

East African Journal of Education Studies

eajes.eanso.org
Volume 5, Issue 1, 2022

Print ISSN: 2707-3939 | Online ISSN: 2707-3947

Title DOI: https://doi.org/10.37284/2707-3947



Original Article

Ethical Awareness of University Students in Online English Language and Linguistics Classes During COVID-19 Era in Kenya

Dr. Gerry Ayieko, PhD^{1*}

Article DOI: https://doi.org/10.37284/eajes.5.1.631

Date Published: ABSTRACT

E-learning,

Privacy.

21 April 2022 The advent of Corona Virus Disease (Covid-19) has disrupted the teaching,

learning, and research process in Kenya in an unprecedented manner. Many of

Keywords: these learning institutions resorted to online teaching-learning processes due to

the Covid-19 pandemic. A number of the education institutions installed or reactivated their already existing learning management system (LMS) to

Plagiarism, continue with remote learning. Data was collected using questionnaire and a

Vandalism, regression test was run that shows low level of ethical awareness by e-learning students. The study used pluralism as a theoretical framework and this showed

Copyright, that there is need to raise the students' ethical awareness and change the model

from looking for students who 'cheat' to empower them as moral agents to make

the correct ethical choices.

APA CITATION

Ayieko, G. (2022). Ethical Awareness of University Students in Online English Language and Linguistics Classes During COVID-19 Era in Kenya. *East African Journal of Education Studies*, 5(1), 230-245. https://doi.org/10.37284/eajes.5.1.631.

CHICAGO CITATION

Ayieko, Gerry. 2022. "Ethical Awareness of University Students in Online English Language and Linguistics Classes During COVID-19 Era in Kenya". *East African Journal of Education Studies* 5 (1), 230-245. https://doi.org/10.37284/eajes.5.1.631.

HARVARD CITATION

Ayieko, G. (2022) "Ethical Awareness of University Students in Online English Language and Linguistics Classes During COVID-19 Era in Kenya", *East African Journal of Education Studies*, 5(1), pp. 230-245. doi: 10.37284/eajes.5.1.631.

IEEE CITATION

G. Ayieko. "Ethical Awareness of University Students in Online English Language and Linguistics Classes During COVID-19 Era in Kenya", EAJES, vol. 5, no. 1, pp. 230-245, Apr. 2022.

MLA CITATION

Ayieko, Gerry. "Africanizing Inclusive Education: Why, How, Who, Where and What to be Included". *East African Journal of Education Studies*, Vol. 5, no. 1, Apr. 2022, pp. 230-245, doi:10.37284/eajes.5.1.631.

¹ Kenyatta University, Mombasa Campus, P.O. Box 16778-80100 Mombasa, Kenya.

^{*} Author for Correspondence ORCID ID: https://orcid.org/0000-0003-0672-6411; Email: gerryayieko@gmail.com

INTRODUCTION

According to Dubeyet al. (2020), the world in an unprecedented undergoing COVID-19 epidemiological crisis that emerged from the Chinese city of Wuhan in December 2019. Kathula (2020) recounts that on 13th March, 2020 the Government of Kenya announced her first COVID-19 patient, and a day later President Uhuru Kenyatta issued a raft of measures to curb the spread of COVID-19. Sintema (2020) opines that the effects of COVID -19 pandemic on the world's education system has been quite adverse resulting in total closure of schools, colleges, and universities in some countries and near -total closure in others. The Government of Kenya (GoK) rolled out a raft of which included the closure of learning (Lugonzo, 2020). Educational institutions institutions in Kenya had to be innovative and adopt different strategies to ensure the continuity of learning for their learners despite the pandemic.

Makokha and Mutisya (2016) point out that since the early 2000s e-learning was already a popular mode of study due to the rise in demand for university education in Kenya. Most universities and college in Kenya were already using e-learning in a number of their programs and a variety of ways. The most common use of e-learning in the pre-COVID in most universities in Kenya was the open and distance learning program which took different names such as the e-campus of Maseno University, Digital School of Virtual and Open Learning (DSVOL) of Kenyatta University, Jomo Kenyatta University of Agriculture and Technology (JKUAT), Egerton University, Moi University among others.

Lyashenko and Malinina (2015) define e-learning as the use of different electronic devices and internet to offer solutions that improve the teaching-learning process and constitutes the third arm in the learning system in education. The other facets include: the different electronic technologies, the various forms of the electronic technologies, and the different components as its primary means of learning and teaching. E-learning has two main components: e-learning content and social interaction both of which have significant ethical underpinning. The instructors and students have a wide range of options to choose from in this new e-learning

teaching-learning environment. The E-learning teaching-learning process includes a number of different electronic media viz: Television, the internet, CDs, computers, mobile phones, educational software products etc. There are different components in E-learning such as: e-books, journals, dictionaries and thesaurus, e-libraries etc. E-learning courses and programmes take different formats such as: virtual learning centres, online programmes, virtual universities etc.

Turnbull et al. (2020) distinguishes between two terms that are often confusing. The first is Content Management Systems (CMS) which refers to software which are designed for creating and managing e-learning content in an interactive learning ecosystem. The second term is learning management systems (LMS), on the other hand, are web-based software platforms that provide interactive online learning milieu and automate the process of developing, administering, organizing, delivering, and reporting of educational content and learning outcomes. The advent of Covid-19 disrupted learning in both public and private universities in Kenya and Kenyatta University consequently resorted to using its Content Management System (CMS) known as KUSOMA. The main features of KUSOMA are: managing the course, assessing the learners using formative and summative assessment tools, tracking progress, recording student performance in the grade book, and communication tools for students, instructors and administrators, social connectivity, and Ubiquitous Access.

There are a number of postgraduate students attending their classes on the KUSOMA CMS as well as other who are writing their MA and PhD projects in applied linguistics who have resorted to conducting their research by tapping into the CMS and other existing social networking apps such as Facebook, Instagram, LinkedIn, Pinterest, Twitter, and *WhatsApp* along videoconferencing apps such as Skype to have their classes as well as conduct their research which required access to classroom. Their awareness of the ethical concerns and issues in the LMS has not been established so that measures are put in place to raise their awareness of the same. New paradigm raises ethical issues around the traditional applied linguistics concerns such as transparency in the

process of recruitment, participants privacy, and compliance with the laws in regulation on different aspect of e-learning has not been established. This paper outlines novel ethical considerations and approaches using ethical pluralism as its philosophical underpinning. The results are expected to benefit language students, teachers, and researchers in Kenya. The hypothesis of the study is:

 The undergraduate and postgraduate students at Kenyatta University taking English language and linguistics are not aware of the ethical issues in e-learning platform KUSOMA which is the learning management

THEORETICAL FRAMEWORK

This study is based on two main theories viz: Jefferies and Stahl (2005) conceptualize the

relationship between: ethics, technology and pedagogy and Urie Bronfenbrenner's (1977) moral ecology. Jefferies and Stahl (2005) conceptualize the relationship between: ethics, technology, and pedagogy as follows:

- E-learning involves the interface between digital and electronic technology and the process of pedagogy
- Computer ethics involves the interface between digital and electronic technology and ethics Theories of learning involves the interface between pedagogy and ethics

Sarmento et al. (2009) modified Jefferies and Stahl (2005) assumptions to include ethics at all the stages viz: analysis, design, development, implementation, and evaluation of the e-learning program. This is summarized in *Figure 1* below.

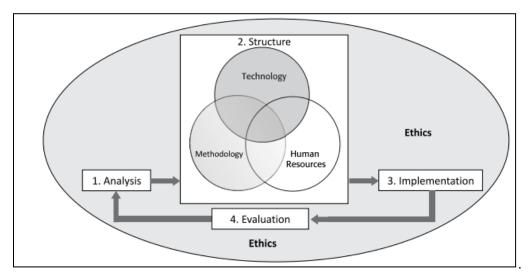


Figure 1: Three dimensions of the Jefferies and Stahl e-learning framework

Moral ecology "employs overlapping set of circles, each contained within the next to represent the relationship between the different layers of ethical decision making" (Bronfenbrenner, 1977 p. 514). The model has six layers which are individual learner moral agency, microsystem, mesosystem, exosystem (two layers), and macrosystem. The individual learner moral agency has the capacity to distinguish the ethical from the unethical decisions and take responsibility for their decision. Microsystem refers to the individual's relationship

with the immediate environment and the ethical decisions they make. Mesosystem is used in reference the relationships between the different settings in the environment. Exosystem refers to an addition of the mesosystem containing further social systems that indirectly interact with the individual. The macrosystem is the total culture or subculture in which social structures and activities are embedded including transmission of the implicit and explicit ideology.

The present study is based on ethical pluralism which is defined by DesJardins (2006) as the rejection of monist view where there is a single correct ethical paradigm. The ethical pluralists uphold that there is a multiplicity of truths and there is no absolute ethical paradigm. Ethical pluralism takes it for granted that there may be more than one correct moral framework that is applicable in any given situation. The main difference with relativism is the fact that pluralism does not accept the equality of all frameworks, according to a pluralist, does not simply come down to personal preference. Pluralism postulates there are some judgments that are better than others.

METHODOLOGY

Research Design

The research design adopted an explanatory mixedmethod research design that enable the combination of qualitative and qualitative approaches throughout the research process (Hanson, et al., 2005). The sequential explanatory design, according to Creswell et al. (2003), consists of two phases, first the quantitative phase and then the qualitative phase, whose main objective to explicate and elucidate the quantitative results.

Population

The population of the study is the undergraduate and postgraduate students taking Bachelor of Arts/Education and Masters of Arts and Doctor of Philosophy in English language and linguistics at Kenyatta University.

Sampling Procedure

The researcher used convenience sample to get sample of 130 students from four undergraduate classes and four postgraduate classes which the present writer teaches in the regular programs of Kenyatta University.

Instrumentation

The researcher developed a fifty-item Likert Scale questionnaire that dealt with five aspects of ethical issues in e-learning: intellectual property rights, copyright, vandalism, plagiarism, and privacy. The questions were framed on a Likert scale and open

ended to enable description of the ethical concerns in the e-learning as it enabled both qualitative and quantitative analysis of the data collected. The questions were based on the variables cited in the study alongside their indicators in line with the theoretical framework. The questionnaires were sent to the respondents by the researcher through email as online questionnaire.

The instrument adopted 20 items from Almseidein &Mahasneh (2020), another 20 items from Aderonmu et al. (2013). While a further 10 items were generated by the present writer.

Method of Data Collection

Ouestionnaire method of data collection was used. A self-administered questionnaire was used in the collection of data. Questions were administered to all the 130 respondents identified in the sample. This helped in gathering both quantitative and qualitative information about awareness of ethical in e-learning and issues research. questionnaires were sent by the researcher through email as online questionnaire from the respondents compiling, analysing, for and making recommendations.

Data Analysis and Interpretation

The data analysed using both inferential and descriptive statistics. The descriptive statistics include: mean and standard deviation, while the inferential statistics include: Pearson Correlation, ANOVA, and regression coefficient. After the data is analysed the results, conclusions, and recommendation were made based on the following regression model which was used:

$$Y = i\beta 0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + 1 \beta_5 X_5 + \varepsilon$$

Where β_0 *i*=constant Term; β_1 $i\beta_5$ *i*= Regression Coefficient of the independent variables; Y=students' ethical awareness in open learning; X_1 =intellectual property rights; X_2 = Copyright; X_3 =vandalism; X_4 = plagiarism; X_5 = Privacy; ε = error term

Ethical Consideration

The researcher sought for permission from the Kenyatta University ethics review committee since

this was an in-house task. The National Commission Technology, Science, and Innovation (NACOSTI) has delegated that function to this intuitional committee. The researcher sought for consent from the respondents and assured them of confidentiality. The researcher being a lecturer to the respondent had to inform that the research was for academic purposes only and it had nothing to do with the regular class work. The researcher respected the decision made by the respondents and did not pressurize respondents to fill in the questionnaires or respond to questions in the interview schedule but allowed them to participate voluntarily.

RESULTS AND DISCUSSION

Descriptive statistics

The collected data are processed and statistically analysed by using (SPSS) Version 24. Descriptive

statistics: standard deviations means and summarized the learners' response to the items in the questionnaire. Larger mean values were interpreted as higher levels of ethical awareness lower values, while lower means implied low levels of ethical awareness by the undergraduate and post graduate students on KUSOMA. The present writer used the following standard to indicate the degree of students' awareness of ethical issues while using the KUSOMA e-learning. There is low, moderate, and high when the mean value is ≤ 2.32 , low, moderate 3.66 - 2.33 and high ≥ 3.67 , respectively. Range = (5-1)/3=1.33.

The first set of items dealt with intellectual property rights in *Table 1*. The present study used summated subscale scores for the construct intellectual property rights.

Table 1: Students' awareness of intellectual property rights in e-learning

Question: As a student of linguistics (BA/BEd, MA) who is using an online	$M \pm SD$	Awareness
Learning Management System, I believe it is unethical		
Taking credit for work done by somebody else	2.46 ± 3.32	Moderate
Hiring someone to help me write an essay	2.12 ± 2.63	Moderate
Purchasing or submitting a research or term paper online to a class as one's	2.96 ± 2.44	Moderate
own work		
Cheating on a graded assignment or task	2.45 ± 3.21	Moderate
Cheating on an exam	2.98 ± 3.14	Moderate
Plagiarizing other people's work without citing or referencing the work	2.12±3.65	Moderate
Adding the name of a person who has not contributed as an author in a	2.26±3.56	Moderate
project/research study		
Copying and pasting material accessed online and submitting for an	2.23 ± 2.65	Moderate
assignment without acknowledging the authors of the material		
Deliberately providing inaccurate or incomplete references for a project or	2.68 ± 2.33	Moderate
research study		
Knowingly permitting a student to submit work done by another student as	2.72 ± 2.14	Moderate
their own		

The results in *Table 1*show that generally the students had a moderate awareness of intellectual property rights.

Table 2 reveals a low awareness of copyrights in elearning among Kenyatta university students taking English language and linguistics.

East African Journal of Education Studies, Volume 5, Issue 1, 2022

Article DOI: https://doi.org/10.37284/eajes.5.1.631

Table 2: Students' awareness of copyrights in e-learning

Question: As a student of linguistics (BA/BEd, MA) who is using an	M± SD	Awareness
online Learning Management System, I believe it is unethical		
Surfing the internet for personal interest material and sites and other	1.62 ± 5.38	Low
non-class related purposes during classes		
Copying a software for personal or commercial use on the LMS	1.36 ± 4.02	Low
Copying a software for a friend on the LMS	1.34 ± 4.84	Low
Loaning CDs of software to friends	1.65 ± 4.94	Low
Downloading pirated software from the internet	1.83 ± 3.85	Low
Distributing pirated software from the internet	2.12 ± 3.43	Low
Sharing a single user license with multiple computer users	1.86 ± 4.21	Low
Sharing a pirated copy of software	1.54 ± 4.20	Low
Installing a pirated copy of software	1.65±3.24	Low
Downloading e-books, journals etc. without permission of the authors	1.56±3.46	Low

There is a generally low awareness of vandalism in e-learning by students in Kenyatta University as summarized in *Table 3* below.

Table 3: Students' awareness of vandalism in e-learning

Question: As a student of linguistics (BA/BEd, MA) who is using an online	$M \pm SD$	Awareness					
Learning Management System, I believe it is unethical							
Sending virus-filled files through the KUSOMA learning system 1.91±3.38							
Sending uninspected files through the KUSOMA learning system	1.43 ± 3.21	Low					
Accessing the KUSOMA learning system from other accounts without their	1.32 ± 3.20	Low					
permission							
Opening uninspected files via the KUSOMA learning system	1.28 ± 4.21	Low					
Sending immoral files or links through the KUSOMA learning system	1.67±4.11	Low					
Sending destructive applications through the KUSOMA System to destroy	2.30 ± 3.22	Low					
other devices							
Trying to encrypt the data of others for barter on KUSOMA learning system	1.46 ± 3.26	Low					
Sending unsolicited notes to fellow students in the KUSOMA learning	1.56±3.12	Low					
platform							
Giving my KUSOMA system credential to another student to access	2.31 ± 4.31	Low					
materials							
To give my KUSOMA system assessment to a colleague to submit on my	3.30 ± 2.22	Moderate					
behalf							

Table 4 below summarizes the descriptive of students' awareness of plagiarism in e –learning

East African Journal of Education Studies, Volume 5, Issue 1, 2022

Article DOI: https://doi.org/10.37284/eajes.5.1.631

Table 4: Students' awareness of plagiarism in e-learning

Question: As a student of linguistics (BA/BEd, MA) who is using an	M ± SD	Awareness
online Learning Management System, do you believe it is unethical		
Writing assignments without properly documenting references and	3.1 ± 2.23	Moderate
sending them through the KUSOMA learning system.		
Writing research paper and reports without properly documenting the	3.30 ± 2.11	Moderate
references and sending them through the KUSOMA learning system		
Pirating software applications without prior and formal permission from	3.22 ± 1.23	Moderate
the original product marker and using it in doing the assignments and		
upload them through the KUSOMA-learning system		
Using ready-made power point, PDF, and other presentations from the	2.16 ± 2.16	Moderate
Internet without acknowledging the original source and attributing it to me		
and send it through the KUSOMA learning system		
Photocopying materials from references and sending them through the	2.12 ± 1.80	Low
KUSOMA learning system without the consent of the original publisher		
Copying the homework solutions of others and attribute it to me then send	2.10 ± 1.34	Low
it through the e-learning system		
Copying images and diagrams on the Internet without documenting the	3.11 ± 1.65	Moderate
original reference		
Copying my colleague's assignment, tasks and research without his	2.41±2.64	Low
approval and send it through the e-learning system		
Retelling a story that was told to you by a friend without acknowledging it	2.03±1.88	Low
Writing form your own experience does not require citation	1.23±3.21	Low

Table 5: Students' awareness of privacy in e-learning

Question: As a student of linguistics (BA/BEd, MA) who is using an	M ± SD	Awareness
online Learning Management System, do you believe it is unethical		
Giving my colleagues the login credentials in the KUSOMA LMS	3.35±2.21	Moderate
Entering my colleagues' KUSOMA accounts to solve their jobs and	3.42 ± 2.40	Moderate
send them through the KUSOMA learning system		
Sharing the files related to the educational material in the KUSOMA	3.50 ± 2.64	Moderate
system via social networks.		
Saving the files of others that I found when using the chat in the	3.21 ± 2.70	Moderate
KUSOMA learning system.		
Copying the assignment solution of my senior colleagues who studied	3.65 ± 2.68	Moderate
the course earlier and send them through the KUSOMA learning		
system without their permission		
Applying technology to infringe on other people privacy rights in the	3.52 ± 2.79	Moderate
classroom		
For the lecturer to demand that I turn on my video when in I am at	3.59 ± 2.40	Moderate
home during the class		
Only work submitted in the open forum such as discussion boards can	3.37 ± 2.45	Moderate
be accessed by other students' other assignments, CAT, quizzes are		
only visible to you alone		
To have face-to-face proctoring, which monitor physical presence as it	3.51 ± 2.36	Moderate
invades privacy my privacy as a student		
To have virtual proctoring, which monitor physical in online	3.71 ± 2.05	Moderate
examination presence as it invades privacy my privacy as a student		

Test for Regression Assumption

Test for Regression Assumptions

Buja et al. (2009); Yang et al. (2019) and Hickey et al. (2019) point out that there are six regression assumptions that should be tested to ensure the results obtained are as representative of the sample as possible: linearity, multivariate normality, heteroskedasticity, Multicollinearity, auto correlation, and homoscedasticity. The present

study applied four teststo the data: normality, autocorrelation, heteroskedasticity, and Multicollinearity.

Normality

The normality test of the students, awareness of ethical issues in e-learning was assessed. The Shapiro-Wilk test indicated that the data was normally distributed W (139) = (421, p=.632).

Table 6: Normality

Kolmogorov-Sm	nirov		Shapiro-Wilk		
Statistics	df	Sig.	Statistics	Df.	Sig.
.156	139	.230	.421	139	.632

Autocorrelation

The study applied Durbin-Watson test of auto correlation to check the data for autocorrelation. Decision rules for interpreting Durbin-Watson a

value of less than 2 shows there is positive autocorrelation, greater than 2 there is negative autocorrelation and 2 shows there is no autocorrelation.

Table 7: Durbin-Watson test of auto correlation

Model	R	\mathbb{R}^2	Adjusted R ²	Std. Error of the Estimate	Durbin-Watson
	$.478^{d}$.229	929	.56695	1.913
Depende	nt variabl	le: Y			
Predicto	$rs: (X_1, X_2)$	X_3, X_4, X_4	X_5)		

The results show that there was no autocorrelation since 1.913 is rounded off to 2.

Heteroskedasticity

The study applied Breusch-Pagan heteroskedasticity test to examine the data if the variance of the residuals is unequal over a range of the measured values. Heteroskedasticity is defined as some variation of the "non-constant error variance", or the remaining residual variability changes as a function of something that is not in the

model (Cohen et al., 2007; Field, 2009; Fox, 1997; Kutner et al., 2004). Jain and Chetty (2020) give four for the presence of heteroskedasticity in data set. They include i) the presence of outliers in the data set; ii) data collected from different scales; iii) no specificity of the model correctness; iv) use of inaccurate transformation methods.

The assumption of the test is that independent variables there is a probability of a linear relationship and that the datasets are normally distributed.

Table 8: Breusch-Pagan test of heteroskedasticity

	LM	Sig	
Breusch-Pagan	.532	.382	
Koenker	.462	.211	

Decision rule: reject Ho,

Multicollinearity

Daoud (2017) and Ullahet al. (2019) define multicollinearity as a phenomenon where two or more predictor variables are correlated, if this case obtains, the standard error of the coefficients increase the standard error. These increased standard errors of the predicator variables imply that the coefficients for a number of or all independent variables may be significantly different from 0.

Field (2009) adds that multicollinearity means that a unique least square solution to the regression cannot be computed. The present study used the Variance Inflation Factors (VIF) and tolerance value to test multicollinearity. Osborne and Waters (2002); Jensen and Ramier (2013); and Dauod (2017) state the decision rule for multicollinearity that is if the VIF value greater than 10 indicates it presence of multicollinearity and a tolerance value of less than 0.2 is a concern.

Table 9: Multicollinearity and linearity test

Variable	Correlations			Collinearity Statistics		
	Zero-Order	Partial	Part	Tolerance	VIF	
Intellectual property right	.523	.321	.073	.596	3.125	
Copyright	.432	.231	.062	.492	3.245	
Vandalism	.621	.263	.053	.531	3.521	
Plagiarism	.708	.682	.045	.424	3.340	
Privacy	.610	.537	.065	.514	2.601	

The results in *Table 9*show that there is no Multicollinearity in the proposed model.

Regression

This section presents the regression model of the study and it has the model summary, ANOVA, and regression coefficients.

Table 10: Model Summary

Model 1	R	R Square	Adjusted RSquare	Std. Error of the Estimate		
1	.764a	583	.522	8.08091		
a. Predictors (Constant) X ₁ , X ₂ , X ₃ , X ₄ , X ₅						

Table 11: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3109.764	5	621.953	9.524	.001 ^b
Residual	2220.236	34	65.301		
Total	5330.000	39			

a. Dependent variable: Subject

b. Predictors (Constant): X_1 , X_2 , X_3 , X_4 , X_5

The results of the multiple regression indicate that the model was a significant predictor of students' awareness of ethical issues in KUSOMA platform of Kenyatta University, (F {5,34} = 9.524; p=0.001). Table 3.11 above shows these results.

Table 12: Regression coefficients

Model	Unstandardized coefficients		lel Unstandardized coefficients Standardized coefficients		t	Sig.
	В	Std. Error	β	•		
(Constant)	32.308	8.354		3.867	.001	
X ₁ (Intel. Property	-3.544	.971	434	-3.651	.010	
Right)						
X ₂ (Copyright)	-2.772	.979	325	-2.832	.008	
X ₃ (Vandalism)	-2.832	1.212	286	-2.546	.016	
X ₄ (Plagiarism)	2.729	1.232	.256	2.214	.034	
X ₅ (Privacy)	3.141	1.215	.298	2.585	.014	

Multiple regression analysis was used to test if the students' awareness of ethical issues in online learning. KUSOMA platform of Kenyatta University, significantly predicted students' ratings of the items on the questionnaire. The results of the ethical issues awareness indicated the five predictors explained 76.4% of the variance (R2 =.764, F (534) =9.524, p=0.001). It was found that Intellectual property rights significantly predicted ethical ($\beta = -.3.54$, p<.010), copyright significantly predicted ($\beta = -.2.77$, p<.008), Vandalism significantly predicted ($\beta = -2.83$, p<.016), Plagiarism significantly predicted ($\beta = 2.73$, p<.034) and privacy significantly predicted (β = 3.15, p<.014). The final regression model was:

$$Y=i\beta 0+\beta_1 X_1+\beta_2 X_2+\beta_3 X_3+\beta_4 X_4+1$$
 $\beta_5 X_5+\epsilon$

$$Y=32.308 -3.54 X_1 -2.77 X_2 -3.07 X_3 +2.73 X_4 +3.15 X_5$$

DISCUSSION

This section discusses the responses of the students based the theoretical framework that looks the relation among pedagogy, ethics, and technology within the ethical pluralism philosophy.

Ethical Awareness of Intellectual Property Rights

The items in this section tested the students' awareness and attitude towards Intellectual property which includes: hiring ghost writers to help with assignment, copying, referencing, and plagiarism. The responses reveal a low level of ethical awareness. The present paper also grappled with the question whether students follow more than one ethical system or whether thereis a standard code of

conduct. Callicott (1990) contends that when faced with a variety of theories students and code students have to choose. Intellectual property is underpinned by rules as; The Copy Right Act (1976); Digital Millennium Copy Right Act (1998); Technology, and Education, and Copyright Harmonization Act of 2001 (TEACH); among others.

The finding agrees with the earlier recommendation of Nemire (2007); DiRamio & Kops (2004); Howe-Steiger & Donohue (2002); and Levy (2003) that universities and instructors should provide elearning and distance students with courses about intellectual property and the appropriate fair use. Jefferies and Stahl's (2005) framework includes this as the interaction between technology and ethics.

Ethical Awareness of Copyright

The questions in section B of the questionnaire dealt with the issues of copyright. The responses of the students in table 3.2 show different aspects of ethical pluralism which can be summarized as utilitarianism. The issues such as making a copy of software for personal or commercial use, downloading books, audio etc were seen by the students not as strictly illegal or unethical issues but rather it is a way to access knowledge to them.

Ethical Awareness of Vandalism

The results of the present study show that there is low level of vandalism among students as an ethical issue in e-learning. The statement that tested the students' knowledge on vandalism asked them to state: sending virus infected files, unsafe files, immoral files, emails containing destructive file, and encrypted data. Akcay (2008) adds that teachers should teach learners careful use of resources, equipment, and facilities.

Ethical Awareness of Plagiarism

"Plagiarism is the act of using other people's ideas or writings and passing them off as one's own" (Ko & Rosen, 2001). Marais et al. (2006) pointed out that the integration of plagiarism checking tools and other checking methods into e-learning systems.

Granitz and Loewy (2007) say that there is a wide array of ethical reasons explaining students' use of plagiarism due to anonymity and distance of the elearning milieu including: deontology, utilitarianism, rational self-interest, Machiavellianism, cultural relativism, or situational ethics.

Ethical Awareness of Privacy

Drachsler et. al (2015) pointed out themoral tensions and ethical dilemmas around the issue of privacy-related aspects of the students in e-learning program. There is a nebulous nexus between student privacy and public knowledge sharing that needs to be problematized, the questions summarized in table 3.5 illustrate this tension. Privacy issues are complex, contextual, and situational and demand a pluralist approach from an ethical perspective.

Ethical Pluralism and Ecological Model

Two theories were used in the present study: Bronfenbrenner's (1977) moral ecology model and Manuela and Durão's (2009) ethics in e-learning situations. Bronfenbrenner's (1977) moral ecology shows that the macrosystem of e-learning in African generally and Kenya in particular is founded on a blend of Western and African Philosophical/Ethical thought. Molefe (2006) defines African ethics as the general and salient moral intuitions that are considered to be salient below the Sahara. Molefe (2016 p.4) argues that in African moral thought a "normative conception of personhood qua a good person endorses partiality – the point here is to show that impartiality does not cohere with this (and other two) central tenet(s) of African moral thought". In Western, moral/ethical thought, on the other hand, impartiality is prerequisite as well as a fundamental component of, moral/ ethical actions (Gert, 1998; Hooker, 2010; Hooker, 2014; Keller, 2013). The responses of e-learners in the present study shows that e-learning students in Kenya have an ethical template that is unique and different from other students in Europe, America, or Asia.

The response from the learner shows that ecology model consists of an exosystem having two layers in the network: the first layer is normative ethics and education ethics and bio ethics in education. Normative ethics deals with the question of what is the right course of action to take. There are three main approaches used normative ethics: virtue ethics, consequentialism, and deontology. The philosophy of education that guides Distance and Elearning in Kenyatta University is founded on the national philosophy with the following tenets: social human growth, cohesion, and economic development. This is underpinned with the African philosophy founded communalism. on functionalism, perennialism, preparationism, and holisticism according to Ministry of Education Science and Technology (MoEST, 2004). The need for social cohesion, human growth, and economic development necessitates the inclusion of feminism theory in the normative ethics of e-learning. The entire e-learning is part of the philosophical

Virtue ethics demands that e-learning should not be configured as a technical and mechanical transmission of information rather as a moral and ethical practice and process that involves the whole human person. Crisp (2014p. 17) argues that happiness is the "main good," driving force behind human activity, the one thing that humans choose for its own sake, and the "working of the soul in the of perfect Excellence". He further distinguishes between Excellence into Intellect (reason) and Moral (character) Excellence. Moral Excellence, a person's character, develops over time through a process called habituation, in which she or he repeatedly acts in qualitatively similar ways. Actions reveal a person's underlying propensities toward good or bad. Murphy (1999 p.109) outlines the six key characteristics of Aristotle's virtue ethics that distinguish it from other virtue ethics theories: "(1) The principal attribute in virtue ethics is the person and his/her character traits, not on a particular decision or principle; (2) Virtues are good habits and are learned through practice; (3) Right virtues are learned by observing and imitating behaviour; (4) For a person to be virtuous, they must observe and imitate others practicing good habits; (5) Virtues should be analysed and evaluate within

the context of a 'community'; (6) Aspiration is an important motivator in virtue ethics".

According to McNaughton and Rawling (1998) and (Schafer-Landau, 2013; Schafer-Landau 2015), consequentialist theories seek to decipher the outcome of a moral act. There are two approaches under consequentialist: the utilitarian and common good. Utilitarianism is defined by Mill (2007 p.7) as follows: "The creed which accepts as the foundation of morals, 'utility', or the 'greatest happiness principle', holds that actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness. By happiness are intended pleasure, and the absence of pain; by unhappiness, pain, and the privation of pleasure". The common good is premised of the basic assumption that a society is composed of many different people whose own good is inextricably connected to the general good of the society. The responses of the e-learners seem to be ambivalent between these two consequentialist positions.

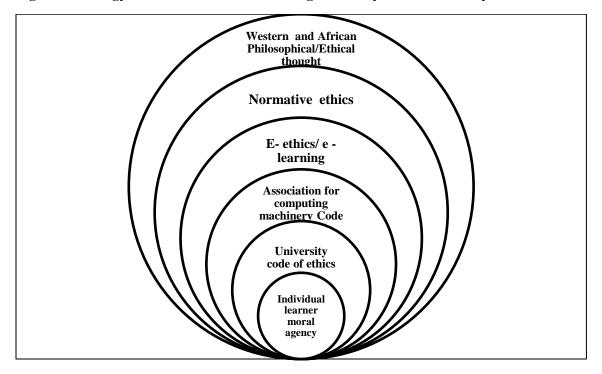
Deontology or duty ethics also known as non-Consequentialist disregard the consequence of Kamm (2007)dichotomize moral actions. deontological theories into: is agent-centred versus victim-centred (or "patient-centred") theories. Agent-centred theories state that we each have both permissions and obligations that give us agentrelative reasons for action. Patient-centred theories, on the other hand are rights-based as opposed to duty-based. Johnson and Cureton (2019) add that the German Philosopher Immanuel Kant is one of the leading figures of deontology. Kant advocates for a categorical imperative; a rule without exception. His proposal is that inherently there are certain acts that are right and wrong, irrespective of the context and consequence. He proposes that there was a universal, unconditional moral obligation which he calls the categorical imperative. The responses of the e-learners presented the students' view of themselves not as agent but victims in the ethical choices they made.

The second layer of the exosystem is e-ethics and e-learning includes the formal and informal social structures, which exclude the learner, but remotely affect the learners just like the microsystem. This includes the different codes of ethics like Association for Computing Machinery (ACM) code of ethics, TEACH, DMCA (1998) etc which deal with different aspects ethical issues in e-learning.

The microsystem which constitutes the individual's relationship with the immediate environment in the present study consists of Kenyatta university code of ethics for use of computers, information technology, and online policies. There is a wide range of documents in Kenyatta University such as Digital Platform Students Handbook, Institutional based Program (IBP) student handbook, handbook for postgraduate students, Student Social Media policy, and Research and Innovation Policy among others. The responses show level of student awareness of these documents and policies.

The present study borrows Boostrom's (1998) conceptualization of the learner as a moral agent in the online and e-learning milieu. The learner is endowed with choice as a moral agent so that they can make a decision when confronted with ethical options. The learner has a vision which requires that as a moral agent the learner views the world from a given perspective. The learner has an end-in-view which provides the engagement and social context that enable choice and vision to operate. The online learning program allows students to be moral agents by assigning them online tasks, quizzes, CATS, chats, discussions etc. which encourage moral agency.

Figure 2: Ecology model of ethics for e-learning university students in Kenya



CONCLUSION AND RECOMMENDATION

The findings of the present study show that university students experience challenges about ethical issues when using learning management system. Since the use of LMS seem to be the new normal in the post-COVID-19 era it is necessary that students are made of the ethical issues as outlined in the Ecology model of ethics and Manuela and Durão's (2009) ethics in e-learning which builds on Jefferies and Stahl (2005) model. The study used pluralism as a theoretical framework and this showed that there is need to raise the students' ethical awareness and change the model from looking for students who 'cheat' to empower them as moral agents to make the correct ethical choices.

The paper recommends that a separate module be created that deals with ethical issues that will be a mandatory prerequisite for all students before they can start using KUSOMA in particular or any other LMS. Finally, the study recommends that similar studies be carried out in other Kenyan universities so that a clear picture can emerge of the level of ethical awareness of students in the e-learning milieu.

REFERENCES

Aderonmu, O., Aasheim, C. L., & Rutner, P. (2013). Development and testing of a survey instrument to assess ethical perceptions of IT and IS students. 2013 Southeastern INFORMS Conference Proceedings: 217-241.

Almseidein, T., & Mahasneh, O. (2020). Awareness of ethical issues when using an e-learning system. *International Journal of Advanced Computer Science and Applications*, 11(1), 128-131.

Boostrom, R. (1998). The student as moral agent. *Journal of Moral Education*, 27(2), 179-190.

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American psychologist*, 32(7), 513.

Buja, A., Cook, D., Hofmann, H., Lawrence, M., Lee, E. K., Swayne, D. F., & Wickham, H. (2009). Statistical inference for exploratory data analysis and model diagnostics. *Philosophical Transactions of the Royal Society A:*

- Mathematical, Physical and Engineering Sciences, 367(1906), 4361-4383.
- Callicott, J. B. (1990). The case against moral pluralism. *Environmental Ethics*, *12*(2), 99-124.
- Chang, B. (2021). Student privacy issues in online learning environments. *Distance Education*, 42(1), 55-69.
- Cohen, P., West, S. G., & Aiken, L. S. (2014). Applied multiple regression/correlation analysis for the behavioral sciences. Psychology press.
- Crane, A., Matten, D., Glozer, S., & Spence, L. (2019). Business ethics: Managing corporate citizenship and sustainability in the age of globalization. Oxford University Press, USA.
- Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., & Hanson, W. E. (2003). Advanced mixed methods research designs. *Handbook of mixed methods in social and behavioral research*, 209(240), 209-240.
- Crisp, R. (Ed.). (2014). *Aristotle: Nicomachean Ethics*. Cambridge University Press.
- Daoud, J. I. (2017, December). Multicollinearity and regression analysis. *Journal of Physics: Conference Series* 949(1),012009. IOP Publishing.
- DesJardins, J. R. (2007). Business, ethics, and the environment: Imagining a sustainable future. Pearson/Prentice Hall.
- Digital Millennium Copyright Act of 1998, https://www.congress.gov/105/plaws/publ304/P LAW-105publ304.pdf accessed February, 2022).
- DiRamio, D. C., & Kops, G. C. (2004). Distance education and digital intellectual property issues. *Planning for Higher Education*, 32(3), 37-46.
- Drachsler, H., Hoel, T., Scheffel, M., Kismihók, G., Berg, A., Ferguson, R., ... & Manderveld, J. (2015, March). Ethical and privacy issues in the application of learning analytics. In *Proceedings*

- of the fifth international conference on learning analytics and knowledge (pp. 390-391).
- Dubey, S., Biswas, P., Ghosh, R., Chatterjee, S.,
 Dubey, M. J., Chatterjee, S., ... & Lavie, C. J.
 (2020). Psychosocial impact of COVID-19. Diabetes & Metabolic Syndrome: Clinical Research & Reviews, 14(5), 779-788.
- Field, A. (2009). *Discovering Statistics Using SPSS* (3rd ed.). London, UK: Sage.
- Fox, J. (1997). Applied regression analysis, linear models, and related methods. Sage Publications, Inc.
- Gert, B. (1998). *Morality: Its nature and justification*. Oxford University Press on Demand
- Granitz, N., & Loewy, D. (2007). Applying ethical theories: Interpreting and responding to student plagiarism. *Journal of business ethics*, 72(3), 293-306.
- Hanson, W. E., Creswell, J. W., Clark, V. L. P., Petska, K. S., & Creswell, J. D. (2005). Mixed methods research designs in counseling psychology. *Journal of counseling psychology*, 52(2), 224.
- Hickey, G. L., Kontopantelis, E., Takkenberg, J. J., & Beyersdorf, F. (2019). Statistical primer: checking model assumptions with regression diagnostics. *Interactive cardiovascular and thoracic surgery*, 28(1), 1-8.
- Hooker, B. (2010). Publicity in Morality: A Reply to Katarzyna De Lazari-Radek and Peter Singer. *Ratio*, 23(1), 111-117.
- Hooker, B. (2014). Must Kantian contractualism and rule-consequentialism converge?. Oxford Studies in Normative Ethics, 4,34-52
- Howe-Steiger, L., & Donohue, B. (2002). Technology is Changing What's" Fair Use" in Teaching. *education policy analysis archives*, 10(4).
- Jain, R. &Chetty, P. (2020). Why is it important to test heteroskedasticity in a dataset?. [online] Project Guru.https://www.projectguru.in/why-

- is-it-important-to-test-heteroskedasticity-in-adataset/ [Accessed 14 Sep. 2021].
- Jefferies, P., & Stahl, B. C. (2005). Some ethical considerations regarding the relationship of elearning and pedagogy. In *Proceedings of the International Conference on the Social and Ethical Impacts of Information and Communication Technologies, Linkoping, Sweden* (p. 31).
- Jensen, D. R., & Ramirez, D. E. (2013). Revision: Variance inflation in regression. Advances in Decision Sciences, 2013.
- Johnson, R. & Cureton, A. (2019). Kant's Moral Philosophy. *The Stanford Encyclopedia of Philosophy*.
- Kamm, F. M. (2007). *Intricate ethics: rights, responsibilities, and permissable harm.* Oxford University Press.
- Kathula, D. N. (2020). Effect of COVID-19 pandemic on the education system in Kenya. *Journal of Education*, *3*(6), 31-52.
- Keller, H. (2013). Attachment and culture. *Journal of Cross-Cultural Psychology*, 44(2), 175-194.
- Kutner, M. H., Nachtsheim, C., & Neter, J. (2004). Applied linear regression models. Homewood, IL: McGraw-Hill/Irwin.
- Levy, S. (2003). Factors to consider when planning online distance learning programs in higher education. In *Online Journal of Distance Learning Administration*, 6(1). Spring.
- Lugonzo, H. M. (2020). A Theoretical Study of The Impact of Corona Virus Crisis on Learners' social Interaction in Kenyan Learning Institutions. *IJER-International Journal of Educational Research*, 3(04), 09-19.
- Lyashenko, M. S., & Malinina, I. A. (2015). The Use of Learning Management System projects for teaching a foreign language in the university. *Procedia-Social and Behavioral Sciences*, 182, 81-88.
- Makokha, G. L., & Mutisya, D. N. (2016). Status of e-learning in public universities in

- Kenya. *International review of research in open and distributed learning*, 17(3), 341-359.
- McNaughton, D., & Rawling, P. (1998). On defending deontology. *Ratio*, *11*(1), 37-54.
- Mill, J. (2007). *On liberty*. Mineola, NY: Dover Publications.
- MOEST, (2004). *Education Sector Status Report*. Nairobi: Government Printer.
- Molefe, M. (2016). African ethics and partiality. *Phronimon*, 17(2), 1-19.
- Murphy, P. E. (1999). Character and virtue ethics in international marketing: An agenda for managers, researchers, and educators. *Journal of Business Ethics*, 18(1), 107-124.
- Nemire, R. E. (2007). Intellectual property development and use for distance education courses: A review of law, organizations, and resources for faculty. *College Teaching*, 55(1), 26-30.
- Olivier, M. (2014). Distance education ethics: How technique impacts morality and deontology. ffhalshs-01233793f
- Osborne, J. W., & Waters, E. (2002). Four assumptions of multiple regression that researchers should always test. *Practical assessment, research, and evaluation*, 8(1), 2.
- Sarmento, M., & Durão, D. (2009). Ethics dimension in e-learning. *Revista de Administração FACES Journal*, 8(2), 44-53.
- Schafer-Landau. (2015). *Ethical theory: an Anthology*, 2nd Edition. John Wiley & Sons, Soussex, Uk. Edited by Russ Shafer-Landau, 2013. ISBN: 978-0-470-67160-3
- Shafer-Landau, R. (2013). Introduction Part IX. P 481-484. Ethical theory: an Anthology, 2nd Edition. John Wiley & Sons, Soussex, Uk.
- Sintema, E. J. (2020). Effect of COVID-19 on the performance of grade 12 students: Implications for STEM education. *Eurasia Journal of Mathematics, Science and Technology Education*, 16(7), em1851.

- Technology, Education, and Copyright Harmonization Act of 2001 (TEACH), http://https://www.copyright.com/wp-content/uploads/2015/04/CR-Teach-Act.pdf (accessed February 9th 2022)
- The Copy Right Act (1976), https://www.copyright .gov/title17/title17.pdf (accessed February 9 2022)
- Traer R (2013) *Doing Environmental Ethics*, 2nd edn. Westview Press, Boulder, Colorado.
- Traer, R. (2009). *Doing Environmental Ethics*. Westview Press, Boulder, Colorado.
- Turnbull, D., Chugh, R.& Luck, J. (2020). Learning management systems: a review of the research methodology literature in Australia and China. *International Journal of Research & Method in Education.* 44(2), 1-15.https://doi.org/10.1080/1743727X.2020.1737002
- Ullah, M. I., Aslam, M., Altaf, S., & Ahmed, M. (2019). Some new diagnostics of multicollinearity in linear regression model. *Sains Malaysiana*, 48(9), 2051-2060.
- Yang, K., Tu, J., & Chen, T. (2019). Homoscedasticity: An overlooked critical assumption for linear regression. *General psychiatry*, 32(5).