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Examination of Elements that Enhance University Student Satisfaction with Online Learning in Kenya: the Role of Assessment Methods.

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Abstract: The aim of this study was to examine the elements that enhance university student satisfaction with online learning in Kenya with a special focus on assessment methods used by the university. The independent variables of the study included clearly defined grading system, administration of written assignments and exams linked to objectives. The dependent variable was university student satisfaction with online learning.The study was anchored on "Self Determination Theory (SDT)". The study's target population was 10,000 students registered for different courses at Zetech University. Simple random sampling was used to sample 385 respondents. Primary data was collected using a semi structured questionnaire. Regression analysis was conducted using STATA statistical software. Findings indicated that Assessment methods play a significant role in university student satisfaction with online learning. Results of the study showed that there was a statistical positive significant relationship between online student satisfaction and clearly defined grading system-p-value= 0.0050: Administration of written assignments- p-value= 0.0730 and exams linked to objectives- p-value= 0.0040. This indicated that a clearly defined grading system, administration of written assignments and exams linked to objectives contribute greatly to student satisfaction with online learning in kenya. This study will benefit researchers and management of Universities in Kenya.

KeyWords: Student Satisfaction, Assessment Methods, Grading Systems

I.   INTRODUCTION

Since the onset of Covid-19 pandemic, online learning is continuously growing and institutions are becoming more and more interested in establishing the factors that play a role in student satisfaction within the online environments. Studies have shown that assessment strategies, clear course objectives alignment of instructional content and assessment affects student satisfaction (Li, Marsh, & Rienties, 2016). By the beginning of this millennium, online learning was considered one of the cornerstones of information and communication technology in education (Gray et al., 2004; Volman, 2005). One condition for successful online learning is that the student should feel overall satisfaction with the proposed system of online learning (Teo, 2010). Student satisfaction with online learning is an aspect of the assessment of educators, their courses and the quality of the educational programs (Bradford & Wyatt, 2010). Student satisfaction with online learning depends on certain key components (Ginns & Ellis, 2009).

One of the components that must be considered include the assessment methods used to assess the performance of students.Assessment criteria must be disclosed at the beginning of the semester, assessment method should represent knowledge and skills acquired by students throughout the course failure to which the learning process will be unsuccessful and will lead to a reduction in student satisfaction levels(Paechter &Maier, 2010). This makes it necessary to analyse the relationship between assessment methods and student satisfaction. Students have different perceptions regarding classroom assessments (Nikou & Economides, 2016). The purpose of this study is to establish whether assessment methods contribute to university student satisfaction with online learning in Kenya.

The African virtual university hub in Kenya was set up in Kenyatta University (Sahawel 2014). What followed was individual universities establishing online learning centers in their institutions. Since then the Kenya government with the aim of providing accessible higher education, has been promoting the use of online learning in Kenya as part of the Kenya Vision 2030 initiative (Linehan, 2007). Universities in Kenya have thereafter introduced online learning in line with the government's policy to increase accessibility of higher education (Tarus, Gichoya, & Muumbo, 2015).

1.1 Objectives of the Study

The main objective of this study is to examine the elements that enhance university student satisfaction with online learning with a special focus on the role of assessment methods.

1.1.1   Specific Objectives

The study was guided by the following objectives: To determine whether clearly defined grading system contributes to university student satisfaction with online learning; To establish whetheradministration of written exams contributes to university student satisfaction with online learning and to explore whether exams linked to objectives contribute to university student satisfaction with online learning.

II.   LITERATURE REVIEW

2.1 Self-determination theory

The self-determination theory was proposed by psychologists Ryan& Deci (2000). The theory is based on the premise that to understand motivation, there are three basic needs that must be taken into consideration. These basic needs include autonomy, competence and relatedness. Autonomy refers to the need to feel free of external limitations while competence reviews the need to feel effective or capable and relatedness means the need to be associated or connected with others around us. In education, self-determination theory indicates that when students perceive that their basic needs are well met, they are motivated enough to turn their attention to activities they consider important such as reading books recommended by faculty or listen attentively when concepts are explained.

On the other hand, when students feel that their basic needs are not met, they may become too preoccupied with trying to meet this basic need and will avoid otherwise important educational activities. In this case, learning will suffer and students will not be well equipped to engage in course assessments and any assessment methods will cause dissatisfaction to the students. Self-determination theory advocates the significance of intrinsic motivation.

The theory therefore proposes that for students to achieve a feeling of self-determination, their basic needs must be met, the need for autonomy, competence, and relatedness and when these needs are met, students be committed to educational activities and course assessments methods will motivate them to work harder hence, leading to student satisfaction.

2.2 Online Student Satisfaction

Astin (1993) defined student satisfaction as the students' perception of value regarding their educational experience which may include many elements. Learner satisfaction has been recognised as an important factor in the journey of online students in higher education because it affects students', motivation, learning, performance, success, and retention (Sahin & Shelley, 2007; Wickersham & McGee, 2008). Student satisfaction was considered so critical to the quality of online courses that the Sloan-Consortium included it as one of the five pillars in its quality framework (Moore, 1993).

There are various factors that influence student satisfaction and the satisfaction of students is a key issue when evaluating online learning (Alqurashi, 2019). An effective course design is a major influencer of student satisfaction (Gopal, Singh & Aggarwal, 2021; Yap et al. 2023). Irungu (2016) concluded that learner support services contribute to online student satisfaction and assessment methods were also found to greatly influence customer satisfaction (Bismala & Manurung, 2021; Mohammed et al. 2022). Therefore, in order to improve online student satisfaction, we must enhance our learner support services, develop an effective course design and utilize different course assessment methods.

Various studies have explored different factors that influence online student satisfaction like internet facilities, workload, quality of instructor, prompt feedback, student expectations, convenience, flexibility, course design, learner support services, assessment methods, tutorial support etc. None of these studies have looked at a combination of course design, learner support services and assessment methods, which is what this study will embark on.

2.3 Assessment Methods and Student Satisfaction

Course evaluation is an important aspect of online learning activities because it mediates all the factors of the online learning environment. Studies have concluded that online student satisfaction correlates continuous tests (Chen et al., 2019). Thurmond, Wambach, Connors, and Frey (2002) argued that diverse assessments and online discussions in the classroom greatly influence satisfaction with online learning. This was supported by Stefanovic et al. (2011) who concluded that the diversity of assessments significantly affects student satisfaction.

It further promotes instructor-student connection (Chen, Bennett, & Maton, 2008). Course assessment is a basic part of effective online learning and it supports interaction between teachers and students (Tuma, 2021). Active use of diverse online assessment methods improves student assessments. Students become motivated to actively participate, thus enhancing their online learning experience (Dilova, 2021)

III.   METHODOLOGY

3.1 Population and Sampling

The general objective of this study was to determine the role of assessment methods on university student satisfaction with online learning in Kenya.A structured questionnaire was used to collect primary data from students in Zetech University and a descriptive research design was adopted for the study. The target population was 10,000 students registered for different courses in Zetech University. A sample size of 385 respondents was drawn using simple random sampling technique.

The formula proposed by Yamane, (1967) was applied in sample size determination as follows:

: Equation (1) …………………………………………………... $n = \frac{N}{1+N\,(e)^2}$

From this formula, n was the sample size, N was the population size and "e" was the confidence level (0.05). Using N = 10,000 in the formula, the resulting sample size (n) was 385 and is distributed as shown in Table below.

$$n = \frac{10000}{1+10000\,(0.05)^2}$$
$$n = \frac{10000}{26}$$
n= 384.61
n= 385

3.2 Data Collection

This study collected primary data to measure the perceptions of students regarding their satisfaction with online learning. A structured self-administered questionnaire was used to collect primary data from 385 respondents. The questionnaire included multiple choice and Likert scale questions. The questionnaire was selected because it is convenient when collecting original data from respondents since they can fill it during their free time.

IV.   RESULTS

The STATA statistical software was used to develop multiple regression analysis models which helped to establish the role of clearly defined grading system, administration of written exams and exams linked to objectiveson university student satisfaction with online learning in Kenya. The coefficient of determination was used to determine whether the models were significant and the extent to which each of the independent variables explained changes in the dependent variable. Variables were significant at p value of 0.05, so all variables with a p value of 0.05 and below were considered significant. This helpedto determine the role of assessment methods and their contribution to university student satisfaction with online learning in Kenya.

Summary of Hypothesis Testing

Hypothesis	Statistic	P-value	Conclusion
H_{01}: Having a clearly defined grading system does not significantly contribute to university student satisfaction with online learning in Kenya	Coefficient = 0.11683	0.0050	H_{01} was rejected and a conclusion drawn that having a clearly defined grading system has significantly contributes to university student satisfaction with online learning in Kenya
H_{O2}: Administration of written assignments does not significantly contribute to university student satisfaction with online learning in Kenya	Coefficient = 1.1448	0.0070	H_{02} was rejected and a conclusion drawn that administration of written assignments significantly contributes to university student satisfaction with online learning in Kenya
H_{O3}: Having exams linked to objectives does significantly contribute to university student satisfaction with online learning in Kenya	Coefficient = 1.03146	0.0040	H_{03} was rejected and a conclusion drawn that having exams linked to objectives significantly contributes to university student satisfaction with online learning in Kenya.

P-Value is significant at 0.05 level

Source: Author, (2024)

The study found that for students who were satisfied with online learning, an increase in clarity of grading practices by one unit, was expected to increase satisfaction in online learning by 0.11683 units (11.68%) holding other

variables in the model constant.It was further noted that for students partially dissatisfied with online learning, increasing the administration of written assignments by one unit was expected to increase satisfaction on online learning by 1.1448 units (114.48%) holding other factors in the model constant.The research also found that for students who were satisfied with online learning, linking exams to objectives more by one-unit increased student satisfaction by 1.03146 units (103.14%) holding other variables in the model constant.

Results of the study showed that there was a statistical positive significant relationship between online student satisfaction and clearly defined grading system-p-value= 0.0050: Administration of written assignments- p-value= 0.0730 and exams linked to objectives- p-value= 0.0040. This indicated that a clearly defined grading system, administration of written assignments and exams linked to objectives contribute greatly to student satisfaction with online learning in kenya. The findings of the study therefore indicated that Assessment methods play a significant role in university student satisfaction with online learning.

V.   CONCLUSION

From the study findings, it was evident that assessment methods play a significant role in contributing to university student satisfaction with online learning in Kenya. The study found that students pursuing an online course appreciate clear grading systems, written assignments and having exams linked to objectives. The implication is that if universities provide clear grading systems, administer written exams and have exams that are linked to objectives, maximum customer satisfaction will be attained. The study therefore concluded that assessment methods play a significant role in contributing to university students' satisfaction with online learning in Kenya.

VI.   RECOMMENDATIONS

The management of universities in Kenya should take into consideration the findings of this study as they describe the elements that contribute to customer satisfaction with online learning. This information will provide insight into student retention and uncover elements of customer satisfaction with regard to assessment methods applied by universities in Kenya.

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CONFLICT OF INTEREST STATEMENT

In accordance with my ethical obligation as a researcher, I am reporting that the respondents of this study are students of Zetech University and I am an employee of Zetech University. However, in order to ensure that there is no bias during the data collection process, I have sought authority from the research directorate of the university to conduct the study in Zetech and they will help to ensure ethical procedures in research are followed. This will help to manage any potential conflicts arising from this involvement.