Faculty Perceptions of Self-efficacy in Remote Teaching during COVID-19 Pandemic Lockdown in a Selected University in Sub-Saharan Africa

Prof. Korso Gude, PhD
ORCID: https://orcid.org/0000-0002-4547-8919
Department of Education, University of Eastern Africa Baraton, Kenya
Email: gudek@ueab.ac.ke

Abstract: The major purpose of this study was to establish the faculty perceptions of self-efficacy in remote teaching during COVID-19 Pandemic lockdown in a selected University in Sub-Saharan Africa. A quantitative survey method was used to collect data, analyse, and interpret results. The modified 24-items, 5 point Likert Teachers' Self-Efficacy Scale (TSES) developed by Tschannen-Moran and Woolfolk Hoy (as cited in Butucha, 2010) was used to gather data. It consisted of possible responses ranging from 1 = nothing to 5 = a great deal. Participants were 69 male (*68.3%)* and 32 female (*31.7%)* faculty members drown from a total of 145 across all schools in the selected university. The survey instrument assessed self-efficacy in three areas; instructional strategies, classroom management and student engagement. Data was gathered immediately after the faculty had completed their remote teaching and administered the final examinations online while still in the CIOVID-19 pandemic Lockdown. Since all faculty members were in the lockdown, online survey was sent out to them in google forms. Using excel for Windows version 10, a statistical analysis of the data was done. Descriptive statistics such as frequency, percentage, mean and standard deviation were generated to answer the research question. Results revealed that the faculty believed that they can do quite a bit in student engagement (*M=4.03, SD=0.81*), instructional strategies (*M=3.98, SD=0.80*) and classroom management (*M=3.93, SD =0.79*), in teaching remotely during the COVID 19 lockdown. The study recommends that since technology use in the classroom is now inevitable, the faculty should make intentional efforts to move from doing quite a bit to a great deal in online instructional strategies, classroom management and student engagement.

Keywords: Classroom management; instructional strategies; remote teaching; self-efficacy; Student engagement.

Introduction

When COVID-19 stroke the world suddenly, many educational institutions were forced to close their campuses and send home their students indefinitely in order to control the spread of the disease. Others tried to find ways of ensuring the continuity of learning by introducing an emergency remote teaching approach. But the major problem with this approach was how to convert what has been prepared for face to face to remote teaching which a new experience was entirely and the necessary resources and skills were limited. No time was left to conduct a study to address the faculty preparedness to handle their teaching remotely. However, prior to COVID-19 outbreak, few institutions in Africa had embraced the hybrid form of teaching. Others were struggling to introduce the concept of online teaching. It was at this time that COVID-19 caught many instructions suddenly. In such cases, the faculty members were told to use any form of technology and continue teaching remotely. Short trainings were given. Out of the

desperate needs to keep their teaching job, the faculty forced themselves through to learn many skills of remote teaching.

Although the concept of technology use in the classroom has been around long before the COVUD 19, many faculty members in the selected University were hesitant to use it in the classroom. The COVID-19 pandemic outbreak triggered unprecedented challenges and changes on how teaching and learning take place across the globe, forcing many to change their attitudes and push through to acquire the necessary skills and knowledge for using technology in the classroom. Following the sudden outbreak of COVID-19 pandemic and its subsequent declaration as a global pandemic in March 2020 (WHO, 2020), all walks of life, including education, were impaired, leading to the closure of schools and universities indefinitely. Others tried to find ways of ensuring the continuity of learning. One of the approaches adopted to mitigate the problems was the emergency remote teaching approach.

However, the major question was, will the teachers be able to handle the remote teaching without adequate preparation? Do they have the necessary skills, competence and confidence in technology use to teach remotely by quickly converting what is prepared for face to face to remote teaching and learning? Regardless of all these challenges, to mitigate the COVID-19 crisis, teachers and students both found themselves in the situation where they were forced to embrace the modern digital tools as the means to ensure the continuity of teaching and learning processes. During the pandemic, people were so concerned about their safety and wanted to be protected from the disease. The only way to feel safe while teaching and learning should continue was the emergency remote teaching and learning approach, which gave a sense of safety for the academic community during the distressing COVID-19 period.

In challenging situations, people usually feel desperate and try to rise up, address the challenges and accomplish their goal, or shrink down and give up in defeat. Although various forms of online teaching have been in existence prior to COVID-19, including a range of online open courses and distance education, in some African Universities, the transition to emergency remote teaching using various online teaching methods as a result of COVID-19 pandemic lockdown brought about a number of challenges from both the teachers' and

the students' perspective. Thus, the faculty was challenged to strive and make intentional efforts to handle their classes remotely to alleviate the emergency situations.

The outbreak of COVID-19 pandemic has forced educational institutions to opt for rapid deployment of remote teaching and learning approaches in the form of virtual learning, online lessons, distance learning, radio/television or blended learning to fill in the cavity formed by the momentarily cessation of traditional mode of instructional delivery and ensure the continuity of learning (Butucha, 2020). Although many faculty members were uncertain in the beginning about technology use to teach remotely, after about three weeks of emergency remote teaching, a quick paradigm shift occurred with all faculties using various technologies such as WhatsApp, messenger, e-mails, zoom, BigBlueButton and other learning management systems to handle their classes remotely. As a result, virtual learning gained momentum in the form of emergency remote teaching as the COVID 19 pandemic continued hitting the world harder (Butucha, 2020). However, as Butucha (2020, 2021); Mishra and Abbashree (2020) noted, this new approach to teaching and learning did not go without some difficulties and challenges felt by both the faculty and the students as well as by the university management teams. The major challenges included lack of adequate preparations, internet connectivity problems, power failures, shortage of appropriate devices to use and lack of skills to use technology (Butucha, 2020). Regardless of these challenges, the university in this study overcame the challenges and came out as successful, meeting its expectations of completing its plans for the academic year.

Emergency remote teaching was something which no one thought of before the COVID 19 outbreak. After the pandemic broke out and the faculty members were told to quickly go online and handle their classes remotely, it was observed that they exerted some control over their own self-drive and persisted through the challenging situations as they engaged in the emergency remote teaching.

Therefore, it is important to assess the perception of faculty self-efficacy in emergency remote teaching during that period. Thus, this study aimed at establishing the faculty perceptions of their self-efficacy in remote teaching experiences during the COVID-19 lockdown in a selected university in

Africa. The study was guided by the following research question: What was the faculty perception of self-efficacy in instructional strategies, classroom management, and student engagement in their remote teaching experiences during the COVID- 19 pandemic lockdown?

Literature Reviews

The concept of self-efficacy was first studied by Albert Bandura. According to Bandura (1977, 1986, 1997), self-efficacy is a reflection of one's confidence, ability, skills, and determination, to have control over one's personal behavior and social environment. "Self-efficacy is a person's belief in their ability to succeed in a particular situation" (Cherry, 2020, p. 1). Self-efficacy is a person's belief in his/her ability to perform a specific task which is aimed at achieving explicit goals. Self-efficacy should not be confused with self-esteem. Self-esteem refers to the person's own feeling of self-worth while self-efficacy is the person's perception of his/her own ability to achieve desired set goals (Lopez-Garrido, 2020).

Ones self-efficacy beliefs determine his/her level of confidence in performing specific tasks. Lopez-Garrido (2020) noted that people with strong self-efficacy are resilient to hardships, resistant to stress, develop healthy life styles, focus on good performance and aim to educational improvements and achievements. In contrast, people with weaker perceptions of self-efficacy are characterized by self-doubts and they easily give up when faced with challenges such as the sudden outbreak of COVID-19 which plagued specifically the global education system and disrupted the teaching and learning.

Self-efficacy is assessed frequently in various fields of profession. In teaching, self-efficacy plays vital role in teachers' professional life to handle their teachings effectively, meet their routine obligations faithfully, face the professional challenges positively, strive to overcome them and motivate their students to achieve the highest possible results in their academic journey (Barni, Danioni, & Benevene, 2019). Thus, teachers' self-efficacy has significant implications for teaching effectiveness, instructional strategies, classroom management and student engagement to achieve high standards of academic goals (Klassen et al., Klassen and Tze, as cited in Barni, Danioni, & Benevene, 2019).

Like any other skills, teaching remotely using various approaches requires self-efficacy. Self-efficacy in remote teaching can be defined as faculty belief in their capabilities to teach remotely in order to achieve a goal or an outcome as planned in the course syllabi. Self-efficacy in remote teaching involves the faculty abilities to teach in a completely new learning environment using new technologies and teaching methods. Studies on teachers' sense of self-efficacy have been predominantly based on physical classroom teaching. However, like any other skills, teaching remotely using various approaches requires self-efficacy.

The significant roles of teachers' sense of self-efficacy can be observed in teachers' personal goals, their persistence in times of adversity such as COVID 19 pandemic, their strength to face the challenges and keep on moving forward to discharge their teaching responsibilities in the new normal using digital tools (Glackin & Hohenstein, 2018).

Self-efficacy in Instructional Strategies

Wyatt as cited in Withy (2019, p. 1) defines teacher efficacy as 'teachers' beliefs in their capabilities to support learning in various tasks and context-specific, cognitive, metacognitive, affective and social ways." Teachers' sense of self-efficacy is important in teaching because teachers with high self-efficacy beliefs are more likely to invest more effort and persistence towards goals and use better and more strategies than teachers with low self-efficacy beliefs. Further, teachers with high sense of self-efficacy feel more competent and confident in their ability to teach and reach all students (Withy, 2019; Artino, 2012). Taylor and Parsons (2011) and Wang, Liang, Zhong, Xue Xiao (2012) noted that as a result of globalization and technological advancement, students have changed over the last twenty years; they appear to have "different" needs, goals and learning preferences than students in the past. The millennial learners have grown up in the technology saturated environment with the internets, computers, laptops, mobile phones and many other ICT products, making it necessary for teachers to know these facts and integrate technology to cater for the needs of the digital generation (Wang, Liang, Zhong, Xue & Xiao, 2012). The 21st century classroom teaching requires the knowledge of the basics of technological operation such as the use of internet, word processor, database, spreadsheet and presentation software. The teaching, learning and curriculum require the knowledge of models of teaching, the nurture and use of information processing skills such as problem-based learning and constructivism (Thorsen, 2009).

It is for these reasons that teachers' self-efficacy in instructional strategies becomes vital.

Self-efficacy in Student Engagement

Self-efficacy in student engagement can be defined as teachers' belief in their ability to attract learners' attention, increase their participations in the learning preprocess and eliciting their persistence and help-seeking capabilities. The main and literal focus of self-efficacy in student engagement is to increase achievement, positive behaviors and a sense of belonging in students so that they remain in school and get the maximum out of the classroom instruction. Taylor and Parsons (2011) observed that engagement can be academic, cognitive, intellectual, institutional, emotional, behavioral, social, or psychological. Student engagement in higher education is becoming an increasing concern (Kisber, 2007). Engagement refers to a total involvement "being wholly involved." The word "engagement," is derived from a French word engage, which is used to describe a writer or an artist's total moral commitment to the arts (Kisber, 2007). Thus, engagement is participation that is "more than an action." It is "an emotional attachment and investment" (Sturge Sparkes, as cited in Kisber, 2007). Student engagement implies or suggests an intensity of their participation in the learning processes. Student engagement is an important condition for the teaching learning process. In the 21st century proximally disconnected and remotely connected generations, student motivation to engage them in the classroom activities is therefore an important concern for all teachers.

Self-Efficacy in Classroom Management

Classroom management is defined as organizing, controlling and creating positive climate and incentives (Bosch, 2006; Hoy & Hoy, 2006). Broadly defined, classroom management refers to "how the teacher works, how the class works, how the teacher and students work together and how teaching and learning happen" (Bosch, 2006, p. 2). The main purpose of classroom management is to preserve a positive and fruitful learning environment somewhat free of behavioral evils that are hindrances to effective learning (Hoy & Hoy, 2006). Difficulty of behavior management in the classroom is frequently mentioned as cause of annoyance for teachers and a familiar reason why many teachers run away from the teaching profession (Malmgren, et al, as cited in Butucha 2010). It is further noted that one's own consistently and thoughtfully built values of classroom management can offer the basis from which teachers make classroom management decisions and respond to instances of student disciplinary problems (Malmgren et al., as cited in Butucha, 2010). Teachers' classroom organizing and managing skills to control students' behaviors are crucial in achieving positive instructional results (Oliver & Reschly, 2007; Hoy & Hoy, 2006). Ingersoll and Smith (as cited in Oliver & Reschly, 2007, p. 4) further stated that "a significant body of research attests to the fact that classroom organization and behavior management competencies significantly influence the persistence of new teachers in the teaching career."

Methodology

In this study, quantitative research method was used in gathering, analyzing the data and interpreting the results. A voluntary response sampling (non-probability sampling) method was used in which an online survey was sent to all faculty members in a google form. Out of the total of 145 faculty members across all schools in the selected university, 101 responded to the survey (70% response rate). The demographic representation of the respondents was 69 males (68.3%) and 32 females (31.7%).

The modified 24-items, 5 point Likert Teachers' Self-Efficacy Scale (TSES) developed by Tschannen-Moran and Woolfolk Hoy (as cited in Butucha, 2010) was used to gather data. This has been the most commonly used scale for TSE studies (Ma et al. 2019). This scale covers three aspects of classroom teaching, which are instructional strategies, student engagement and classroom management and consists of responses ranging from 1 = nothing to 5 = a great deal.

According to the developers, the TSES scale is sufficiently valid and reliable to be used for studies of self-efficacy in various fields (Tschannen-Moran & Woolfolk Hoy, as cited in Butucha, 2010). It is widely used for studies in USA (Capa, Frederiks, Tschannen-Moran & Woolfolk Hoy, as cited in Butucha 2010). It has also been used in other countries such as Iran (Eslami & Fatahi, 2008), Canada, Cyprus, Korea, and Singapore, (Bong et al., as cited in Butucha, 2010) and it is reported to be valid and reliable.

Data was gathered immediately after the faculty had completed their remote teaching and administered the online examinations while still in

the CIOVID-19 pandemic Lockdown. Since all faculty members were in the lockdown, the online survey was sent out to them in google forms. Anonymity, confidentiality and voluntary participation were ensured since the questionnaire was not sent to individuals, but to the groups. Using excel for Windows version 10, statistical analysis of the data was done. Descriptive statistics such as frequency, percentage, mean and standard deviation was generated in order to come up with results.

Results and Discussion

Studies on self-efficacy indicate that the contributions of self-efficacy beliefs enable people to determine the goals they set for themselves, the efforts they exert in times of difficulties in order to succeed, their perseverance level to withstand the difficulties as well as their tolerance level to failures (Bandura, 1994). The sudden outbreak of Covid-19 posed a great challenge specifically on teaching and learning. But many institutions persisted through the challenges by adopting technology enabled learning. Therefore, using a quantitative survey method, this study explored the faculty perception of self-efficacy in instructional strategies, classroom management and student engagement in the remote teaching experiences during the COVID- 19 pandemic lockdown in a selected university in Sub-Saharan Africa.

The first part of the study dealt with the demographic information and the second part dealt with the research question. The demographic profile of respondents revealed that out of the total of 145 faculty members in the selected university, 101 (*70%*) participated in the study. As indicated in Table 1, majority of the faculty members involved in the study were males 69 (68.3%) and females 32 (*31.7%*). Majority of the respondents were in the age group of above 51 years, 33 (*32.6%*) followed by those in 30-35 age group 19 (*18.8%*), 36-40 age group 17(*16.8%*), 41-45 age group, 13(*12.9%*), 46-50 age group, 13(*12.9%*) and age group 24-29 years, 4 (3.09%). This shows that those who participated in the study were heterogeneous matured adults who could think critically, analyse and respond effectively to the questionnaire. Majority of the respondents, 35 (*34.6%*) had 6-10 years of teaching experience followed by those with 21 years and above years of teaching experiences 28 (*27.7%*). A small percentages of respondents had the teaching experience of below 5 years 15(14.9%), 16-20 years 12(*11.9%*) and 11-15 years 11(*10.2%*). This shows that majority of the respondents had sufficient years of teaching experience to handle their subjects and students.

Table 1: Demographic Information

Variable	Category	f	%
Gender	Male	69	68.3%
	Female	32	31.7%
	Total	101	100%
Age Category	24-29	04	3.09%
	30-35	19	18.8%
	36-40	17	16.8%
	41-45	15	14.9%
	46-50	13	12.9%
	Above 51	33	32.6%
	Total	101	100%
Experience	Below 5	15	14.5%
	6-10	35	34.6%
	11-15	11	10.2%
	16-20	12	11.9%
	Above 21	28	27.7%
	Total	101	100%

Research Question: What is the faculty perception of self-efficacy in instructional strategies, classroom management and student engagement in their remote teaching experiences during the COVID- 19 pandemic lockdown?

Using a 5-point scale TSES which ranges from 1 (*nothing*) to 5 (*a great deal*), with 1 being the lowest and 5 being the highest perceived self-efficacy, descriptive statistics were calculated in terms of the three subscales and the mean and standard deviation scores were generated to determine

faculty perceptions of self-efficacy in remote teaching during COVID-19 pandemic lockdown. The mean categories were interpreted as follows: *Nothing* =1.00-1.79*, Very little* = 1.80-2.59, *Some influence* = 2.60-3.39, *Quite a bit* = 3.40-4.19, *A great deal* = 4.20-5.00.

Self-efficacy in Instructional Strategies
The subscale for self-efficacy in instructional strategies asked how much the faculty can do to employ various technologies in remote teaching during the COVID 19 pandemic lockdown. Eight items comprised this subscale. On the 5-point Likert scale, the calculated means for the items of this subscale ranged from the highest (*M = 4.17, SD = 0.87*) to the lowest (*M = 3.88, SD = 0.95*). The overall mean for this subscale was 3.98 and the standard deviation was 0.80, indicating that the faculty perceived that they can do *quite a bit* in self-efficacy in instructional strategies.

Self-efficacy in Classroom Management
The subscale for self-efficacy in classroom management asked how much the faculty can do to employ various strategies to manage their students in remote teaching during the COVID 19 pandemic lockdown. The calculated mean scores for the items of this subscale ranged from the highest (*M = 4.06, SD = 0.78*) to the lowest (*M = 3.77, SD = 0.84*). The overall computed mean for this scale was 3.93 and the standard deviation was 0.79 indicating that the faculty perceived that they can do *quite a bit* in self-efficacy in classroom management.

Self-efficacy in Student Engagement
The subscale for self-efficacy in student engagement asked how much the faculty can do to employ various strategies in remote teaching during the COVID 19 pandemic lockdown to engage their students. The highest mean score for the items of this subscale was (*M = 4.22, SD = 0.75*) and the lowest mean score was (*M = 3.74, SD = 1.20*). The overall mean score for self-efficacy in student engagement was 3.98 and the standard deviation was 0.80 indicating that the faculty can do *quite a bit* in self-efficacy in student engagement.

Discussions
The study investigated the faculty perceptions of self-efficacy in remote teaching during the COVID-19 Pandemic lockdown in a selected University in Sub-Saharan Africa. The three areas of self-efficacy investigated were, instructional strategies, classroom management and student engagement.

The statistical analysis for TSES showed that the moderately highest mean score was for the subscale efficacy in student engagement, followed in descending order by efficacy in instructional strategies, and efficacy in classroom management. In general, the level of faculty perceptions of self-efficacy in remote teaching was high with efficacy in classroom management relatively rated lower. One of the factors contributing to the high level of faculty self-efficacy can be attributed to the faculty cooperation to push themselves beyond the limit to implement the emergency remote teaching since there was no any other alternative to secure their teaching job.

Another factor which perhaps promoted the faculty self-efficacy in technology use could be the university's management conducting series of trainings and providing the necessary support, allowing the faculty to try all technological tools in the classroom and master the skills. Similar findings were reported by Mishra and Abbashree (2020) in India where they reported the cooperation among the students and faculty to implement online teaching and learning during the pandemic lockdown as high. Further, the authors revealed that online teaching during COVID 19 pandemic is a rather exciting concept of teaching for Indian teachers in general. Another study by Butucha (2021) found that the faculty can do a great deal in online assessment strategies during the COVID 19 pandemic emergency remote teaching.

Moreover, Butucha (2021**)** noted that when asked to what extent they can implement technology enhanced instruction and assessments, *48.7%* of the faculty participated in a study reported that they can do a great deal whereas *27.6%* said they can do quite a bit in technology enhanced instruction. Regarding the use of various online assessments strategies, *38.2%* of the faculty reported that they can do quite a bit while only *34.2%* reported that they can do a great deal. The study by Alea, Fabrea, Roldan and Farooqi (2020) on distance education indicated that regardless of teachers' limited experience in online education in terms of technical skills, time management, knowledge and attitude, teachers can cope with the trends in distance learning. The study of Ma, Chutiyam, Zhang, and Nicoll, (2021) also revealed that Teachers sense of self-efficacy in online teaching using technology application increased among Chinese teachers during COVID-19 school lockdown.

The high perceptions of self-efficacy in online/remote teaching could be attributed to the fact that "after people become convinced they have what it takes to succeed, they persevere in the face of adversity and quickly rebound from setbacks. By sticking it out through tough times, they emerge stronger from adversity" (Bandura, 1994, p. 3). This implies that when people accept the challenges positively, face them boldly to come out of them, rather than looking at them negatively and treating them as threats, they tend to be motivated to tackle the challenges successfully, which is the case in this study. COVID-19 caused some distress and anxiety in all spheres of human life in general and educational institutions in particular which in turn forced the faculty to try harder new skills leading to higher self-efficacy in technology use for handling their classes remotely.

In contrast, some studies, reported lower self-efficacy related to some constraining factors. For example, Tchounwou (2021) reported lower self-esteem and lower self-efficacy of the teachers compared with the normative sample in teaching times of COVID 19 pandemic in Italy. He (2014) also reported that due to the concerns about not having opportunities: connections with students during online teaching/learning, teachers felt less self-efficacious about interacting with students and providing feedback for their future students. On the other hand, Almahasees, Mohsen and Amin (2021), reported usefulness of online learning but its less efficacy and effectiveness than the traditional face to face learning and teaching in Jordanian studies Although low self-efficacy is not desirable, obviously when people believe that some tasks are difficult to perform under some unexpected situations and they therefore feel that the situations are beyond their capabilities, such as in the case of COVID-19 which ravaged the world suddenly and caused much distress, it is not surprising to see a low self-efficacy in those who lose their confidences in their personal abilities to overcome the challenging situations.

Conclusions and Recommendations

In conclusion, the faculty ability do quite a bit in remote teaching during the COVID 19 pandemic lockdown may be attributed to Bandura's (1977) concept of "mastery experiences" as powerful drivers of self-efficacy where people take up new challenges, try harder and succeed. The sudden outbreak of COVID 19 posed a real challenge to the globe in general and educational institutions in particular. It is during the pandemic lockdown that

many businesses including educational institutions learned new skills of using technology in order to ensure the continuity of their businesses. Those institutions which took up these challenges positively and believed that they can do their best in implementing technology supported learning succeeded.

As Abdul-Malik (2022) noted, technology was already set to 'explode', the sudden outbreak of COVID-19 pandemic only catalyzed the process. Like many other educational institutions, the university in this study was already about to initiate plans to infuse higher technology into teaching and learning or implement some educational technological plans. The pandemic catalyzed this process and speeded up the outcome. Thus, the faculty beliefs in their self-efficacy to do quite a bit in instructional strategies, classroom management and student engagement in remote teaching during COVID-19 pandemic lockdown in a selected University in Sub-Saharan Africa can be attributed to the collaborative efforts by the administration, faculty and students to cope up with the unprecedented challenges caused by the sudden outbreak of the pandemic which forced them to learn new skills quickly and aggressively.

The faculty persistence, perseverance and interest to adapt the new skills to overcome the challenging situation of the pandemic resulted in the high perception of self-efficacy in remote teaching.

The study recommends that the university management ensures that digital pedagogy be part and parcel of faculty professional development programs so that the faculty sense of self-efficacy in online teaching will not disappear after the pressure of the pandemic goes down. Further, the study recommends that a comparative study according to gender, age and teaching experience of faculty perceptions of self-efficacy in remote teaching be conducted.

References

Abdul-Malik, A. (2022). Leading Higher Educational Institutions Beyond the Pandemic. Academic Letters. Retrieved from https://www.academia.edu/84319968/Leading_ Higher_Educational_Institutions_Beyond_the_Pandemic.

Alea, L.A.; Fabrea, M.F.; Roldan, R.D.A. & Farooqi, A.Z. (2020). Teachers' Covid-19 awareness,

distance learning education experiences and perceptions towards institutional readiness and challenges. Int. J. Learn. Teach. Educ. Res. 2020, 19, 127– 144. Retrieved from [Google Scholar] [CrossRef].

Almahasees, Z., Mohsen, K. & Amin, M. O. (2021, May 12). Faculty's and Students' Perceptions of Online Learning During COVID-19. Front. Educ. Retrieved from https://www.frontiersin.org/articles/10.3389/feduc.2021.638470/full

Artino, A. R. (2012). Academic self-efficacy: from educational theory to instructional practice. Perspect Med Educ.1 (2), pp 76–85. Retrieved from doi: 10.1007/s40037-012-0012-5.

Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), Encyclopedia of human behavior (4), pp. 71-81. New York: Academic Press. (Reprinted in H. Friedman [Ed.], Encyclopedia of mental health. San Diego: Academic Press, 1998).

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioural change. Psychological Review 84 (2), 191-215. Retrieved from doi: 0.1016/0146-6402(78)90002-4.

Bandura, A. (1997). Self-efficacy: The exercise of control. New York, NY: Longman.

Barni, D; Danioni, F; & Benevene, P. (2019, July 12). Teachers' Self-Efficacy: The Role of Personal Values and Motivations for Teaching. Psychol. Retrieved from | https://doi.org/10.3389/fpsyg.2019.01645

Bosch, K. (2006). Planning Classroom Management: A Five-step process to Creating a Positive Learning Environment (2nd ed.). Thousand Oaks, California. Corwin Press.

Butucha, K. G. (2010). Secondary School Beginning Teachers' Perceptions of Self-efficacy, School Culture, and Professional Commitment in Ethiopia. Unpublished Doctoral Dissertation. Adventist International Institute of Advanced Studies.

Butucha, K.G. (2020). Students' Emergency Remote Learning Experiences during the COVID-19 Pandemic Lockdown in a Selected University in Africa. American Journal of Educational Research. 2020, 8 (12), 899-905. DOI: 10.12691/education-8-12-3. Retrieved from http://pubs.sciepub.com/education/8/12/3/index.html.

Butucha, K. G. (2021). Faculty Remote Teaching Experiences in Response to the COVID-19 Pandemic Lockdown in a selected University in Sub-Saharan Africa. International Academic & Research Consortium. Retrieved from https://www.iarconsortium.org/ journal-info/iarjms.

Cherry, K. (2020). Self-Efficacy and Why Believing in Yourself Matters. Retrieved from https://www.verywellmind.com/what-is-self-efficacy-2795954.

Eslami, Z. R., & Fatahi, Z. (2008). Teachers' sense of self-efficacy, English proficiency, and instructional strategies: A study of nonnative EFL teachers in Iran. TESL-EJ, 11(4). Retrieved from http://tesl-ej.org/ej44/a1.pdf.

Glackin, M., & Hohenstein, J. (2018). Teachers 'self-efficacy: Progressing qualitative analysis. International Journal of Research and Method in Education, (41), pp. 271–290. Retrieved from https://doi.org/10.108 0/1743727X.2017. 1295940.

He, Y. (2014). Universal design for learning in an online teacher education course: Enhancing learners' confidence to teach online. Journal of Online Learning and Teaching, 10, pp. 283–298. Retrieved from https://jolt.merlot.org/vol10no2/he_0614.pdf.

Hoy, A. W., & Hoy, W. K. (2006). Instructional leadership: A research based guide to learning in schools (2nd ed.). Boston: Allyn & Bacon.

Kisber, N. (Ed.). (2007). Student engagement in the 21st century (1)1. Canada: LEARNing Landscapes.

Lopez-Garrido, G. (2020). Self-Efficacy Theory. Retrievedfrohttps://www.simplypsychology. org/self-efficacy.html#scale.

Ma, K., Chutiyam, M., Zhang, Y., & Nicoll, S. (2021). Online teaching self-efficacy during COVID-19: Changes, its associated factors and moderators. Education and Information Technologies (2021) 26:6675–6697. Retrieved from https://link.springer.c om/content/pdf/10.1007/s10639-021-10486-3.pdfRamachandran.

Mishra, L., Abbashree, T. G. (2020). Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. International Journal of Educational Research Open. 1(200012). Retrieved from https://www.sciencedirect.com/ science/article/pii/S2666374020300121

Oliver, R. M., & Reschly, J. D. (2007, December). Effective classroom management: Teacher preparation and professional development. National Comprehensive Center for Teachers' Quality. Retrieved from http://www.tqsource.org/topics/effectiveClas sroom Management.pdf.

Taylor, L. & Parsons, J. (2011). Improving Student Engagement. Current Issues in Education 4 (1), pp. 1-32. Retrieved from https://www.researchgate.net/publication/ 277031893

Tchounwou, P. B. (2021). Teaching in Times of the COVID-19 Pandemic: A Pilot Study on Teachers' Self-Esteem and Self-Efficacy in an Italian Sample. Int. J. Environ. Res. Public Health 2021, 18(15), 8211. Retrieved from https://doi.org/10.3390/ijerph18158211.

Thorsen, C. (2009). TechTactics: Technology for Teachers. Boston: Pearson. Retrieved from https://scholarworks.boisestate.edu/fac_bo oks/96.

Wang, N, Liang, H, Zhong, W, Xue, Y &; Xiao, J (2012). Resource Structuring or Capability Building? An Empirical Study of the Business Value of Information Technology. Journal of Management Information Systems, 29(2), 325-367.

Withy, H. (2019). Strategies for developing and maintaining self-efficacy in teachers. Retrieved from https://theeduc ationhub .org.nz/strategies-for-developing-and-maintaining-self-efficacyinteachers/#_edn2.

WHO (2020). WHO Director-General's Opening Remarks at the Media Briefing on COVID-19 - 11 March 2020. Retrieved from https://www.who.int/director- general/ speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19—11-march-2020.