

LESSONS FROM COVID-19: A SILVER LINING FOR TEACHING AND LEARNING IN SELECTED LESOTHO INSTITUTIONS OF HIGHER LEARNING

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ABSTRACT

There has been a myriad of negative implications on teaching and learning at tertiary level that came along with the emergence of Covid-19 pandemic. The purpose of this paper is to investigate the lessons and opportunities presented by the pandemic to the learning and teaching process in Higher Educational Institutions (HEIs). The study employed a survey design and used diary and semi-structured questionnaires as key data generation tools. A sample of 80 lecturing staff was used from three HEIs in Lesotho adopting a stratified random sampling. The findings from the study suggest that the implementation of online teaching and learning brought positive implications to Lesotho's HEIs as most of the sampled respondents supported the intervention. The study also revealed that the COVID-19 pandemic exposed shortcomings such as a lack of staff capacity to teach online, adoption of blended learning, and teaching and infrastructural preparedness in tertiary institutions. The study further suggests that there is a need to redevelop and redesign the curriculum, harmonize policies of teaching and assessment, and align them to online learning and teaching. The study recommended an inclusive stakeholder approach at the national and institutional level to drafting and implementing online learning supportive policies. Further research is recommended to quality regulators of tertiary institutions to understand their insights and perceptions of adopting online teaching and learning in HEIs.

Keyword: COVID-19, Online-Learning and Teaching, Higher Education Institutions, Curriculum, Lesotho

1. INTRODUCTION

The advent of the Covid-19 outbreak that was deemed a global health emergency (Sohrabi, Alsafi, O'Neill, Khan, Kerwan, Al-Jabir & Agha, 2020), it imposed a different landscape that included amongst others: lockdowns; social distancing; quarantines and curfews as instruments geared towards curtailing the spread of the rapid pandemic. The pandemic put indelible footprints on the education system and resultantly forcing many organizations to change their modus operandi. The Covid-19 pandemic spurred a reactive or rapid change to take place for tertiary institutions whereby the external force pressurized them for change as opposed to planned or proactive change that takes place when the organization itself concludes about change is desirable (Hussain, Lei, Akram, Haider, Hussain & Ali, 2018). The result was an abrupt halt of the operations of educational institutions mainly through physical contact. The primary aim was to guarantee the safety of their students and staff

from infection (Mashinini, 2020; Adedoyin & Soykan, 2020).

Considering this new normal, Higher Educational Institutions (HEIs) were radically ushered into remote learning and teaching with an immediate adoption of Educational Technology (EdTech). The education sector including HEIs was hard hit by the measures, compelling educationists to think of alternative ways of teaching during the pandemic, thus paving way for online learning or web-based learning, or otherwise e-Learning. (Radha, Mahalakshmi, Kumar & Saravanakumar, 2020). The fundamental issues that were raised owing to the migration of Higher Educational Institutions to online learning include among others, the preparedness for the transition in terms of the availability and the capacity of the institutions, whether operational policies were in sync with the change to promote effective teaching and learning (Henaku, 2020). The Covid-19 pandemic posed the need for rapid migration from face-to-face to online learning and it caused

inevitable challenges, especially in the African continent where only 24% have access to the internet (Tamrat & Teferra, 2020).

Roughly 68% of the student population was affected by the pandemic globally; 29% of HEIs in Africa quickly migrated to online learning and teaching relative to 85% of European HEIs. Approximately 70% of African HEIs could not meet the requirements of online learning and teaching and 25% of African HEIs completely cancelled the process of learning and teaching (UNESCO, 2020). In Africa, the situation was further worsened by unstable internet connectivity, high cost of internet, and persistent power outages. Students and teachers faced challenges such as the capacity to use online devices, access to a stable internet connection, and the unavailability of computers in their homes to use for their online teaching and learning (Henaku, 2020). Furthermore, there are challenges of compatibility of other devices such as cell phones and tablets with the online learning tools adopted by the universities for teaching. Emanating from the aforementioned challenges, Al-Marouf, Salloum, Hassaniien & Shaalan, (2020) allude that the transition led to adverse emotional consequences such as fear of the unknown, fear of failure, insecurity, worry, anxiety, feeling of trepidation, and fear of missing lessons resulting from e-Learning.

As reported by the United Nations (2020), the manifold interventions that institutions of higher learning have to embrace could be put into five categories namely; (1) immediate changes to ensure seamless continuity of academic research and teaching delivery; (2) interventions that are required to ensure students employability as the graduate; (3) the strategic changes that come as a result of abrupt shift in behaviour, new resource development and process; (4) the shift in the HEIs working model in terms of affordability and sustainability, and (5) the national level policy changes for regulating and promoting quality assurance in the wake of the changing times. On that account, the objective of this paper is to explore the lessons that Covid-19 has ushered in the delivery of the core mandate of institutions of higher learning in teaching, research, and community work. The prolonged effects of Covid-19 on HEIs and the uncertain question on how the outlook of recovery will take are still hounding educational practitioners and policy makers.

However, there are take home lessons that players in the educational can glean from the hard experience so far. It is argued that the shock waves caused by the Covid-19 pandemic spurs rethinking and shedding off the traditional teaching and learning approaches (Tamrat, 2020).

Devinney and Dowling (2020) observe that Covid-19 ushers to universities a golden opportunity to change their dysfunctional ways of service delivery. There is a strong belief that e-Learning can result in more effective and easier access to large quantities of information. This can be made possible by ensuring good internet infrastructure and connectivity, non-intermittent power supply, and availability of compatible ICT devices to staff and students (Khalil, Mansour, Fadda, Almisnid, Aldamegh, Al-Nafeesah, Al-Wutayd, 2020). Premised on the above, there is an aching need to assess the consequences of this sudden switch to 100% or 50% online or e-Learning on teaching and learning as a result of Covid-19 pandemic. In Lesotho, the HEIs were not being spared from the effects of the scourge. The country however, has since been experiencing the progressive and continuous relaxation of Covid-19 protocols. Despite the relaxation of the Covid-19 regulations in Lesotho, HEIs are still not yet operating normally as there are reported infection cases of both staff and students. A theoretical review illustrates that there is a paucity of research that investigates the positive implications of the pandemic. In this context, this study ventures into this unexplored area of interest.

2. LITERATURE REVIEW

The concept of change is anchored on the process of altering the direction or way things have been handled all along. It is the process of moving from the current state to desired state (Chaleff, 2009). Change is the only constant, and this has been a reality that organizations must contend with. Change management is imperative for managing the level of risk associated with the change itself, thereby ensuring organizational sustainability. The world changes very fast, therefore organizations have to change quickly for their development and survival (Alvesson & Sveningsson, 2008). Change management is defined by Moran and Brightman (2001) as 'the process of continually renewing an organization's direction, structure, and capabilities to serve the ever-changing needs of external and internal customers.' (p. 111).

The coronavirus pandemic disrupted the education system as a result of the lockdowns and social distancing measures enforced by governments across the world to curtail the spread of the virus (Coman, Tîru, Mesesan-Schmitz, Stanciu & Bularca, 2020; Pokhrel & Chhetri, 2021). Dhawan (2020) observed that the coronavirus pandemic forced an overnight shift from normal classrooms to e-classrooms leaving educators with no choice but to change their pedagogical approaches to address the new challenges and adapt to changing educational environment. It is important to note that e-Learning is no longer an option but a must, and hence more efforts are focused on the adoption of ICTs/e-Learning technologies in the education systems across the globe (Alone, 2017). Regardless of its limitations, e-Learning presents endless learning and teaching possibilities that make learning more enjoyable and interesting (Kuraishy & Bokhari, 2009). Elfirdoussi, Lachgar, Kabaili, Rochdi, Goujdami & El Firdoussi (2020) concur that the closure of schools coerced schools and institutions of higher learning to come up with solutions to ensure continuity of education, which include "...online library support, TV broadcasts, e-resources, video lectures, online channels, and e-Learning". COVID-19 resulted in the induced closure of schools and sudden migration to e-Learning. Consequently, most institutions, especially in the developing world, were caught unprepared with the challenges of inadequate know-how of ICT usage, unreliable internet connectivity, and curriculum content not aligned to online teaching and learning (Mathivanan, Jayagopal, Ahmed, Manivannan, Kumar, Raja & Prasad, 2021).

Regardless of the challenges that emanate from COVID-19, there has been an upsurge in blended learning, deep learning, improvement in learning materials, and a rise in collaborative work (Mathivanan, et. al., 2021). Mathivanan, et. al., (2021) allude that there is a need for political and societal support to see through successful e-Learning systems by digitizing and adapting all electronic teaching materials and providing students from poor families with necessary devices and high-speed internet connectivity. E-Learning will continue to grow even post-COVID-19 therefore there is a need to continually improve the existing teaching methods and develop new teaching and examination materials which are relevant for e-Learning and e-

examination (Mladenova, Kalmukov & Valova, 2020).

3. THEORETICAL FRAMEWORK

Lewin's Change Model which was designed in the 1950s continues to be one of the most popular ways to model unstructured organizational change, hence it underpins this research study (Cummings, Bridgman, Brown, 2016). Lewin's Model is practical and simple as illustrated in Figure 1 below. It consists of three basic stages: Unfreeze, Change and Refreeze. The unfreeze stage is all about turning "business as usual" inside out by justifying the need for change, deciding what will change, and how for example some tertiary institutions shifted to online assessment using case study assessments. The change stage is where the real transition takes place, starting with planning for the change, and any necessary training to facilitate employees learning the new concepts and implementing the change. It may take some time for everyone to embrace the changes, therefore communication and good leadership are key to unravelling the status quo. The change could be facilitated through training and capacity building of staff and students on synchronous and asynchronous modes of teaching and learning using Information Communication Technology (ICT) platforms. The refreeze stage is when employees are comfortable with the new process, and it is time to freeze or reinforce the changes in the culture so they become the new normal. Refreeze stage also involves updating any documentation, policies, procedures, and process maps so that there is harmonization with the new normal. The main objective of this stage is to suppress old habits from resurfacing, as all the hard work would be reset back to the 'dysfunctional comfort zones' of doing business. There could be a need to reinforce the new process with regular check-ins and offer rewards or incentives to those who consistently make a large effort to support and uphold the changes. The Lewin Model is appropriate when an organization needs drastic changes to succeed however it can be time-consuming and disruptive to employees to go through the full process frequently.

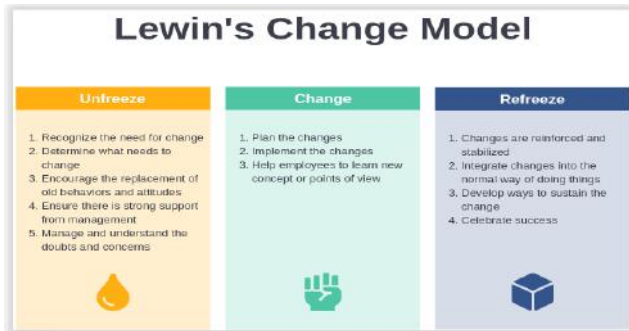


Fig 1: Kurt Lewin Change Model

Source: Cummings, Bridgman & Brown, (2016).

4. RESEARCH OBJECTIVES

The objectives of the study are to examine:

- The various impacts of COVID-19 on the operations of HEIs in Lesotho.
- The changes that HEIs in Lesotho have to adapt to ensure continuity.
- The lessons learned in the wake of the COVID-19 pandemic in HEIs in Lesotho.

5. SIGNIFICANCE OF THE STUDY

The study explored a topical problem that is not only important for Lesotho HEIs, but globally. The study is useful as it comes on the backdrop of a pandemic that has threatened the viability and sustainability of HEIs core business. It informs educational practitioners and policymakers on how to cope with changes brought by the pandemic, how quality in teaching and learning delivery can be ensured, resource and capacity development and promoting student access to affordable learning.

6. RESEARCH METHODOLOGY

This study employed a survey research strategy. Preference for this strategy was motivated by its strength and ability to produce quantifiable, reliable data that are usually generalizable to a larger population. The study also involved keeping a weekly diary of significant events, between April 2020 and October 2021, constructing a written account of sectoral experiences as regards to the pandemic and meanings attributed to the experiences. Explaining behavior can be thought of as accounting for actions in order to make them comprehensible and understandable to others. Accounts in this regard, strive to view situations through the eyes of participants and must be seen

within the context of social episodes such as behavior, thoughts and feelings. The diary was primarily used to supplement data collected through the survey and to draw data from the actual experiences the researcher passed through.

Both hard copy and online semi-structured questionnaires were administered in October 2021. The survey questionnaires were sent to 110 online lecturing staff selected using a stratified random sampling technique from 3 HEIs in Lesotho. 80 hard copy questionnaires were distributed, and the other 30 questionnaires were sent using google forms in an attempt to observe COVID-19 protocols. Hard copy questionnaires had a response rate of 75% (60/80 respondents) and google forms 66% (20/30 respondents) giving a total average response rate of 70.5%. The questionnaire inquired about the biographic data of the respondents namely age, gender, the university employed, profession, and experience. It also included a Likert scale with statements on how COVID-19 has impacted tertiary institutions in Lesotho. The data obtained were analysed using descriptive statistics and Pearson correlation coefficient analysis with the aid of Statistical Package for the Social Sciences (SPSS), a tool for analysing quantitative data sets. SPSS was used to run the internal consistencies of the data collection instrument for its effectiveness and importance measures using Cronbach's alpha and an acceptable score at 0.741 was established as illustrated in Table1.

TABLE 1: MEASURES USING CRONBACH'S ALPHA

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.741	.753	15

7. RESULTS/FINDINGS AND DISCUSSIONS

Impact of COVID-19 on HEIs

Various proxies were measured to determine the impact of COVID-19 on Higher Educational Institutions. Respondents rated their attitudes,

opinions, or perceptions of the statements using a rating system of strongly disagree-1, Disagree-2, Agree-3, and Strongly Agree-4. The data were presented using descriptive statistics as illustrated below.

TABLE 2: SUMMARY OF PROXIES ON THE IMPACT OF COVID-19 ON HEIS

Descriptive Statistics

Proxy	N	Mean		Std. Deviation		Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error	
COVID-19 Positive Implications	80	2.05	1.042	.449	.269	-1.116	.532		
Pandemic rendered online teaching effective	80	2.43	.952	-.141	.269	-.957	.532		
Pandemic improved the use of technology in teaching	80	3.48	.711	-1.210	.269	.915	.532		
Online teaching is equally effective	80	2.06	.876	.571	.269	-.244	.532		
Pandemic fostered learner-centred pedagogy	80	3.24	.661	-.569	.269	.544	.532		
Pandemic ushered flexible working	80	3.19	.828	-.777	.269	-.012	.532		
Pandemic allows one big class	80	3.20	.877	-.983	.269	.345	.532		
Pandemic ushered innovative research approaches	80	3.50	4.548	8.490	.269	74.604	.532		
Pandemic improved collaboration through webinars	80	3.30	.719	-.730	.269	.076	.532		
Pandemic promoted staff and students ITC capacity building	80	3.36	.680	-1.096	.269	1.957	.532		
Pandemic promoted application-based assessments as opposed to memory testing	80	3.15	.873	-.651	.269	.031	.532		
Pandemic increased enrolment of online learning students	80	2.50	.928	-.098	.269	-.813	.532		
Valid N (listwise)	80								

Out of the 12 proxies illustrated in Table 2 above on how the pandemic has impacted Higher Educational Institutions the mean statistic ranges from a minimum of 2.05 to a maximum of 3.50 which is a range between disagreeing and strongly agree however with the majority of proxies (75%) between agree and strongly agree. The statistics point to the conclusion that the pandemic has to a larger extent ushered in positives to the universities' core businesses of teaching and research. Standard deviation statistics range between 0.661 and 0.952 for most of the proxies and the interpretation is that data sets are not far away from the statistic mean. Low standard deviation means data are clustered around the mean, and high standard deviation indicates data are more spread out. The skewness of most proxies on the table above is negative meaning a negative skewness to the left. The interpretation of the negative skewness is that most of the

respondents were closer to strongly agreeing on most of the proxies.

The kurtosis statistics are positive for most of the proxies on the impact of COVID-19 teaching, learning, and research. The kurtosis statistical measure establishes on whether the data is light-tailed or heavily tailed in relation to the statistical normal distribution. Data sets that with heavy tails or outliers have a high kurtosis, whereas data sets with light tails or do not have outliers have low kurtosis. Positive kurtosis denotes a distribution that is "heavy-tailed" whereas a negative kurtosis is a distribution that is "light-tailed".

The study findings confirm literature that was contributed before COVID-19 that says internet and web-based technologies allow for the fast delivery of learning materials, which is available anytime beyond geographical borders, and the consequential results are effectiveness and efficiency in learning. This can be realized in terms of lowering the costs of learning since there would be low costs of travel to institutions, physical infrastructure such as classrooms, and resource management in terms of print materials (Njenga, 2011).

TABLE 3: HEIS SHORTCOMINGS REVEALED BY COVID-19

Descriptive Statistics

Institutional Shortcoming	N	Mean		Std. Deviation		Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error	
Pandemic revealed online teaching staff capacity shortcomings	80	3.49	.675	-1.220	.269	1.326	.532		
Pandemic revealed online teaching infrastructure shortcomings	80	3.60	.722	-1.911	.269	3.295	.532		
Valid N (listwise)	80								

There is a mean statistic of 3.49 on lack of staff capacity and 3.60 on lack of infrastructure to roll out online teaching by tertiary institutions, denoting that most of the respondents strongly agreed with the shortcomings. The skewness of the two HEIs shortcomings on the table above is negative, meaning a negative skewness to the left. The findings denote that most of the respondents

strongly agree that HEIs in Lesotho were caught unawares by the pandemic resulting in failure to continue the delivery of teaching and learning.

TABLE 4: CORRELATION BETWEEN AGE AND ACCEPTANCE OF ONLINE TEACHING

Correlations

		Age	COVID-19 Positive Implications
Age	Pearson Correlation	1	-.080
	Sig. (2-tailed)		.478
	N	80	80
Acceptance of online teaching	Pearson Correlation	-.080	1
	Sig. (2-tailed)	.478	
	N	80	80

The Pearson Correlation Coefficient measures the strength and direction of the linear relationship between two variables. In Table 4 above the correlation between age and acceptance of online teaching is -0.080. This denotes that most of the senior members of staff who are more experienced, though not technology savvy; did not accept online teaching and learning. Values always range between -1 (strong negative relationship) and +1 (strong positive relationship). Values at or close to zero imply a weak or no linear relationship.

TABLE 5: RE-ALIGNING OF CURRICULUM, TEACHING DELIVERY POLICIES, AND ASSESSMENT POLICIES.

Descriptive Statistics

	N	Mean	Std. Deviation	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Pandemic requires curriculum redesign	80	3.23	.729	-.779	.269	.658	.532
Pandemic requires aligning teaching policies to online teaching and learning	80	3.54	.526	-.420	.269	-1.245	.532
Pandemic requires aligning assessment policies to online teaching and learning	80	3.56	.524	-.527	.269	-1.133	.532
Valid N (listwise)	80						

The mean statistic on the need for realigning curriculum, teaching delivery policies, and assessment policies are between 3.23 and 3.56 denoting that the respondents agree strongly agree with the notion of redesigning curriculum and harmonizing teaching and assessment policies to online learning. The low standard deviation of between 0.524 and 0.729 confirms that data are clustered around the mean. All the skewness statistics are negative implying that most of the responses were closer to strongly agree. Kurtosis is mainly negative meaning that the distribution of data has light tails, or does not have outliers.

8. DISCUSSIONS

Although the prolonged effects of COVID-19 on HEIs and the uncertain question on how the outlook of recovery will take are still hounding educational practitioners and policy makers, the study findings denote that there are take home lessons that players in the educational can learn from the hard experience. This is consistent with existing literature that the shock waves caused by the COVID-19 pandemic spurs rethinking and shedding off the traditional teaching and learning approaches (Tamrat & Teferra 2020; Yang, 2020; Marinoni, G., Van't Land, & Jensen, 2020). The same notion of the findings is further echoed by Devinney and Dowling (2020) who posit that COVID-19 ushers to universities a golden opportunity to change their dysfunctional ways of service delivery. The study results are also consistent to a strong belief in literature that e-Learning can result in more effective and easier access to large quantities of information (Bullen & Janes, 2006; Kwan, Fox, Tsang & Chan, 2008; Yusuf & Al-Banawi, 2013). This can be made possible by ensuring good internet infrastructure and connectivity, non-intermittent power supply, and availability of compatible ICT devices to staff and students (Khalil, et al., 2020). Premised on the above, there is an aching need to assess the consequences of this sudden switch to 100% or 50% online or e-Learning on teaching and learning as a result of COVID-19 pandemic. The study findings confirm literature that was contributed before COVID-19 that says internet and web-based technologies allow for the fast delivery of learning materials, which is available anytime beyond geographical borders, and the consequential results are effectiveness and efficiency in learning. This can be realized in terms of lowering the costs of learning since there would

be low costs of travel to institutions, physical infrastructure such as classrooms, and resource management in terms of print materials Aczel, et al., (2008) cited in Njenga (2011).

9. CONCLUSIONS AND RECOMMENDATIONS

For all tertiary institutions in Lesotho, COVID-19 presented a new dispensation that called for unconventional means of continuing with the tertiary institutions' mandate of teaching, research, and community engagement. Amid the challenges brought by the COVID-19 pandemic, tertiary institutions in Lesotho had to suddenly change the mode of pedagogy instruction to remote teaching and learning. Online learning is the future of learning, and it is to continue even post the coronavirus pandemic. It is imperative to analyse and evaluate the pros and cons of online learning to come up with recommendations that will ensure that both the students and the institutions of higher learning derive maximum benefits.

A silver lining that emanated from the COVID-19 pandemic is that effective use of e-resources can lead to the creation of regional, continental, and international networks that would ensure the delivery of education and knowledge sharing beyond national borders. In terms of research projects, researchers from geographically dispersed areas can collaborate in studies that spread to these areas, and this will be beneficial in terms of costs, accessibility to the research areas, and time spent in data collection. The Council of Higher Education (CHE) is a statutory body in Lesotho which is assigned the overall mandate of quality promotion and quality assurance of higher education. Therefore, the importance to integrate EdTech going forward in its oversight role cannot be over-emphasized. Higher Educational institutions need to realign both internal and external assessment policies so that assessments are valid and reliable.

This is imperative given the fact that assessment is the integral instrument for measuring students' competency and achievement of the intended learning outcomes. Assessments must be subject to robust critical internal and external moderation and verification processes to ensure academic integrity and quality assurance. There is need for clear documentation on programme design, teaching plans, assessment guides, and both external and internal examiner's or moderator's

reports. There is a need to ensure that there are adequate online resources and infrastructure that is customized to accommodate teaching staff, management staff, support staff, and the processes of teaching and learning. The Learning Management Systems (LMS) such as Moodle and Blackboard needs to be improved to offer a variety of tools for both synchronous and asynchronous approaches. The systems need to have servers that are reliable to accommodate the increased traffic and must be also secure enough to avoid possible threats like hacking.

There is a need to negotiate with the telecommunications service providers for zero-rated mobile data access to tertiary institutions' online resources. This kind of support is essential to continue teaching and learning online, especially while the practice of physical distancing continues to limit the spread of COVID-19. Moreover, there is a need for institutions of higher learning to explore ways of incorporating social media into education (Laird, 2014; Manu, Ying, Oduro & Boateng, 2021) since many staff members and students possess smartphones and are on social media platforms. Social media is a cheaper and quicker way to communicate. Policies on mitigation for students who could be genuinely disadvantaged by online assessments need to be looked at to address possible disruptions that COVID-19 could have on the academic progress of students. There is a need to revisit interventions and initiatives on academic advising and student counselling to mitigate student failure rates and dropout to promote progression and graduation. Academic advising sessions are helpful and may not necessarily dwell only on syllabus matters, but could include stress management, time management, career guidance, and study and writing skills.

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