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Exploring examination preferences of university students as a strategy to adjust to lockdown during covid 19 pandemic: A case study

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Abstract
The study sought to find out the students' test preference in view of the prevailing Lockdown due to COVID 19 pandemic. A mixed research method (including both qualitative and quantitative design) was used. Data was collected through online survey form comprising of a short questionnaire developed by Researcher. This was distributed via online to seventy (70) students of one general education course registered for by freshman, sophomore and senior students from all majors (Accounting, Marketing, Computer and Information Technology & Management of business) from the faculty of business of Solusi University (HARARE EXTENSION CAMPUS) during the first trimester session of 2020. Sixty three participants responded. Each student completed a 7 -item questionnaire and in addition gave a brief explanation for the test of preference examination. Descriptive statistics were used to analyze the data. The results indicates that most students prefer a desk- hard copy (paper and pen) examination compared to an online examination. However on analysing the additional comments, the participants indicated willingness to write online examination provided the conditions such as expenses, availability of good internet facility and the examination structure comprises of one or two essays questions and some short answer questions and some objective test questions. The study recommends that thorough preparations (in terms of tutorial workshops for both lecturers and students) be made if educational institution opt for online examinations.

Keywords: assessment, evaluation, examination, online examination, desk examination (hard copy exam)

1. Introduction
The sudden outbreak of Corona virus resulting Covid 19 pandemic had unprecedented repercussions. As the corona virus spread rapidly, a lockdown was declared globally, thus resulting in restricted movement and closure of schools and all academic institutions. For many countries around the globe, schools were closed hence educational activities had to be operated remotely via digital devices or home-schooling resources (Roe, Blikstad-Balas, & Dalland 2021) [17]. Zimbabwe was no exception to the impact of the Covid 19 Pandemic. As the impact of the Pandemic was intensifying, schools and other academic institutions in Zimbabwe had to be closed in the last week of March, 2020. Everything was grounded for the first 3 months, until there was a growing concern about how to redeem the steadily increasing loss of time in academics. The saying that "time wasted is never regained is very true". Something had to be done to prevent further losses in time. In addition to the loss of time, both students and educators are aware of the theories of forgetting, data stored in the human brain has a tendency to decay and becomes difficult to retrieve. Based on Edward Thorndike's Trace decay theory which states that if we don't access memories, they will fade over time and retrieval becomes increasingly difficult with the passage of time. In brief, the shorter the time interval, the more we will remember, and vice versa; the sooner examination are written the better the recall or retrieval rate (Thadium, 2022).

2. Background

Solusi University was among the major academic institutions that was hit hard by the suddenly imposed Lock down. This was mainly true because it had barely started introducing e-learning for some classes of the classes depending on the lecturers' competence in Computer and Information Systems. Even before schools were declared officially closed, some students were apprehensive, hence class attendance dropped suddenly by the second and third week of March, 2020. School closures due to COVID-19 brought significant disruptions to education across the world (Donnelly, Patrinos & Gresham, 2021) [8]. Something had to be done. After schools and all academic institutions were officially closed in March 2020, followed by a 3-months period in limbo, both the students and educators were filled with apprehension and uncertainty. Indeed something urgently needed to be done, especially for the finishing classes who were left with one writing the final examinations. Consequently, educators had to find ways to close the gap and assist the students already enrolled to progress with their studies and possibly graduate in time.

The Covid 19 Pandemic brought drastic changes in the academia terrain. Both lecturers and students who had been hesitant to embrace the use of modern technology such as Information and Computer Technology (ICT) suddenly found themselves with no options but to get on board. Although the use of computer technology in educational pedagogy such as online learning had been embraced and practiced in the western countries for over a decade, this has not been the case with most developing countries. The urge to embrace technology in teaching and learning has taken far too long for most developing countries including Zimbabwe. The major reasons for this slow embracing of technology are the incapacitation of most academic institutions in terms of technology, and internet services. Consequently, both educators and learners feel incompetent and hesitant to embrace online learning. Actually, it has taken the Covid 19 Pandemic to steer most developing countries, including Zimbabwe, to gradually and grudgingly embrace the use of computer technology in pedagogy. In Zimbabwe, the official Lockdown and closing of academic institutions was declared around the end of March, 2020. Although the course work and formative assessments in most classes had been done, the summative assessments, comprising of final examinations and presentations had not yet been done. After waiting for a period of 3 months eventually a decision needed to be made about getting the final exams written. There was a heated debate on which assessment approach to adopt. Hence the author decided to undertake this case study exploring the students' preference of type of examination.

It is a well-known fact in classroom testing and evaluation that the validity of any academic testing instrument is generally associated with the inclusion of a diversity of question types, such as, objective tests, short answer and essay questions (Awoniyi, Aderanti. 2012). Effective evaluation of learning experience has to include all the four or most of these types of assessments. Generally, students have a preferred learning style but adapt their way of learning to the concept of what is required of them (Harden *et al.*, 1979). Similarly, students may also have preferred examination type. Hence setting an examination with variety of question types ensures quality. Using variety of question types has been found to suit all type of students. Such examinations are also associated with robust scope that helps educators to identify and differentiate a good and a weak student.

Educational studies are generally validated by both formative and summative assessments Hence, timely assessment is a key to maintaining quality in educational systems as it reflects on degree and depth or the extent the learning outcome has been achieved (Alsadoon, 2017) [1]. Valid and reliable assessments enhance the quality of learning, teaching and assessments in academic programs (Awoniyi & Aderanti, 2013) [2]. Such reliable assessments are deemed important for learners, teachers, and educational institutions.

Several studies indicate that each test type has advantages and disadvantages (Awoniyi & Aderanti, 2013; McAllister & Guidice, 2012 [2, 16]; CTE, *University of Waterloo;* Brown and Knight, 1994). In addition, different students have preferred learning styles as well as examination preferences. Hence to optimize the benefits for most students, the study sought to explore the students perceptions and preferences for examinations. Studies by Brown and Knight (1994) utilizing multiple methods of assessment, including more than one assessor indicate that this approach improves the validity and reliability of data. However, a primary challenge to the multiple methods approach is how to weigh the scores produced by multiple methods of assessment.

It is generally accepted that using multiple methods of assessments enhance the effect on study strategy (Entwistle 1981). Actually, the more the assessment strategies used, the better the quality of an examination. Hence, a combination of various types of questions has greater benefits to the students as it increases their chances to perform better by accommodating different learners strengths. There are greater possibilities for most students to perform better than in an examination comprising of only one test type. When few methods of assessment are used, some of them may produce a relatively higher range of marks than others. In such cases, instructors can potentially misinterpret their assessment of overall student performance. On the other hand, when multiple methods are used, this may reflect different messages about the same student. Hence, there is great need for educators to be very mindful about the methods they use in assessing different forms of achievement and the interpretations they make about student performances (Brown and Knight, 1994).

Computers have been used for computer assisted instruction (CAI) and language instruction since the 1960s (Butler-Pasco & Wilburg, 2003 in Ryanberg, 2014) [20]. However, it has taken most learners and lecturers quite some time to embrace the idea as worth adopting for delivering or transacting more than 50% of instruction, let alone using computers in examinations. But, as a result of the 6 months of Lockdown, CAI had to be used full time, for both instruction and lesson evaluations. This emergence of varied use of diverse educational technologies in today's classroom has given birth to diversity of ways of assessing student's academic performances. These may include, but may not be limited to student online video presentations, class wiki- projects, web designing projects (Bailie, 2013, Friedman and Friedman, 2013) [3, 12]. Although the utilization of multi-methods of assessment is associated with several benefits this approach is associated with heavy demands on both the student and the lecturer. Consequently, mainly tech-savvy students and lecturers are able to cope with such increasing demands. Kahn and Khan (2019) opine that a better way to shift from traditional approached to teaching, learning and assessments

could be to run technological trainings for both students and teachers as well as introducing blended learning. This blended learning could be introduced incrementally so that the transition is not abrupt by gradual.

It is a common human tendency to desire to remain it the comfort zones and resist change. Hence, introducing anything new will generally meet with some form of resistance. It then becomes necessary and ethical to psychologically prepare the students for the new approach (new normal) of online assessment. This psychological preparation goes a long way to develop a readiness for a change of attitudes (Walker, 2003) [24]. As observed by some experts in education, all students need to be introduced to any new or altered question format before they encounter it on an exam (McAllister & Guidice, 2012) [16]. Although not everything said by the student may be of significance, students' perspectives on examination preference and web-based learning may provide an in-depth evaluation that may help educators to make informed decisions (Vonderwell, 2003). Thus, by carrying out this brief survey, the students were psychologically prepared for possible options that could be used by the institution to ensure timely assessments are done on the courses (that were in progress when there was the sudden outbreak of COVID 19 pandemic). In addition, the out comes from this study may provide useful information of mapping the way forward in terms of adoption of virtual learning and relevant strategies and resources that may need to be put in place. This study sought to find out the learners' examination preferences so as to come up with a possible solution to having the enrolled students write their examination and complete their studies in time. A class of 70 students registered for a general education course was used to analyse the examination preferences of university students in view of the prevailing lockdown situation.

3. Statement of Problem
In a mixed class comprising of students from different majors and at different levels, from freshman to senior (4th year) students, each group use a different criteria to make a decision for examination. Traditional face to face examinations have been the norm for most academic institutions. While most countries in the western world have been gradually embracing technological applications in the classroom; it has been a daunting mammoth task for the developing countries to accept change. Change is not easily accepted. People always have justification for resistance to change and desiring not to move from their comfort zone. However, since there are many variables involved in making a decision about examination preferences it is best to critically analyze the pros and cons so as to have a buy in and map the way forward. This study seeks to explore the students' preferences on summative examinations during the Covid 19 Pandemic. The major options being, online examinations versus face to face examination; Essay test questions versus objective tests questions.

4. Objectives of the study
The main objectives of this study are to
1. Establish the students' preferences concerning each of the following;
   a. Online examination versus desk (hard copy examination)
   b. Objective tests versus essay tests
   c. Examination with mixed question types

2. Analyse the reasons suggested for specific preferences.
3. Determine the possible way forward in terms of structuring the examination under the prevailing lockdown situation.

5. Method
Mixed research methods approach was used. This research design draws from the strengths of both quantitative and qualitative research (Creswell, 2015). From a class of 70 students registered for a general education undergraduate course, sixty three (63) students successfully completed and returned an online questionnaire. Since this course is a requirement for every student, the class comprised of First year (Freshmen) students, Second year (sophomore), third year and fourth year students. The majority of this group were the first year (Freshmen) and second year (sophomore) students. This has great significance as these two groups still have at least 2 or more years to complete their degrees. On the other hand, the smaller group of seniors comprises of students keen on completing their degrees. Hence their opinions were considered of great value by the researcher. The research instrument was a self -constructed 7-Item questionnaire administered online. Hence questionnaire items had to be precise. This Questionnaire was distributed via online to the seventy (70) students of one general course taken by freshman, sophomore and senior students from all majors during the first trimester session of 2020. In addition to the 7 -item closed form questionnaire the last question solicited each respondent to give a brief explanation or reason for the test of preference or structure of examination they would prefer. The questionnaire indicated that participation was voluntary. This questionnaire was administered online. The response rate was good, out of the targeted population of 70 people, 63 (90%) participants responded.

6. Results and Discussion
The obtained data were analysed using descriptive statistics i.e. computing related frequency and mean for each category of the questionnaires items. The population of study comprised of mainly freshmen and sophomores, these amounted to 60% of the participants (See table 1).

6.1 Research Objective One
To establish the students' preferences concerning each of the following
a. Online examination versus desk (hard copy examination)
b. Objective tests versus essay tests
c. Examination with mixed question types

Research Objective One was analysed using quantitative methods.

Table 1: Demographic data

				Cummulative
	1st year	21	33.3 %	33.3
	2nd Year	17	27 %	60.3
	3rd Year	14	22.2 %	82.5
	4th year	11	17.5 %	100
Total		63		

Table 1 presents demographic data. The first and second year students were the majority, (60%). However, although the senior students are relatively few their contribution is also considered of great value.

Table 2: Summary of responses

Item	Description	Yes	No
	Personally I prefer an online exam	29 (46%)	34 (54%)
	Personally I prefer a Desk (hard copy) exam.	66.7%	33.3%
	I prefer a Multiple Choice Exam.	55.6%	44.4%
	I prefer a Fill in the blank Exam.	58.7 %	41.3%
	I prefer short answer Exam.	81%	19%
	I prefer Essay Exam.	54%	46%
	I prefer an exam with mixed questions.	84.1%	15.9%

Table 2 summarizes the major research findings from the respondents. These were accompanied by the reasons which were given by each respondent to support the desired preferences. Since this was completed online, some of the responses have been reported verbatim.

6.2 Research Objective Two: To analyse the reasons suggested for specific preferences.

Research objective two was analysed using qualitative methods. The participants responses to justify their preferences were captured as reported and then interpreted. These responses were categorised as pros and cons of each examination type. Some of the responses from the participants are presented below;

Advantages of Online Examination
Several research respondents reiterated positive sentiments supporting their willingness to opt for online examinations:

Respondent 56
Online is better because of the Covid pandemic

Respondent 8
Mixed Questions allow varied testing and online exams will preserve my health

Respondent 3
I personally think that online exams are quite well since we don't know when this Corona virus will end.

Respondent 57
I want to finish my studies so im comfortable with online or desk exam

Respondent 13
Because of the prevailing situation we have to sit for exams whilst we remember what we learnt hence online will be fast and easy for the sake of time

In brief the pros for online examinations were that this approach is good so as to preserve the health of the student. In addition, some students had a strong desire to write the examinations while the information learnt is still fresh and easier to remember. This is well supported by Edward Thorndike's Memory trace decay theory which states that if we do not access memories, they will fade over time and retrieval becomes increasingly difficult with the passage of time. In brief, the shorter the time interval, the more we will remember, and vice versa; the sooner examination are written the better the recall or retrieval rate (Thadium, 2022). Another major advantage emphasised by some of the

respondents is that online exams will be a step forward towards embracing technology, as stated below;

Respondent 16
Online exams are good if we are to embrace technology and move with the times we have to embrace e-learning
Quite contrary to earlier studies by Martin and Oyarzun (2018) in which students pointed out that online learning is associated with lack of immediacy, the participants in this particular study acknowledge that online learning is fast and efficient, feedback of results can be availed to examinees immediately or shortly after the examinations are written.

Disadvantages of Online Examinations
On the other hand, some participants indicated that online examinations were also associated with some serious challenges. There were three major challenges raised by several participants. These challenges include firstly, the expenses associated with online examinations and secondly, the unavailability of reliable internet services for both students and learners. Due to the prevailing conditions with frequent power cuts, internet connectivity becomes rather unreliable.

Respondent 11
"*Online examination has a lot of challenges since data (internet) is now expensive to purchase. Even to access the moodle accounts I have seen lots of pple were struggling to get through. So it end up disadvantage less privileged brethren especially in this difficult time. However suppose this pandemic persists there is no option other than to write our exams online. But should be considered as a last resort. Thank you*"

Another respondent also emphasised the high expenses associated with accessing good
Internet connectivity as a major challenge associated with online examinations. This is succinctly illustrated in the comments below.

Respondent 9
"*Online is expensive for me no internet*"

Respondent 59
Online exam have challenges on power and network

Pros and Cons of Face to face/ Desk Examination
The research participants also raised some pros and cons of the face to face (desk) or pen & paper Examination

Advantages of face to face/ desk examination
Although still faced with the lockdown situation, 66.7% of the participants indicated that they prefer the hard copy, (desk, paper & pen) examination. This is well supported by the reasons put forth by several respondents about challenges associated with online examinations. One respondent pointed out the following;
The other reason for preferring the desk examination over the online examination was the challenge associated with invigilation of online examinations, which as some pointed out, will end up with many learners with no examination integrity applying the "copy-paste" approach of plagiarism. This was supported by such statements as the one below;

Respondent 1

"Desk with hardcopy exam has proper invigilation therefore reduce chances of plagiarism."

Apparently, other challenges associated with the online examinations are the learners limited computer literacy and technical (typing) competencies. In the light of this, 81 % indicated that they prefer short answer questions.

Respondent 23

If exams are done online they should not be too long questions because am a slow at typing but I maybe knowing the answers but due to speed in typing I may fail the exam.

Disadvantages of Face to face Examination
The option of online examination was considered convenient by some, compared to desk examination, assuming the prevailing Lockdown situation continues for too long, people would rather take online examinations so as to get done with their courses.
Inaddition, there were some who also indicated the

advantages of online examinations such as the one below;

Respondent 5

Online is quick and efficient.

Attitude of the students is very important. The students need psychological preparation so as to embrace the new normal. Some students seem to be biased towards paper & pen examination as compared to online examinations. Hence it is crucial to convince the students about the benefits associated with embracing online learning so as to convince them about the benefits of online assessments, as suggested by Kahn and Khan, (2019).

Respondent 46

Imbedded culture has us believe that paper exams are less challenging than online.

In other words a change of attitude of the students may help in embracing technology and making progress in incorporating technology in educational practice.

Table 3: Reasons for Preference of an Exam with Mixed Questions

Respondent	Reason
4	*"It allows me to display fairly what i know and what i partly know"*
8	*Mixed Questions allow varied testing and online exams will preserve my health*
10	*Sometimes you don't know the multiple choice answer but you can explain the answer in a sentence*
17	*Essay type question and desk exam allows one to expand (explain) what they've learnt throughout the course.*
20	*An exam with mixed questions will help in scoring more marks and at the same time does not take long. Essays alone are tiring.*
24	*With multiple choice if you missed the answer then that's it but with short or essay answers you will get something. If you know your staff you are guaranteed of a mark unlike in multiple choice the answers will be the same a slight variation Will Make you loose marks.*
25	*It enables us as students to have a fair exam based on all areas including those we would have grasped well.*
26	*It can help explore my strength and balance off in the variety.*
30	*An exam should be made up of minimal multiple choice questions and a section which requires short answers and a choice of 2 essay questions*
47	*A variety of test methods makes learning interesting*
50	*if questions are mixed then I do have the opportunity to get one of them correct and score some marks.*
52	*Wide variety and questions will give room for better chances of passing since a lot of different topics will be availed*
53	*essay gives a student the ability to exhibit knowledge gained from the course*
59	*Mixed questions are fair. Online exam have challenges on power and network*
61	*i would prefer exam with 1 or to essays and the other part with short questions*

NB: Researcher copied the responses with the spelling errors as typed by respondents
Pros of Essay Examinations
Essay examinations have their advantages and disadvantages. The most repeated advantage of essay examinations is the flexibility (lack of rigidity) this allows the markers to be accommodative of partly correct answers by giving part marks. This was highlighted by some of the participants as capture below;

Respondent: 5

It allows me to display fairly what i know and what i partly know

Respondent: 9

Sometimes you don't know the multiple choice answer but you can explain the answer in a sentence

Cons of essay Examinations
Some of the challenges associated with essay tests were also

pointed out. Such challenges include the halo effect and the subjectivity associated with marker bias and how this may influence the whole grading process. Secondly, some participants indicated that essay examinations are mentally taxing, hence there is need to balance up by having only one or two essays in an examination. Lastly, the other observation made was that essay examinations may pose a challenge to those with inadequate typing skills. Some of the comments are as follows*;*

Respondent 32

Essay questions upon marking are dependent on the mood of the marker if they are not in the mood of reading unlike short, fill in and multiple choice they really prove ones knowledge of the particular subject matter.

Respondent 23

If exams are done online they should not be too long questions because am a slow at typing but I maybe knowing the answers but due to speed in tying I may fail

the exam.

Respondent 37
It gives me a chance to reason.

Pros and Cons of Mixed examination
The findings also indicated that 84.1% of the participants prefer an examination that comprises of objective questions, short answer and essay questions. Several participants indicated the effectiveness associated with using an examination comprising of variety of test questions, i.e. objective test questions and essay test questions as indicated in the following responses;

6.3 Research Objective Three: Determine the possible way forward in terms of structuring the examination under the prevailing lockdown situation.
From the research findings, most students seem not really resistant to online examinations, but rather had concerns, such as expenses, availability of reliable internet and consideration for their limited computer literacy. Apart from this, apparently most learners are willing to try the idea of online examination, partly as a way of circumventing the lockdown situation. Generally most learners indicated a strong preference for an examination comprising of a variety of question types. This concurs with other research findings (CTE, *University of Waterloo*) as such examinations are associated with advantages of eclecticism.

In brief, the transition from face to face examinations to online examinations should be done in a tactful manner. From the reasons cited in the fore going discussion it appears the greatest challenge is a change of attitude. Most people resist change because they may not want to change their attitudes and move from their comfort zones. The battle of change of attitude is won or lost in the mind. Some of the learners seem to have developed fixated attitude against online learning and online examinations. Hence, educators need to help learners gradually develop a paradigm shift from their fixated attitude that "face to face lectures and face to face examinations are more effective than online lectures and online examinations". One of the best ways to effect a change of attitude is to introduce this as blended learning. Blended learning involves introducing some of the learning material as face to face and then the other material as online. The beauty of blended learning is that it tends to be more student-centred, as learners participate in constructing their knowledge. From the constructivist theory approach, when learners are engaged in constructing their knowledge, learning becomes exciting and effective (The blended learning approach also encompasses using variety of teaching methods and diversity of learning activities. This calls for collaboration between the educators and the learners. As this collaborative teamwork progresses the learners will gradually transition from face to face through blended learning to total online learning.

As a way of enhancing blended learning, bichronous learning may also be included as part of the blended learning. Research by Yamagata-Lynch (2014) indicates that synchronous online learning helps students feel a stronger sense of belonging as they connect and network with their peers and instructor and stay engaged with course activities. While synchronous learning has this advantage, asynchronous learning also has its positive side; Asynchronous learning allows those who are in different time zones or who, due to work commitments or other reasons may not be able to attend synchronously with other learners at some of the times. Consequently, adoption of the Bichronous online learning mode of delivery of instruction would be the best. Bichronous online learning involves blending both synchronous and asynchronous learning. This approach tends to optimize the benefit for more learners (Martin, Polly and Ritzhaupt, 2020) as it blends both asynchronous and synchronous online learning. In this case, students can participate in lectures anytime, anywhere during the asynchronous parts of the course but then participate in real-time activities for the synchronous sessions (Martin and Oyarzun, 2020). Bichronous online learning would make the educational programs adaptable and accommodative as some of the learners may not be in the same geographical time zone region. The advantages associated with this approach is that since there may be challenges with access to internet for some, they could access the examination at their convenient time. In addition Bichronous online learning will allow learners to have some synchronized learning sessions thereby promoting a sense of belonging through development of a learning community.

7. Conclusion &Recommendations
In conclusion, educators are encouraged to make the paradigm shift from the traditional teacher centred methods to modern learner centred (active learning) that promotes student autonomy so that the learners embrace technological approaches to learning such as web based learning on virtual platforms. This way learners are not shocked to meet technology (via online assessment) in the examination, since it has been part of their mode of learning (Brooks, Nolan and Gallagher. 2006; Davis 2014). Studies indicate that blending synchronous discussions in an asynchronous course tends to improve learning outcomes. In addition, other research findings indicate that when synchronous online course orientations were integrated in online biological science courses instead of asynchronous online orientations, student success (measured by grades) was higher (Fowler, 2019).

The researcher recommends that if online examinations are opted for (as the COVID 19 Pandemic is still not completely under control) educators have to be pro-active in finding innovative ways to circumvent the disruptions caused by the COVID 19 pandemic (Fernando, 2019). This may include a wide variety of online assessments being utilized, such as online presentations, peer evaluations, online open book speed tests that may allow some restricted freedom without complete free range (Palloff and Pratt, 2009). It would also be wise to ensure that the structure of the examination is balanced, mixing both objective test questions and the essay test questions. Consideration for typing competencies should also be made, so that the examination only contains one or two essays, short answer questions and some objective test questions.

The study also recommends that thorough preparations (in terms of tutorial workshops for both lecturers and students) be made if the institution is going to opt for online examination. This would equip and empower the teachers and lecturers so as to be willing to try new strategies of assessing distance learning, (Walker, 2003) [24]. In addition, Students need to be convinced of the benefits associated with the transition from purely traditional methods of teaching and assessments to online assessments (Khan & Khan, 2019). This will pave a way for both learners and educators to be willing to move from their comfort zones of chalk talk or

brick and mortar structures to virtual classrooms.

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