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Lecturers' attitude towards online learning and education at a tertiary institution in Guyana: A quantitative evaluation

Bibi Rafeena Ally-Charles [1*], Ede Tyrell [2], Andrew Hutson [3], Obena Vanlewin [4]
[1-4] College of Medical Sciences, University of Guyana, Guyana

* Corresponding Author: **Bibi Rafeena Ally-Charles**

Article Info

Abstract

The University of Guyana, which is a higher institution for learning utilizes the traditional physical environment for the delivery of education, although they had made a few strides towards the OLE and blended modes. The abrupt shift to OLE at UG began around the onset of the COVID-19 pandemic. While online platforms like Moodle and Examsoft were already in use at UG, it was not entirely utilized and, in most cases, optional. The pandemic forced the administrative body at UG to apply several measures to facilitate OLE for learning and education to continue. This study examines lecturers' attitudes toward OLE at UG. A cross-sectional quantitative study was employed. Lecturers were conveniently sampled and their ideas, notions, and thoughts related to OLE were explored. Two tools were developed, using a four-point Likert scale to determine lecturers' attitudes towards OLE. Our study showed that most lecturers at UG have a positive attitude towards OLE. However, factors such as lack of ICT infrastructure, inadequate ICT training, difficulty in preparing examinations on Moodle, and issues in maintaining the integrity of exams precipitated their resistance to OLE. We recommended more stringent professional development and face-to-face proctoring for assessments conducted on Moodle.

Introduction

Education is a constant process for the acquisition of knowledge and skills. Both teaching and learning processes are involved. The three main modes for delivering education have been identified as the traditional face-to-face, online, and blended. Many studies have revealed that technology has influenced the delivery of education (Johnson *et al*., 2016) [20]. Technology in education dates back to the last two decades, when personal computers were introduced. Since then, technologies in education have evolved, especially with the advent of the internet (Anderson & Tracey, 2001) [5]. Information and communications technology (ICT) has revolutionized the traditional education paradigm to online education. Globally, there is an ongoing trend toward online learning to eliminate barriers to education (Peytcheva-Forsyth *et al*., 2018) [32] and more recently to prevent the spread of COVID-19 (Li and Lalani, 2020) [26].

Online learning and education (OLE), commonly referred to as e-learning or mobile learning, is education that adopts modern ICT for education (Ullah, 2018) [46]. Mobile learning has become a recognized educational tool. It requires online access (Johnson *et al*., 2016; Tak, 2013) [20, 40], online readiness (So & Swatman, 2006) [38], and online attitude (Buabeng-Andoh, 2012) [7]. Online access means the availability of ICT technological devices and reliable internet services (Johnson *et al*., 2016) [20]. Online readiness is related to the physical and mental readiness of lecturers to the online environment, Glass, (2017) [14] and Kim and Bonk (2006) [21] mentioned that many teachers are not ready enough for online platforms. According to Chang & Fang (2020) [8], some teachers who are less skillful in ICT prefer traditional face-to-face teaching and learning, rather than OLE.

Online attitude is the desire of lecturers towards online education (Hergüner *et al*., 2020) [17]. According to Schwarz (2007) [35], "*Attitude is a hypothetical construct invented by psychologists for explaining any phenomenon of interest. It is the discernment about anything based on the cognitive, affective, and behavioral experience.*"

Schwarz's definition has highlighted three facets of attitude namely: cognitive, affective, and behavioral. Eagly& Chaiken (1993) [10] and Dwyer (1993) [9] have also mentioned three similar facets of attitude. Eagly and Chaiken (1993) [10] listed the three facets as cognitive, sensory, and behavioral; and Dwyer (1993) [9] listed the three facets as a cognitive element, a perceptual element, and a behavioral element. The cognitive facet connects a person's knowledge of a subject, the sensory facet is about feelings or a person's like or dislike for a subject, and the behavioral facet is showing a tendency to respond to a subject with a behavioral position (Eagly, & Chaiken, 1993) [10]. It is therefore evident that attitude is a multifaceted concept that consolidates human knowledge, feelings, and displayed actions that represent that person.

Lecturers are important stakeholders in the adoption of ICT and the implementation and sustainability of online education. Lecturers' attitude towards OLE influences the learning outcomes of education. The attitude of lecturers towards e-learning determines the success of education (Van Den Berg *et al*., 2006; Wasserman and Migdal, 2019) [49, 51]. Strong pragmatic attitudes usually guide behavior, which in turn will create a positive approach towards e-learning (Ullah, 2018) [46]. Lecturers should have the appropriate attitude for the progression of OLE (Johnson *et al*., 2016) [20]. If lecturers' attitudes toward online education are positive, they can offer valuable perceptions about online educational processes (Albirini, 2006; Buabeng-Andoh, 2012) [7, 3]. The attitudes of lecturers should be considered before and during OLE, to guarantee success (Wasserman and Migdal, 2019) [51]. Krishnakumar and Rajesh (2011) [23] recommend that tertiary learning institutions develop programs that aim to instill a positive attitude among lecturers to ICT and online education. Sepulveda-Escobar and Morrison (2020) [36] claimed that the rapid transformation to OLE for teachers and students accustomed to the traditional classroom affects learning and education, but Gold (2001) [15] revealed that teachers' attitudes towards OLE changed drastically. In addition, in times of sudden change, teachers were not well equipped to shift to OLE (Sokal *et al*., 2020) [3*]. Teachers who were less skilled in ICT preferred traditional face-to-face education rather than OLE (Chang and Fang, 2020) [8].

Traditional education has been transformed into OLE in synchronization with the new technology era and to improve education. The shift from traditional learning to e-learning for novice teachers may be difficult at first, but changes with time (Gyampoh et. al, 2020) [16], professional development or training (Agbo, 2015) [2], and practice (Levin and Wadmany, 2008) [25]. Pleas for a shift to OLE began long before the COVID-19 pandemic. Research in Guyana revealed that administrators and facilitators of tertiary learning institutions have critiqued traditional educational strategies and called for OLE in higher educational systems to eradicate barriers to education (Singh, 2013; Thomas *et al*., 2013) [37, 41]. According to Livingstone (2015), the teaching faculty at the University of Guyana (UG) was prepared to improve their teaching strategies and enforce mobile learning as a feasible alternative to the face-to-face classroom. However, the shift to OLE depends on the government's economic commitment, and the administration of the tertiary institution (Tak, 2013) [40].

Globally, OLE has been drastically reinforced in the last year because of the COVID-19 pandemic (UNESCO, 2020). Face-to-face interactions in the physical classroom are significantly high and inevitable. Thus, educational institutions in collaboration with the government decided to close schools and universities physically. They opted for education to continue via online means (Li and Lalani, 2020) [26]. UG, which is a higher institution for learning, was no exception. The shift to online education at UG began around December 2019, at the onset of the COVID-19 pandemic (University of Guyana website, 2020). The use of online learning systems (OLS) such as Moodle and Examsoft was already implemented; however, its adoption was somewhat poor. UG had already made some strides towards the use of OLE by paying for the usage of two major online platforms: Moodle and Examsoft; and carrying out professional development sessions for lecturers. The COVID-19 pandemic accelerated the adoption of OLE by lecturers at UG. Lecturers and students alike were somewhat forced to adopt OLE to maintain the education process. The administrative body at UG immediately paid for an electronic learning platform called Zoom for lectures to be facilitated. They also invested monies to conduct more rapid and several training sessions to enhance the usage of Zoom, and the already implemented OLS like Moodle and Examsoft campus-wide. The administrative body at UG applied several measures to facilitate the urgent adoption of OLE.

UG currently educates 8,601 students and has 1,065 experienced staff members across its campuses (UG website, 2021). As of 2020, the Turkeyen campus at UG, the larger of two campuses had a teaching staff of 310; where the majority were females (168), over 40 years of age (176) (UG personnel, 2021). The study, therefore, aims to examine lecturers' attitudes towards OLE at UG, to help the administrative body to design and apply appropriate paradigms for e-learning, to meet the requirements of lecturers to promote effective learning outcomes. This study will be useful to UG's Administration as they decide about UG's future for the delivery of education: whether they wish to continue with OLE or adopt a blended mode of education for the rest of the pandemic period or thereafter.

Methodology
Study design
A cross-sectional descriptive study was employed. This study was a non-experimental research designed with an exploratory method. It explored the lecturers' ideas, notions, and thoughts related to the topic in the study.

Sample size
Lecturers from the Turkeyen Campus at the University of Guyana were selected to participate in this study. They were conveniently sampled to determine their attitude towards OLE. A total of 100 participants responded to the questionnaire from a population of 310 teaching staff at the Turkeyen Campus in the academic year 2020-2021. The questionnaires were circulated by the University of Guyana's publicity and communication unit.

Research objectives and questions
This research aimed to examine lecturers' attitudes towards OLE at UG. Lecturers' attitudes were determined under four key areas namely: (1) interest in computers and adoption of OLE, (2) the effectiveness of OLE, (3) the ease of OLE, and (4) assessments using online platforms at UG. As a result, several specific research questions were created.

These were
1. What proportion of lecturers has an interest in computers and the adoption of OLE?
2. What proportion of lecturers perceives that there is ease in implementing OLE?
3. How do lecturers feel about the effectiveness of OLE?
4. What proportion of lecturers support assessment using online platforms at UG?

Instrument Design
A closed questionnaire with a 4-point Likert type and four major themes was constructed through Google Forms and conveniently circulated via email to lecturers in mid-2021. The themes were demographic details of participants, interest in Computer and adoption of OLE, effectiveness of OLE, ease in using OLE, and assessments using online platforms. The questionnaire was adopted from Ullah, (2018) [46] and three- four statements were included for each theme. Common themes were merged, and Cronbach Alpha values were determined for the two instruments (Tables 1 & 2) produced from the merger. The questionnaires were open for approximately two months. Several reminders were also sent out.

Table 1: Instrument No. 1

No.	Questions (Cronbach Alpha score = 0.67)	Likert Scale
1	It is difficult to lecture online without appropriate training on the use of ICT.	SA A D SD
2	Slow computers and poor internet connection discourage the use of OLE.	SA A D SD
3	OLE is often avoided as it promotes social isolation.	SA A D SD
4	In OLE, the interaction between students and lecturers is weak.	SA A D SD
5	Acquisition of significant information via the Internet is difficult.	SA A D SD
6	It is difficult and time-consuming to construct both objective and subjective type questions in Moodle.	SA A D SD
7	The integrity of assessments on Moodle is not maintained.	SA A D SD
8	Lecturers have little or no control over assessments on Moodle as no invigilation is done.	SA A D SD

SA=Strongly agree, A=Agree, D=Disagree, SD=Strongly disagree

Table 2: Instrument No. 2

No.	Questions (Cronbach Alpha score = 0.633)	Likert Scale
1	OLE makes learning interesting.	SA A D SD
2	OLE is economical in terms of time for lecturers.	SA A D SD
3	OLE improves learning because it integrates various types of media.	SA A D SD
4	For searching online educational resources, the web is often teacher-friendly.	SA A D SD
5	It is easy to become skillful at using OLS like Moodle and ZOOM.	SA A D SD
6	Marking, grading, and providing feedback to students is easy and quick.	SA A D SD

SA=Strongly agree, A=Agree, D=Disagree, SD=Strongly disagree

Fourteen (14) statements were given overall including both positive and negative statements. Of the 14 statements, eight were positive and six were negative (Table 3). This study required establishing a proportion of lecturers who favored or had a positive attitude towards OLE and those who did not or had a negative attitude towards OLE. To achieve that, all negative worded statements were reversed accordingly such that strongly agree (SA) and agree (A) indicates a positive attitude and strongly disagree (SD) and disagree (D) indicates a negative attitude, that is SA & A= Positive attitude and SD & D=Negative attitude (Table 4). According to Pallant (2010), reversing negatively worded statements reduces response bias.

Table 3: Type of statements asked in the Questionnaire

Category	No.	Statement	Type of statement
Interest in computers & adoption of OLE	1	It is difficult to lecture online without appropriate training on the use of ICT	Negative
	2	Slow computers and poor internet connections discourage the use of OLE	Negative
	3	OLE is often avoided as it promotes social isolation	Negative
	4	OLE makes learning interesting.	Positive
Effectiveness of OLE	5	In OLE, the interaction between students and lecturers is weak	Negative
	6	OLE is economical in terms of time for lecturers.	Positive
	7	OLE improves learning because it integrates various types of media	Positive
	8	For searching online educational resources, the web is often teacher-friendly.	Positive
Ease in Using OLE	9	It is easy to become skillful at using OLS like Moodle & Zoom.	Positive
	10	Acquisition of significant information via the Internet is difficult.	Negative
	11	Marking, grading, and providing feedback to students is easy and quick.	Positive
Assessments Using Online Platforms	12	It is difficult and time-consuming to construct both objective and subjective type questions in Moodle.	Negative
	13	The integrity of assessments on Moodle is not maintained.	Negative
	14	Lectures have little or no control over assessments on Moodle as no invigilation is done.	Negative

Table 4: Reversed negatively worded statements

Category	No.	Statement
Interest in computers & adoption of OLE	1	It is easy to lecture online without appropriate training on the use of ICT.
	2	Slow computers and poor internet connections do not discourage the use of OLE.
	3	OLE is often encouraged as it promotes social interaction.
Effectiveness of OLE	5	In OLE, the interaction between students and lecturers is strong.
Ease in Using OLE	10	Acquisition of significant information via the internet is easy.
Assessments Using Online Platforms	12	It is easy and time-efficient to construct both objective and subjective type questions in Moodle.
	13	The integrity of assessments on Moodle is maintained.
	14	Lectures have control over assessments on Moodle although no invigilation is done.

Statistical analysis

All statistical analysis was carried out using IBM SPSS software version 27. The data gathered from the survey were analyzed quantitatively and expressed empirically using tables. The frequency for each of the points on the modified 4-point Likert scale was determined for each statement. The mean and standard deviation (SD) were calculated after coding the points on the modified Likert Scale as strongly agree = 4; agree = 3; disagree = 2, and strongly disagree = 1. Reversed coding was done for the negative statements such that strongly agree = 1; agree = 2; disagree = 3 and strongly disagree = 4. For this study, a mean value of ≤2.5 was considered a negative attitude obtained per statement, and a mean value of ≥ 2.5 was considered a positive attitude per statement. Lecturers overall attitudes were determined in the same way as described above. Those who scored ≤2.5 were considered to have a negative attitude because their average scores were either 1, strongly disagree, or 2, disagree; and those who scored ≥2.5 were considered to have a positive attitude because their average scores were either 3 (agreed) or 4 (strongly agreed).

Results
Demographics of Lecturers

The majority of the respondents (33%) were from the Faculty of Education and Humanities, females (61%), aged 31-40 (32%) and lecturing at the UG for more than 10 years (38%) (Table 5).

Table 5: Demographic details of lecturers responded

Category	Criteria	No./ %
Faculty/ College/ School	Agriculture and Forestry	5
	Earth and Environmental Sciences	4
	Education and Humanities	33
	Medical Sciences	16
	Natural Sciences	18
	Social Sciences	16
	Engineering and Technology	3
	Entrepreneurship and Business Innovation	7
Sex	Male	38
	Female	62
Age	21-30	12
	31-40	32
	41-50	25
	51-60	17
	Over 60	14
Experience of lecturers	< 1 year	9
	1-2 years	11
	3-4 years	16
	5-6 years	8
	7-10 years	18
	> 10 years	38

Interest in Computer and Adoption of OLE

The first three statements aimed to grasp the lecturers' attitudes towards interest in computers and adoption of OLE. Statement 1 was centered on whether or not lecturers thought that it is easy to lecture online without appropriate training on the use of ICT. A significant 82 % of lecturers did not favor this statement, while 18% of them did (Table 6). Statement 2 was on whether or not lecturers feel that slow computers and poor internet connections do not discourage the use of OLE. Most lecturers (94%) felt that slow computers and poor internet connections discourage the use of OLE, and 5% did not. Statement 3 dealt with lecturers' thoughts on whether or not OLE is often encouraged as it promotes social interaction. Of the lecturers who responded, 63% of them favored this statement, and the remaining 37% did not. Statement 4 was centered on whether or not OLE makes learning interesting. Of the lecturers who responded to this statement, 69% supported it, while 29% did not (Table 6). For statements 1, and 2, an average value of ≤ 2 was obtained, whereas for statements 3 and 4, an average value greater than 2.5 was found.

Table 6: Interest in Computer and Adoption of OLE

No.	Statement	No. / % of Lecturers					Mean±SD
		SA	A	D	SD	Skipped	
1	It is easy to lecture online without appropriate training on the use of ICT.	5	13	59	23	0	2.00±0.75
2	Slow computer & poor internet connections do not discourage the use of OLE.	2	3	35	59	1	1.47±0.66
3	OLE is often encouraged as it promotes social interaction.	15	48	32	5	0	2.73±0.78
4	OLE makes learning interesting.	10	59	29	0	2	2.81±0.60

Effectiveness of OLE

The majority of the lecturers (53%) did not believe that the interaction between students and lecturers is strong in the online setting, while 47% did. Statement 2 was centered on whether or not respondents think that OLE is economical in terms of time for lecturers. Most of the lecturers (54%) maintain the statement and 46% did not (Table 7). Statement 3 had to do with whether or not respondents believe that OLE improves learning because it integrates various types of media. A significant 66% of respondents supported the statement while the remainder (33%) did not. For statement 1, an average value of less than 2.5 was achieved, while for statements 2 and 3, an average value greater than 2.5 was obtained (Table 7).

Table 7: Effectiveness of OLE

No.	Statement	No. / % of Lecturers					Mean±SD
		SA	A	D	SD	Skipped	
1	In OLE, the interaction between students and lecturers is strong.	4	43	42	11	0	2.40±0.74
2	OLE is economical in terms of time for lecturers.	21	33	29	17	0	2.58±1.00
3	OLE improves learning because it integrates various types of media	15	51	32	1	1	2.81±0.70

Ease in Using OLE

A major 79% of lecturers perceive that for searching online educational resources, the web is often teacher-friendly, while 20% did not. Seventy-one percent (71%) of lecturers believe that it is easy to become skillful at using OLS like Moodle and Zoom, while 28% of them did not (Table 8). A large number of lecturers (85%) believed that the acquisition of significant information via the Internet is easy, while 14% did not feel that way (Table 8). For statements 1, 2 and 3, an average value greater than 2.5 was obtained.

Table 8: Ease in Using OLE

No.	Statement	No. / % of Lecturers					Mean±SD
		SA	A	D	SD	Skipped	
1	For searching online educational resources, the web is often teacher-friendly.	15	64	19	1	1	2.94±0.62
2	It is easy to become skillful at using OLS like Moodle and Zoom.	17	54	27	1	1	2.88±0.69
3	Acquisition of significant information via the Internet is easy.	24	61	5	9	1	3.05±0.73

Assessments Using Online Platforms

Four statements on lecturers' attitudes towards conducting online assessments using Moodle and Zoom were given in the questionnaire. Most lecturers (68%) seem to support the statement "Marking, grading, and providing feedback to students is easy and quick", while 29% of them did not. A large number (71%) of lecturers did not support the statement "It is easy and time-efficient to construct both objective and subjective type questions in Moodle", while 28% did (Table 9). The majority of the respondents (60%) did not support the statement "The integrity of assessments on Moodle is maintained", while 38% did. Sixty-three percent (63%) of lecturers did not support the statement "Lecturers have control over assessments on Moodle even though no invigilation is done", while 36% did. For statement 1, an average value greater than 2.5 was achieved, while for the remaining three statements, an average value of less than 2.5 was obtained (Table 9).

Table 9: Assessments Using Online Platforms

No.	Statement	No. / % of Lecturers					Mean±SD
		SA	A	D	SD	Skipped	
1	Marking, grading, and providing feedback to students is easy and quick.	21	47	23	6	3	2.86±0.83
2	It easy and time efficient to construct both objective and subjective type questions in Moodle.	3	25	47	24	1	2.07±0.79
3	The integrity of assessments on Moodle is maintained.	5	33	38	22	2	2.21±0.85
4	Lectures have control over assessments on Moodle even though no invigilation is done.	4	32	38	25	1	2.15±0.85

Lecturer's attitude to OLE

Figure 1 shows that a whopping 56% of UG lecturers have positive attitudes towards OLE, and the remaining (44%) have negative attitudes towards OLE. Figure 2 shows the attitude of lecturers towards the different statements given. Lecturers expressed favorable responses to 57% of the statements given and unfavorable responses to the remaining 43% of the statements.
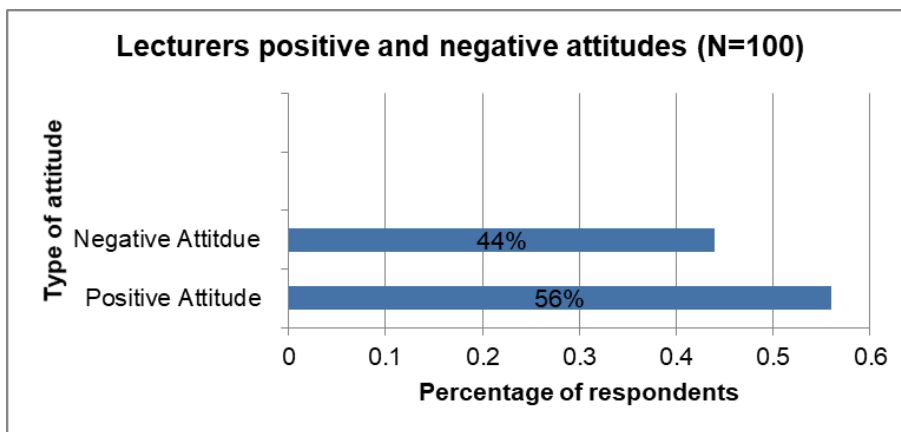
Lecturers positive and negative attitudes (N=100)
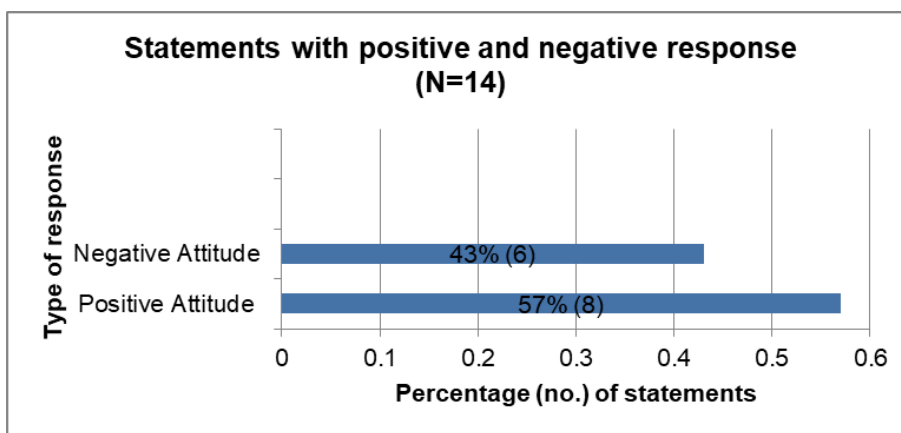
Negative Attitdue — 44%

Positive Attitude — 56%

X-axis: Percentage of respondents (0 to 0.6)
Y-axis: Type of attitude

Fig 1: Lecturer's overall attitude to OLE

Statements with positive and negative response (N=14)

Negative Attitude — 43% (6)

Positive Attitude — 57% (8)

X-axis: Percentage (no.) of statements (0 to 0.6)
Y-axis: Type of response

Fig 2: Lecturer's attitude towards the different statements

Discussion

Online learning and education cannot be overstated, especially since we are living in a technologically advanced era and at the same time, advocating for the continuation of education, due to the rapid onset of the COVID-19 pandemic. Information about lecturers' attitudes towards OLE at UG is necessary, especially since UG has already integrated the online mode of teaching and may wish to adopt this teaching environment permanently. Globally, great strides have been made to implement OLE or e-learning before the 2019 pandemic. However, while most of the world had already adopted and had been utilizing OLE, some countries, especially the developing countries had failed to shift to e-learning because of the many barriers that existed. The COVID-19 pandemic has accelerated OLE adoption and implementation in many countries, even in developing countries like Guyana.

In this study, we considered several aspects of OLE in our statements namely: online infrastructure, ICT training, social isolation, fun learning, the interaction between students and lecturers, time, integration of various types of media, teacher-friendly web, learning OLS, access to significant information, and the examination process. The approach to OLE can vary based on many factors such as and lecturer's knowledge, beliefs, feelings, and support, which in turn may influence their attitude toward e-learning.

Interest in Computer and Adoption of OLE

The largest proportion of lecturers deemed that inadequate training in ICT affects OLE indicating the need for more stringent training if UG is to successfully adopt OLE. Agbo

(2015) [2] said that inadequate professional development and training affect ICT adoption in education. Afroz et al., (2021) indicated that most teachers from three Bangladeshi government colleges favor a similar statement "There is a need for training of teachers to conduct and implement online classes". Surprisingly, a contrasting finding was found by Nambiar (2020), where most respondents disagreed with a similar statement "Lack of computer skills makes it difficult for me to use the online teaching method effectively". Plair (2008) showed that teachers require experts in ICT to show them how to use it. Lecturers, who integrate ICT and adopt OLE with new teaching practices gained through professional training, can transform the performance of the students (Lawless and Pellegrino, 2007). When lecturers are given time to practice with the technology, they learn, share, and cooperate with their coworkers and thus, adopt e-learning easily (Uzorka et al., 2023).

A high proportion of the respondents claimed that slow computers and poor internet connections discourage the use of OLE which in turn signifies that several factors may hinder e-learning at UG. This finding is consistent with those of statement 1. It suggests that the majority of lecturers think that slow computers and poor internet connections hamper OLE. Access to adequate technological infrastructure and resources is paramount in supporting ICT integration and adoption of OLE (Johnson et al., 2016; Buabeng-Andoh, 2012) [20, 7]. A similar finding was found by Nambiar (2020), where most respondents agree with a similar statement "Technical issues affect the flow and pace of online classes". Mardiana (2020) said that infrastructure plays a crucial role in OLE, and if infrastructure and training are provided, OLE

will run smoothly. This finding is consistent with those obtained for statement 1.

Most of the lecturers favored the statement "OLE is often encouraged as it promotes social interaction. We believe that with OLE, there is online interaction, where students can also interact with their lecturers and classmates outside of class time. They can take advantage of emails, instant messaging, and texting to ask their lecturers and classmates questions anytime. Social isolation and social interaction are major concerns in OLE. Baber (2021) said that a lack of social interaction limits OLE outcomes. This finding is inconsistent with those obtained for statements 1 and 2.

Most respondents favor OLE because it makes learning interesting. We believe that ICT and technology provide different opportunities to make learning more fun and enjoyable, for example, a lecturer may use games like "KAHOOTS" to make learning interesting and to promote active class participation. A study done by Nambiar (2020) showed that most teachers did not favor a similar statement "Online classes are more fun and more interactive than classroom method". This result is inconsistent with those obtained for statement 1 and 2 but consistent with those obtained for statement 3.

Overall, positive attitudes have been displayed by UG lecturers towards two out of the four statements related to interest in computers and the adoption of OLE. This implies that lecturers at UG have mixed feelings toward interest in computers and the adoption of OLE. However, at UG, a massive effort has been placed on the professional development of lectures to support OLE. UG has even implemented the "staff-rent-to-own laptop" initiative for lecturers to secure laptops. Our study showed that lecturers believe that limited online infrastructure and insufficient ICT training hinder interest in computers and the adoption of OLE at UG. They feel that the lecturer's interest in computers and the adoption of OLE is greatly influenced by social interaction and the fact that learning is interesting.

Effectiveness of OLE

Our study showed that UG lecturers believe that the interaction between students and lecturers is weak in OLE. The interaction between students and lecturers is critical in all learning environments; however, we believe that it is of greater importance in OLE because there is a lack of social existence in a physical classroom. Nambiar (2020) showed that most teachers favor the statement "there is a lack of teacher-student interaction in online classes".

Time is always important for lecturers and students. Our study revealed that more lecturers believe that lecturers save time using OLE than those who do not. Nambiar (2020) conducted a similar study in India and found that the majority of respondents believed that online education was advantageous because it allowed them to work from home, saving time and money on travel and it eliminated the need to rush to campus. The flexibility that comes with online learning is one of its main benefits. We believe that more material can be covered in a shorter time and more learning materials are available to students at their convenience and leisure. Furthermore, virtual lesson plans, grading software, and online assessments can help lecturers save a lot of time.

The majority of lecturers supported the notion that the integration of a variety of media enhances OLE. A variety of learning tools is available to those who choose to learn online. Lecturers can provide information in a variety of ways, from virtual simulations to interactive multimedia content, which can assist in improving their students' understanding and accommodate different learning styles (Georgieva, 2023). Some educators appreciate the flexibility offered by OLE, acknowledging its adaptability to diverse learning styles and schedules. This modality enables the use of versatile teaching techniques and caters to the diverse needs of students. Yet, some struggle with the transition, particularly if they lack familiarity with technology or miss the personal interactions inherent in traditional classrooms.

Overall, positive attitudes have been displayed by UG lecturers towards two out of the three statements related to the effectiveness of OLE. This implies that lecturers at UG believe in the effectiveness of OLE. They believe that OLE enables the integration of various types of media and is time-efficient. However, they feel that the interaction between students and lecturers is weak.

Ease in Using OLE

A large proportion of lecturers thought that the web is user-friendly in OLE, it is easy to become an expert in using OLS like Moodle and Zoom and the acquisition of significant information via the internet is easy. Overall, positive attitudes have been displayed by UG lecturers towards all three statements regarding the ease of using OLE.

Lecturers worldwide have varying attitudes regarding the ease of embracing OLE, influenced by a multitude of factors. Those proficient in technology often see online platforms as user-friendly (Volery and Lord, 2000). They value the array of digital tools enhancing the teaching experience. Conversely, less tech-savvy educators may encounter hurdles navigating online systems, crafting materials, or addressing technical glitches (Hsbollah and Idris, 2009). Additionally, some educators appreciate OLE's interactive elements like discussion forums, virtual classrooms, and multimedia resources, fostering student engagement and collaboration (Volery and Lord, 2000). However, concerns persist among some lecturers regarding sustaining student engagement virtually and the absence of in-person interaction (Gan and Balakrishnan, 2017).

OLE opens doors for lecturers to connect with a diverse global audience. They value the opportunity to engage with students from varied backgrounds and cultures. Nonetheless, adapting teaching methods to suit the needs of a geographically dispersed student body can pose challenges (Gan and Balakrishnan, 2017; Ali, 2020). Ultimately, lecturers' perceptions of online education's ease are shaped by their individual experiences, preferences, and the support and training they receive in navigating digital platforms. Continuous professional development and institutional support are pivotal in fostering positive attitudes toward OLE among lecturers.

Assessments Using Online Platforms

Most lecturers support online assessment on the basis that marking, grading, and providing feedback to students is easy and quick. However, they did not support online assessment because is difficult and time-consuming to construct both objective and subjective type questions in Moodle, the integrity of assessments on Moodle is not maintained and lectures have little or no control over assessments on Moodle as no invigilation is done.

Lecturers believe that online assessment tools as efficient and time-efficient. Automated grading systems offer prompt

insights into student performance, yet some express concerns about their reliability, potential for cheating, and the absence of in-person proctoring (Gikandi *et al*., 2011). Additionally, perspectives on utilizing online educational platforms for assessments vary based on preferences and course dynamics. The adaptability of online assessment platforms, allowing educators to create diverse question types—multiple-choice, short-answer, and essay questions—facilitates catering to different learning styles. These platforms, coupled with automated grading, save time and offer swift feedback to students (Reeves, 2000). They also ensure accessibility for students with disabilities. However, technical glitches like connectivity issues and complex tool navigation remain concerns. Moreover, the potential ease of academic dishonesty is a worry in online assessments (Hsbollah& Idris, 2009). Certain subjects or assessment types suit online platforms well (Reeves, 2000), while others prefer traditional methods for distinct content types.

Those embracing innovation appreciate experimenting with multimedia elements and interactive simulations. Lecturers may differ in perceiving how engaging online assessments are for students. While some see interactive features as enhancing engagement, others fear student disengagement, particularly regarding motivation when completing assessments remotely (Gan and Balakrishnan, 2017). The availability of technical support significantly impacts lecturers' comfort and confidence in using online platforms for assessments, influencing their outlook positively (Reeves, 2000; Ali, 2020). Furthermore, consistent communication, professional development, and addressing concerns enhance the likelihood of online learning environments' success.

Lecturer's attitude to OLE

Lecturers' attitudes were found to be 2-folded. On one hand, this study showed that lecturers have a positive attitude toward OLE which was reflected in their positive response to most of the statements provided in the questionnaire, and favorable response by the majority of them. Similar studies done in Bulgaria (Tuparova *et al*, 2006), India (Krishnakumar, 2011), and Greece (Xhaferi, 2018) also indicated positive attitudes towards OLE. The findings from this current study promote a positive approach to OLE among lecturers because OLE is time-effective, makes learning interesting, and allows one to integrate various types of media. A positive attitude was also perceived for OLE on the basis that it does not promote social isolation; it is lecturer-friendly, easy to become skillful in using online platforms to teach, and provides swift feedback to students for assessment. Conversely, a negative approach to OLE was also seen among lecturers at UG as reflected by their negative response to 6 out of 14 statements. A negative approach was noted because of inadequate ICT training, poor internet and slow computers, and difficulty in preparing examinations on Moodle and maintaining the integrity of those exams. Two-folded results such as ours were also noted in a similar study conducted in Tanzania (Kisanga, 2016), where 53% of teachers had positive attitudes towards e-learning, and the remaining 47% had negative attitudes towards e-learning. Similar results were noted for similar studies done in Indonesia (Hermanto, 2020) and Bangladesh (Afroz *et al*., 2021).

Conclusion and recommendations

This study reflects a general acceptance of OLE by the lecturers at the UG; however, it is recommended that the University consider face-to-face invigilation for assessments conducted on Moodle to maintain the integrity of the examination. Lecturers and the administrative body should also consider ways to improve students' engagement in the online setting. Perhaps a study that involves the student body and their views on enhancing this engagement could be conducted which would then provide relevant and useful ideas which could then be implanted. It can be concluded that the shift to OLE has posed some difficulties for lecturers at UG, but they are slowly becoming accustomed to the online environment and better results will be achieved if these challenges are properly addressed.

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