

FACTORS THAT ENSURE MOTIVATION IN VIRTUAL LEARNING AMONG COLLEGE OF EDUCATION STUDENTS IN GHANA: THE EMERGENCY REMOTE TEACHING (ERT) DURING COVID'19 PANDEMIC

Joseph Aboyinga

Gambaga College of Education
Department of Education
joeboyinga@gmail.com

&

Matthew Nyaaba

Gambaga College of Education
Department of Education
mnyaaba@gacoe.edu.gh

ABSTRACT

The study was conducted to find out how college of education students can be motivated in virtual teaching and learning (instructions). This became necessary owing to the fact that majority of students were considered to have had low interest in virtual learnings. This was associated to the numerous challenges students face with regards to the emergency remote instructions during the wake of COVID '19 in Ghana. A sample of 768 students from six (6) colleges of education under one mentor university in Ghana constituted the population. The study employed a mixed method approach with the sequential exploratory strategy to collect data using document review and a questionnaire. The qualitative data analysis involved document analysis whereas the quantitative data analysis involved multiple statistical procedures; frequency counts, simple percentages, and standard deviation. The findings revealed factors that could stimulate students' motivation in virtual instruction. The factors ranged from virtual pedagogical strategies to institutional support. A good number (66.7%) of the participants indicated that the use of common and uniform virtual platforms enhance their motivation in virtual instructions (1.54 SD=.85) with majority (83.3%) of the participants also indicating that active and effective communication (1.25 SD=.60) promotes their interest in virtual instructions. Additionally, among other factors, the use of personal multimedia devices (1.71 SD=.89), high internet speed with low cost of internet data, immediate feedbacks were identified as some of the key factors that could ensure motivation among college of education students in virtual instructions. It is therefore recommended that the government, institutions, and facilitators should consider and ensure the effective implementation of these factors to motivate students' motivation in virtual learnings.

Keywords: Emergency remote instruction, COVID '19, college of education students, motivation.

INTRODUCTION

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (Mayo Clinic, 2020). Corona Virus Disease (COVID-19) is a pandemic with no vaccine and ascertained medication. Currently, COVID '19 has spread in various countries such as China, Italy, Korea, Japan, Indonesia and other African countries including Ghana (WHO, 2020). The disease was discovered through whole-genome

sequencing, polymerase chain reaction and broncho-alveolar fluid from infected persons (Zhu, Zhang, Wang, Li, Yang, Song, Zhao, Huang, Shi, Lu, & Niu, 2020).

The mode of spread from humans to humans created the need for social distancing and avoidance of crowded places. Among the pandemic's significant effects is the closure of educational institutions across the globe. In effect of this, many affected countries including Ghana shut down schools and institutions where crowds cannot be avoided until further notice. The emergent closure of schools against the COVID-19 outbreak brought about emergency remote teaching to ensure that students are not left idle in this pandemic era which was launched by governments and tertiary institutions across the world and in Ghana as well (Zhang, Wang, Yang, & Wang, 2020). Therefore, the conventional methods (traditional face to face teaching) have been replaced by online/e-learning (virtual learning) for the time being (Zhu et al., 2020). In this situation the virtual instruction emerged as an asset to connect with students at the tertiary level to keep them engaged and prevent loss of study hours while the academic activities were still in progress in Ghana.

Virtual learning is a learning experience that is enhanced through utilizing computers and/or the internet both outside and inside the facilities of the educational organization. The instruction most commonly takes place in an online environment. The teaching activities are carried out online whereby the teacher and learners are physically separated in terms of place, time, or both (Racheva, 2017). Virtual instruction was rolled out in Ghana as Emergency Remote Virtual Instruction since it was not a planned mode of instruction but was necessary to contain the spread of the deadly coronavirus. However with the passage of time, studies have proven that there are a lot of challenges students in the tertiary institutions face in the emergency remote virtual instructions in the era of coronavirus pandemic in Ghana (Aboagye, Yawson, & Appiah, 2020).

Aboagye et al (2020) depicted that among the challenges affecting Ghanaian tertiary students including Colleges of Education students is the lack of motivation to participate actively in the emergency remote virtual instructions. This could be as a result of the other challenges ranging from poor internet connectivity, inadequate knowledge on the use of ICT and weakness of content development. This was a proof that unlike developed countries, developing countries such as Ghana encounter high rate of these challenges (Aung & Khaing, 2015). Also, since students were not prepared for this online learning, it could possibly be a cause of the lack of personal motivation among college students for the emergency remote virtual learnings (Aboagye et al, 2020).

Steinmayr and Spinath (2009) emphasized that motivation is a key factor that contribute to students learning than general intelligence. Therefore, if students are not readily prepared to study online, intrinsically, they are not motivated and will not be prepared to learn. This supports the initial argument that the introduction of virtual instruction initiatives failed because students were not motivated for the experience (Aydın & Tasci, 2005).

This study focused on identifying the possible factors that could ensure motivation in emergency remote virtual instructions among college of education students in the colleges affiliated to the University for Development Studies (UDS) in Ghana during the COVID' 19 pandemic.

Research Questions

The study was guided by the following research questions:

1. How will college of education students be motivated in virtual instruction among the colleges of education affiliated to UDS?
2. What are the factors that enhance college of education students' motivation in virtual learning during COVID '19 among the colleges of education affiliated to UDS?

Methodology

The study employed a descriptive survey research design with mixed method approach. The mixed method approach adopted was the sequential exploratory strategy. The sequential exploratory strategy is characterized by the collection and analysis of qualitative data in a first phase of research followed by the collection and analysis of quantitative data in a second phase that builds on the results of the initial qualitative results (Creswell, 2012). The sequential exploratory strategy was adopted to ensure emphasis of the qualitative data to bring out the full picture of the study.

In the phase of qualitative data collection, document (literature) review was used. Document review is a form of qualitative research instrument in which documents are inspected and interpreted to give meaning around a topic (Bowen, 2009). The analysis of document became key to identify some of the empirical ways of motivating students in a virtual instruction.

In the phase of quantitative data collection, a ten (10) item questionnaire was used with the help of Google Forms to reach out to student teachers in the six (6) colleges of education in Ghana. These six colleges of education are under one mentor university, University for Development Studies (UDS) which the researchers are staff members of one of the colleges and hence making it convenient for data collection. The responses received from a sample of 768 students were analyzed.

Data Analysis

In this study, documents analysis (content analysis) was used in the qualitative data analysis. Document analysis (content analysis) basically incorporates the coding of contents into themes similar to how interview transcriptions are analyzed (Bowen, 2009). In this study, it involved the review of various scientific sources such as international journals and other literature in accordance with the scope of the study. Several ways of motivating students in virtual learning were considered based on their relevance to the study. In the document analysis data was reduced by means of constructed themes.

The quantitative data was analysed through frequency count, percentages and standard deviation using SPSS version 25. The responses of the participants to the questionnaire in Google form were organised into frequency counts, converted into percentages and standard deviation. The results were used to describe the views of college students on how they get motivated in the emergency remote virtual instruction during the COVID' 19 pandemic in Ghana.

RESULTS AND DISCUSSION

Research Question One (1): How will college of education students be motivated in virtual instruction among the colleges of education affiliated to UDS?

In answering research question one, related literature based on the research question were reviewed. Several ways of motivating students in virtual learning were considered based on their relevance to the scope of the study. Content analysis was done to reduce data by means of constructed themes. These constructed themes included: common platform for online

lessons; prior orientation on platforms for virtual learnings; active communication; access to internet; personal multimedia devices; well-planned schedules; blended approaches; using varying facilitation strategies; and provision of immediate feedback.

Research Question Two (2): What are the factors that enhance college of education students' motivation in virtual learning during COVID '19 among colleges of education affiliated to UDS?

In answering this research question, respondents' views were collected using the 10 item questionnaire. By means of Likert scale for the ten items questionnaire, a descriptive statistics was used to organize the data into frequency counts, converted into percentages and standard deviation. The results were further used to confirm and support the factors derived from the document review. This is presented in Table 2.

Background Information of the Student Teachers

A total of seven hundred and sixty-eight (768) student teachers from the six (6) colleges of education made up the sample of the study. The background information of the participants were collected using the questionnaire designed for the study. The results is shown in Table 1.

Table 1: Background Information of the Respondents of the study

Item	Category	Frequency	Percentage (%)
Name of College	Gambaga College	192	25.0
	St. Vincent College	128	16.7
	Al-Farug College	138	18.0
	Dambai College	83	10.8
	Tumu College	94	12.2
	McCoy College	133	17.3
	Total	768	100
Age Group	16-20yrs	224	29.2
	21-25yrs	416	54.2
	26-30yrs	128	16.7
	Total	768	100.0
Sex	Male	448	58.3
	Female	320	41.7
	Total	768	100.0

Source: Field Data (2020)

As shown in Table 1, majority of the participants (58.3%) were males while the rest were females. Gambaga College of Education had the highest number of participants (25.0%) out of the total number of participants of 768 while Tumu College of Education had the least number of students (10.8%) participating in the study. Also, a good number (54.2%) of the participants were within the age bracket of 21-25 years while the rest were distributed within the ages of 16-20 years and 26-30 years.

Factors that Enhance students' motivation in Virtual Learning in Ghana

The main findings emerged from the document review and the questionnaire data collected. Both findings sought to ascertain the factors that enhance motivation in virtual learning. The

student teachers' view were used to support the factors that were identified from the document review.

Table 2: Descriptive Statistics of student teachers' views on factors that ensure their motivation in virtual learning during COVID'19 in Ghana

Items	A	N	D	M	SD
I like it when all online lessons are done/hosted on common and uniform platforms	512 (66.7)	96 (12.5)	160 (20.8)	1.54	.85
I feel comfortable participating in online lessons when orientation on the technical know-how of the platform is done.	416 (54.2)	128 (16.7)	224 (29.2)	1.75	.88
Online lessons becomes so lively whenever facilitators (tutors) are active in the communication process.	640 (83.3)	64 (8.3)	64(8.3)	1.25	.60
The only time I appreciate online lessons is when there is high internet speed with low cost of internet data	576 (75.0)	64 (8.3)	197 (35.1)	1.42	.76
Online lessons are best enjoyed with personal and sophisticated multimedia devices	448 (58.3)	96 (12.5)	122 (29.2)	1.71	.89
I am so much enthused with online lessons when there is well-planned schedules for lessons	544 (70.8)	96 (12.5)	128 (16.7)	1.46	.76
The use of blended approach would have helped me to understand and participate well in online lessons	552 (71.9)	96 (12.5)	120 (15.6)	1.44	.75
The use of varying facilitation strategies increases my interest in an online lessons	544 (70.8)	128 (16.7)	96 (12.5)	1.42	.70
I participate actively in online lessons when there is immediate feedback on task given	480 (62.5)	96 (12.5)	192 (25.0)	1.63	.86
I am highly motivated working in groups with colleagues in an online lessons	384 (50.0)	160 (20.8)	224 (29.2)	1.79	.87

Source: Field Data (2020) **D=Disagree A=Agree N=Neutral NB: Percentages in parentheses**

From the table the means for the items ranged from 1.25 to 1.79 and the SD ranged from .62 to .97. The item which obtained the lowest means (1.25, SD=.60) was on 'Online lessons becomes so lively whenever facilitators (tutors) are active in the communication process' and the item with the highest mean (1.79, SD=.87) was on the statement 'I am highly motivated working in groups with colleagues in an online lessons'. The discussions of the findings were done using the percentages.

Common and Uniform Platforms

The study revealed that the use of common and uniform online platforms for teaching and learning enhance students' motivation in virtual learning (Agarwal & Dewan, 2020). It was

realized that many colleges do not possess Learning Management Systems (LMS) for their virtual learning, hence the use of varying platforms becomes stressful and in effect demotivate students. Therefore, as posited by Agarwal and Dewan, in the absence of common and uniform platform, students and teachers face multiple problems which eventually affects their interest in virtual teaching and learning.

Conversely, a good number (66.7%) of the student teachers established agreement to this assertion. They pointed out that when all virtual lessons are done/hosted on common and uniform platforms they feel comfortable learning virtually. This indicates that teaching and learning on common and uniform digital platforms for all lessons within a particular term can improve accessibility, engagement, and active participation of students.

Proper Orientation of Digital Platforms

The findings exposed prior and proper orientation as one of the key factors in ensuring motivation among student teachers in virtual learning. Aboagye et al, (2020) affirmed that the motivation of student teachers can be improved in virtual learning through proper orientation of the various apps and platforms that will be used for the virtual instruction. According to Aboagye et al, once students are oriented on how to operate the virtual platforms, such as Google Classroom, Zoom, Kahoot, etc, it will eventually reduce their stress and therefore increases their motivation. This was further emphasized when more than half (54.2%) of the student teachers agreed to the statement 'I feel comfortable participating in online lessons when orientation on the technical know-how of the platform is done'.

Active and Effective Communication

Active communication between tutors and students was recognized as a way to improve motivation among colleges of education students in virtual instructions (Boon, 2015). The feeling of face-to-face interaction seems missing in virtual instructions. Consequently, majority (83.3%) of the student teachers stated that they feel motivated in virtual lessons whenever the facilitator (tutor) is active in the communication process. This implies that unlike asynchronous sessions in virtual learnings, synchronous sessions enhance students' motivation.

High Internet Speed with Low Cost of Internet Data

As per Kemp (2020), internet issue is one of the greatest hurdle in virtual instructions. Access to bandwidth and internet speed is not available to majority of college of education students in Ghana. As part of the recommendation from Aboagye et al's study, it was suggested that internet operators should ensure strong internet connectivity and also reduce the cost of internet data to improve students' engagement and participation in virtual learnings in Ghana. In line with this, seventy-five percent (75.0%) of student teachers indicated that they really appreciate and enjoy virtual lessons when there is high speed internet and less cost to internet data. This is an evidence that the instability of internet as well as high cost of internet data affect students' interest in virtual learnings.

Access to Personal Multimedia Devices

Again, it was found out that students who do not have personal multimedia devices and so may have to use public devices or borrow from parents or friends for their virtual learnings do not enjoy virtual learnings (Kemp, 2020). Therefore, when equal opportunity are available to all learners with personal multimedia devices for their virtual learnings it may enhance their motivation in virtual instructions. Similarly, Aboagye et al, (2020), maintain the suggestion that in order to enhance motivation among college of education students in virtual learnings

during the COVID '19, the government of Ghana should assist students with laptops and tablets.

They posited that most student teachers rated challenges with phones and laptops as an important factor that affect them in the virtual learning. Likewise, in this study, more than half (58.2%) of the student teachers specified that they enjoy virtual learning best with their personal and sophisticated multimedia devices. This shows that many of them do not enjoy having online lessons on public multimedia devices but rather like accessing virtual lessons with personal and sophisticated devices that have a lot of features.

Consistence Schedules for Virtual Instructions

The uncertainty in virtual instructions affects students' interest during classes and when there is a well-organized schedule on virtual lessons it motivates students (Nambiar, 2020). This implies that the smooth execution of virtual instruction schedules keeps students active and motivated. This was confirmed when majority (70.8%) of student teachers admitted that they are enthused with virtual lessons when there is well-planned and consistency in the lessons' schedules. This denotes that when lessons are held haphazardly or without consistency in lesson delivery schedules, students' activeness is distracted. This issue usually happen when there is instability in internet accessibility where tutors would have to be postponing lessons with students.

Blended Approach

Hoic-Bozic, Mornar, and Boticki (2009) specified that blended learning is the most effective way to transit from the traditional classroom to virtual instruction. Blended approach is important to assist both tutors and students to acquire the basic ideas that are relevant in online learning experiences. In the same way, it was suggested to the ministry of education to encourage tertiary institutions in Ghana to use the blended approach during the COVID '19 virtual instructions, where most of the interactions should be done using a conventional approach but conducting assessment and accessing course materials should be done online (Aboagye et al, 2020). As well, majority of the students were of the view that blended approach would have fostered their interest and participation in the virtual learnings. This was depicted when 71.9% of the respondents agreed to the statement 'The use of blended approach would have helped me to understand and participate well in online lessons'.

Facilitation Strategies

Boon (2015) depicted that there are various facilitation strategies that would allow students to feel more engaged in their virtual learnings. According to her, platforms, tools and applications used can determined the level of motivation among students in virtual learning. She further stated that majority of students are motivated in using WhatsApp for the virtual learnings. This is because WhatsApp has got audio presentation, text-presentations and videos can be uploaded as well. The student teaches (50.0%) indicated that their interest in virtual learnings is developed when facilitators employ varying strategies including group activities.

Providing Immediate feedback

Students get motivated in virtual learning when task that require feedbacks are provided immediately (Boon, 2015). Boon declared that when quizzes are developed and students are put into challenges with immediate feedback they get enthused with the virtual lessons. In assessment, there are platforms such as Google Quiz Forms that can be used to upload quizzes to be done by students with immediate feedbacks. This was expounded when 62.5% of the

student teachers indicated that immediate feedback on task given to them improves their participation in virtual learning.

CONCLUSION

The study revealed a number of factors aimed at ensuring motivation in virtual instructions among college of education students. This became necessary due to the fact that majority of students were considered to have had low interest in virtual learnings resulting from the numerous challenges regarding the emergency remote learning during the wake of COVID '19. The factors ranged from virtual pedagogical strategies such as: active and effective communication; varying instructional techniques; ensuring immediate feedbacks; etc, to institutional and government support such as: the provision of personal digital multimedia devices; ensuring high internet speed and low internet cost; etc. It is therefore recommended that institutions, the government and facilitators should consider and ensure the effective execution of these factors to motivate students in virtual learnings.

REFERENCES

- Aboagye E., Yawson J. A., & Appiah K. N., (2020). COVID-19 and E-Learning: the Challenges of Students in Tertiary Institutions. *Social Education Research Vol. 1 (2) 109-114.*
- Agarwal S. & Jyoti Dewan J. (2020). An Analysis of the Effectiveness of Online Learning in Colleges of Uttar Pradesh during the COVID 19 Lockdown. *Journal of Xi'an University of Architecture & Technology.* ISSN No: 1006-7930.
- Aung T. N. & Khaing S. S. (2020). Challenges of implementing e-learning in developing countries: A review. *International Conference on Genetic and Evolutionary Computing.* Springer, Cham. p.405-411.
- Aydın C. H. & Tasci D. (2005). Measuring readiness for e-learning: Reflections from an emerging country. *Journal of Educational Technology & Society.* 8(4): 244-57.
- Boon B. (2015), "Active Online Teaching Strategies – Sharing Best Practices," Conference: Lilly Conference on College and University Teaching and Learning, Austin, 2015. Retrieved on 10/07/2020: https://www.researchgate.net/publication/272680707_Active_Online_Teaching_Strategies- Sharing_Best_Practices.
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal,* 9, 27-40.
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research (4th ed.)*. Boston, MA: Pearson.
- Hoic-Bozic, N. Mornar, V. & Boticki, I. (2009). A Blended Learning Approach to Course Design and Implementation. *IEEE Transactions on Education* 52(1):19 – 30.
- Kemp, S. (2020). Digital 2020: 3.8 billion people use social media. Retrieved from 15 August, 2020 from: <https://wearesocial.com/blog/2020/01/digital-2020-3-8-billion-people-use-social-media>.
- Mayo Clinic (2020). Coronavirus disease 2019 (COVID-19)—“Symptoms and causes”. Mayo Foundation for Medical Education and Research. Retrieved 14 June 2020 from: <https://www.mayoclinic.org/diseases-conditions/coronavirus/symptoms-causes/syc-20479963>.
- Nambiar D. (2020). The impact of online learning during COVID- 19: students' and teachers' perspective. *International Journal of Indian Psychology,* 8(2), 783-793. DIP:18.01.094/20200802, DOI:10.25215/0802.094.

- Racheva, V. (2017). What is Virtual Learning? Vedamo EAD, Bulgaria. Retrieved on 18/08/2020 from: <https://www.vedamo.com/knowledge/what-is-virtual-learning/#:~:text=Virtual%20learning%20is%20a%20learning,place%20in%20an%20online%20environment>.
- Steinmayr R. & Spinath B. (2009). The Importance of Motivation as a Predictor of School Achievement. *Learning and Individual Differences*, v19 n1 p80-90 2009.
- WHO (2020). Coronavirus. Retrieved 09/07/2020 from: <https://www.who.int/healthtopics/coronavirus#tab=tab-1>.
- Zhang, W. Wang, Y. Yang, L. & Wang, C. (2020). Suspending Classes without Stopping Learning: China's Education Emergency Management Policy in the COVID-19 Outbreak. *Journal of Risk and Financial Management* 13(3):55. DOI: 10.3390/jrfm13030055.
- Zhu N, Zhang D, Wang W, Li X, Yang B, Song J, Zhao X, Huang B, Shi W, Lu R, & Niu P. (2020). A novel coronavirus from patients with pneumonia in China, 2019. *New England Journal of Medicine*. 2020; 382: 727-733.