeholders in education to design instructions and deliver such using the learning or instructional modes that meet the needs of the 21st Century students' styles of learning. This will help to improve their learning outcomes on the long run since their learning needs have been taken care of by their choice learning modes.

REFERENCES

Adebisi, T. A., & Oyeleke, O. (2018). Promoting effective teaching and learning in online environment: A blend of pedagogical and andragogical models. *Bulgarian Journal of Science & Education Policy*, *12*(1).

Affouneh, S., Salha, S., & Khlaif, Z. N. (2020). Designing quality e-learning environments for emergency remote teaching in coronavirus crisis. *Interdisciplinary Journal of Virtual Learning in Medical Sciences*, *11*(2), 135-137.

Allo, M. D. G. (2020). Is the online learning good in the midst of Covid-19 Pandemic? The case of EFL learners. *Jurnal Sinestesia*, *10*(1), 1-10.

Evaluation Studies in Social Sciences (ESSS)

eISSN 0128-0473 Vol 1/ 2022 (26-41)
https://ejournal.upsi.edu.my
DOI: https://doi.org/10.37134/esss.vol3.1.3.2022

Al-Kumaim, N. H., Alhazmi, A. K., Mohammed, F., Gazem, N. A., Shabbir, M. S., & Fazea, Y. (2021). Exploring the impact of the COVID-19 pandemic on university students' learning life: An integrated conceptual motivational model for sustainable and healthy online learning. *Sustainability*, *13*(5), 2546.

AlNajdi, S. (2014). Hybrid learning in higher education. In *Society for Information Technology & Teacher Education International Conference* (pp. 214-220). Association for the Advancement of Computing in Education (AACE).

Arbaugh, J. B. (2000). Virtual classroom characteristics and student satisfaction with internet-based MBA courses. *Journal of management education*, *24*(1), 32-54.

Arrosagaray, M., González-Peiteado, M., Pino-Juste, M., & Rodríguez-López, B. (2019). A comparative study of Spanish adult students' attitudes to ICT in classroom, blended and distance language learning modes. *Computers & Education*, *134*, 31-40.

Bangcola, A. A. (2016). Learning styles as predictor of academic performance in the Nursing Department of an Asian University and colleges. *International Journal of Learning, Teaching and Educational Research*, *15*(4).

Barbour, M. K., LaBonte, R., Hodges, C. B., Moore, S., Lockee, B. B., Trust, T., & Kelly, K. (2020). Understanding pandemic pedagogy: Differences between emergency remote, remote, and online teaching. *State of the Nation: K-12 e-Learning in Canada*.

Chawla, D., & Joshi, H. (2012). E-learning perception and its relationship with demographic variables: a factor analysis approach. *International Journal of Information and Communication Technology Education (IJICTE)*, *8*(4), 105-118.

Czerkawski, B. C., & Lyman, E. W. (2016). An instructional design framework for fostering student engagement in online learning environments. *TechTrends*, *60*(6), 532-539.

DeCoster, J., Gallucci, M., & Iselin, A. M. R. (2011). Best practices for using median splits, artificial categorization, and their continuous alternatives. *Journal of experimental psychopathology*, *2*(2), 197-209.

Demuyakor, J. (2020). Analysis of social media utilization by students in higher education: A critical literature review of Ghana. *Journal of New Media and Mass Communication*, *6*(1), 1-7.

Evans, J. R., & Haase, I. M. (2001). Online business education in the twenty-first century: an analysis of potential target markets. *Internet Research*.

Fortune, J., White, D., Jugdev, K., & Walker, D. (2011). Looking again at current practice in project management. *International Journal of Managing Projects in Business*.

Gillis, A., & Krull, L. M. (2020). COVID-19 Remote Learning Transition in Spring 2020: Class Structures, Student Perceptions, and Inequality in College Courses. *Teaching Sociology*, *48*(4), 283-299.

Grant, K. & Gedeon, S. (2020). The Impact of COVID-19 on University Teaching. In The University of the Future-Responding to COVID-19, 2nd ed.; ACPIL: Reading, UK, p. 161.

Halverson, L. R., Graham, C. R., Spring, K. J., & Drysdale, J. S. (2012). An analysis of high impact scholarship and publication trends in blended learning. *Distance Education*, *33*(3), 381-413.

Evaluation Studies in Social Sciences (ESSS)

eISSN 0128-0473 Vol 1/ 2022 (26-41)
https://ejournal.upsi.edu.my
DOI: https://doi.org/10.37134/esss.vol3.1.3.2022

Hentea, M., Shea, M. J., & Pennington, L. (2003). A perspective on fulfilling the expectations of distance education. In *Proceedings of the 4th conference on Information technology curriculum* (pp. 160-167).

Herrington, A., Herrington, J., Oliver, R., Stoney, S., & Willis, J. (2001). Quality guidelines for Online courses: The development of an instrument to audit online units. *In G. Kennedy, M. Keppell, C. McNaught, & T. Petrovic (Ed.), Meeting at the crossroads: Proceedings of ASCILITE 2001 (pp.263-270*). Melbourne: The University of Melbourne.

Hilton, R., Moos, C., & Barnes, C. (2020). A Comparative Analysis of Students' Perceptions of Learning in Online versus Traditional Courses. *e-Journal of Business Education and Scholarship of Teaching*, *14*(3), 2-11.

Hodges, C. B., Moore, S., Lockee, B. B., Trust, T., & Bond, M. A. (2020). The difference between emergency remote teaching and online learning. *EDUCAUSE Review*, 3, 8

Iglesias-Pradas, S., Hernández-García, Á., Chaparro-Peláez, J., & Prieto, J. L. (2021). Emergency remote teaching and students' academic performance in higher education during the COVID-19 pandemic: A case study. *Computers in Human Behavior*, *119*, 106713.

John, A., Shahzadi, G., & Khan, K. I. (2016). Students' preferred learning styles & academic performance. *Sci. Int.(Lahore)*, *28*(4), 337-341.

Kemp N and Grieve R 2014 Face-to-face or face-to-screen? Undergraduates' opinions and test performance in classroom vs. online learning *Educational Psychology* 5 pp. 1-14

Kim, K. J., Liu, S., & Bonk, C. J. (2005). Online MBA students' perceptions of online learning: Benefits, challenges, and suggestions. *The Internet and Higher Education*, 8(4), 335–344.

Konradt, U., & Sulz, K. (2001). The experience of flow in interacting with a hypermedia learning environment. *Journal of educational multimedia and hypermedia*, *10*(1), 69-84.

Koohang, A., & Durante, A. (2003). Learners' perceptions toward the web-based distance learning activities/assignments portion of an undergraduate hybrid instructional model. *Journal of Information Technology Education: Research*, *2*(1), 105-113.

Kuzma, A., Kuzma, J., & Thiewes, H. (2015), Business Student Attitudes, Experience, and Satisfaction with Online Courses. *American Journal of Business Education*, *8*(2), 121–310.

Lim, D. H., Morris, M. L., & Kupritz, V. W. (2007). Online vs blended learning: Differences in instructional outcomes and learner satisfaction. *Journal of Asynchronous Learning Networks*, *11*(2), 27–42.

McCall, D. E. (2002). Factors influencing participation and perseverance in online distance learning courses: A case study in continuing professional education. Tallahassee: Florida State University. Unpublished doctoral dissertation.

Muller, A., Goh, C., Lim, L., & Gao, X. (2021). COVID-19 Emergency eLearning and Beyond: Experiences and Perspectives of University Educators. *Educational Science*, 11, 19

Nguyen, T. (2015). The effectiveness of online learning: Beyond no significant difference and future horizons. *MERLOT Journal of Online Learning and Teaching*, *11*(2), 309-319.

eISSN 0128-0473 Vol 1/ 2022 (26-41)
https://ejournal.upsi.edu.my
DOI: https://doi.org/10.37134/esss.vol3.1.3.2022

Picciano, A. G. (2002). Beyond student perceptions: Issues of interaction, presence, and performance in an online course. *Journal of Asynchronous Learning Networks*, *6*(1), 21-40.

Platt, C.A., Raile, A. N. W., & Yu, N. (2014). Virtually the Same? Student Perceptions of the Equivalence of Online Classes to Face-to-Face Classes. *Journal of Online Learning & Teaching*, *10*(3), 489-503.

Qi, L. S., & Tian, A. K. (2011). Design and application of hybrid learning platform based on Joomla. In *Advances in computer science and education applications* (pp. 549-556). Springer, Berlin, Heidelberg.

Rahiem, M. D. (2020). The emergency remote learning experience of university students in Indonesia amidst the COVID-19 crisis. *International Journal of Learning, Teaching and Educational Research*, *19*(6), 1-26.

Rizvi, S., Rienties, B., & Khoja, S.A. (2019). The role of demographics in online learning; A decision tree based approach. *Computer Education*, 137, 32–47.

Ruthotto, I., Kreth, Q., Stevens, J., Trively, C., & Melkers, J. (2020). Lurking and participation in the virtual classroom: The effects of gender, race, and age among graduate students in computer science. *Computers & Education*, *151*, 103854. https://doi.org/10.1016/j.compedu.2020.103854.

Stanford-Smith, B., Chiozza, E., & Edin, M. (2002). *Challenges and Achievements in E-business and E-work*. IOS Press.

Swan, K., Shea, P., Fredericksen, E., Pickett, A., Pelz, W., & Maher, G. (2000). Building knowledge building communities: Consistency, contact and communication in the virtual classroom. *Journal of Educational Computing Research*, *23*(4), 359-383.

Szopi´nski, T. & Bachnik, K. (2022). Student evaluation of online learning during the COVID-19 pandemic. *Technological Forecasting & Social Change*, 174, 1-3

Tick, A. (2019). An extended TAM model for evaluating eLearning acceptance, digital learning and smart tool usage. *Acta Polytech. Hung*, 16, 213–233.

Tratnik, A., Urh, M., & Jereb, E. (2019). Student satisfaction with an online and a face-to-face Business English course in a higher education context. *Innovations in education and teaching international*, *56*(1), 36-45.

Uğur, B., Akkoyunlu, B., & Kurbanoğlu, S. (2011). Students' opinions on blended learning and its implementation in terms of their learning styles. *Education and Information Technologies*, *16*(1), 5-23.

UNESCO. (2020). COVID-19 Educational disruption and response. https://en.unesco.org/themes/educationemergencies/coronavirus-school-closures.

Urval, R. P., Kamath, A., Ullal, S., Shenoy, A. K., Shenoy, N., & Udupa, L. A. (2014). Assessment of learning styles of undergraduate medical students using the VARK questionnaire and the influence of sex and academic performance. *Advances in Physiology Education*, *38*(3), 216-220.

Vernadakis, N., Giannousi, M., Derri, V., Michalopoulos, M., & Kioumourtzoglou, E. (2012). The impact of blended and traditional instruction in students' performance. *Procedia Technology*, *1*, 439-443.

Evaluation Studies in Social Sciences (ESSS)

eISSN 0128-0473 Vol 1/ 2022 (26-41)
https://ejournal.upsi.edu.my
DOI: https://doi.org/10.37134/esss.vol3.1.3.2022

Yamin, K. (2020, May 14). *Mixed response but online classes to stay post COVID-19.* Retrieved July 25, 2020, from University world News: https://www.universityworldnews.com/post.php?story=20200514121749886

Zohre, G. R. N. N., Faride, P., Mehrdad, K., Hayede, G., & Zarrin, A. (2014). The role of critical thinking skills and learning styles of university students in their academic performance. *Journal of Advanced Medical Education Profession*, *2* (3), 95-102.